Tighe&Bond

Demolition of North High School
140 Harrington Way
Worcester, Massachusetts

PCB Cleanup Completion Report

Prepared For:

Worcester Department of Public Works & Parks
20 East Worcester Street
Worcester, MA

June 2014

TRANSMITTAL

Tighe&Bond

Project No.: W-15102-01
Date: June 12, 2014

Re: North High School, Worcester, MA
PCB Cleanup Completion Report

To: Kimberly N. Tisa
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

Copy:

☐ **FOR SIGNATURE** ☒ **FOR FILE** ☐ **AS REQUESTED** ☒ **FOR REVIEW** ☐ **PLEASE REPLY**

NO. COPIES	DESCRIPTION
1	PCB Cleanup Completion Report

Ms. Tisa:

Please find enclosed one copy of the PCB Cleanup Completion Report for the demolition of the former North High School in Worcester, MA. If you have any questions during your review, please contact me at 508-471-9642.

Very truly yours,
Tighe & Bond, Inc.

Marc J. Richards, P.E., L.S.P.
Vice President

32-1510-2
June 12, 2014

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Re: **PCB Cleanup Completion Report**
City of Worcester Department of Public Works & Parks
Former North High School
140 Harrington Way
Worcester, Massachusetts

Dear Ms. Tisa:

On behalf of the City of Worcester Department of Public Works & Parks (DPW&P), Tighe & Bond has prepared this PCB Cleanup Completion Report to document the management of polychlorinated biphenyl (PCB) bulk product waste and remediation waste generated during demolition of the former North High School.

Background

The City of Worcester has completed demolition of the former North High School to make way for the installation of athletic fields and parking areas. In support of the demolition project, building characterization sampling (including exterior soil sampling) was completed and revealed the presence of PCBs within exterior caulking materials in excess of the allowable concentrations as regulated by the United States Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA) regulations (40 CFR 761). Elevated PCB concentrations were reported in samples of various substrate building materials (brick, stucco, concrete) in contact with the PCB caulking materials. In addition, bulk sampling of interior building materials performed both by Tighe & Bond and EPA revealed detectable concentrations of PCBs in these bulk materials with some concentrations exceeding 50 parts per million (ppm).

The City of Worcester completed PCB remediation activities of identified soil and building materials under the provisions of the TSCA regulations. Notification detailing the proposed clean up and disposal activities was provided to EPA and approval for the work was subsequently issued by EPA on February 7, 2012. Copies of the EPA approval letter, DPW&P acceptance of the plan and contractor/laboratory certifications are provided in Appendix A.

Prior to the initiation of site activities, a Work Plan prepared by the General Contractor – J.R. Vinagro Corporation (JRV) and the Asbestos Abatement Subcontractor – Southern Middlesex Industries (SMI) was submitted to EPA for review and comment. The Work Plan detailed the proposed methods for segregating, removing, handling and disposing of the PCB-impacted materials generated during the demolition project along with the proposed air monitoring and decontamination procedures. Based on initial comments from EPA, the Work Plan was revised and resubmitted. Following clarification of specific work practices and disposal methods, EPA indicated that there were no further comments on the Work Plan. A copy of the revised Work Plan and electronic mail communications documenting the clarifications of work practices and disposal methods are provided in Appendix B.

The revised PCB cleanup plan provided a detailed summary (Table 4 – *Proposed Management Options for PCB Impacted Materials*) of the proposed site remediation to be performed based on TSCA material description (i.e. bulk product wastes, remediation wastes and excluded products). As a result of comments received from EPA during the cleanup plan review process, modifications to the proposed waste management options were necessary. A revised table (*Summary of PCB Impacted Material Management*) detailing the waste management completed as part of the demolition project is provided in Appendix C.

The management of the identified PCB materials were performed in accordance with the above stated Notifications, EPA approvals, and contactor work plans. Summary details of the work performed are included below.

Soil Removal Activities and Verification Sampling

Assessment activities identified elevated PCB concentrations greater than 1 ppm and well below 50 ppm in 11 soil sample locations collected from around the building perimeter. One of the 11 soil samples reported a PCB concentration greater than the applicable reportable concentration (RCS-1) of 2 ppm as defined in the Massachusetts Contingency Plan (MCP – 310 CMR 40). The RCS-1 standard for PCBs has since been lowered by the MassDEP to 1 ppm. Since less than 20 cubic yards of soil containing PCBs in excess of the MCP reporting threshold (2 ppm) were removed, the soil excavation work around the perimeter of the building was completed under the Limited Removal Activity (LRA) provisions of the MCP. As proposed in the PCB cleanup plan, exterior perimeter soils around the building were excavated to a depth of approximately one foot below grade and width of approximately five feet from the building exterior. Excavated soils were temporally stockpiled on-site while awaiting shipment to the Greenwood Street Landfill for final disposal.

Following soil removal, post excavation soil samples were collected at a frequency of one sample every five feet for the excavation base and one sample every five feet of the excavation sidewall to confirm adequate removal of PCB-impacted soils to levels below the cleanup objective of less than 1 ppm. The soil samples were submitted to ESS Laboratories of Cranston, Rhode Island (ESS) for analysis via Method 8082 and extracted using Method 3540C. Post excavation soil samples locations are depicted on Figures 1 through 1D in Appendix D. As summarized on Table 1 in Appendix E, the post excavation soil sample results reported PCB concentrations as below the 1 ppm cleanup objective in all but three samples (PX-20, PX-250 and PX-283). The ESS laboratory analytical reports for the confirmatory soil sampling are provided in Appendix F.

Additional excavation was completed in the areas of soil with PCB concentrations in excess of 1 ppm and the material was added to the existing stockpile. Following the additional excavation, the confirmatory soil sample locations were re-established (PX-20R, PX-250R and PX-283R) and the results reported PCB concentrations as below the cleanup objective of 1 ppm (see Table 1). Based on the results of the post excavation confirmatory soil sampling program, no further soil excavation was deemed necessary and the PCB-impacted soils were managed off-site at the Greenwood Street Landfill. A copy of the soil characterization documentation provided to the landfill operator, Casella Waste Systems, is included in Appendix C.

Building Material Removal Activities

Throughout the asbestos abatement and building demolition process, the multiple PCB waste streams were segregated and prepared for disposal as outlined in the *Summary of PCB Impacted Material Management* (see Appendix C). Specific details of the handling of these materials are summarized below by waste type. It should be noted that multiple building components were also classified as asbestos-containing materials (ACM) and, as such, were subject to additional handling and disposal requirements.

PCB Bulk Product Waste

Painted/Coated Materials: Painted metal items (unit ventilators, door systems, lockers and basketball backboards) and varnished flooring (gymnasium floor) were segregated by JRV and packaged for disposal as bulk product waste at the Minerva Enterprises facility.

Window Glazing and Caulking Materials: Both ACM and non-ACM glazing/caulking materials were removed and packaged by SMI for disposal as bulk product waste at the Minerva Enterprises facility. The windows were removed within a negative pressure enclosure, packaged and transferred directly into trailers for shipment off-site.

PCB Remediation Waste

Certain building materials noted below that were managed at the time as a PCB Remediation Waste. Under the current EPA reinterpretation, some of these materials would be classified today as a PCB Bulk Product waste.

Brick/Concrete Materials: Interior painted concrete block, exterior brick (<50 ppm PCBs), structural concrete (<50 ppm PCBs) and exterior concrete panels (<50 ppm PCBs) were segregated by JRV and processed for disposal as ABC rubble at the Greenwood Street Landfill. Segregation, processing and temporary storage of these materials was completed on the existing building concrete slab.

The cleanup plan proposed that interior painted concrete block walls would be segregated and disposed of as Bulk Product Waste at the Greenwood Street Landfill located in Worcester, MA. To facilitate management of this waste stream at the Greenwood Street Landfill location, a modification to the facility's existing Beneficial Use Determination (BUD) was submitted to MassDEP and subsequently approved. Copies of the BUD Permit Modification and MassDEP approvals are provided in Appendix C.

Stucco Panels/Various PCB-impacted Materials: Exterior stucco panels (<50 ppm PCBs) and various interior items impacted by PCBs (chair padding, pin/cork boards, ventilator gasket/insulation and exercise mats) were segregated by JRV and packaged for disposal at the Turnkey, NH or Casella, VT facilities.

Exterior Stucco Panel/Brick: Exterior brick adjacent to expansion joint and two exterior stucco panels (>50 ppm) were removed from the building façade via mechanical means by SMI and packaged for disposal as TSCA waste at EQ Northeast Incorporated.

Excluded PCB Products

Various ACM Materials: ACM suspended ceiling panels/floor tile/mastic and painted concrete block with ACM debris (<50 ppm PCBs) were abated by SMI and packaged for disposal the Minerva Enterprises facility. The materials were removed within a negative pressure enclosure, packaged and transferred directly into trailers for shipment off-site.

Various non-ACM Materials: Cove molding and wood gymnasium bleachers were segregated by JRV for disposal as regulated solid waste at a state permitted facility.

Building Material Verification Sampling

Since the majority of the PCB-impacted building materials classified as a Bulk Product Waste were removed in their entirety, limited verification sampling was initially proposed in the cleanup plan following the proposed separation of PCB impacted substrate that was >1 ppm from substarte that is less than 1 ppm. The proposed verification sampling was limited to one brick facade construction joint on the south side of A Wing and structural concrete associated with removal of approximately 500 linear feet of caulking.

After review of the initial assessment data, it was determined that the results of two stucco samples were inadvertently referred to as structural concrete substrate samples. Since all remaining structural concrete substrate sampling results demonstrated PCB impacts from the caulking source material as less than 1 ppm, it was determined that mechanical removal of the adjacent structural concrete material was not necessary. This supplemental information was previously provided to the EPA and EPA concurred with that the removal of the adjacent structural concrete and subsequent verification sampling was no longer warranted. A copy of the electronic mail communication with EPA regarding this matter is included in Appendix B.

Following removal of the PCB-impacted (>50 ppm) brick material (substrate) on either side of the construction joint, verification samples of the remaining brick substrate were collected at a frequency of one sample per five feet. The brick substrate samples (Brick-01 through Brick-10) were submitted to ESS for PCB analysis via Method 8082 and extracted using Method 3540C. The results reported PCB concentrations as < 1 ppm for the 10 samples, confirming adequate removal of the impacted brick substrate material. The verification results are summarized in Table 2 in Appendix E and the ESS lab report is provided in Appendix F. Based on these results, no further building material verification sampling was completed.

Dust Sampling

During the abatement of PCB-impacted materials and demolition of the structure, periodic monitoring was completed to document particulate concentrations and evaluate the effectiveness of dust suppression controls. Monitoring was conducted utilizing real-time aerosol monitoring equipment at various upwind and downwind locations at the site. The monitoring standard for the particulate monitoring was 150 micrograms per cubic meter ($\mu g/m^3$). Throughout the project, engineering controls (portable misters, fire hoses, etc.) were employed to minimize dust generated during PCB building material removal and demolition activities.

Daily logs detailing the dust monitoring readings and field observations are included in Appendix G. In general, airborne particulate levels were recorded as approaching or below the 150 $\mu g/m^3$ standard for the project. However, short-term spikes in the readings were observed at various times in both upwind and downwind locations. The elevated particulate concentrations were primarily associated with outside factors such as on- and off-site vehicular traffic, wind driven site dust not associated with demolition activities. During site observations the water/misting usage by the contractor appeared adequate and effective in minimizing the dust generated from the demolition activities.

Stockpile Characterization Sampling

During demolition activities, various building material waste streams including interior painted concrete block, exterior brick (<50 ppm PCBs), structural concrete (<50 ppm PCBs) and exterior concrete panels (<50 ppm PCBs) were segregated and staged on the B and C Wing concrete slabs. The materials were subsequently processed using a mechanical crusher to reduce the aggregate size to less than 3 inches to be suitable for off-site reuse/disposal at the Greenwood Street landfill.

Once stockpiles of processed materials were generated, representative composite samples of each waste stream (brick, CMU block and concrete) were collected for disposal characterization analysis per the Greenwood Street landfill receiving facility requirements. Sample quantities were as follows:

- CMU Block - 8 samples: approximately 4,000 cubic yards
- Brick – 2 samples: approximately 500 cubic yards
- Concrete – 1 sample: approximately 400 cubic yards

The samples were submitted to ESS for analysis of PCBs (methods 8260/3540C) and RCRA 8 metals. Analytical results reported low to non-detectable concentrations of total metals below the Massachusetts Unlined Landfill Reuse Criteria. Additionally, total metals concentrations were reported well below the 20X threshold that would trigger the requirement for synthetic precipitation leaching procedure (SPLP) analysis. The PCB analysis for the samples reported low concentrations below the Massachusetts Unlined Landfill Reuse Criteria. The analytical results are summarized on Table 3 in Appendix E and the ESS laboratory reports for these samples are included in Appendix F.

Based on the results, it was determined that this material is not classified as hazardous waste, meets the landfill's acceptance criteria and is acceptable for management at the Greenwood Street Landfill in accordance with COMM-97-001, BUD Permit No. W060012 and BUD Permit X241703. A copy of the correspondence to the Greenwood Street Landfill operator, Casella Waste Systems, documenting this information is provided in Appendix C.

Decontamination and Verification Sampling

During demolition, segregation and processing of the demolition debris was completed on the impervious concrete slabs of the B and C wings of the former North High School building. Throughout the demolition project, the concrete remained competent and no significant cracks, damage or other pathways to the underlying soil were observed. At the completion of material segregation and processing activities, the B and C wing concrete slabs were cleaned of visible dust and debris. Wipe samples from both the concrete slabs were collected by JRV and Tighe & Bond for submittal to ESS for PCB analysis. A total of 4 wipe samples were collected from the B wing concrete and 3 samples were collected from the C wing concrete. The 7 wipe samples reported PCB concentration as below the laboratory method detection limit (MDL) of 1.0 micrograms per 100 square centimeters (µg/100 cm^2) confirming the absence of PCB dust/debris ion the slabs. The ESS laboratory reports for these samples are provided in Appendix F.

As outlined in the work plan for the project, SMI decontamination methods for equipment in contact with PCBs included swabbing surfaces with a solvent in accordance with

761.79(c)(2)(i) and disposal of the decontamination materials as PCB Waste in accordance with 761.79(g). Equipment decontamination completed by JRV included broom cleaning of the surfaces in contact with PCB materials and collecting the sweepings for disposal with the regulated waste stream in accordance with 761.79(g). Following decontamination, 5 representative wipe samples were collected from the equipment by JRV and submitted to ESS for PCB analysis. The wipe samples reported PCB concentration as below the MDL of 1.0 µg/100 cm^2 confirming the absence of PCB impacts. The ESS laboratory report for these samples is provided in Appendix F.

Waste Management

During the course of the project, PCB waste generated was marked in accordance with 761.40 and stored as prescribed in 761.65. A table detailing the waste streams generated during the building demolition including waste type, disposal facility, shipping paperwork and disposed volume is provided on the *Summary of PCB Impacted Material Management* included in Appendix B. Waste disposal documentation for each waste stream is provided in Appendix H.

Summary

This PCB Cleanup Completion Report was prepared to document the management of PCB bulk product waste and remediation waste generated during demolition of the former North High School. As described herein, the demolition activities and waste disposal were completed in accordance with the EPA approved notification and contractor work plans.

If you have any questions or comments relative to this correspondence, please contact me at 508.471.9642.

Very truly yours,

TIGHE & BOND, INC.

Marc J. Richards, P.E, LSP
Vice President

Enclosures: Appendix A – EPA Approval and Certification Documents

Appendix B – Contractor Work Plan and EPA Correspondence

Appendix C – Beneficial Use Determination Documentation

Appendix D – Figures

Figure 1 – Overall Sample Location Plan

Figures 1A-1E – Contaminated Soil Locations and Sampling Plans

Appendix E – Analytical Data Tables

Table 1 – Post Excavation Soil Analytical Results
Table 2 – Brick Verification Sampling Results

Table 3 – Stockpile Characterization Results

Appendix F – Laboratory Analytical Reports (enclosed disc)

Appendix G – Dust Sampling Logs

Appendix H – Waste Management Documentation

H-1 – Painted Metal Disposal
H-2 – Caulking & Glazing Materials Disposal
H-3 – Backboard & Gym Floor Disposal
H-4 – Excavated Soil Disposal
H-5 – CMU Block, Brick & Concrete Disposal
H-6 – Stucco & Materials That Absorbed PCBs
H-7 – Brick & Stucco >50 ppm PCBs
H-8 – Painted CMU Block & Floor/Ceiling Tiles

Copy: Paul Moosey – Worcester DPW&P

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Tighe&Bond

APPENDIX A

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

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

FEB 07 2012

Paul Moosey, P.E.
Assistant Commissioner - Engineering and Architectural Services
Worcester Department of Public Works & Parks
20 East Worcester Street
Worcester, Massachusetts 01608

Re: PCB Cleanup and Disposal Approval under 40 CFR §§ 761.61(a) and (c) and § 761.79(h)
North High School
140 Harrington Way
Worcester, Massachusetts

Dear Mr. Moosey:

This is in response to the City of Worcester Department of Public Works & Parks (DPW&P) Notification[1] for approval to clean up and dispose of PCB-contaminated building materials in the former North High School (the Site) located at 140 Harrington Way in Worcester, Massachusetts. The Site contains caulk and other building materials that exceed the allowable PCB levels under the federal PCB regulations at 40 CFR § 761.20(a), § 761.61, and § 761.62.

In its Notification, DPW&P has proposed the following PCB cleanup and disposal plan:

- Remove and dispose of all *PCB bulk product waste* (e.g., caulk, varnished wood floors, metal window frames, painted metals) in a state permitted landfill in accordance with § 761.62(b) or § 761.62(d);

- Remove and dispose of *PCB remediation waste* with greater than or equal to (≥ 50 parts per million (ppm) (e.g., brick) at a TSCA permitted disposal facility or RCRA hazardous waste landfill in accordance with § 761.61(a)(5)(i)(B)(*2*)(*iii*);

[1] The notification was submitted by DPW&P to satisfy the notification requirements under 40 CFR §§ 761.61(a)(3) and (c). Information was submitted dated September 2011 (Self-Implementing PCB Remediation Waste Cleanup and Disposal Plan (SIDP)); November 29, 2011 (Revised SIDP); January 11, 2012 (email supplemental information to SIDP regarding waste disposal); January 23, 2012 (email Response to EPA comments); January 30, 2012 (email timing for MassDEP approval for waste disposal); and, January 31, 2012 (email landfill permit for disposal of *Excluded PCB products*). These submittals shall be referred to as the "Notification".

- Remove and dispose of *PCB remediation waste* with less than (<) 50 ppm (e.g., brick, stucco, concrete, soils) at a state permitted landfill in accordance with § 761.61(a)(5)(i)(B)(*2*)(*ii*) and § 761.61(a)(5)(v)(A); and,

- Conduct verification sampling to confirm that the PCB standards for cleanup and disposal have been met.

DPW&P has determined that certain building materials (e.g., caulk, floor tile mastic, cove molding) which have PCB concentrations at < 50 ppm, meet the criteria for an *Excluded PCB product* under § 761.3. Under the PCB regulations, *Excluded PCB products* are authorized for use and thus there is no requirement for removal of these products. However, as part of the demolition project and as indicated in the Notification, the *Excluded PCB products* will be removed and disposed of in a state permitted landfill.

With the exception of the proposed verification sampling frequency for structural concrete, the Notification meets the requirements and standards established under §§ 761.61(a), 761.62, and 761.79 for cleanup and disposal of *PCB remediation waste* and *PCB bulk product waste*.

DPW&P has proposed a deviation from the verification sampling frequency for structural concrete; verification samples for soil cleanup and for brick segregation and disposal will be collected in accordance with Subpart O. Based on the characterization sampling results and the proposed removal plan, the proposed alternative verification sampling frequency for the structural concrete appears reasonable. EPA has determined that the alternative sampling frequency will not present an unreasonable risk to public health or the environment and EPA may approve the alternative sampling frequency under § 761.61(c).

DPW&P may proceed with its cleanup in accordance with 40 CFR § 761.61(a); § 761.62; § 761.79(h); its Notification; and this Approval, subject to the conditions of Attachment 1. Please note the following conditions in Attachment 1:

- Condition 1a. With respect to disposal of painted concrete block walls which have asbestos fireproofing insulation, DPW&P is proposing to collect additional paint samples to support disposal of the painted concrete block walls as an *Excluded PCB product*. This condition requires submittal of the additional characterization sampling results for the paint. In the event that the paint samples indicate PCB concentrations ≥50 ppm, the submitted results should also include DPW&P's plan for disposal of the painted concrete block walls.

- Condition 1b. In the Notification, DPW&P indicated that certain painted PCB-contaminated concrete block walls will be disposed of in accordance with § 761.61(a)(5)(v)(A) and § 761.62(d) pending a Beneficial Use Determination (BUD) permit from the Massachusetts Department of Environmental Protection (MassDEP). This condition requires DPW&P to submit a copy of the BUD approval to EPA. In the event a BUD is not approved, DPW&P shall submit its plan for disposal of these interior painted concrete block walls.

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,

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

cc: Mark Richards, Tighe & Bond
MassDEP, Central Region
File

Attachment 1: PCB Approval Conditions

ATTACHMENT 1:

PCB CLEANUP AND DISPOSAL APPROVAL CONDITIONS
NORTH HIGH SCHOOL ("the Site")
140 HARRINGTON WAY
WORCESTER, 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)]

   a. The City of Worcester Department of Public Works & Parks (DPW&P) shall submit the results of the additional characterization sampling for painted concrete block walls with asbestos fireproofing insulation to EPA. In the event the samples indicate a greater than or equal to (≥) 50 parts per million (ppm) PCB concentration, DPW&P also shall submit its plan for disposal of these wastes.

   b. DPW&P shall submit a copy of the Massachusetts Department of Environmental Protection (MassDEP) Beneficial Use Determination (BUD) permit for management of painted concrete block walls (classified as a *PCB bulk product waste* and *PCB remediation waste*.) In the event MassDEP denies the permit, DPW&P shall submit its plan for disposal of these wastes.

2. DPW&P 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. DPW&P 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, DPW&P shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.

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2 The notification was submitted by DPW&P to satisfy the notification requirements under 40 CFR §§ 761.61(a)(3) and (c). Information was submitted dated September 2011 (Self-Implementing PCB Remediation Waste Cleanup and Disposal Plan (SIDP)); November 29, 2011 (Revised SIDP); January 11, 2012 (email supplemental information to SIDP regarding waste disposal); January 23, 2012 (email Response to EPA comments); January 30, 2012 (email timing for MassDEP approval for waste disposal); and, January 31, 2012 (email landfill permit for disposal of *Excluded PCB products*). These submittals shall be referred to as the "Notification".

6. DPW&P 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 DPW&P has or receives information indicating that DPW&P 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 DPW&P are authorized to conduct the activities set forth in the Notification. DPW&P 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 DPW&P from compliance with any applicable requirements of federal, state or local law; or 3) release DPW&P 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 DPW&P of its acceptance of the conditions of this Approval within 10 business days of receipt.

10. DPW&P shall submit the following information for EPA review and/or approval:

    a. a certification signed by its selected 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 methods and quality assurance requirements specified in the Notification and in this Approval.

CLEANUP 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. PCB-contaminated materials shall be decontaminated and confirmatory sampling and analysis shall be conducted as described below:

    a. All visible residues of PCB caulk (i.e. *PCB bulk product waste*) shall be removed as described in the Notification.

    b. The cleanup standard for *porous surfaces* (e.g, *concrete and brick*) classified as a *PCB remediation waste* shall be less than or equal to ($\leq$) 1 ppm for unrestricted use or disposal; less than (<) 50 ppm for disposal in accordance with § 761.61(a)(5)(v)(A); and, greater than or equal to ($\geq$) 50 ppm for disposal in accordance with § 761.61(a)(5)(i)(B)(*2*)(*iii*).

        i) All verification sampling for *porous surfaces* shall be performed on a bulk basis (i.e., ppm) and reported as 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. Verification sampling shall be conducted in accordance with the Notification, as applicable.

        ii) 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. The PCB cleanup standard for ground surfaces (e.g., soils) shall be $\leq$ 1 ppm.

        i) *Bulk PCB remediation waste* samples (e.g., soils) shall be collected on a bulk basis (i.e. mg/Kg) and PCB analytical results shall be reported on a dry weight analysis.

        ii) 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 method(s) is validated according to Subpart Q.

13. All PCB waste (regardless of concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with § 761.40; stored in a manner prescribed in § 761.65; and, disposed of in accordance with 40 CFR § 761.61(a)(5) or § 761.62, unless otherwise specified below:

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

    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 shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

14. DPW&P 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 DPW&P to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

15. Any proposed modification(s) in the plan, specifications, or information in the Notification must be submitted to EPA no less than 14 calendar days prior to the proposed implementation of the change. Such proposed modifications will be subject to the procedures of 40 CFR § 761.61(a)(3)(ii).

16. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the 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.

17. 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

18. DPW&P 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 PCB cleanup and the analytical sampling shall be established and maintained by DPW&P 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.

19. DPW&P shall submit a final report to the EPA within 60 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 decontaminated area(s); bills of lading; copies of manifests; and, copies of certificates of disposal or similar certifications issued by the disposer.

20. Required submittals shall be mailed 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

21. 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

DEPARTMENT OF PUBLIC WORKS AND PARKS

20 East Worcester Street
Worcester, Massachusetts 01604

Robert L. Moylan, Jr., P.E.
Commissioner

508-799-1454
508-799-1458 Fax

Michael V. O'Brien, City Manager

Assistant Commissioners
Robert C. Antonelli, Jr., Parks
Daniel Curtis, Administration
Matthew J. Labovites, Operations
Paul J. Moosey, P.E., Engineering

February 16, 2012

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

RE: **Acceptance of Conditions - PCB Cleanup and Disposal Plan Approval**
North High School, Worcester, Massachusetts

Dear Ms. Tisa:

The City of Worcester's Department of Public Works and Parks (DPW&P) is in receipt of the Environmental Protection Agency's (EPA) February 7, 2012 letter approving the Polychlorinated Biphenyl (PCB) Cleanup and Disposal Plan for North High School. The DPW&P has read the EPA's approval letter and understands the conditions outlined within. In accordance with Condition 9 of the EPA's approval letter, the DPW&P hereby notifies the EPA, in writing, of its acceptance of the conditions, as presented in the February 7, 2012 approval letter.

Very truly yours,

Paul Moosey

Paul Moosey, P.E.
Assistant Commissioner Public Works

c: Tighe & Bond, Inc.
J:\W\W1510 - North High School\EPA\City Of Worcester Approval.Docx

Certification Statement

PCB Cleanup and Disposal
Approval under 40 CFR 761.61(a) and (c)
City of Worcester (Responsible Party)
J.R. Vinagro Corporation (Demolition/Cleanup Contractor)
Former North High School
140 Harrington Way
Worcester, Massachusetts

This certification is being provided as required by conditions outlined in the US Environmental Protection Agency (EPA) *Approval for PCB Cleanup and Disposal under 40 CFR 761.61(a) and (c)* dated February 7, 2012. Specifically, condition number 10a requires that the City of Worcester submit the following information:

> *"a certification signed by its selected contractor, stating that the contractor has read and understands the Application, and agrees to abide by the conditions specified in the Approval".*

J.R. Vinagro Corporation (Vinagro) of Johnston, RI has been selected by the City of Worcester as the demolition/cleanup contractor for this project and has been provided a copy of the *PCB Cleanup Plan* (The "Application") and the EPA *Approval for PCB Cleanup and Disposal under 40 CFR 761.61(a) and (c)* dated February 7, 2012 (the "Approval"). By signing below, Vinagro states that they have read and understand the Application, and agrees to abide by the conditions specified in the Approval. Nothing herein shall be deemed as Vinagro's express or implied approval of the proposed plan for handling PCB bulk product waste as set forth in the Application and Approval.

Date: March 5, 2012

J.R. Vinagro Corporation
Dana J. Zewinski, VP

2208 Plainfield Pike, Johnston, RI 02919 **401/943-7100**; 401-647-5041 fax

Tighe&Bond

www.tighebond.com

Certification Statement

PCB Cleanup and Disposal
Approval under 40 CFR 761.61(a) and (c)
City of Worcester (Responsible Party)
ESS Laboratory (Analytical Laboratory)
Former North High School
140 Harrington Way
Worcester, Massachusetts

This certification is being provided as required by conditions outlined in the US Environmental Protection Agency (EPA) *Approval for PCB Cleanup and Disposal under 40 CFR §761.61(a) and (c)* dated February 7, 2012. Specifically, condition number 10c requires that City of Worcester submit the following information:

> *"a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical methods and quality assurance requirements specified in the Application and in this Approval".*

In accordance with Condition 12, 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.

ESS Laboratory of Cranston, RI, has been selected by the City of Worcester as the analytical laboratory for this project and will comply with the above stated analytical requirements. By signing below, ESS Laboratory states that they will comply with this certification.

ESS Laboratory

2/21/12
Date

Tighe&Bond

APPENDIX B

PCB Remediation Plan

NORTH HIGH SCHOOL
WORCESTER, MASSACHUSETTS

PREPARED BY:

J. R. VINAGRO CORPORATION
2208 PLAINFIELD PIKE
JOHNSTON, RI 02919
(401)943-7100 FAX(401)946-7666

PCB Remediation Plan

1.1 Purpose and Scope

This Plan presents details on the means and methods for performing work elements associated with the segregation and management of PCB contaminated materials at the former North High School as identified by the owner's representative, Tighe & Bond, and presented in Attachment 1 of this plan. This plan also addresses the design of temporary facilities required to complete the work. Attention has been given to establishing safeguards upfront of any actual work activities to protect the public and the environment from impacts resulting from performing the work associated with this phase of the project. The work will be conducted in compliance with the applicable provisions of the rules and regulations of the Massachusetts Department of Environmental Protection (MADEP) and the proposed PCB cleanup plan, prepared by Tighe & Bond and conditionally approved by the United States Environmental Protection Agency (USEPA) Region 1, dated February 7, 2012, and received by J.R. Vinagro Corporation on February 14, 2012.

1.1.1 Work Elements and Sequence

The specific elements of this project are scheduled to occur as listed below.

- Silt barrier installation;
- Stock pile area preparation;
- Decontamination area construction;
- PCB contaminated building material segregation;
- Confirmatory sampling and visual inspections conducted by Tighe & Bond.

If during execution of the elements listed above, soil, groundwater or other unidentified material that is potentially contaminated including conditions that indicate the possibility of a historic hazardous material release is encountered, work will cease and the Engineer will be notified. Work will not resume until directed to do so by the Engineer.

Dust control will be conducted on a daily basis. Water sprays will be used on exposed soil, demolition, excavations and on excavated materials during loading to reduce dust emissions. Trucks hauling material from the site will be covered with tarpaulins or other appropriate covering that can be securely fastened and lined as required for off-site transportation.

1.1.1.1 Pre-Remediation Activities

The following activities will occur in advance of PCB contaminated material segregation activities.

Erosion and sedimentation controls
Sediment barriers which have been installed around the project area shall be checked and replaced as needed.

Stockpile Area
When possible segregated PCB contaminated building materials will be staged/stockpiled on building slabs or paved areas or at locations approved by the Engineer.

Decontamination area
A wash station will be available for workers to wash their hands prior to breaks and leaving the site.

Soil disposal

The previously stockpiled and covered PCB contaminated remediation soils (initially excavated as a performance based clean-up but **was not removed** from site due **to a waste management approach presented by** Tighe & Bond) may be delivered to the Greenwood Street landfill for management prior to demolition activities.

1.1.1.2 PCB Contaminated materials segregation

The identified PCB contaminated materials (**the identified contaminated materials JRV will be responsible for the following:** non ACM brick and CMU, concrete gymnasium panels, metal lockers, doors and frames**; these materials are also listed in Table 1**) shall be segregated from non PCB contaminated building materials during demolition activities as directed by the Engineer. This shall be done by use of two CAT 330 excavators, one CAT 345 Excavator, a CAT 330 UHD and CAT 305 mini excavator equipped with bucket and/or grapple attachments. The identified materials shall be segregated into two piles, one shall consist of masonry materials and the other shall consist of the metal components. It has been proposed by the engineer that all segregated PCB contaminated masonry material be crushed onsite and anticipated delivered to Greenwood Street Landfill for management pending approval from the Massachusetts Department of Environmental Protection (MA DEP) and characterization sampling to be performed by Tighe & Bond. The segregated contaminated metal components will be loaded into trailer dumps to be transported to Minerva Landfill located in Waynesburg, Ohio and disposed of as PCB bulk product waste.

1.1.2 Site Plan

The segregated contaminated material will be stockpiled on existing concrete slabs or paved areas as the site conditions allow or locations approved by the Engineer **(Tighe & Bond). Stockpile areas not on preexisting impervious surfaces shall first be prepared by covering with 6-mil poly. After stockpiles have been removed, a minimum of 3" of underlying soil shall be excavated and disposed of in accordance with the disposal criteria of the stockpiled**

material. Tighe & Bond will collect confirmatory samples after excavation to insure underlying soils have not been contaminated by stockpiled materials. Equipment decontamination will consist of broom cleaning surfaces in contact with PCB materials. Sweepings will be collected and disposed of with regulated waste stream. Since the PCB materials being managed are dry, extensive decontamination is not anticipated.

Air monitoring associated with this project will be performed by Tighe & Bond who is also responsible for associated reporting to the appropriate regulatory agency.

1.2 Materials Management

This section identifies the off-site facilities that will be utilized for disposal of materials resulting from the PCB contaminated material segregation and crushing activities proposed at the former North High School property. Copies of all disposal receipts, manifests and weight slips for every load weighed and disposed of will be provided within 21 days of completion of the remediation.

1.2.2 PCB Contaminated Material Disposal

J.R. Vinagro/SMI had no input in the waste stream classification. Classification of waste and selection of anticipated disposal facilities are at the direction of the City of Worcester as prepared by Tighe & Bond, per Attachment A-Proposed Management Options for PCB Impacted Materials dated 1/30/12. The Greenwood Street Landfill Site will only be utilized if MA DEP approves the BUD modification prepared by Tighe & Bond, and if the material is stipulated to be disposed at that facility by the City of Worcester. J.R. Vinagro/SMI do not propose to dispose of or haul any PCB Waste to the Greenwood Street Landfill. At this time we do not have a selected disposal facility for the following items: Soil, Painted Concrete Block Walls, Exterior Brick, Concrete, Concrete Gymnasium Panels. A supplement to this plan will be issued to the EPA when disposal facilities are selected for these materials.

All PCB contaminated material resulting from the remediation/segregation activities will be stockpiled in preparation for transportation off-site. A Material Tracking Log will be maintained on a daily basis and will document material removed from the site. Information to be included is listed below.

- Description of material
- Business Name of licensed hauler
- Vehicle Identification Number
- Approximate Weight of material
- Shipping document type

- Tracking Number
- Date of transport and arrival at receiving facility
- Receiving facility weight slip

1.2.2.1 Disposal Facilities

PCB Contaminated Soils

Facility:	Greenwood Street Landfill 30 Nipp Napp Trail Worcester, MA 01607
Contact:	Craig Salter, Operations Manager
Landfill's Job # for this project:	12-028

Hazardous Materials (>50 ppm remediation waste)

Facility:	Model City 1550 Balmer Road Youngstown, NY 14107
Contacts:	Technical Service Center 716-286-1550
Permit:	NYSDEC: 9-2934-00022/00097

PCB Bulk Product Waste

Facility:	Minerva Enterprises 8955 Minerva Road S.E. Waynesburg, OH 44688
Contacts:	Yolanda Hess 330-866-3435

Non ACM, PCB Remediation Waste

Facility:	Greenwood Street Landfill 30 Nipp Napp Trail Worcester, MA 01607
Contact:	Craig Salter, Operations Manager
Landfill's Job # for this project:	12-028

Crushed PCB Bulk Product

Facility:	Greenwood Street Landfill 30 Nipp Napp Trail Worcester, MA 01607
Contact:	Craig Salter, Operations Manager
Landfill's Job # for this project:	12-028

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781.769.9310 • Fax 781.769.9775

WORCESTER NORTH HIGH SCHOOL, WORCESTER, MA
PCB CLEANUP & DISPOSAL CONTRACTOR WORK PLAN

Date: February 29, 2012

1.0 SUMMARY

The work plan outlined below will provide a guideline for the PCB Cleanup and Disposal at the North High School in Worcester, MA, in accordance with the contract documents and PCB Clean-up Plan developed by Tighe & Bond (revised November 29, 2011), Conditions of EPA approval dated February 7, 2012. North High School will be unoccupied during the implementation of this plan. The Work Plan will serve to outline contractor elected means and methods to carry out the work required by the proposed SIP approved by the EPA on February 7, 2012. All PCB Remediation work will be performed in accordance with 40 CFR Part 761, and the conditions of the EPA approval of this work.

Conditions at the site may warrant minor variations to the submitted plan to complete the work in an expeditious manner. When variations are encountered the on-site representative from SMI will inform the Worcester Department of Public Works through Tighe & Bond. If major variations in work practices are necessary to complete the PCB Remediation work due to discovered conditions or additional materials the EPA will be notified through the Worcester Department of Public Works and Tighe & Bond, of the intended modifications to the work plan before work will continue.

2.0 CONTAINMENT PLAN

SMI will engage in PCB remediation work within the chain link fence and will maintain control of the entrance and exits to the work area to ensure only authorized personnel enter the work area and are given the proper personal protection. Warning signs will be posted according to 29 CFR 1910.1200. Ground protection, such as one layer of 6 mil poly sheeting and/or EPDM membrane will be installed to prevent debris from escaping the abatement zone and to protect areas outside of the abatement zone. Negative Pressure HEPA filtrations devices will not be utilized for this work, as dust and debris management will be preformed with HEPA filter equipped tools and airless sprayers with water for dust suppression.

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3.0 PCB WASTE STREAM IDENTIFICATION

3.1 JR Vinagro/SMI had no input in the waste stream classification. Classification of waste and selection of anticipated disposal facilities are at the direction of the City of Worcester as prepared by Tighe & Bond, per attached Table 4 – Proposed Management Options for PCB Impacted Materials dated 1/30/2012. The Greenwood Street Landfill Site will only be utilized if MA DEP approves the BUD modification prepared by Tighe & Bond. JR Vinagro/SMI do not propose to dispose of or haul any PCB Waste to the Greenwood Street Landfill, but will so if the material is stipulated to be disposed at that facility by the City of Worcester and can be mutually agreed upon. At this time we do not have a selected disposal facility for the following items: Soil, Painted Concrete Block Walls, Exterior Face Brick(Non-ACM), Concrete, Concrete Gymnasium Panels. A supplement to this plan will be issued to the EPA when disposal facilities are selected for these materials.

3.2 WASTE HAULER

3.2.1 RED Technologies
10 North Wood Drive
Bloomfield, CT 06002
(860) 218-2428

3.3 DISPOSAL FACILITIES

3.3.1 EQ Northeast Wayne Disposal Facility
49350 N. 1-94 Service Drive
Belleville, MI 48111
EPA ID # MID 048 090 633
(800) 592-5489

3.3.2 Model City Chemical Waste Landfill
1550 Balmer Road
Model City, NY 14107
(716) 754-8231

3.3.3 Waste Management of NH Turnkey Facility
97 Rochester Neck Road
Rochester, NH 03063
(800) 963-4776

3.3.4 Minerva Enterprises
9000 Minerva Road
Waynesburg, OH 44688
(330) 866-3435

3.3.5 Casella, Inc.
Greenwood Street Landfill Site
Worcester, MA
(802) 775-0325

3.3.6 Patriot Disposal C&D Processing Facility
2208 Plainfield Pike
Johnston, RI 02929
(401) 943-7100

4.0 MEANS & METHODS

4.1 Pre-Abatement Procedures

4.1.1 Daily toolbox safety meeting indicating Site Specific Job Hazards to entire SMI workforce on-site.

4.1.2 Building will have M/E/P/FP systems "made safe" prior to abatement.

4.1.3 Temporary power and light will be install sufficient to accomplish the work in accordance with OSHA practices. The breaker location for temporary power and light will be accessible from outside the abatement zone.

4.1.4 All non-contaminated movable objects will be removed from the containment area prior to establishing containment for recycling or disposal as C&D debris.

4.2 General Abatement Procedures

4.2.1 PCB and Asbestos Containing Material will be removed in locations defined in the Tighe & Bond PCB Clean Up Plan of November 29, 2011 and as described in Section 13285 of the City of Worcester, Project Manual, August 2011.

4.2.2 Post asbestos abatement warning signs on all entrances to regulated area, and post appropriate PCB placards on containments where PCB abatement will occur.

4.2.3 Erect a decontamination unit consisting of a clean room, shower room, and "dirty" room.

4.2.4 All workers will don appropriated personal protective equipment inclusive of disposal coverall suits, boots, gloves and half-face respirators.

4.3 PCB Cleanup Procedure and scope of work for SMI

4.3.1 All PCB clean-up activities will be performed with proper engineering controls in place to control any visible emission of

dust or debris during removal. This will include a combination of tools equipped with HEPA vacuum filtration, drop cloths, and water misting, as is practical and appropriate for each type of cleanup activity.

4.3.2 All water used during cleanup activities will be collected with HEPA filter equipped vacuums and disposed of in accordance with 40 CFR 761.79(b).

4.3.3 All rags and other cleaning materials used to clean the area shall also be bagged for transportation from containment to onsite PCB Waste Containers and properly disposed as PCB waste in accordance with the requirements of the associate removal waste.

4.3.4 PCB contaminated dust and debris from cutting and removal of surfaces and substrates shall be immediately collected by HEPA vacuums and containerized in temporary 6 mil poly disposal bags and/or drums and disposed of appropriately as PCB Waste. No dry sweeping, dusting or blowing will be allowed.

4.3.5 Upon removal generated PCB waste materials shall be placed in lined containers or into an appropriate temporary container such as a 6-mil polyethylene disposal bags for controlled transport to PCB waste containers at the end of each shift. PCB waste shall be stored for disposal in accordance with 40 CFR 761.65 and properly marked in accordance with 40 CFR part 761.40 and 761.45.

4.3.6 Painted Metal Items: unit ventilators, classroom doors, entry doors, corridor doorways systems and lockers. Remove by mechanical means, segregated for disposal during demolition of structure.

4.3.7 Caulking (non ACM/ACM): All Exterior Caulking within construction and expansion joints will be removed by mechanical means/hand scraping in manner that does not cause it to become fine dust.

4.3.8 Exterior Window and Door Systems: The entire window system will be removed for disposal as ACM/PCB Bulk Product Waste due to PCB/ACM glazing and the PCB caulking present on the frames. Window and door systems will be remove in their entirety with caulking and glazing in place. **All doors and windows will be wrapped in two layers of poly and sealed with duct tape before going into the waste container**

4.3.9 Painted basketball backboard. Remove basketball backboards intact for disposal.

4.3.10 Gymnasium wood flooring with varnish. Gymnasium wood flooring will be removed by mechanical means and segregated prior to demolition for disposal.

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4.3.11 Exterior brick along ONE(1) vertical expansion joint (≥50ppm): Mechanically remove 12-inches of brick on either side of the caulking joint.

4.3.12 Exterior stucco panels TWO(2) panels (≥50ppm): Remove stucco panels by mechanical means with grapple attachment in a manner that does not cause it to become fine dust.

4.3.13 Exterior Brick(ACM): Segregation of brick that is associated with PCB Caulking by mechanical means with use of excavator will occur prior to demolition.

4.3.14 Painted interior concrete block walls(ACM): Interior concrete walls contaminated with ACM will be managed as PCB Excluded Product/ACM waste per backup provided for Condition 1a of EPA Approval and will segregated for disposal prior to demolition.

4.3.15 Exterior Stucco Panels: contain trace amounts of ACM, (<1%). Remove stucco panels by mechanical means with grapple attachment in a manner that does not cause it to become fine dust.

4.3.16 Structural Concrete in contact with PCB Caulk: the structural concrete that remains following removal of the caulking will be mechanically removed by saw cutting and mechanical removal at a distance of 4-inches of concrete perpendicular from the caulking surface.

4.3.17 Miscellaneous Interior Porous Building Materials: Polyurethane Foam Padding in Chairs, Pin Boards, Cork Boards, Unit Ventilator Gasket Foam and Unit Ventilator Insulation. Remove and segregate all items listed prior to demolition.

4.3.18 Excluded PCB Products will be segregated for proper disposal as outlined by Table 4.

4.3.19 Verification testing will be performed by Tighe & Bond; as defined in their Revised PCB Clean Up Plan of November 29, 2011.

4.3.20 Abatement to PCB materials that are also impacted with asbestos will be abated in accordance with Massachusetts asbestos rules and regulations.

On the exterior areas that brick,block,and window removal will take place protection of the work area ground as follows.As material is coming down SMI will have poly and plywood on the ground. This will protect the ground from recontamination.

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"Environmental Solutions of the 21st Century"
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781.769.9310 • Fax 781.769.9775

5.0 EQUIPMENT DECONTAMINATION AND PERSONAL DECONTAMINATION UNIT

5.1 **Decontamination Stations:**

5.1.1 **Equipment decontamination:** SMI will establish a two- chamber equipment room or area that is adjacent to the Abatement zone for the decontamination of waste containers and equipment. The area will be of sufficient size to accommodate cleaning of equipment and removing waste without spreading contamination beyond the area. **All equipment will be Hepa vacuumed and wiped with Diesel fuel.**

5.1.2 **Personal decontamination:** SMI will establish contiguous to the work area a decontamination enclosure consisting of equipment room, shower room and clean room. All employees will enter and exit this decon to gain access to the Abatement Zone.

5.1.3 **Decontamination entry:** All employees will enter the regulated work area through the clean room; all street clothing will be placed in bags and left in a designated area. Protective clothing and respiratory protection will be given to employee's prior to enter the Abatement Zone.

5.1.4 **Decontamination exit:** Before leaving the regulated area, workers shall remove all gross contamination and debris from their protective clothing. Workers shall remove their protective clothing in the equipment room and discard it in a labeled bag. Workers will then proceed to the shower unit and then remove their respirators once inside the shower. After showering, employees shall proceed to the clean room to change into their street clothes. All wastewater will be collected and disposed of as PCB Waste.

5.2 **Decontamination Procedures:**

5.2.1 All equipment and surfaces of containers filled with PCB waste must be thoroughly wiped and cleaned with solvents prior to being removed from the equipment decontamination area. All rags and wastewater generated during decontamination will be collected and bagged for disposal of as PCB Waste.

6.0 WASTE STORAGE

6.1 SMI will have an appropriate PCB waste containers delivered and stored adjacent to the Abatement Zone. The site will be secured with perimeter fencing and access will be restricted from the site.

6.2 The container shall be lined covered and secured.

SMI

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6.3 The waste containers will be properly marked as described in 40 CFR part 761.45. and 761.40

6.4 The above mentioned dumpster will be locked and secured during the abatement activities and proper signage will be applied to the dumpster.

Jonathan A. Van Hazinga

From: Kimberly Tisa <Tisa.Kimberly@epamail.epa.gov>
Sent: Tuesday, March 27, 2012 4:27 PM
To: Marc J. Richards
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

Categories: Filed by Newforma

How are you for Wednesday, April 4?

My other days are pretty booked.

Kimberly N. Tisa
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

Phone: 617.918.1527
E-Fax: 617.918.0527

tisa.kimberly@epa.gov

"Marc J. Richards" ---03/27/2012 03:35:02 PM---Thanks Kim. I would like to schedule the site walk you were working looking to have early next week.

From: "Marc J. Richards" <MJRichards@tigheBond.com>
To: Kimberly Tisa/R1/USEPA/US@EPA
Date: 03/27/2012 03:35 PM
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

---

Thanks Kim.

I would like to schedule the site walk you were working looking to have early next week. You can see the containments that are set-up, etc.

Please let me know what day(s) may work for you next week. Tuesday next week is wide open for me currently.

Thanks

Marc

From: Kimberly Tisa [mailto:Tisa.Kimberly@epamail.epa.gov]
Sent: Tuesday, March 27, 2012 8:03 AM
To: Marc J. Richards
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

Okay. EPA has no further comments on the contractors' work plans.

Kimberly N. Tisa
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

Phone: 617.918.1527
E-Fax: 617.918.0527

tisa.kimberly@epa.gov

"Marc J. Richards" ---03/26/2012 04:05:12 PM---Hi Kim – as a further clarification based on our discussion, prior to removal of any soils that are

From: "Marc J. Richards" <MJRichards@tigheBond.com>
To: Kimberly Tisa/R1/USEPA/US@EPA
Cc: "Marc J. Richards" <MJRichards@tigheBond.com>
Date: 03/26/2012 04:05 PM
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

---

Hi Kim – as a further clarification based on our discussion, prior to removal of any soils that are located beneath stockpile/staging areas as referenced in Section 1.1.2 of Vinagro's work plan, in-situ soil samples will be collected to document PCB concentrations. If PCBs are detected > 1 ppm, the soils will be excavated and additional confirmatory samples will be collected. The excavated soils shall be managed as a remediation waste.

Thanks,

Marc

From: Marc J. Richards
Sent: Monday, March 26, 2012 9:04 AM
To: Kimberly Tisa
Cc: Marc J. Richards
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

Contractor will start PCB work once work plan is approved.

Based on your email below, they will get moving very shortly. We can schedule a site visit at any point. I will let you know when site activities are underway.

As for the stockpiled soils, these soils are classified as a remediation waste (< 50 ppm) and per the application will be managed at the Greenwood Street Landfill.

Please let me know if we are ok to proceed.

Thanks very much,

Marc

From: Kimberly Tisa [mailto:Tisa.Kimberly@epamail.epa.gov]
Sent: Monday, March 26, 2012 7:23 AM
To: Marc J. Richards
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

I only have 1 additional comment on the Vinagro Work Plan regarding soil removal/disposal.

In Section 1.1.1.2 it is indicated that removed soils will be disposed of in accordance with the disposal requirements of the stockpiled materials.

Soils are a PCB remediation waste. Thus, if the stockpiled materials are a PCB bulk product waste, the soils would have to be disposed of as a > 50 ppm PCB remediation waste.

Where are you with scheduling? I would like to do a site visit, but want to insure PCB removal work is occurring when I visit.

Kimberly N. Tisa
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

Phone: 617.918.1527
E-Fax: 617.918.0527

tisa.kimberly@epa.gov

"Marc J. Richards" ---03/14/2012 06:33:24 PM---Hi Kim – I have attached the revised contractor work plan. Changes to their plan are in bold typefa

From: "Marc J. Richards" <MJRichards@tigheBond.com>
To: Kimberly Tisa/R1/USEPA/US@EPA
Cc: "Marc J. Richards" <MJRichards@tigheBond.com>
Date: 03/14/2012 06:33 PM
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

---

Hi Kim – I have attached the revised contractor work plan. Changes to their plan are in bold typeface.

To supplement their responses, we also offer the following clarifications/revisions in response to your questions/comments, which are summarized in your emailed comments below:

Thanks very much,

Marc

From: Kimberly Tisa [mailto:Tisa.Kimberly@epamail.epa.gov]
Sent: Friday, March 09, 2012 10:07 AM
To: Marc J. Richards
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

Mark-

I have reviewed the contractors' work plans and provide the following comments:

1. It is not completely clear about each contractor's role on this job. If this could be clarified in each plan that would be helpful.

J.R. Vinagro is the general contractor (GC) that is primarily responsible for building demolition and management of all waste generated as part of full structure demolition. PCB waste that will be addressed during building demolition include non-asbestos exterior brick, painted concrete block walls, interior painted metals items, and limited quantities of concrete.

SMI is Vinagro's abatement subcontractor that is responsible for the abatement of all identified asbestos materials. Many of these asbestos materials are also impacted by PCBs (caulking, glazing, exterior stucco, certain exterior brick and concrete block walls. In addition, SMI will be responsible for the abatement of all exterior non-asbestos PCB caulking, gymnasium wood floor, and other inventoried removable remediation wastes in the building (chairs, basketball backboards, etc.).

2. EPA's approval required that a detailed contractor work plan be provided, which included the following minimum elements: containment and air monitoring, waste handling and disposal, and equipment decontamination. I understand that the disposal facilities are still being identified and that will be provided later, however, I don't believe that either work plan has provided **sufficient details** on the remaining elements to determine compliance with the Notification, the PCB regulations, and EPA's Approval. For example, the defined waste storage areas should be identified; how will waste be moved from the point of generation to the waste storage areas; how will the waste be stored to comply with 761.65; how will equipment be decontaminated to meet the 761.79 requirements and how will decontamination wastes be managed and disposed of; how will air monitoring be conducted and what are the action levels if exceeded.

The materials generated pre-demolition (by SMI) include primarily items that are also asbestos contaminated, therefore, strict adherence to state asbestos abatement regulations apply. For these items (asbestos/PCB brick, asbestos/PCB block) will be abated in full containment (negative pressure enclosures) and waste generated will be immediately packaged and loaded into covered/sealed waste containers. For asbestos/PCB that can be abated outside of a containment because the asbestos is non-friable based on a work method, these materials will be removed and immediately placed in covered/sealed containers. Additional details are included in SMI's work plan.

For the bulk remediation waste (painted block, non-ACM brick, identified concrete, painted metal), these material will be generated and segregated during demolition. Due to the nature of the waste, to the extent possible, waste will be staged on concrete slabs. Metals items will be placed in covered dump trailers for transportation to the landfill. If metal items remain on-site overnight, these will be covered will poly sheeting. All brick and concrete block materials that are segregated will be crushed/processed on-site. The processing of the debris will be misted to prevent dust from migrating beyond the immediate work zone. As stated in Vinagro's work plan, processed materials will be placed on poly sheeting. Following removal of waste, soil samples will be collected by Tighe & Bond to document PCBs are less than 1 ppm in remaining soil.

In accordance with 761.65(c)(9), stockpiles of generated waste will be covered and/or misted to prevent dispersal of dusts.

As stated in the work plan, equipment decontamination for SMI will include swapping surfaces with a solvent in accordance with 761.79(c), which does not require confirmatory sampling.

For Vinagro equipment, excavator bucket, loader bucket, and processing unit, following dry removal of visible dusts from the

equipment, representative wipe samples will be collected either by Tighe & Bond or Vinagro to verify the non-porous surface PCB concentration is less than 10 ug/100cm2. Results will be provided in the closure report.

Decontamination waste will be packaged and disposed. Dust from larger equipment decontamination will be disposed along with the other regulated PCB wastes being disposed.

Tighe & Bond will perform air monitoring (real time dust monitoring) up and down wind of project area during critical phases of demolition that are involved with removal of PCB wastes. The air monitoring standard to be achieved is less than 150 ug/m3 at the work limits. Results will be provided in the closure report.

3. There is reference in the work plans that indicate much of the direction regarding waste management and segregation will be directed by the "Engineer". Who is the Engineer for this project?

Tighe & Bond is the engineer for the project.

4. In the Vinagro Corp work plan, page 1-2 (Soil disposal paragraph), kit is stated that the stockpiled soils were not removed from the site due to a waste reclassification. Please clarify what this means as the soils are classified as a PCB remediation waste. If this is related to PCB concentration, it should be so clarified.

The waste was not reclassified, however the approach to management changed. Soil was originally excavated as a Performance Based Cleanup. Due to a change in management approach for the entire project, a PCB Cleanup Plan was submitted to EPA for review and approval which included utilizing a state permitted landfill for management of the soil.

5. EPA is concerned about the potential for re-contamination to soil that has already been remediated. The work plans indicate that poly will be placed as a surface cover; however, poly can easily be damaged especially during these types of abatement activities. Information should be provided to indicate how it will be determined that soils have not been recontaminated by the abatement/demolition activities.

SMI's approach also includes placing plywood over the poly areas during the performance of their work. Vinagro's approach includes poly on the ground surface when materials can't be staged on concrete. In both cases, Tighe & Bond will collect verification soil samples from work areas to document PCBs are less than 1 ppm. All results will be documented in the final closure report.

As a gentle reminder, please insure that EPA receives a copy of the BUD, which has been approved by MassDEP (indicated in an earlier e-mail).

Once received, the BUD will be provided.

Should you have any questions on the above, please feel free to contact me.

Kimberly N. Tisa
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

Phone: 617.918.1527
E-Fax: 617.918.0527

tisa.kimberly@epa.gov

-----"Marc J. Richards" <MJRichards@tigheBond.com> wrote: -----
To: Kimberly Tisa/R1/USEPA/US@EPA
From: "Marc J. Richards" <MJRichards@tigheBond.com>
Date: 03/06/2012 01:51PM
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal
Thanks Kim

Marc

-----Original Message-----
From: Kimberly Tisa [mailto:Tisa.Kimberly@epamail.epa.gov]
Sent: Tuesday, March 06, 2012 1:44 PM
To: Marc J. Richards
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

As I indicated in the e-mail we have received both contractor work plan and certification. Our review of the work plan has not been started.
If possible, we will try to get to it this week.

Kimberly N. Tisa
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

Phone: 617.918.1527
E-Fax: 617.918.0527

tisa.kimberly@epa.gov

From: "Marc J. Richards" <MJRichards@tigheBond.com>
To: Kimberly Tisa/R1/USEPA/US@EPA
Cc: "Marc J. Richards" <MJRichards@tigheBond.com>
Date: 03/06/2012 01:10 PM
Subject: RE: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

Thank you Kim.

All waste management will be documented in the project completion report as you referenced below.

As for the contractor work plan submitted, I presume you provide an email concurrence or acknowledgement of receipt prior to work commencing. Please confirm when you have a chance.

Thanks so much,

Marc

-----Original Message-----
From: Kimberly Tisa [mailto:Tisa.Kimberly@epamail.epa.gov]
Sent: Tuesday, March 06, 2012 10:35 AM
To: Dana Zewinski
Cc: Marc J. Richards
Subject: Re: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

Dana-

EPA's approval does not approve any specified transporter or receiving (i.e., storage or disposal) facility. Rather, EPA's approval is for the type of facility (e.g., TSCA-

approved, state-permitted, etc) based on the PCB concentrations in the particular waste stream. Please see EPA Approval, Attachment 1, Condition 7, regarding this fact.

As I recall, the soils, which have primarily > 1 ppm but < 2 ppm PCBs, except for 1 area with ~ 5 ppm PCBs, will be disposed of in a state-permitted landfill in accordance with § 761.61(a)(5)(A). This is consistent with the disposal requirements for < 50 ppm PCB waste under § 761.61(a)(5)(i)(B)(2)(ii).

So, provided that the receiving facility is permitted, licensed, or registered by a state to manage (1) municipal solid waste subject to 40 CFR Part 258 and/or (2) non-municipal non-hazardous waste subject to 40 CFR §§ 257.5 through 257.30, it would be an acceptable facility.

The state may establish additional sampling requirements for the receiving facility for waste characterization for purposes of waste acceptance and disposal.

With respect to the painted block, while PCBs in the paint were > 50 ppm, PCB concentrations in the adjacent substrate were < 50 ppm. As such, both the paint and adjacent substrates could be disposed of in a state-permitted landfill. Please be aware that EPA has not received the state's BUD approval for disposal of this waste, which is required under EPA's Approval.

Please note that I have received the contractor work plan, which was sent to me by the LSP for the Site. A copy of the contractor certification statement was provided via separate e-mail

We do require that the contractor work plan indicate how and where all wastes will be managed and disposed of. It should be documented either in the contractor work plan or in the project completion report that the facility is approved to accept the waste.

Should you require anything further, please let me know.

Kimberly N. Tisa
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

Phone: 617.918.1527
E-Fax: 617.918.0527

tisa.kimberly@epa.gov

From: "Dana Zewinski" <danaz@jrvinagrocorp.com>
To: Kimberly Tisa/R1/USEPA/US@EPA
Cc: "Bill Finn" <bfinn@smienvironmental.com>, "Donna Davis" <donnad@jrvinagrocorp.com>, "Sherman, Kristen" <KSherman@apslaw.com>
Date: 03/06/2012 08:48 AM
Subject: FW: North HS, Worcester, MA/PCB Remediation Plan submittal

Ms. Tisa,

Below is a forwarded e-mail from the owner's representative regarding the Worcester North HS project.

In the e-mail below, the owner's rep. states that EPA has approved sending Soil and other PCB Remediation Waste <50 ppm (Exterior Brick, Contaminated Concrete, etc.) to the Greenwood Street Landfill. Is the owner's rep. correct that your approval of the PCB Clean-up plan is the approval of the disposal facilities or does EPA approve disposal facilities based on the contractors work plan? Additionally, if in situ sampling results indicate that the waste does not meet a facilities disposal criteria, should additional analytical sampling and results from sampling be required after the waste has been consolidated for a landfill to accept that material? Lastly, can painted concrete block with coatings containing PCB's >50ppm be crushed with the substrate, re-sampled and re-characterized for disposal as something other than PCB bulk product waste? These scenarios of diluting PCB materials described above appear to be in conflict with the PCB characterization requirements.

I am very concerned about the potential liability for J.R. Vinagro Corp.
if these materials are being directed to a facility not licensed to take such.

Thank you in advance for your help.

Dana J. Zewinski
Environmental Engineer
Vice President

J.R. Vinagro Corporation
2208 Plainfield Pike
Johnston, RI 02919
Phone: 401-943-7100 Cell: 401-230-0566

-----Original Message-----
From: Marc J. Richards [mailto:MJRichards@tigheBond.com]
Sent: Friday, March 02, 2012 7:24 PM
To: Donna Davis
Cc: flansburgj@worcesterma.gov; Anthony Diluzio; Moosey, Paul J.; pcudmore@maguiregroup.com; Cheryl J. Kocsis; Dana Zewinski; Jeff Buckley, Demolition Division of the J.R. Vinagro Corproration ; Frank Riccio; Bill Finn; Marc J. Richards
Subject: RE: North HS, Worcester, MA/PCB Remediation Plan submittal

Please send the signed certification statement. I can not submit the work plan to EPA with out it. Also, the pending BUD is only for the painted block. Soil and other remediation waste we proposed for Greenwood Street has been approved by EPA and no additional approval is necessary by DEP. Final analytical will drive final approval by landfill. Landfill has already approved the soil. We sent you all applicable info to ship soil.

Marc

-----Original message-----
From: Donna Davis <donnad@jrvinagrocorp.com>
To: "Marc J. Richards" <MJRichards@tigheBond.com>
Cc: "Moosey, Paul J." <MooseyP@worcesterma.gov>, "flansburgj@worcesterma.gov" <flansburgj@worcesterma.gov>, Anthony Diluzio <ADiluzio@maguiregroup.com>, "pcudmore@maguiregroup.com" <pcudmore@maguiregroup.com>, "Cheryl J. Kocsis" <CJKocsis@tigheBond.com>, Dana Zewinski <danaz@jrvinagrocorp.com>, "Jeff Buckley, Demolition Division of the J.R. Vinagro Corproration " <jf_buck@comcast.net>, Frank Riccio <frankr@jrvinagrocorp.com>, Bill Finn <bfinn@smienvironmental.com>
Sent: Fri, Mar 2, 2012 17:31:40 EST
Subject: RE: North HS, Worcester, MA/PCB Remediation Plan submittal

Good Afternoon Mr. Richards,

Please see attached resubmittal for PCB Remediation Plan.

Please do not hesitate to contact us should you have difficulty accessing the document.

Sincerely,

Donna

Donna M. Davis
Project Coordinator
J. R. VINAGRO CORPORATION
2208 Plainfield Pike
Johnston, RI 02919
401-943-7100; Ext. 157
401-647-5041 Fax

From: Donna Davis
Sent: Tuesday, February 28, 2012 3:35 PM
To: Marc J. Richards
Cc: Moosey, Paul J.; flansburgj@worcesterma.gov; Anthony Diluzio; pcudmore@maguiregroup.com; Cheryl J. Kocsis; Dana Zewinski; Jeff Buckley, Demolition Division of the J.R. Vinagro Corproration ; Frank Riccio; Bill Finn
Subject: North HS, Worcester, MA/PCB Remediation Plan submittal
Importance: High

Good Afternoon Mr. Richards,

Please see our PCB Remediation Plan with Attachment A enclosed for your review/comment.

If you have difficulty accessing these documents, please do not hesitate to contact us.

Sincerely,

Donna

Donna M. Davis
Project Coordinator
J. R. VINAGRO CORPORATION
2208 Plainfield Pike
Johnston, RI 02919
401-943-7100; Ext. 157
401-647-5041 Fax

[attachment "NORTH HS PCB REMEDIATION PLAN REV.PDF" deleted by Kimberly Tisa/R1/USEPA/US]

Jonathan A. Van Hazinga

From: Kimberly Tisa <Tisa.Kimberly@epamail.epa.gov>
Sent: Thursday, April 26, 2012 5:43 AM
To: Marc J. Richards
Cc: Katherine Woodward
Subject: RE: North High Question - Structural Concrete

Categories: Filed by Newforma

Given all the data to-date which indicates PCB concentrations in the structural concrete to be 1 ppm, it appears reasonable to dispose of the concrete without further cutting as proposed in the modification.

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

Kimberly N. Tisa
U.S. Environmental Protection Agency
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Mail Code: OSRR07-2
Boston, MA 02109-3912

Phone: 617.918.1527
E-Fax: 617.918.0527

tisa.kimberly@epa.gov

-----"Marc J. Richards" <MJRichards@tigheBond.com> wrote: -----
To: Kimberly Tisa/R1/USEPA/US@EPA
From: "Marc J. Richards" <MJRichards@tigheBond.com>
Date: 04/25/2012 09:02AM
Cc: "Marc J. Richards" <MJRichards@tigheBond.com>
Subject: RE: North High Question - Structural Concrete

see response below. thanks very much

From: Marc J. Richards
Sent: Monday, April 23, 2012 5:07 PM
To: Kimberly Tisa
Cc: Marc J. Richards
Subject: RE: North High Question - Structural Concrete

Per landfill requirements and COMM-97, sample frequency for disposal of generated concrete if one sample per 500 cubic yards. Landfill acceptance criteria is less than 2 ppm. All structural concrete is currently less than 2 ppm (and less than 1 ppm).

Contractor has completed about 300 feet of saw cut already so approximately 300 feet remains.

Thanks

Marc

From: Kimberly Tisa [mailto:Tisa.Kimberly@epamail.epa.gov]
Sent: Monday, April 23, 2012 4:49 PM
To: Marc J. Richards
Subject: RE: North High Question - Structural Concrete

Okay, so the sampling would be what? What is the acceptance criteria...2 ppm?

How many linear feet of concrete remain that was originally in contact with the caulk?

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Phone: 617.918.1527
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tisa.kimberly@epa.gov

"Marc J. Richards" ---04/23/2012 08:26:09 AM---There is approximately 600 linear feet of concrete in contact with caulking. Disposal would be in ac

From: "Marc J. Richards" <MJRichards@tigheBond.com>
To: Kimberly Tisa/R1/USEPA/US@EPA
Cc: "Marc J. Richards" <MJRichards@tigheBond.com>
Date: 04/23/2012 08:26 AM
Subject: RE: North High Question - Structural Concrete

There is approximately 600 linear feet of concrete in contact with caulking.

Disposal would be in accordance with the landfill soil disposal policy (COMM-97-001) and this material would not be subject to the BUD since it is not painted concrete. The BUD only applies to the painted CMU block materials. Therefore, DEP would not be involved with the characterization and management of this material. The characterization results for these materials would be reviewed by the landfill's consultant (CDM) for compliance with COMM-97-001.

Thanks

From: Kimberly Tisa [mailto:Tisa.Kimberly@epamail.epa.gov]
Sent: Monday, April 23, 2012 8:30 AM
To: Marc J. Richards
Subject: Re: North High Question - Structural Concrete

It looks like you have 5 samples collected adjacent to the caulk. How many structural concrete columns do you have in total?

I also would like you to confirm with MassDEP that this would be okay with them. How would you sample this waste stream under the BUD permit requirement?

Kimberly N. Tisa
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tisa.kimberly@epa.gov

"Marc J. Richards" ---04/12/2012 05:27:47 PM---Kim - in reviewing the project data, we realized that we inadvertently referred to two stucco sample

From: "Marc J. Richards" <MJRichards@tigheBond.com>
To: Kimberly Tisa/R1/USEPA/US@EPA
Cc: "Marc J. Richards" <MJRichards@tigheBond.com>
Date: 04/12/2012 05:27 PM
Subject: North High Question - Structural Concrete

Kim – in reviewing the project data, we realized that we inadvertently referred to two stucco samples as structural concrete samples.

This has no bearing on our stucco removal program. But what it does point out is that all of our structural concrete sample results are very low (less than 1 ppm). Updated table is attached.

Since all of our structural concrete from this project is going to the Greenwood Street landfill, can we eliminate the need to saw cut the concrete?

We originally proposed saw cutting the concrete in the original application when the Greenwood landfill was not being considered and we thought we had a few samples that were above 1 ppm. Given this revised information, we are proposing that separating the PCB concrete and verification sampling is an unnecessary activity. We must still comply with characterization requirements from the landfill (per MassDEP).

Even if some structural concrete areas are in fact above 1 ppm, it is still far less than 50 ppm. This revised proposed management still complies with your approval related to management within a state permitted landfill. Saw cutting simply becomes an unnecessary activity.

This would be a nice cost saving measure to the project.

Please let me know your thoughts.

Thanks,

Marc

Marc J. Richards, P.E., LSP - Senior Project Manager/Associate
Tighe&Bond | 446 Main Street | Worcester, MA 01608 | 508.471.9621 | 617.645.5426 (cell)
www.tighebond.com | Follow us on:
[attachment "Structural concrete sampling results.pdf" deleted by Kimberly Tisa/R1/USEPA/US]

Tighe&Bond

APPENDIX C

Summary of PCB Impacted Materials Management

North High School Abatement and Demolition Project, Worcester, MA

Material Type	Description	Estimated Quantity (Approximate)	PCB Concentration	TSCA Classification	Material Management	Verification Sampling	Receiving Facilities	Disposal Quantity	Disposal Documentation
PCB Bulk Product Wastes									
Painted Metal Items	Interior items in building including unit ventilators, classroom doors, entry doors, corridor doorway systems, and lockers	Throughout	>50 ppm and <500 ppm	PCB Bulk Product Waste	Identified metal surfaces segregated prior to and during demolition and disposed at a state permitted landfill per 761.62(b).	None	Minerva Enterprises - Waynesburg, OH	160.48 tons	Waste Shipment Record
Caulking (non-ACM)	Located on exterior of building within construction and expansion joints in the brick façade, including around exterior metal vents	5,500 LF	up to 160,000 ppm	PCB Bulk Product Waste	All caulking removed from building prior to demolition and disposed at a state permitted landfill that meets bulk product waste requirements of 761.62(b).	None	Minerva Enterprises - Waynesburg, OH	~550 cubic yards	Waste Shipment Record
Caulking (ACM)	Located on exterior of building within construction and expansion joints of all stucco panels	7,400 LF	up to 160,000 ppm	PCB Bulk Product Waste	All caulking removed from building prior to demolition and disposed at a state permitted landfill that meets bulk product waste requirements of 761.62(b) and can also accept asbestos waste.	None			
Window Glazing (ACM)	Interior and exterior glazing on all window systems	All interior and exterior window systems	up to 68 ppm	PCB Bulk Product Waste	All window systems removed from building prior to demolition and disposed at a state permitted landfill that meets bulk product waste requirements of 761.62(b) and can also accept asbestos waste.	None			
Basketball Backboard	Whole painted backboard	4 backboards	>50 ppm	PCB Bulk Product Waste	Segregated during demolition and disposed at a state landfill per 761.62(b).	None	Minerva Enterprises - Waynesburg, OH	29.79 tons	Waste Shipment Record
Gymnasium Wood Varnish	3/4-inch wood flooring with varnish	Entire gym floor	>50 ppm	PCB Bulk Product Waste	Segregated during demolition and disposed at a state landfill per 761.62(b).	None			
PCB Remediation Wastes									
Soil	Located along exterior perimeter of building; 5-feet wide, 1-foot depth	300 tons	up to 5ppm	PCB Remediation Waste	Excavate in designated areas and dispose at a state permitted landfill per 761.61(a)(5)(v)(A).	Every 5-feet on excavation base and side wall	Greenwood Street Landfill - Worcester, MA	442.67 tons	Bill of Lading
Painted Concrete Block Walls	Interior concrete block walls	2,000 tons	Highly variable, within certain areas >50 ppm	PCB Remediation Waste and Bulk Product Waste	Segregated during demolition and disposed at a state landfill per 761.61(a)(5)(v)(A) and 761.62(d)	None	Greenwood Street Landfill - Worcester, MA	4,659.85 tons	Material Shipping Record & Log
Exterior Brick (<50 ppm)	Located on exterior of building that has been in contact with PCB caulking	All exterior brick contaminated by PCB caulking	<50 ppm	PCB Remediation Waste	Removed brick prior to demolition and disposed at a state permitted landfill per 761.61(a)(5)(v)(A).	None; Entire exterior brick walls were removed in areas of PCB caulking, except as noted below			
Concrete	Structural concrete that caulking has been removed from	500 LF	<1 ppm	PCB Remediation Waste	See report text for change in management scheme for this concrete. Concrete segregated during building demolition and disposed at a state permitted landfill per 761.61(a)(5)(v)(A)..	None			
Concrete Gymnasium Panels (<50 ppm)	Concrete panels located on exterior of gymnasium	All exterior gymnasium panels	<50 ppm	PCB Remediation Waste	Removed stucco panels prior to demolition and disposed at a state permitted landfill per 761.61(a)(5)(v)(A).	None; Entire panel system is being disposed			
Stucco Panels (<50 ppm)	Stucco panels located on exterior of building containing trace amounts of ACM (<1%)	All exterior stucco panel systems	<50 ppm	PCB Remediation Waste	Removed stucco panels prior to demolition and disposed at a state permitted landfill per 761.61(a)(5)(v)(A).	None; Entire panel system is being disposed	Waste Management Turnkey - Rochester, NH & Casella Waste USA Landfill - Newport, VT	~370 cubic yards & 48,711 kilograms (~53.69 tons)	Waste Shipment Record & Non-hazardous Waste Manifest
Polyurethane Foam Padding in Chairs, Pin Boards, Cork Boards, Unit Ventilator Gasket Foam, Unit Ventilator Insulation, and exercise mats	Materials that have absorbed PCBs	Throughout	<50 ppm	PCB Remediation Waste	Segregated items prior to demolition and disposed at a state permitted landfill per 761.61(a)(5)(v)(A).	None			
Exterior Brick (>50 ppm)	Located on exterior of building along 1 vertical expansion joint	25 LF of Vertical Joint	>50 ppm	PCB Remediation Waste	Mechanically removed 12-inches of brick on either side of caulking joint and disposed of brick at a TSCA chemical waste landfill per 761.75.	Every 5-feet on each side of caulking joint for a total of 10 samples; Verification target is <50 ppm	Wayne Disposal - Belleville, MI	547 kilograms (~0.6 tons)	Uniform Hazardous Waste Manifest (#009036371 JJK)
Stucco (>50 ppm)	Two panels located on exterior of building containing trace amounts of ACM (<1%)	Two exterior stucco panel systems	>50 ppm	PCB Remediation Waste	Removed stucco panels prior to demolition and disposed at a TSCA chemical waste landfill per 761.75.	None; Entire panel system is being disposed			

Material Type	Description	Estimated Quantity (Approximate)	PCB Concentration	TSCA Classification	Material Management	Verification Sampling	Receiving Facilities	Disposal Quantity	Disposal Documentation
Excluded PCB Products									
Painted Concrete Block Walls	Concrete block walls with asbestos fireproofing insulation debris	350 tons	< 50 ppm	Excluded PCB Products	Segregated prior to demolition and disposed at a state permitted landfill permitted to receive asbestos debris.	None	Minerva Enterprises - Waynesburg, OH	~1,170 cubic yards	Waste Shipment Record
Floor Tile, Floor Tile Mastic, Ceiling Acoustic Tile	All materials are ACM	Throughout	<50 ppm	Excluded PCB Products	Removed under asbestos abatement project and disposed of at a landfill that can accept ACM waste.	None			
Cove molding and wood gymnasium bleachers	--	Throughout	<50 ppm	Excluded PCB Product	Managed regulated solid waste at a state permitted solid waste facility.	None	J.R. Vinagro C&D Processing Facility - Johnston, RI		N/A

W-1510-2-01
January 13, 2012

Lynn Welsh
CERO Solid Waste Management Program
Department of Environmental Protection
627 Main Street
Worcester, MA 01608

Re: **Beneficial Use Determination Permit Modification**
Greenwood Street Landfill
Worcester, Massachusetts
(MassDEP Transmittal for Permit Application No. X241703)

Dear Ms. Welsh:

On behalf of the City of Worcester Department of Public Works & Parks (DPW&P), Tighe & Bond is submitting an application for a Beneficial Use Determination (BUD) Permit Modification. This Modification is for the proposed management of processed painted/coated concrete materials associated with residual polychlorinated biphenyls (PCBs) associated with paint from the demolition of the North High School in Worcester for the specific uses cited under the existing BUD permit for the landfill.

The BUD Permit Modification Application (BWP SW 44-Modification) is provided in Appendix A. For reference, a copy of the existing BUD permit for the Greenwood Street Landfill is provided in Appendix B.

Background Information

The current North High School building was constructed around 1966 and initially served as a junior high school until 1980 when it became North High. The school is situated on the eastern side of Harrington Way in Worcester, Massachusetts. The City of Worcester has recently constructed a replacement North High School and is in the process of demolishing the old North High School building to make way for the installation of athletic fields and parking areas.

In February 2005, Massachusetts Department of Environmental Protection (MassDEP) issued a BUD permit to the Greenwood Street Landfill. Under the existing permit, the landfill can receive processed asphalt, brick, and/or concrete (ABC) materials that meet Comm-97-001 standards.

Approximately 1,500 cubic yards of additional ABC materials will be generated from the North High demolition project that contains painted concrete block with detectable concentrations of polychlorinated biphenyls (PCBs). Some samples of the paint from North High contain PCB concentrations (in the paint) above 50 parts per million (ppm) and therefore classified as PCB bulk product waste, as regulated by the United States Environmental Protection Agency (EPA) under the Toxic Substances Control Act (TSCA) regulations (40 CFR 761).

Description of Site-Specific Source Material

In support of the demolition project at the North High School, building characterization sampling was completed by Tighe & Bond and by the EPA. Samples of paint were collected from interior concrete masonry unit (CMU) block walls. The concentrations of PCBs in the paint samples ranged between 2 milligrams per kilogram (mg/kg) to 65 mg/kg. The estimated volume of painted CMU materials to be generated from the demolition of the North High School building is 1,500 cubic yards.

Concrete materials containing residual PCBs from paint that may be classified as a PCB Bulk Product Waste were not included in the original BUD permit for the Greenwood Street Landfill. Therefore we propose that the estimated 1,500 cubic yards of painted CMU block wall to be generated from the demolition of the North High School be approved for management at the landfill under this proposed BUD Permit Modification.

Based on future sampling of the processed CMU block to occur at the site prior to shipment, it is anticipated that the processed CMU block will contain PCBs less than 2 ppm.

Proposed Handling

In November 2011, Tighe & Bond submitted a *PCB Cleanup Plan* to EPA that described the proposed actions to manage PCB bulk product waste to be generated during demolition of the North High School under the provisions of the TSCA regulations. In accordance with TSCA, the CMU block materials will be handled as follows:

- Segregate the block materials during demolition for subsequent management of this PCB bulk product waste at a state landfill per 40 CMR 761.62(d) which allows for the management within state permitted landfills. This CMU block material (estimated volume 1,500 cubic yards) with processed PCB concentrations less than 2 ppm is the subject of this proposed BUD Permit Modification for management at the Greenwood Street Landfill. It should also be noted that no pre-demolition loose or flaking paint has been observed on the majority of the CMU block walls.

- The segregated CMU block wall materials will be crushed to the extent that no pieces will be larger than three inches in any dimension. In accordance with Greenwood Street Landfill's existing BUD permit, the processed material will be segregated into stockpiles of 500 cubic yards (or smaller), and one composite sample will be collected from each stockpile and analyzed for RCRA 8 metals and, as necessary, for the Synthetic Precipitation Leaching Procedure (SPLP). In addition, for this site-specific program, each composite sample will also be analyzed for PCBs. If the metals results meet the criteria listed under the existing BUD <u>and</u> if PCB concentrations are less than 2 mg/kg (in accordance with MassDEP Policy #COMM-97-001), then the processed CMU block material will be managed at the Greenwood Street Landfill in accordance with the existing MassDEP approved BUD permit provisions. In accordance with the existing BUD permit, if the processed material does not meet these standards, then the City will notify MassDEP and will properly dispose the material at an alternative location.

- The materials will be utilized as grading and shaping materials within the Phase I landfill capping portion of the landfill.

It should be noted that the PCB concentrations detected in the paint from the CMU block concrete is considered to be very conservative representations of the PCB concentrations of the waste materials that will be generated during crushing of these materials. Therefore, PCB concentrations in the processed material are expected to be less than 2 mg/kg and it is the processed waste stream sampling results that will ultimately determine whether these material are accessible for management at Greenwood Street Landfill, which is consistent with how the current BUD is implemented. No deliberate dilution of this waste stream will occur to further reduce PCB concentrations.

Conclusions

The City of Worcester DPW&P requests that an estimated 1,500 cubic yards of PCB painted and processed CMU block (characterized as PCB bulk product waste) generated from the demolition of the North High School building be accepted for management at the landfill under the modified BUD permit. All provisions of the current MassDEP BUD permit will be adhered to with respect to the segregation, processing, sampling, and management of these materials summarized herein.

If you have any questions, please feel free to contact me at (508) 471-9621.

Very truly yours,

TIGHE & BOND, INC.

Marc J. Richards, P.E., LSP
Senior Project Manager/Associate

Enclosures:

Appendix A – BUD Permit Modification Application
Appendix B – Copy of Existing BUD Permit

\\SRV\Projects\W\W1510 - North High School\BUD Application\Cover letter to MADEP revised.doc

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Solid Waste Management

Application for Beneficial Use Determination

BWP SW 39 Commercial Products - BWP SW 40 Regulated Systems
BWP SW 41 Restricted Applications - BWP SW 42 Unrestricted Applications
BWP SW 44 Modifications

X241703
Transmittal Number

173121
Facility ID# (if known)

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

A. Applicant Information

City of Worcester Department of Public Works
Name

20 East Worcester Street
Street Address

Worcester	MA	01604
City/Town	State	Zip Code

Telephone

Robert Fiore	508-799-1430
Contact Person	Contact Telephone

Directions: Complete A and B, as well as the applicable section of C.

Specify the plan/report and page numbers where the information is located.

Enter "N/A" if information requested is not applicable.

B. Project Information

Which permit category are you applying for?

☐ BWP SW 39 ☐ BWP SW 40 ☐ BWP SW 41 ☐ BWP SW 42 ☒ BWP SW 44

	Plan/Report #	Page #	DEP Use Only
1. Summary of the secondary material's proposed use & handling	NA	NA	
2. Description of how the proposed utilization will result in a viable & beneficial substitution for a commercial product or commodity	NA	NA	
a. Description of the feedstock or product the secondary material is replacing	NA	NA	
b. Description of the proposed use of secondary material	NA	NA	
3. Detailed description of the proposed facility that stores, processes, or otherwise handles the secondary material proposed for use	NA	NA	
a. Source or origin of secondary material	NA	NA	
b. Processing methods used in the preparation of secondary material	NA	NA	

B. Project Information (continued)

	Plan/Report #	Page #	Page # DEP Use Only
c. Description of similar products currently & historically produced by facility	NA	NA	
d. Annual quantities, by weight and/or volume, of the secondary material proposed for beneficial use	NA	NA	
e. Storage requirements necessary for maintaining sufficient inventory to meet market demand	NA	NA	
4. Proposed location of use, if applicable, or types of locations where the secondary material will be used (e.g. highway rights-of-way, industrial zoned properties, etc.)	NA	NA	
5. Detailed physical & chemical characterization of both the secondary material proposed for beneficial use & the final product	NA	NA	
a. Physical properties: size, density, particle size and gradation, percent solids, organic fraction, moisture content/moisture capacity, etc.	NA	NA	
b. Biological properties: pathogens, etc.	NA	NA	
c. Chemical characterization	NA	NA	
i. Detailed list of chemical constituents found in the secondary material and the derived beneficial use product(s)	NA	NA	
ii. Identification of Critical Contaminants of Concern (CCCs)	NA	NA	
d. Description of sampling & analysis methods	NA	NA	
i. Quality assurance & quality control plan	NA	NA	

B. Project Information (continued)

	Plan/Report #	Page #	Page # DEP Use Only
6. Evaluation & control of potential adverse health, safety or environmental impacts	NA	NA	
a. Toxics Use Reduction Plan (TURP), if applicable	NA	NA	
b. Risk management techniques being used (e.g. deed/use limitations, location restrictions, engineering controls, etc.)	NA	NA	
c. Best Management Practices (BMPs) employed	NA	NA	

C. Category-Specific Information

Complete only the applicable section.	Plan/Report #	Page #	Page # DEP Use Only
1. BWP SW 39: Use in Commercial Products, 310 CMR 19.060(14)			
a. Physical characterization of the commercial product	NA	NA	
b. Constituents (including hazardous materials) contained in the product manufactured using traditional materials or products	NA	NA	
c. Comparative analysis of the product manufactured using the secondary material versus the traditionally used material it is replacing	NA	NA	
i. Hazardous materials, including CCCs (on a weight & concentration basis)	NA	NA	
ii. Processing required for use	NA	NA	
iii. Storage & handling before actual use	NA	NA	

C. Category-Specific Information (continued)

Complete only the applicable section.	Plan/Report #	Page #	Page # DEP Use Only
iv. Actual use	NA	NA	
v. Management or processing during its lifecycle, including, but not limited to, any destructive practices that reasonably may be expected to be employed in recycling or disposing of the material at the end of its useful life	NA	NA	
2. BWP SW 40: Use of Secondary Materials in Regulated Systems, 19.060(15)			
a. Operative DEP permit, order, or approval for the facility/site	NA	NA	
i. Terms and conditions of any such permit, order or approval relevant to the proposed use	NA	NA	
b. General description of the facility/site activities	NA	NA	
c. Appropriate numerical standards, risk management criteria and other applicable requirements as identified by DEP	NA	NA	
d. Identification, evaluation and control of potential significant risks from the storage, transfer, processing, treatment activities and use of the secondary material	NA	NA	
3. BWP SW 41: Use of Secondary Materials in Restricted Applications, 19.060(16)			
a. Concentrations of hazardous materials of concern in the material proposed for use	NA	NA	
b. Upper concentration limits (UCLs) for those hazardous materials	NA	NA	

C. Category-Specific Information (continued)

Page #

Complete only the applicable section.	**Plan/Report #**	**Page #**	**DEP Use Only**
c. Background concentrations of those hazardous materials	NA	NA	
i. Statewide	NA	NA	
ii. Site-specific	NA	NA	
d. Release and exposure pathways			
e. Risk management techniques used to prevent adverse impact or significant risks to public health, safety & the environment, including nuisance conditions	NA	NA	
i. Engineering controls	NA	NA	
ii. Use limitations	NA	NA	
iii. Other techniques	NA	NA	
f. Hazardous materials concentrations above UCLs	NA	NA	
g. Hazardous materials concentrations not below background	NA	NA	
i. Demonstration that these are within acceptable limits through (a) Numerical Standards or (b) Total Waste Reuse Risk	NA	NA	
h. Evaluation and control of significant risks to public health and safety	NA	NA	
i. Evaluation and control of significant risks to the environment	NA	NA	
j. End of use management	NA	NA	
k. Deed notification	NA	NA	

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Solid Waste Management

Application for Beneficial Use Determination

BWP SW 39 Commercial Products - BWP SW 40 Regulated Systems
BWP SW 41 Restricted Applications - BWP SW 42 Unrestricted Applications
BWP SW 44 Modifications

X241703
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173121
Facility ID# (if known)

C. Category-Specific Information (continued)

Complete only the applicable section.	Plan/Report #	Page #	Page # DEP Use Only
4. BWP SW 42: Use of Secondary Material in Unrestricted Applications, 19.060(17)			
a. Description of proposed use	NA	NA	
b. Conservative, unrestricted general exposure assumptions	NA	NA	
c. Complete Section 3 (BWPSW41) on page 4 of this form	NA	NA	
5. BWP SW 44: Modification			
a. Description of Change	Cover Letter	Pages 1-5	
b. Attach existing BUD	Cover Letter	Appendix B	
c. Summation of data collection under existing BUD, if any	Cover Letter	Pages 1-5	
d. Identification and submission of information needed to process requested modification	Cover Letter	Pages 1-5	

D. Certification: 310 CMR 19.011

Any person, required by these regulations or any order issued by the Department, to submit papers shall identify themselves by name, profession, and relationship to the applicant and legal interest in the facility, and make the following certification: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties both civil and criminal for submitting false information including possible fines and imprisonment."

Robert J. Fiore
Print Name

Authorized Signature

Asst to the Commissioner
Position/Title

1-13-12
Date

Enter your transmittal number → X241703
Transmittal Number

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

BWP SW 44
1. Permit Code: 7 or 8 character code from permit instructions

Application for BUD Modification
2. Name of Permit Category

Modification
3. Type of Project or Activity

B. Applicant Information – Firm or Individual

City of Worcester Department of Public Works
1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. **Last Name** of Individual
3. **First Name** of Individual
4. MI

20 East Worcester Street
5. Street Address

6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #
Worcester	MA	01604	508-799-1430	

Robert Fiore
11. Contact Person

12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

Greenwood Street Landfill
1. Name of Facility, Site Or Individual

30 Nip Napp Trail
2. Street Address

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Worcester	MA	01607		

8. DEP Facility Number (if Known)
9. Federal I.D. Number (if Known)
10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

Tighe & Bond
1. Name of Firm Or Individual

446 Main Street
2. Address

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Worcester	MA	01610	508-471-9621	

Marc J. Richards, P.E., LSP
8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Special Provisions:

1. ☒ **Fee** Exempt (city, town or municipal housing authority)(state agency if fee is $100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☐ Homeowner (according to 310 CMR 4.02).

Check Number	Dollar Amount	Date
N/A	N/A	

Marc J. Richards

To: Marc J. Richards
Subject: FW: PCB Paint BUD for Greenwood Street Landfill

From: Emond, Paul (DEP) [mailto:paul.emond@state.ma.us]
Sent: Monday, November 28, 2011 12:09 PM
To: Marc J. Richards
Cc: ODonnell, John (DCP); Paterson, James (DEP); Sirull, William (DEP); Doucett, James (DEP)
Subject: FW: PCB Paint Questions

Marc, below is MassDEP's response to your inquiry about managing PCB containing paint.

Question 1 – If PCB paint is identified greater than 50 ppm in Massachusetts and TSCA permits a Bulk Product Waste to be managed in a state permitted landfill, would MassDEP allow the paint and corresponding substrate to be demolished/processed and then sampled to show that PCB concentrations are well below 2 ppm (typical standard that landfill adhere to in Mass) and therefore not an MA02 waste. I compare this to how we often deal with painted components in a BUD scenario. Lead paint chips would be classified as a hazardous waste from a TCLP standpoint, but we often only look at the processed waste stream to show that the material is not hazardous. This becomes applicable to the landfills in Massachusetts that can currently receive processed coated/painted brick/concrete per an existing BUD/operating permit.

Note: the above assumes that the brick/concrete, etc. that the paint is adhered to is not classified as a remediation waste per TSCA because the PCBs from paint do not typically leach into brick/block (this is not the case for PCB caulking, which is not addressed in this email)

Answer. The Department may allow mixtures of PCB paint (> 50 ppm) and corresponding substrate that have been tested to show PCB concentrations below 2 ppm to be managed as non-hazardous waste. The Department, however, would require that a generator of PCB paint (>50 ppm) that can be easily removed from its substrate (e.g. flaking paint on concrete or brick) to remove such paint by scraping and manage it as MA02 whenever practicable. A generator may not purposely dilute PCB paint (> 50 ppm) and corresponding substrate mixtures with non-PCB waste material in order to achieve concentrations of < 2 ppm PCBs.

Under this scenario the resulting PCB containing paint (> 50 ppm) and substrate may be disposed of in MassDEP approved lined non-hazardous solid waste landfills provided the receiving landfill maintains a record of the testing documentation that shows the combination of paint and substrate is < 2 ppm PCBs, and that loose paint has been removed. Reuse of such PCB containing paint (>50 ppm) and substrate as cover material, or any other type of landfill reuse, at the landfill is not allowed unless the landfill owner/operator requests and receives a written approval from MassDEP through a Beneficial Use Determination (BUD) or other permit application process. MassDEP will not entertain the reuse of PCB containing paint (>50 ppm) and substrate (even when the combination of paint and substrate has a PCB concentration < 2 ppm) outside of a landfill environment.

Issue 2 – PCB paint less than 50 ppm.

No real issues here since the paint is not regulated by TSCA and also not considered an MA02 hazardous waste. However, there are often issues with on-site reuse of this material (under a BUD) or off-site reuse in a state Mass

landfill. I imagine issues under the BUD scenario would be addressed on a site specific BUD basis. I am not aware of any other issue for off-site management in a Mass landfill as long as the PCB in processed volume is less than 2 ppm.

Answer. Paint containing PCBs < 50 PPM and the substrate it is attached to may be disposed at any permitted lined non-hazardous solid waste landfill. Although it is not required, MassDEP recommends that landfills receiving such material maintain records documenting that the PCB paint is < 50 PPM. Any reuse (such as use as cover material) of material containing PCB paint < 50 ppm and its substrate at a landfill is not allowed unless the applicant requests and receives a written approval from MassDEP through a BUD or other permit application process.

MassDEP may, on a case by case basis, allow the reuse of paint containing PCBs < 50 ppm and substrate it is attached to outside of a landfill provided the combination of paint and substrate is < 2 ppm PCBs. Any such reuse of material containing PCB paint < 50 ppm and its substrate outside of a landfill is not allowed unless the applicant requests and receives a written approval from MassDEP through a BUD permit application process.

File

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Regional Office, 627 Main Street, Worcester, MA 01608

MITT ROMNEY
Governor

KERRY HEALEY
Lieutenant Governor

ELLEN ROY HERZFELDER
Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

February 22, 2005

Mr. Robert L. Moylan
Commissioner of Public Works
Worcester Department of Public Works
20 East Worcester Street
MA 01604

Mr. Patrick Hannon
Mass Environmental Associates, Inc.
2 Newton Executive Park, Suite 200
Newton, MA 02462

RE: CERO-SWM- Worcester, Greenwood Street Landfill, Beneficial Use Determination Technical Completeness, BWP SW 13, Transmittal # W 060012

Dear Messrs. Moylan and Hannon,

The Department of Environmental Protection (the "Department") has completed its technical review of the application listed above and has determined that it is technically complete. This Provisional Permit is effective on date of issuance in accordance with 310 CMR 19.037(3).

If you have any questions or comments please contact Raymond Belsito of this Office at (508) 767-2806.

Sincerely,

John J. Regan
Section Chief
Solid Waste Management Program

RECEIVED
FEB 24 2005

cc: Paul Emond-DEP-Boston

This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator, at 1-617-556-1057. TDD Service - 1-800-298-2207.

http://www.mass.gov/dep • Phone (508) 792-7650 • Fax (508) 792-7621
Printed on Recycled Paper

Dan Duffy, Global Env Strategies, Two Newton Executive Park, Newton, MA 02462

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Regional Office, 627 Main Street, Worcester, MA 01608

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Secretary

ROBERT W. GOLLEDGE, Jr.
Commissioner

BENEFICIAL USE DETERMINATION - MAJOR (BWP SW 13)

Use of Asphalt, Brick and Concrete Rubble as Roadbase Material At Greenwood Street Landfill

Name of Permittee:	The City of Worcester (the "City") Mr. Robert L. Moylan, Commissioner
Mailing Address:	Worcester Department of Public Works 20 East Worcester, MA Worcester, MA 01604
Name of Permittee:	Patrick Hannon President
Mailing Address:	Mass Environmental Associates, Inc. (the "Company") Two Newton Executive Park, Suite 200 Newton, MA 02462
Name of Facility:	Greenwood Street Landfill (the "Landfill")
Facility Address:	Greenwood Street Worcester, MA
DEP Region:	Department of Environmental Protection ("Department" or "DEP") Central Regional Office (CERO), Worcester Solid Waste Management Program

Transmittal #: W060012

I. PERMIT APPLICATION INFORMATION

A. Reviews and Approvals Affecting Proposed Beneficial Use Determination

1. Title/Description(s) of Approvals/Permits to be modified by proposed beneficial use:

Not Applicable

B. Application Information for BWP SW 13 Beneficial Use Determination

1. Applicant Name: Mass Environmental Associates/City of Worcester

2. Transmittal Number: W060012

3. Start Date of Application: February 8, 2005

4. Date of Fee Receipt: February 8, 2005

5. Application Prepared by:

   Global Environmental Strategies, LLC
   Two Newton Executive Park
   Newton, MA 02462

6. Title of Submittal(s) and Date of Receipt at DEP, CERO:

   BWP SW 13 Beneficial Use Determination - Major
   Beneficial Use of ABC Material for Landfill Roadway Base
   Greenwood Street Landfill, Worcester, Massachusetts
   Dated: February 3, 2005
   Amendment 1, BUD Use of Crushed ABC as Roadbase
   Received by DEP-CERO: February 11, 2005

   Submitted by: Global Environmental Strategies, LLC
   Two Newton Executive Park
   Newton, MA 02462
   Received by DEP-CERO: February 5, 2005

II. BENEFICIAL USE DETERMINATION (BUD) APPLICATION REVIEW AND APPROVAL

Transmittal Number W060012 (the "Application"). The Application complies with the requirements of 310 CMR 19.000, the **Solid Waste Management Facility Regulations** and was reviewed in accordance with Section 19.060: Beneficial Use of Solid Wastes.

The Application requests a Beneficial Use Determination (BUD) for the processing and utilization of ABC materials, as a haul road base at the Greenwood Street Landfill, Worcester, Massachusetts. The ABC rubble will only be accepted from building construction sites that have been inspected for asbestos and certified clean in accordance with 453 CMR 6.00. A subsequent sampling and test protocol will be required to ensure that the ABC materials do not contain hazardous coatings or material. Therefore, the applicant shall segregate the ABC rubble in 500 cubic yard or smaller stockpiles. The

applicant will then process approximately ten cubic yards of material from each stockpile and collect a composite sample of the fines from ten discrete locations from the ten yard pile. The sample will be logged using normal chain-of-custody procedures and transported to a DEP certified laboratory for analysis.

This composite sample shall be handled and tested in accordance with Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW846) for total metals analyses of As, Ba, Cd, Cr, Pb, Hg, Se and Ag. The results of the total metals analysis for each parameter will be divided by 20, with the results of that calculation compared to the RCRA Hazardous waste criteria detailed in 40 CFR 261. In the event any of the results exceed this criteria for any analytye, the sample will be analyzed by EPA Method 1321, Synthetic Precipitation Leaching Procedure (SPLP) and analyzed for the same 8 RCRA Metals as specified in the current version of SW846. If the results of the SPLP exceed the RCRA criteria for any of the above metals, the crushed and uncrushed materials from the tested source will be removed from the site by the Company. Both the Department and the City of Worcester will be notified within 24 hours of any exceedances and the material will be removed from the site within 48 hours.

All ABC material will be processed to 6 inch minus and all rebar removed and recycled. A dust misting system will be in operation at all times when the crusher is operational.

The Department has determined that the subject material is suitable for beneficial use, as proposed in the referenced Application, and herein approves the above referenced Beneficial Use Determination, subject to the conditions listed below.

III. GENERAL PERMIT CONDITIONS

1. The use of this BUD material shall not adversely affect the public health, safety or the environment.

2. A determination of beneficial use means that the material is NOT classified and therefore not regulated as a solid waste ONLY when it is used in accordance with the requirements of this determination. The material shall not be handled or utilized in a manner which will result in the material becoming a solid waste.

3. The beneficial use of this material shall be performed in compliance with other applicable State and Federal laws and regulations.

4. The Department reserves the right to rescind, suspend or modify this permit by the imposition of additional conditions based upon a determination of actual, or the threat of, adverse impacts from the beneficial use of this material.

IV. SPECIFIC PERMIT CONDITIONS

1. This Beneficial Use Determination is only for the materials and processes referenced in the Application and Amendment, for the specific use of the materials within the Greenwood Street Landfill, Worcester, Massachusetts. The Amendment specified the initial use of 5,000 cubic yards of ABC material for access road construction and an additional 20,000 cubic yards of ABC material to construct and maintain access roads on site during Phase 1 of the shaping and grading operation. Any amount of material beyond the quantity specified in the Application and Amendment will require specific written approval of the DEP.

2. The Department must be notified of any changes in the process or processes that may significantly modify the physical or chemical nature of the above referenced material. Any changes in the process or processes that significantly alters the specifications of the material as presented in the beneficial use determination application will require further review and approval. Any amount of material beyond the quantity specified in the Application and Amendment will require specific written approval of the DEP.

3. Stockpiling and crushing of the coated brick and concrete rubble shall be in accordance with 310 CMR 16.05(3)(e) and the specific plans and procedures provided in the Application. The stockpiling, crushing and use of the coated brick and concrete rubble shall be performed in accordance with established best management practices including but not limited to the use of appropriate dust control measures such as misting.

4. Any solid waste materials not considered suitable for re-use will be removed from the stockpile and properly disposed of prior to processing of the coated brick and concrete rubble for fill.

5. The Company will sample and analyze all material in accordance with the Application and Section II of this permit.

6. The Company shall record on an "as-built" plan the specific locations of the use of the coated brick and concrete rubble fill material and provide such plan to the Department.

7. The Company will maintain, at the Greenwood Street site, copies of all asbestos certifications, weight records and analytical data relative to the ABC materials.

V. RIGHT OF APPEAL

A. **Right to Appeal** - This determination has been issued pursuant to Massachusetts General Laws (MGL), Chapter 111, Section 150A and 310 CMR 19.060: Beneficial Use of Solid Wastes, of the "**Solid Waste Management Facility Regulations**". Pursuant to 310 CMR 19.036(4), any person aggrieved by the issuance of this determination, may file an appeal for judicial review of said decision, in accordance with the provisions of MGL Chapter 111, Section 150A and MGL Chapter 30A, not later than thirty days following the receipt of the final approval.

B. **Notice of Appeal**- Any aggrieved person intending to appeal the decision to the Superior Court shall provide notice to the Department of intention to commence such action. Said notice of intention shall include the Transmittal Number, and shall identify with particularity the issues and reason(s) why it is believed the approval decision was not proper. Such notice shall be provided to the Office of General Counsel of the Department, and the Regional Director for the regional office which made the decision. The appropriate addresses to send such notices are:

1. Office of General Counsel
   Department of Environmental Protection
   One Winter Street -Third floor
   Boston, MA 02108

2. Regional Director
   Department of Environmental Protection
   Central Regional Office
   627 Main Street
   Worcester, MA 01608

No allegation shall be made in any judicial appeal of this decision unless the matter complained of was raised at the appropriate point in the administrative review procedures established in those regulations, provided that matter may be raised upon a showing that it is material and that it was not reasonably possible with due diligence to have been raised during such procedures, or that the matter sought to be raised is of critical importance to the public health or environmental impact of the permitted activity. Unless the person requesting an appeal requests and is granted a stay of the terms and conditions of the approval by a court of competent jurisdiction, this decision shall remain effective.

Thank you, and if you should have any questions or comments regarding this matter, please contact Raymond Belsito at (508) 767 2806.

Very truly yours,

DATE 2/22/05

John J. Regan
Section Chief
Solid Waste Management Program

W:\SWM\Worcester Greenwood St. LF SW 13 BUD

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7650

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

BENEFICIAL USE DETERMINATION– REGULATED SYSTEMS – MODIFICATION
BWP SW 44
Re-Use of Crushed Painted/Coated Concrete Material
Greenwood Street Landfill, Worcester, Massachusetts

Permit Issuance Date: March 16, 2012

Name of Permittee: City of Worcester, Department of Public Works
(the "Permittee" or "Applicant")

Mailing Address: 20 East Worcester Street
Worcester, MA 01604

Source of Material: North High School Demolition
140 Harrington Way
Worcester, Massachusetts 01604

Reuse Location: Greenwood Street Landfill (the "Landfill")
30 Nip Napp Trail
Worcester, Massachusetts 01607

Application: Beneficial Use Determination – Major (BWP SW 44)

Transmittal Number: X241703

Dated: January 13, 2012

FMF No.: 39932

BWP Classification: CLF

I. PERMIT APPLICATION INFORMATION

A. Beneficial Use Determination application (the "Application"):

The City of Worcester Department of Public Works (the "Applicant") is applying for a Category 2 Beneficial Use Determination Permit Modification (BWP SW 44 "BUD"), to

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TDD# 1-866-539-7622 or 1-617-574-6868
MassDEP Website: www.mass.gov/dep

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beneficially re-use crushed painted/coated concrete materials at the Greenwood Street Landfill (the Landfill), an existing solid waste facility that is undergoing cap repair under permits and approvals from MassDEP. The Applicant is seeking a modification of an existing Beneficial Use Determination (BUD), Transmittal No.W060012, issued by MassDEP on February 22, 2005 (the "2005 BUD"). The 2005 BUD approved the use of processed coated/painted asphalt, brick, and concrete for construction and maintenance of haul roads within the Landfill.

"Beneficial Use Determination Permit Modification, Greenwood Street Landfill
Worcester, Massachusetts"
Transmittal Number: X241703
Dated: January 13, 2012
Received by MassDEP-CERO: January 20, 2012
Start Date of Application: January 20, 2012

Submitted by:

Tighe and Bond
446 Main Street
Worcester, MA 01608
Phone: 508-471-9621
Contact: Marc Richards

B. Beneficial Use Proposal

The Applicant is requesting approval to modify the 2005 BUD to authorize an additional 1500 cubic yards of crushed painted/coated concrete material from the North High School Demolition for use as grading and shaping material within the current phase of cap repair of the Landfill closure. The painted/coated concrete material to be crushed contains detectable concentrations of polychlorinated biphenyls (PCBs) which are classified as bulk product waste per the United States Environmental Protection Agency (USEPA) under the Toxic Substances Control Act regulations (40 CFR 761).

As stated in the Application, North High School at 140 Harrington Way, in Worcester, Massachusetts is being demolished and the resulting concrete material will be re-used at the Landfill under a BUD approved in February 22, 2005. Painted coatings on the concrete masonry units have been determined to contain PCBs at concentrations from 2 milligrams per kilogram (mg/kg) to 65 mg/kg. In a letter to the City of Worcester, USEPA stated that following remediation and processing of the "concrete masonry unit" at the site of the former high school, the resultant crushed painted/coated concrete material is expected to have a bulk composition of PCBs less than 2 mg/kg and can be disposed at a Massachusetts regulated landfill with Department approval. The Applicant must ensure that the crushed painted/coated concrete delivered to the Landfill is in

compliance with the USEPA PCB Cleanup and Disposal Approval under 40 CFR §§ 761.61(a) and (c) and § 761.79 (h) dated February 7, 2012.

II. BENEFICIAL USE DETERMINATION (BUD) APPLICATION REVIEW AND APPROVAL

The Application, Transmittal Number X241703, complies with the application requirements set forth at 310 CMR 19.030 – Application for a Solid Waste Management Facility Permit and 310 CMR 19.060 – Beneficial Use of Solid Waste, and was reviewed in accordance with the review process set forth at 310 CMR 19.037 – Review Procedures for Permit Modifications, Permit Renewals and Other Approvals. Based on a review of the aforementioned information, MassDEP has determined that the subject material is suitable for beneficial use, as proposed in the referenced Application, provided that it meets specific chemical values after testing and remediation, and herein approves the above-referenced BWP SW-44 Beneficial Use Determination – Modification Application, subject to the conditions listed below.

This Beneficial Use Determination is a Permit issued pursuant to M.G.L. Chapter 111, Section 150A and 310 CMR 19.000. This Permit does not convey property rights of any sort, or any exclusive privilege.

This Beneficial Use Determination does not supersede the 2005 BUD (Transmittal No. No.W060012), and activities conducted under this Beneficial Use Determination must also comply with the applicable terms and conditions of the 2005 BUD.

III. GENERAL PERMIT CONDITIONS

A. The use of this BUD material shall not adversely affect public health, safety or the environment, and shall not create nuisance conditions such as odors, dust and noise.

B. A determination of beneficial use means that the material is not classified and regulated as a solid waste ONLY when it is used in accordance with the requirements of this determination. The material shall not be handled or used in a manner that will result in the material becoming a solid waste.

C. The beneficial use of this material shall be performed in compliance with other applicable local, state and federal laws and regulations.

D. MassDEP reserves the right to rescind, suspend or modify this Permit by the imposition of additional conditions based upon a determination of actual, or the threat of, adverse impacts from the beneficial use of this material and/or the determination that

crushing of demolition materials and re-use of the concrete material is not accomplished in accordance with a condition of this Permit.

IV. SPECIFIC PERMIT CONDITIONS

A. This BUD Modification is issued only for the reuse of painted/coated concrete materials described in the Application.

B. The Applicant is requesting to use up to 1500 cubic yards of crushed painted/coated concrete material having a bulk composition of PCBs less than 2 mg/kg as grading and shaping material at the Landfill. Use of any amount of crushed painted/coated concrete material beyond the quantity specified in the Application will require specific written approval by MassDEP.

C. The painted/coated concrete material shall be processed at the site of generation and sampled to ensure the weighted average painted/coated concrete materials is below 2 mg/kg of PCBs as stated in the Application. If the analytical results for the metals all meet the criteria specified in the 2005 BUD and if PCBs are present in the verification samples at concentrations equal to or less than 2 mg/kg, then the processed painted/coated concrete material can be re-used the Landfill in accordance with the requirements of this Permit and all other permits or approvals issued by MassDEP regarding the Landfill. If applicable standards, including but not limited to the standards referenced in the Application are not met, the Applicant shall notify MassDEP, further evaluate the crushed painted/coated concrete, seek additional guidance from the USEPA or arrange for the material to be properly disposed of in accordance with all applicable federal, state, and local laws and regulations.

D. The Applicant shall notify MassDEP in writing of any changes in the process or processes that may significantly modify the physical or chemical nature of the above referenced material. Any change in the process or processes that significantly alters the specifications of the material as presented in the Application shall require further review and approval.

E. As proposed in the Application, processed painted/coated concrete material will have no dimension larger than three (3) inches.

F. The Applicant shall continue to keep records of all material processed and reused under the 2005 BUD and this Permit. No volume increase is approved as part of this Permit. The Applicant shall count all painted/coated concrete material used under this Permit against the volume limitations set forth under the 2005 BUD. The volume limitations in the 2005 BUD shall not be exceeded without written authorization from MassDEP.

G. MassDEP CERO Section Chief for Solid Waste Management Program shall be notified five (5) days prior to the start of the transport of the crushed painted/coated concrete material to the Landfill.

H. The 2005 BUD limits the acceptance of ABC rubble to "building construction sites that have been inspected for asbestos and certified clean in accordance with 453 CMR 6.00." The crushed painted/coated concrete material to be used at the Landfill shall meet this requirement of the 2005 BUD. The applicant shall ensure that the crushed, painted/coated concrete material shall be free of all other demolition materials (e.g. rebar, electrical wiring).

I. Stockpiling and crushing of the processed painted/coated concrete material at the Landfill shall be performed in accordance with this approval and the specific plans and procedures provided in the Application. The stockpiling, crushing and re-use of the painted/coated concrete material shall be performed in accordance with established best management practices including but not limited to the use of appropriate dust control measures. The Applicant shall comply with all air pollution regulations, including but not limited to 310 CMR 7.01 and 310 CMR 7.09.

J. In all cases, the processed painted/coated concrete material shall be placed a minimum of one hundred (100) lateral feet from any wetland or surface water.

K. The Applicant shall use appropriate sedimentation and erosion controls to minimize the contamination of stormwater run-off from the processed painted/coated concrete material to minimize runoff or airborne migration.

L. Any solid waste generated by demolition or crushing activities at the site of generation not considered suitable for re-use must be removed from the stockpile and properly disposed of in accordance with all applicable regulatory requirements prior to or during processing of the concrete material.

M. Within sixty (60) days of the completion date of placement of the processed painted/coated concrete material as grading and shaping material at the Landfill, and in accordance with the provisions of 310 CMR 19.060(7), the Applicant shall submit a report that summarizes beneficial use activities authorized by this BUD, including the quantity of secondary material distributed for beneficial use, the sources of the secondary material received, and the results of any required testing or on-going characterization and any other information required as a condition of the Permit.

N. All painted/coated concrete material reused at the Landfill must be placed in Stage III as identified in Drawing 3 of 11 from the Revised Corrective Action Design figure titled "Stage II Grading and Shaping" dated 12/21/2010.

VI. RIGHT OF APPEAL

A. Review of Decision

Pursuant to 310 CMR 19.037(4)(b), if the Applicant (Permittee) is aggrieved by the Department's decision to issue this Permit, it may within twenty-one (21) days of the date of issuance file a written request that the decision be deemed a provisional decision, and a written statement of the basis on which the Applicant believes it is aggrieved, together with any supporting materials. Upon timely filing of such a request, the decision shall be deemed a provisional decision with an effective date twenty-one (21) days after MassDEP's receipt of the request. Such a request shall reopen the administrative record, and MassDEP may rescind, supplement, modify, or reaffirm its decision. If MassDEP reaffirms its decision, the decision shall become a final Permit on the effective date. **Failure by an applicant to exercise the right provided in 310 CMR 19.037(4)(b) shall constitute a waiver of the applicant's right to appeal.**

B. Right to Appeal

This Permit has been issued pursuant to Massachusetts General Laws (MGL), Chapter 111, Section 150A and 310 CMR 19.060: Beneficial Use of Solid Waste, of the "Solid Waste Management Regulations". Any person aggrieved by the issuance or denial of this Permit, except as provided for under 310 CMR 19.037(4)(b), may file an appeal for judicial review of said decision in accordance with the provisions of M.G.L. c. 111, § 150A and M.G.L. c. 30A within thirty (30) days following the receipt of the final Permit. Unless the person requesting an appeal requests and is granted a stay of the terms and conditions of the final Permit by a court of competent jurisdiction, the final Permit shall remain effective or become effective at the conclusion of the 30 day period.

C. Notice of Action

Any aggrieved person intending to appeal the issuance of this Permit to the Superior Court shall first provide notice of intention to commence such action. Said notice of intention shall include the file number [Transmittal No. X241703] and shall identify with particularity the issues and reason why it is believed the Permit decision was not proper. Such notice shall be provided to the Office of General Counsel of MassDEP and the Regional Director for the regional office that processed the Permit application at least five (5) days prior to the filing of an appeal.

Office of General Counsel
Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108

Martin Suuberg, Regional Director
Massachusetts Department of Environmental Protection
627 Main Street
Worcester, MA 01608

No allegation shall be made in any judicial appeal of this Permit decision unless the matter complained of was raised at the appropriate point in the administrative review procedures established in 310 CMR 19.000, provided that a matter may be raised upon a showing that it is material and that it was not reasonably possible with due diligence to have been raised during such procedures or that matter sought to be raised is of critical importance to the environmental impact of the permitted activity.

D. Lynne Welsh

D. Lynne Welsh
Acting Section Chief
Solid Waste Management Program

DLW/glr

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7650

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. SULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

August 2, 2012

Mr. Robert Fiore
Worcester Department of Public Works
20 East Worcester Street
Worcester, MA 01604

RE: CERO-SWM-Worcester, Greenwood Street Landfill, SW44 Beneficial Use Determination Modification X241703 – Volume Increase Approval

Dear Mr. Fiore,

The Department of Environmental Protection ("MassDEP") received a written request via email from Marc Richards of Tighe and Bond on July 23, 2012 for an approval to increase in volume of crushed painted/coated concrete material generated from the North High School demolition project that will be utilized in the Greenwood Street Landfill cap repair. A Beneficial Use Determination Modification ("BUD") issued on March 16, 2012 specifies that written MassDEP approval is required for any increase in volume to be handled under the BUD. The modification issued on March 16, 2012 applies to an earlier BUD approval, Transmittal Number W060012, received February 8, 2005.

The BUD modification references an original volume estimated by Tighe and Bond as 1500 cubic yards, but the July 23, 2012 communication indicated that they had exceeded that amount and the company sought an increase to 3,000 cubic yards to be handled under the BUD. MassDEP hereby approves an increase of volume to 3,000 cubic yards that is subject to all other provisions in the March 16, 2012 permit.

This information is available in alternate format. Call Michelle Waters-Ekanem, Diversity Director, at 617-292-5751. TDD# 1-866-539-7622 or 1-617-574-6868
MassDEP Website: www.mass.gov/dep

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Thank you, and if you have any further questions or comments regarding this matter, please do not hesitate to contact me at (508) 849-4007 or Greg Root of my staff at (508) 767-2759.

Very truly yours,

James A. McQuade
Section Chief
Solid Waste Management Program

cc:
Mr. Richard Spieler, NEWS of Worcester, LLC, 30 Nip Napp Trail, Worcester, MA 01607
Mr. Marc Richards, Tighe & Bond, 446 Main Street, Worcester, MA 01610

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W-1510-2-01
February 16, 2012

Craig Salter, Operations Manager
Casella Waste Systems
30 NippNapp Trail
Worcester, MA 01607

RE: Soil Profile
North High School Demolition and Site Cleanup
140 Harrington Way
Worcester, Massachusetts

Dear Mr. Salter:

Please find attached to this correspondence a profile for soils generated from the excavation of exterior soils along the perimeter of the old North High School in Worcester, Massachusetts that is currently scheduled for demolition. A brief site history is provided herein.

The subject site formerly contained North High School, which began operation in the late 1960's. The City of Worcester and its contractor are currently demolishing the old high school to make way for a parking lot adjacent to the newly constructed North High School. Prior to demolition activities, polychlorinated biphenyls (PCB) sampling of the soil surrounding the exterior perimeter of the school was conducted to determine if PCBs from the exterior caulking had impacted the soil. Laboratory results indicated that PCBs from the exterior caulking had impacted the exterior perimeter soils at concentrations that were primarily less than 2 parts per million (ppm). In a select few areas, PCBs were identified up to 5 ppm. Certain designated areas of soil contamination were excavated as a Limited Response Action (LRA) under the Massachusetts Contingency Plan (MCP).

On December 20, 2011, Tighe & Bond collected a representative soil sample from the excavated soil stockpile which is approximately 350 tons in size. The sample was submitted to Alpha Analytical in Westborough, Massachusetts for select analysis. An additional sample was submitted to MicroVision Laboratories, a subcontractor of Alpha Analytical, to verify the presence of coal/coal ash in the soil.

Arsenic was detected at 24 milligrams per kilogram (mg/kg), which is below the MA Unlined Landfill Criteria and has been attributed to naturally occurring arsenic concentrations for the geological conditions of the area. All volatile organic compounds (VOCs) were reported below laboratory detection limits. A total petroleum hydrocarbon (TPH) concentration of 222 mg/kg was detected. A total PCB concentration of 0.1627 mg/kg was detected. In addition, several semi-volatile organic compounds (SVOCs) were identified. The detection of SVOCs at the site has been attributed to the presence of coal, as confirmed in an additional laboratory test run. Additional target compound results are summarized in Table 1 (attached). The laboratory report is also included with this correspondence.

Since the source of the PCBs was from exterior building caulking that contained PCBs, Tighe & Bond submitted a cleanup plan to the EPA for review and approval. Based on the plan submitted, EPA's February 7, 2012 approval of the plan, and in accordance with current EPA/TSCA regulations, the soils subject to this approval request are permitted to be managed in a state permitted landfill per any specific operating permit that applies to the selected landfill. In this case, the applicable provisions for evaluating acceptance at the Casella NippNapp Trail Landfill would be MassDEP Policy COMM-97-001.

Based on the information provided, Tighe & Bond is of the opinion that this material is not classified as hazardous waste and is acceptable for management at the Casella NippNapp Trail Landfill in accordance with COMM-97-001.

If you have any questions or concerns regarding this letter, please feel free to contact the undersigned at (508) 471-9621.

Very Truly Yours,

TIGHE & BOND, INC.

Marc J. Richards
Senior Project Manager/Associate

Enclosures
Copy: Paul Moosey, City of Worcester, Assistant DPW&P Commissioner
T&B File
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Table 1: **Summary of Soil Stockpile Sampling Results**
North High School
Worcester, MA

LOCATION **SAMPLING DATE**	**MA Unlined Landfill Criteria**	**STOCKPILE** **20-DEC-11**
General Chemistry		
Specific Conductance	4,000 umhos/com	<10
Total Metals		
Arsenic	40	24
Cadmium	30	<0.45
Chromium	1,000	21
Lead	1,000	24
Mercury	10	<0.07
Volatile Organics Compounds		
Target VOCs		< C/S
Total VOCs	4, Total VOCs	ND
Semivolatile Organics Compounds		
Acenaphthene		1.2
Anthracene		2.2
Benzo(a)anthracene		6.6
Benzo(a)pyrene		5.7
Benzo(b)fluoranthene		5.9
Benzo(ghi)perylene		3.2
Benzo(k)fluoranthene		5
Chrysene		6.8
Dibenzo(a,h)anthracene		1.2
Dibenzofuran		0.41
Fluoranthene		15
Fluorene		0.98
Indeno(1,2,3-cd)Pyrene		3
Phenanthrene		11
Pyrene		12
Total SVOCs	100	80.19
Polychlorinated Biphenyls		
Aroclor 1016		< 0.0369
Aroclor 1221		< 0.0369
Aroclor 1232		< 0.0369
Aroclor 1242		< 0.0369
Aroclor 1248		< 0.0369
Aroclor 1254		0.0783
Aroclor 1260		0.0844
Aroclor 1262		< 0.0369
Aroclor 1268		< 0.0369
Total PCBs	2	0.1627
Petroleum Hydrocarbon Quantitation		
TPH	2,500	222

Notes:
All results shown in milligrams per kilograms (mg/kg), equivalent to parts per million (ppm)
< indicates result is below the indicated method detection limit
ND - not detected
C/S - compound specific

W-1510-2-01
July 26, 2012

Craig Salter, Operations Manager
Casella Waste Systems
30 NippNapp Trail
Worcester, MA 01607

RE: Painted CMU Stockpile and Unpainted Bick and Concrete Profile
Former North High School Demolition
140 Harrington Way
Worcester, Massachusetts

Dear Mr. Salter:

Please find attached to this correspondence a material shipping record (MSR) and analytical summary table which characterizes painted concrete masonry unit (CMU) blocks, unpainted brick, and unpainted concrete generated from the demolition of the former North High School in Worcester, Massachusetts.

The subject site formerly contained North High School, which began operation in the late 1960's. The City of Worcester and its contractor are currently demolishing the old high school to make way for a parking lot adjacent to the newly constructed North High School. Pre-demolition sampling conducted within the school revealed polychlorinated biphenyls (PCBs) in paint and caulking materials.

Prior to demolition, all inventoried asbestos containing materials were properly abated in accordance with 453 CMR 6.0.

In addition, the identified PCB caulking materials were fully abated from the building. Unpainted brick and concrete areas formerly in contact with exterior PCB caulking were segregated during building demolition. Painted interior CMU block was also segregated during demolition. These three separate waste streams were stockpiled and processed using a mechanical crusher to reduce the aggregate size to less than 3 inches.

Tighe & Bond and J.R. Vinagro collected multiple composite samples from the processed materials for analysis of PCBs and RCRA 8 metals. Sample quantities were as follows:

- CMU Block - 8 samples: approximately 4,000 cubic yards
- Brick – 2 samples: approximately 500 cubic yards
- Concrete – 1 sample: approximately 400 cubic yards

The samples were submitted to ESS Laboratories of Cranston, Rhode Island. Analytical results reported low to non-detectable concentrations of total metals below the Massachusetts Unlined Landfill Reuse Criteria. Additionally, total metals concentrations were reported well below the 20X threshold that would trigger the requirement for synthetic precipitation leaching procedure (SPLP) analysis. The PCB analysis for the samples reported low concentrations below the Massachusetts Unlined Landfill Reuse Criteria. The analytical results are summarized in the attached Table 1 and the ESS laboratory reports for these samples are included with this correspondence.

Based on a review of the results, all target analyte concentrations are less than the reuse standards established in MassDEP Policy COMM-97-001.

Management of the PCB painted CMU block within the Greenwood Street Landfill is in accordance with MassDEP approval granted through a Beneficial Use Determination (BUD) Permit (BUD Permit X241703) dated March 16, 2012, see attached. The management of the PCB painted CMU block was also approved by the Environmental Protection Agency (EPA) in a PCB Cleanup and Disposal Plan approval dated February 7, 2012 (copy attached).

Based on the information provided, Tighe & Bond is of the opinion that this material is not classified as hazardous waste, meets the landfill's acceptance criteria and is acceptable for management at the Casella NippNapp Trail Landfill in accordance with COMM-97-001, BUD Permit No. W060012 and BUD Permit X241703.

If you have any questions, please feel free to call me at (508) 471-9621.

Very Truly Yours,

TIGHE & BOND, INC.

Marc J. Richards, P.E., LSP
Senior Project Manager/Associate

Enclosures: Table 1 – Summary of Stockpile Characterization Results
Site sketch
Laboratory Analytical Reports
BUD Permit No. X241703
EPA Approval Letter

Copy: Paul Moosey, City of Worcester, Assistant DPW&P Commissioner
T&B File

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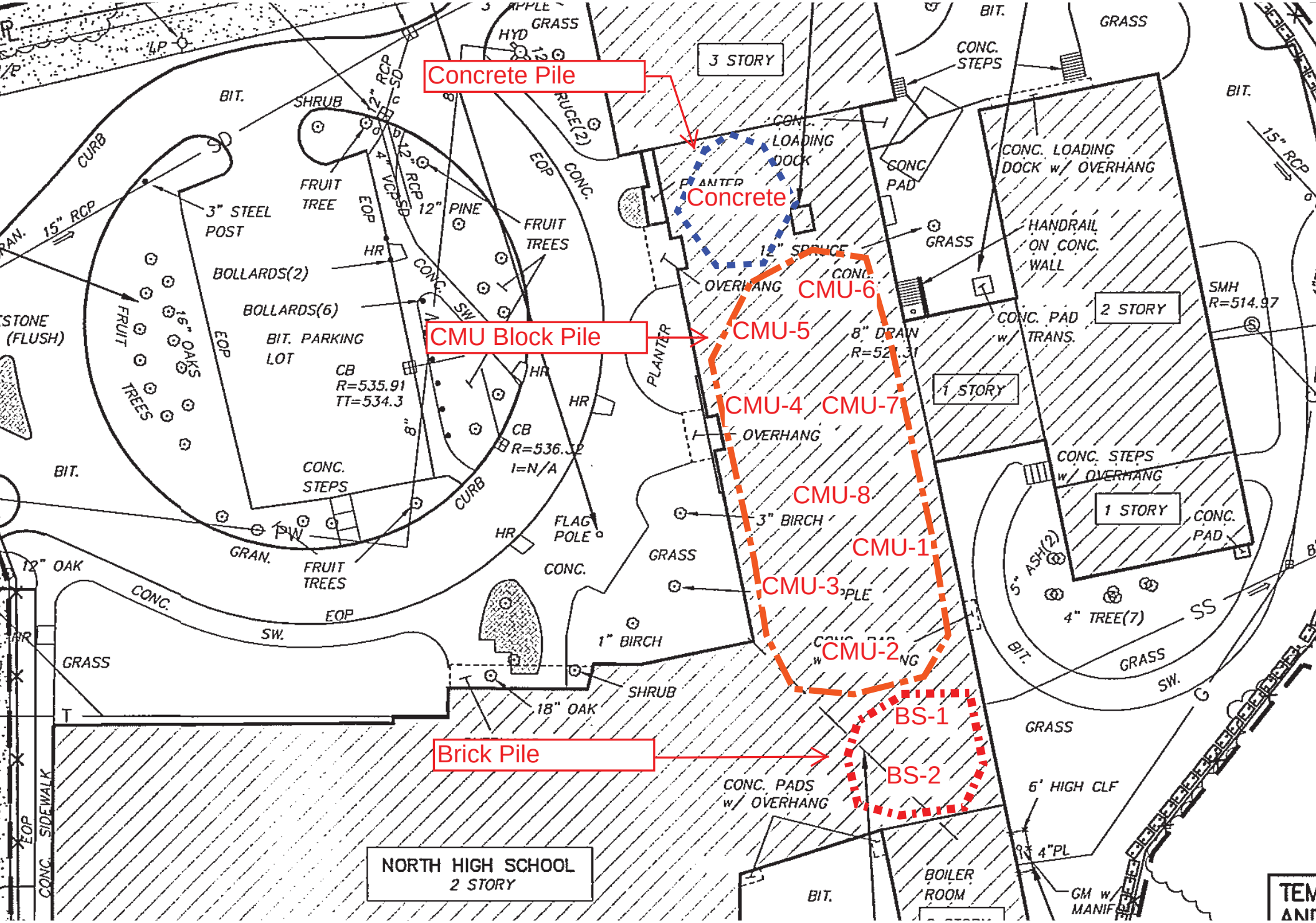
TABLE 1
Stockpile Characterization Results
Former North High School
140 Harrington Way
Worcester, Massachusetts

SAMPLE IDENTIFICATION **SAMPLING DATE** **WASTE STREAM**	**MA Unlined Landfill Criteria**	**Brick Stock-1** 7/17/2012 Crushed Brick	**Brick Stock-2** 7/17/2012 Crushed Brick	**CMU Stock-1** 7/17/2012 Crushed CMU Block	**CMU Stock-2** 7/17/2012 Crushed CMU Block	**CMU Stock-3** 7/17/2012 Crushed CMU Block	**CMU Stock-4** 7/17/2012 Crushed CMU Block	**CMU Stock-5** 7/17/2012 Crushed CMU Block	**CMU Stock-6** 7/17/2012 Crushed CMU Block	**CMU Stock-7** 7/17/2012 Crushed CMU Block	**CMU Stock-8** 7/17/2012 Crushed CMU Block	**Concrete REM** 7/20/2012 Crushed Concrete
Total Metals												
Arsenic	40	8.0	11.6	9.3	11.1	9.9	9.8	12.1	11.1	12.6	10.1	13.8
Barium	NE	38.4	46.2	49.2	55.7	55.9	48.3	41.7	55.6	51.1	58.1	51.3
Cadmium	30	<0.51	<0.51	<0.50	<0.51	0.61	<0.50	<0.53	0.80	<0.58	<0.49	<0.49
Chromium	1,000	11.9	15.0	16.0	12.5	14.2	14.0	12.2	15.8	14.9	13.4	16.8
Lead	1,000	9.4	19.5	18.3	12.1	22.1	16.5	13.1	23.5	17.3	16.8	9.3
Mercury	10	0.038	0.073	0.394	0.108	0.456	0.325	0.118	0.260	0.106	0.170	0.045
Selenium	NE	<5.1	<5.1	<5.0	<5.1	<4.5	<4.9	<5.2	<5.5	<5.8	<4.9	<4.9
Silver	NE	<0.51	<0.51	<0.50	<0.51	<0.45	<0.50	<0.53	<0.55	<0.58	<0.49	<2.47
Polychlorinated Biphenyls												
Aroclor 1016	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Aroclor 1221	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Aroclor 1232	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Aroclor 1242	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	0.220	<0.0574	0.0577
Aroclor 1248	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	0.304	<0.0566	<0.0598	0.548	<0.0517
Aroclor 1254	NE	0.542	0.570	0.366	0.426	0.257	0.409	0.301	0.956	0.381	0.801	<0.0517
Aroclor 1260	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	0.852	<0.0598	<0.0574	<0.0517
Aroclor 1262	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Aroclor 1268	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Total PCBs	2	0.542	0.570	0.366	0.426	0.257	0.409	0.605	1.81	0.601	1.35	0.0577

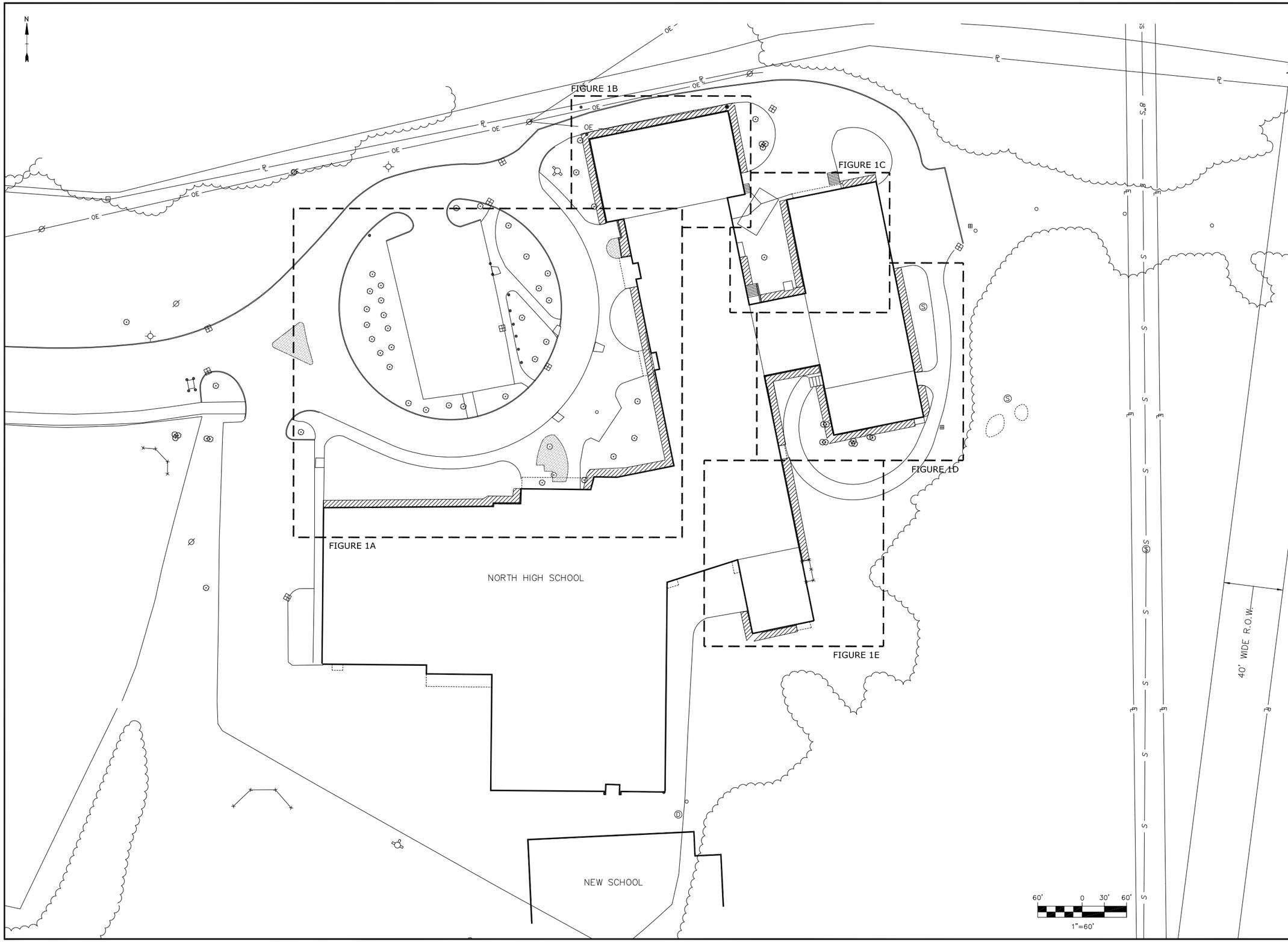
Notes:
Results reported in milligrams per kilograms (mg/kg), equivalent to parts per million (ppm)
"<xx" indicates result is below the indicated method detection limit
NE - not established



Concrete Pile
Concrete
CMU Block Pile
CMU-6
CMU-5
CMU-4
CMU-7
CMU-8
CMU-1
CMU-3
CMU-2
BS-1
BS-2
Brick Pile
3 STORY
2 STORY
1 STORY
1 STORY
NORTH HIGH SCHOOL
2 STORY
CONC. LOADING DOCK
CONC. LOADING DOCK w/ OVERHANG
HANDRAIL ON CONC. WALL
CONC. PAD w/ TRANS.
CONC. STEPS w/ OVERHANG
CONC. PADS w/ OVERHANG
BOILER ROOM
BIT. PARKING LOT
BOLLARDS(2)
BOLLARDS(6)
3" STEEL POST
FRUIT TREE
FRUIT TREES
12" PINE
16" OAKS
CB R=535.91 TT=534.3
CB R=536.32 I=N/A
FLAG POLE
3" BIRCH
1" BIRCH
18" OAK
12" OAK
5" ASH(2)
4" TREE(7)
6' HIGH CLF
SMH R=514.97
GRASS
SHRUB
CONC. STEPS
CONC. PAD
OVERHANG
PLANTER
CURB
EOP
CONC. SW.
SIDEWALK

Tighe&Bond

APPENDIX D



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100 YEARS STRONG 1911-2011

North High School

140 Harrington Way

Abatement & Demolition

Worcester, Massachusetts 01608

Mark	Date	Description

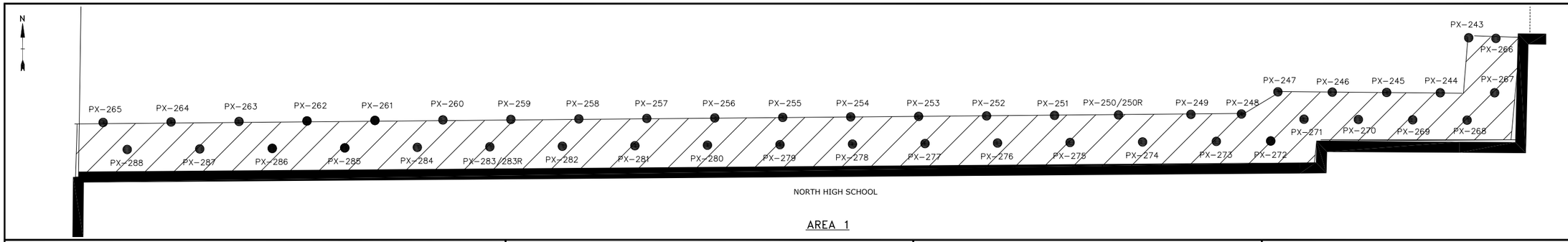
PROJECT NO:	J:\W\W1510
FILE:	SAMP_PLAN
DRAWN BY:	TMP
CHECKED:	AMS
APPROVED BY:	TMB

OVERALL SAMPLE LOCATION PLAN

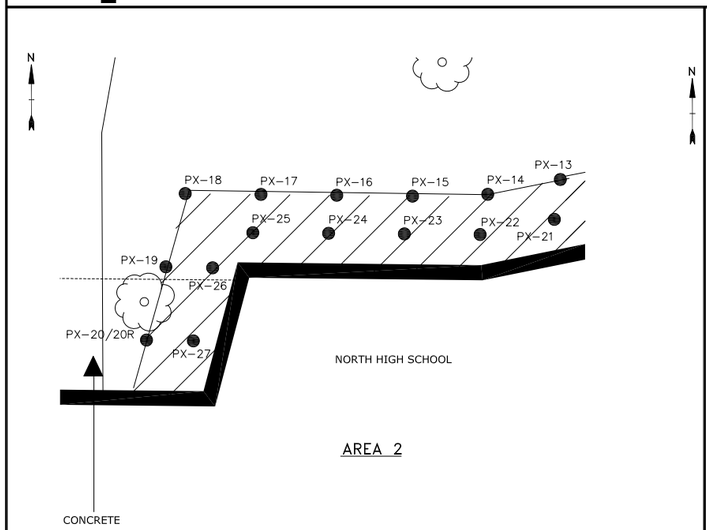
SCALE: 1"=60'

FIGURE 1

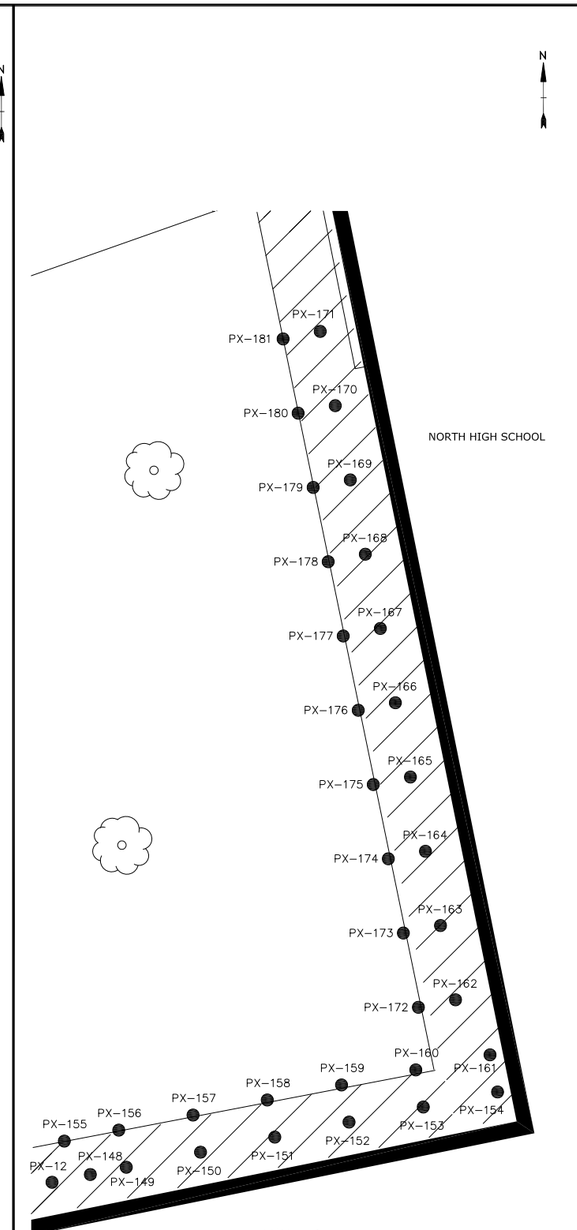
11/15/11



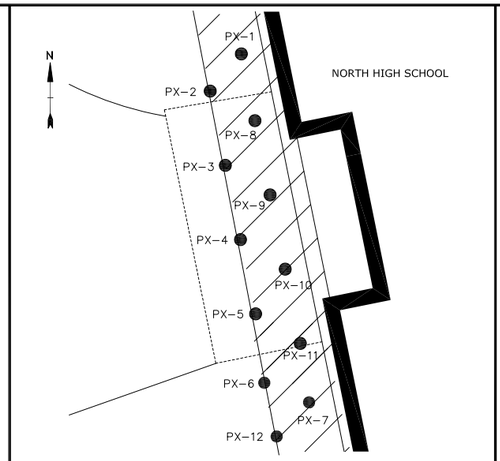
AREA 1



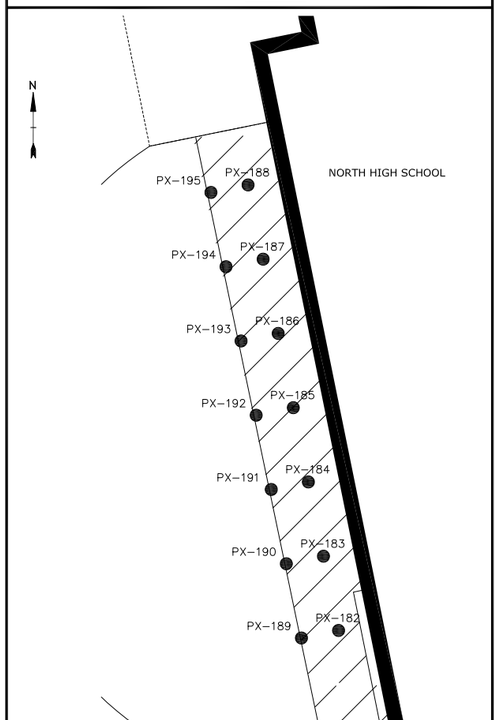
AREA 2



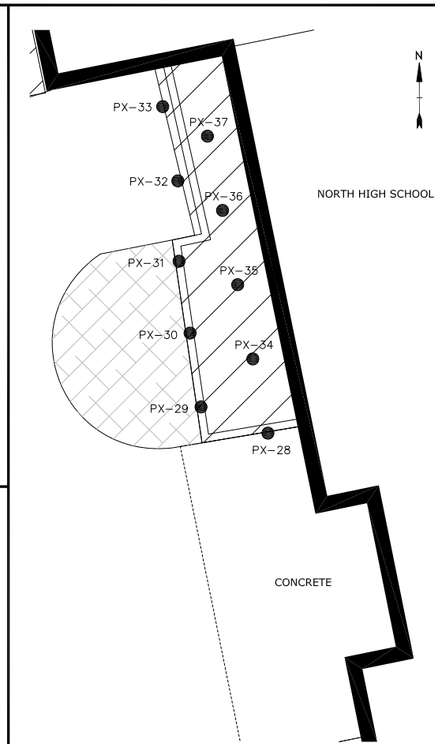
AREA 3



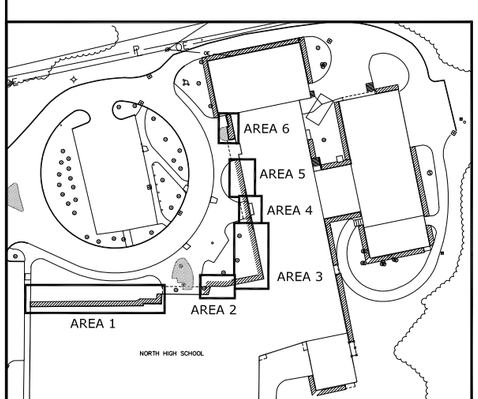
AREA 4



AREA 5



AREA 6



KEY PLAN
NOT TO SCALE

NOTES:

1. ALL EXCAVATION WIDTHS ARE FIVE FEET.
2. EXCAVATION DEPTH IS ONE FOOT, EXCEPT AS NOTED.

APPROXIMATE LIMITS OF PCB SOIL EXCAVATION

10' 0 5' 10'
1"=10'

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North High School

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Abatement & Demolition

Worcester, Massachusetts 01608

Mark	Date	Description

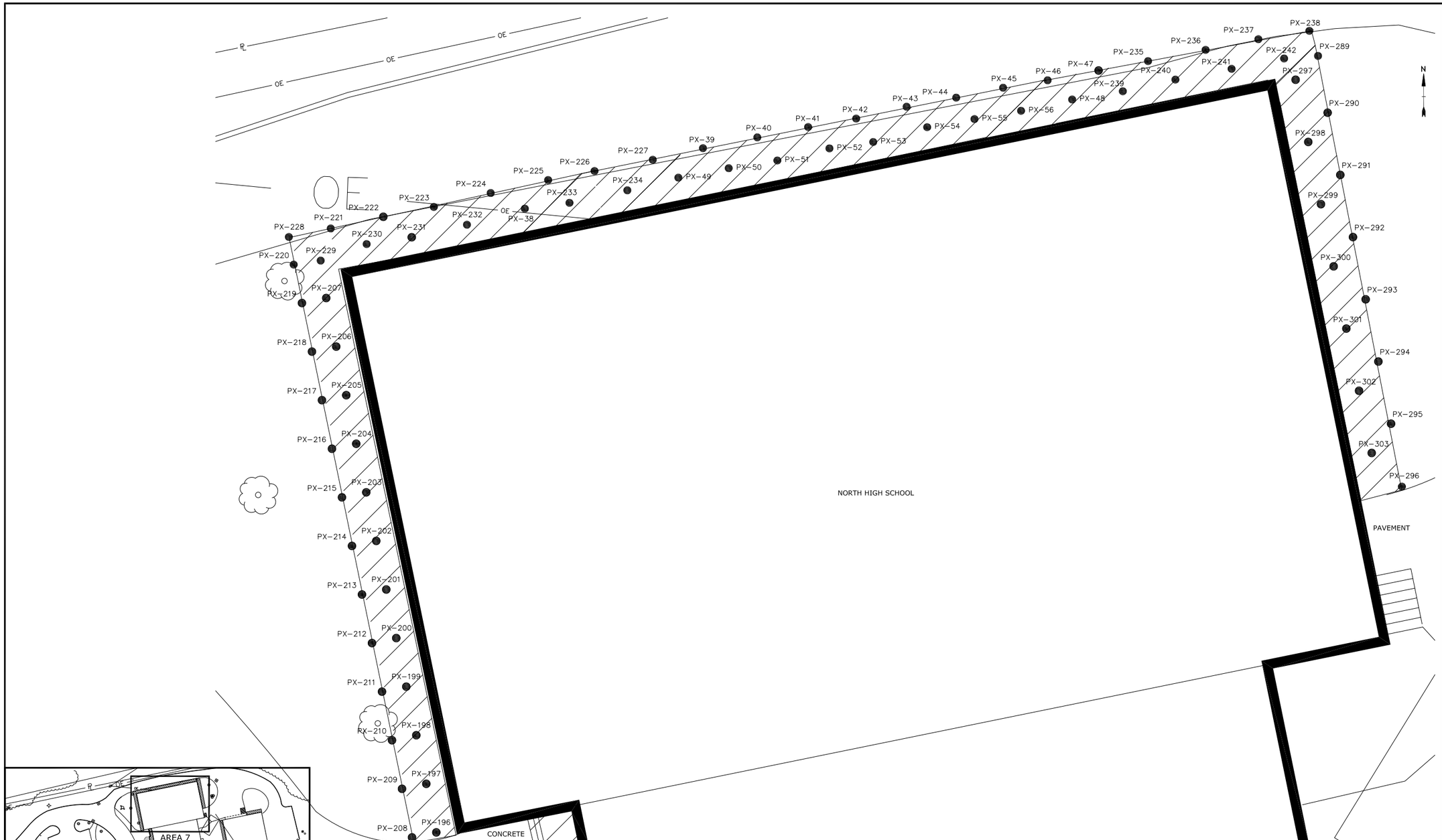
PROJECT NO:	J:\WW1510
FILE:	SAMP_PLAN
DRAWN BY:	TMP
CHECKED:	AMS
APPROVED BY:	TMB

CONTAMINATED SOIL LOCATIONS AND SAMPLING PLAN

SCALE: 1"=10'

FIGURE 1A

11/15/11



AREA 7

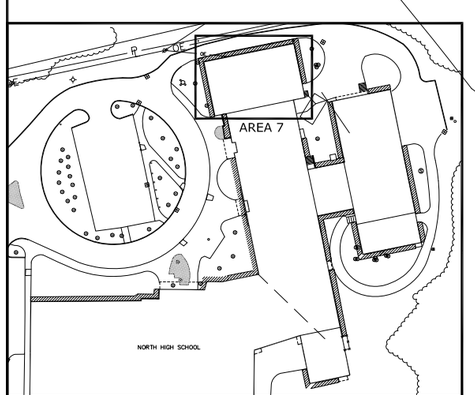
NOTES:

1. ALL EXCAVATION WIDTHS ARE FIVE FEET.
2. EXCAVATION DEPTH IS ONE FOOT, EXCEPT AS NOTED.

APPROXIMATE LIMITS OF PCB SOIL EXCAVATION

10' 0 5' 10'

1"=10'



KEY PLAN
NOT TO SCALE

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North High School

140 Harrington Way

Abatement & Demolition

Worcester, Massachusetts 01608

Mark	Date	Description

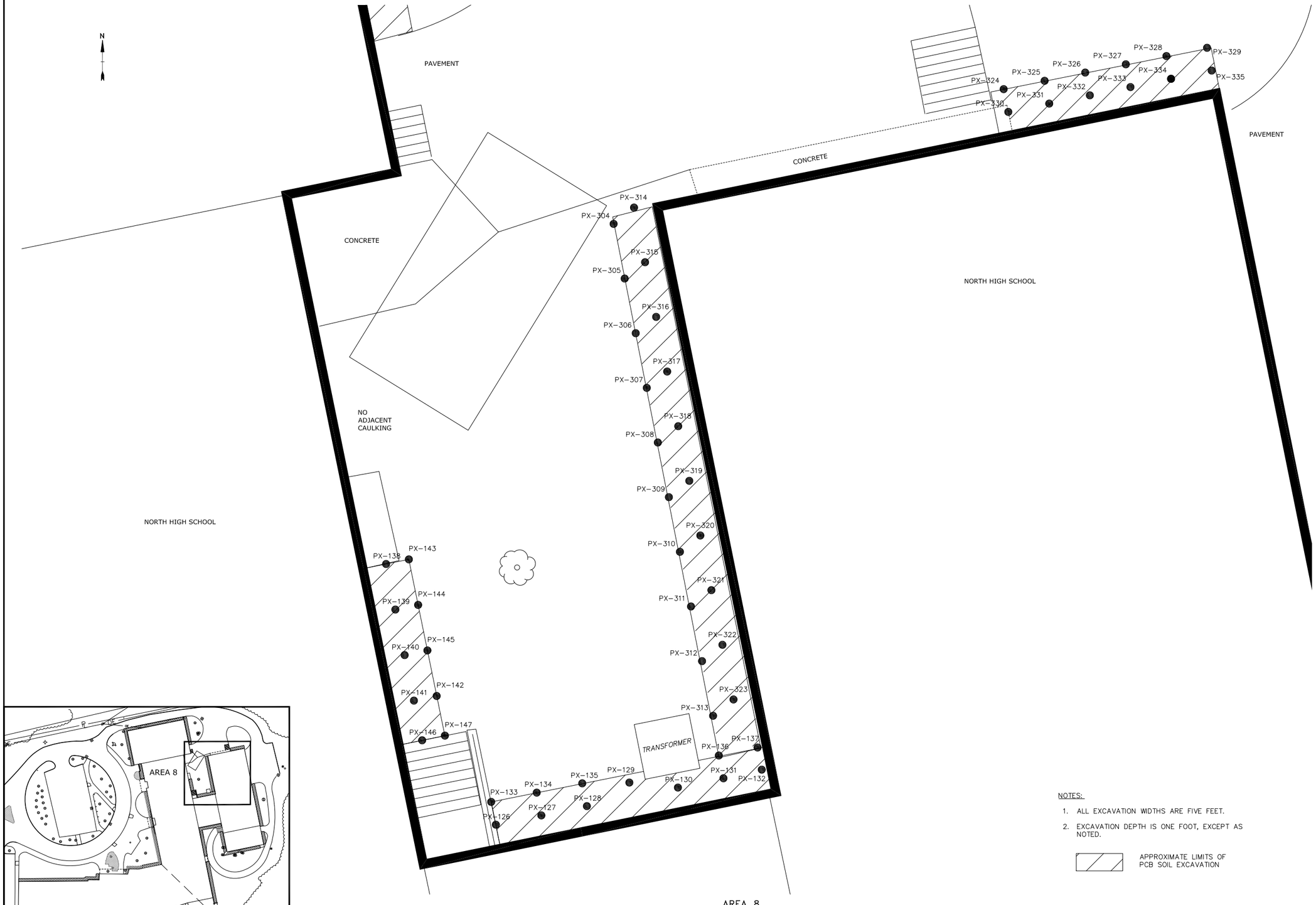
PROJECT NO:	J:\WW1510
FILE:	SAMP_PLAN
DRAWN BY:	TMP
CHECKED:	AMS
APPROVED BY:	TMB

CONTAMINATED SOIL LOCATIONS AND SAMPLING PLAN

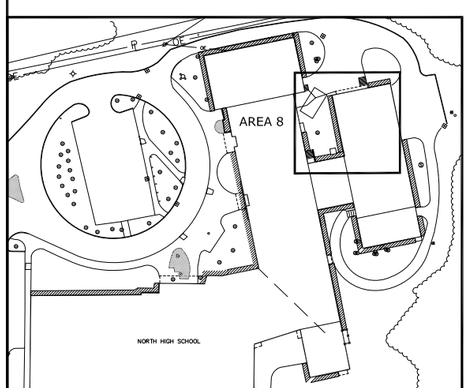
SCALE: 1"=10'

FIGURE 1B

11/15/11



AREA 8



KEY PLAN
NOT TO SCALE

NOTES:

1. ALL EXCAVATION WIDTHS ARE FIVE FEET.
2. EXCAVATION DEPTH IS ONE FOOT, EXCEPT AS NOTED.

APPROXIMATE LIMITS OF PCB SOIL EXCAVATION

10' 0 5' 10'
1"=10'

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Abatement & Demolition

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Mark	Date	Description

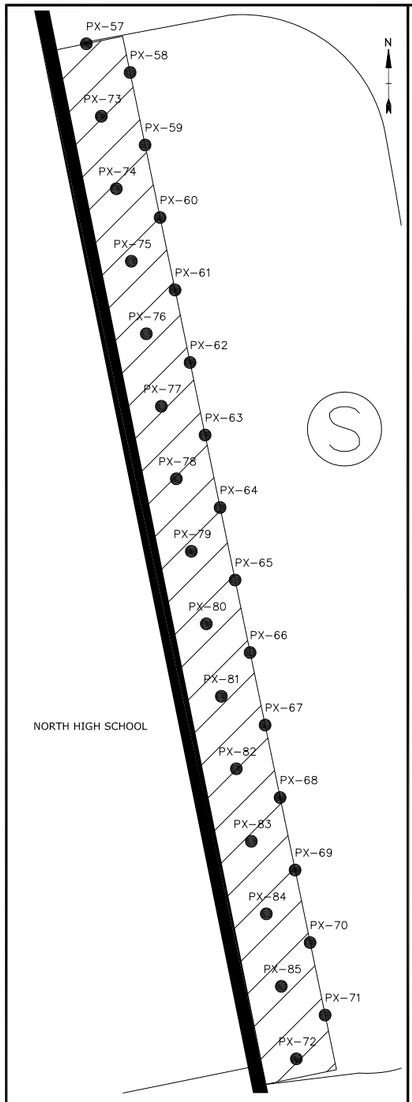
PROJECT NO:	J:\WW1510
FILE:	SAMP_PLAN
DRAWN BY:	TMP
CHECKED:	AMS
APPROVED BY:	TMB

CONTAMINATED SOIL LOCATIONS AND SAMPLING PLAN

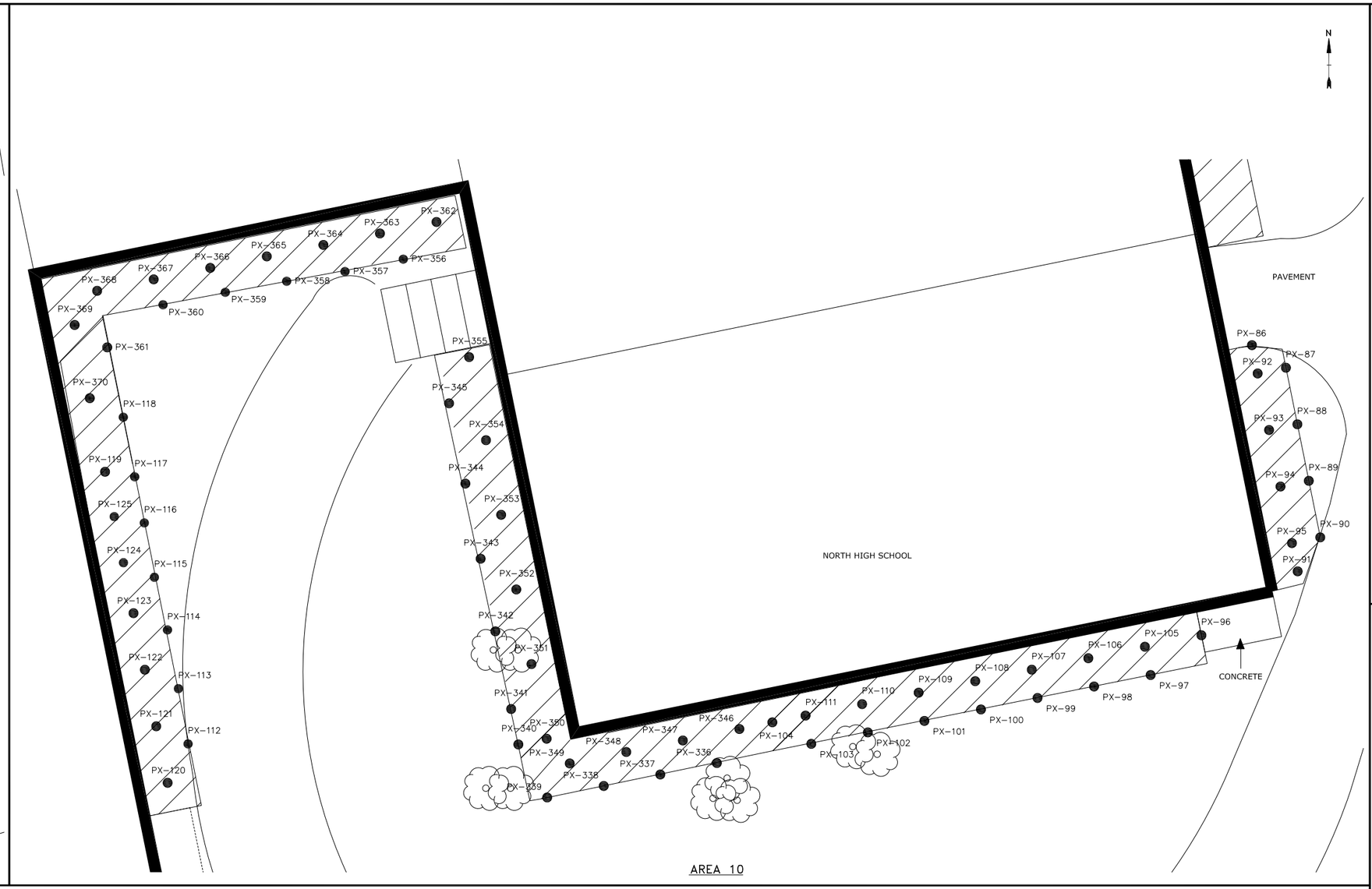
SCALE: 1"=10'

FIGURE 1C

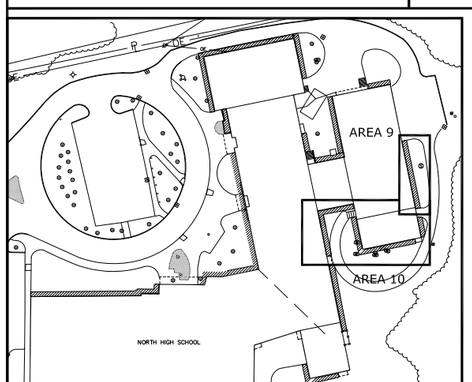
11/15/11



AREA 9



AREA 10



KEY PLAN
NOT TO SCALE

NOTES:

1. ALL EXCAVATION WIDTHS ARE FIVE FEET.
2. EXCAVATION DEPTH IS ONE FOOT, EXCEPT AS NOTED.

APPROXIMATE LIMITS OF PCB SOIL EXCAVATION

10' 0 5' 10'
1"=10'

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100 YEARS STRONG 1911-2011

North High School

140 Harrington Way

Abatement & Demolition

Worcester, Massachusetts 01608

Mark	Date	Description

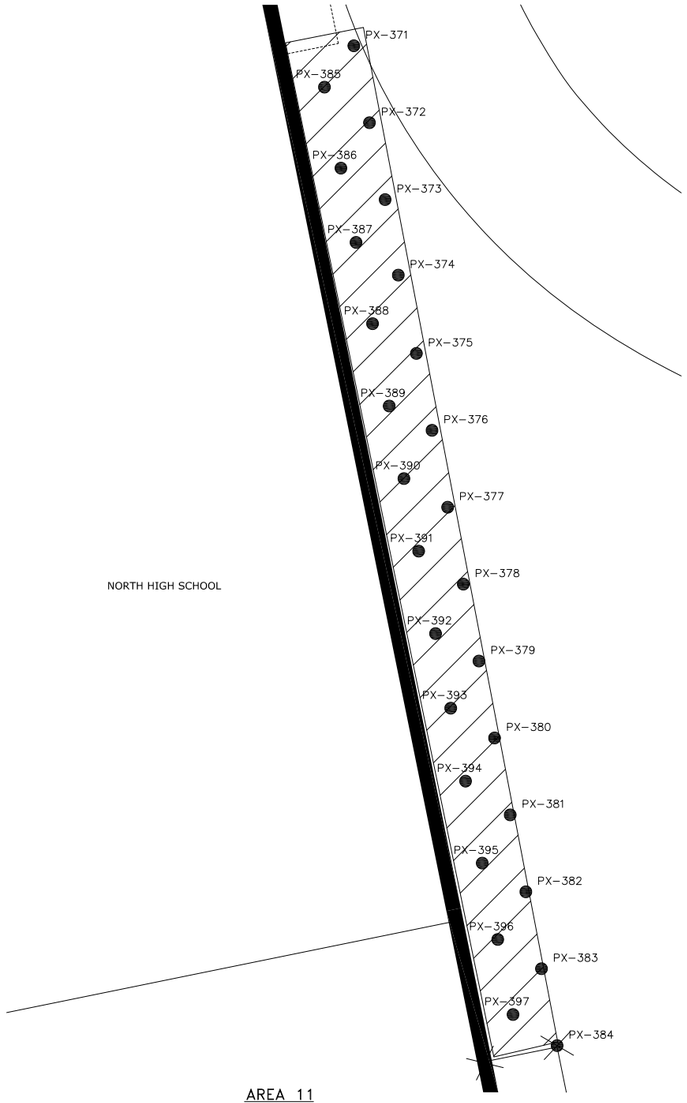
PROJECT NO:	J:\W\W1510
FILE:	SAMP_PLAN
DRAWN BY:	TMP
CHECKED:	AMS
APPROVED BY:	TMB

CONTAMINATED SOIL LOCATIONS AND SAMPLING PLAN

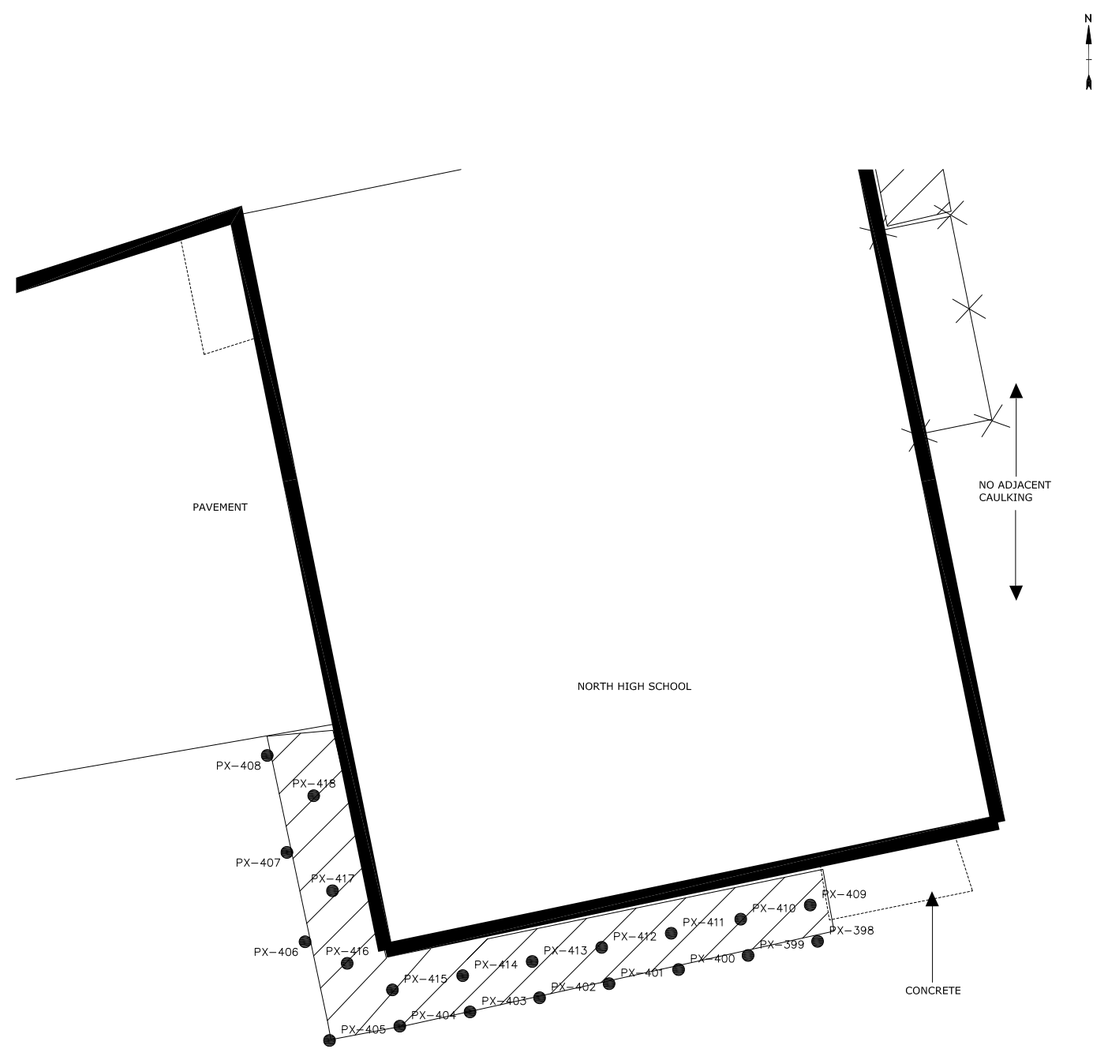
SCALE: 1"=10'

FIGURE 1D

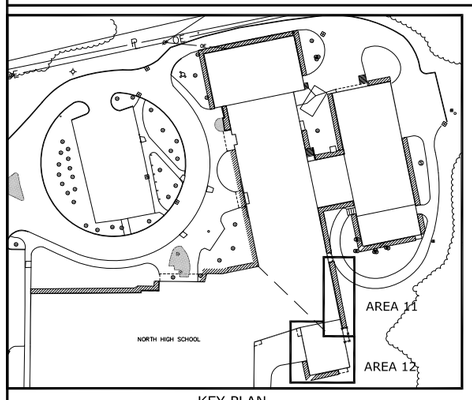
11/15/11



AREA 11



AREA 12



KEY PLAN
NOT TO SCALE

NOTES:

1. ALL EXCAVATION WIDTHS ARE FIVE FEET.
2. EXCAVATION DEPTH IS ONE FOOT, EXCEPT AS NOTED.

APPROXIMATE LIMITS OF PCB SOIL EXCAVATION

10' 0 5' 10'
1"=10'

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North High School

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Worcester, Massachusetts 01608

Mark	Date	Description

PROJECT NO:	J:\WW1510
FILE:	SAMP_PLAN
DRAWN BY:	TMP
CHECKED:	AMS
APPROVED BY:	TMB

CONTAMINATED SOIL LOCATIONS AND SAMPLING PLAN

SCALE: 1"=10'

FIGURE 1E

11/15/11

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APPENDIX E

Table 1
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-1	PX-2	PX-3	PX-4	PX-5	PX-6	PX-7	PX-8	PX-9	PX-10	PX-11	PX-12	PX-13	PX-14	PX-15
Sample Date		11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0537	< 0.0569	< 0.0564	< 0.0552	< 0.0558	< 0.0598	< 0.0603	< 0.0565	< 0.0573	< 0.0586	< 0.0587	< 0.0649	< 0.0585	< 0.0596	< 0.0586
Aroclor 1221	mg/kg dry	< 0.0537	< 0.0569	< 0.0564	< 0.0552	< 0.0558	< 0.0598	< 0.0603	< 0.0565	< 0.0573	< 0.0586	< 0.0587	< 0.0649	< 0.0585	< 0.0596	< 0.0586
Aroclor 1232	mg/kg dry	< 0.0537	< 0.0569	< 0.0564	< 0.0552	< 0.0558	< 0.0598	< 0.0603	< 0.0565	< 0.0573	< 0.0586	< 0.0587	< 0.0649	< 0.0585	< 0.0596	< 0.0586
Aroclor 1242	mg/kg dry	< 0.0537	< 0.0569	< 0.0564	< 0.0552	< 0.0558	< 0.0598	< 0.0603	< 0.0565	< 0.0573	< 0.0586	< 0.0587	< 0.0649	< 0.0585	< 0.0596	< 0.0586
Aroclor 1248	mg/kg dry	< 0.0537	< 0.0569	< 0.0564	< 0.0552	< 0.0558	< 0.0598	< 0.0603	< 0.0565	< 0.0573	< 0.0586	< 0.0587	< 0.0649	< 0.0585	< 0.0596	< 0.0586
Aroclor 1254	mg/kg dry	< 0.0537	< 0.0569	< 0.0564	< 0.0552	< 0.0558	< 0.0598	0.217	< 0.0565	< 0.0573	< 0.0586	< 0.0587	< 0.0649	< 0.0585	< 0.0596	< 0.0586
Aroclor 1260	mg/kg dry	0.164	0.163	0.132	0.137	0.405	0.149	0.201	0.294	0.153	0.148	0.206	< 0.0649	0.0831	0.0784	0.137
Aroclor 1262	mg/kg dry	< 0.0537	< 0.0569	< 0.0564	< 0.0552	< 0.0558	< 0.0598	< 0.0603	< 0.0565	< 0.0573	< 0.0586	< 0.0587	< 0.0649	< 0.0585	< 0.0596	< 0.0586
Aroclor 1268	mg/kg dry	< 0.0537	< 0.0569	< 0.0564	< 0.0552	< 0.0558	< 0.0598	< 0.0603	< 0.0565	< 0.0573	< 0.0586	< 0.0587	< 0.0649	< 0.0585	< 0.0596	< 0.0586
Total Aroclors		**0.164**	**0.163**	**0.132**	**0.137**	**0.405**	**0.149**	**0.418**	**0.294**	**0.153**	**0.148**	**0.206**	**< 0.0649**	**0.0831**	**0.0784**	**0.137**

Sample Identification		PX-16	PX-17	PX-18	PX-19	PX-20	PX-20R	PX-21	PX-22	PX-23	PX-24	PX-25	PX-26	PX-27	PX-28	PX-29
Sample Date		11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/25/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	< 0.0592	< 0.0552	< 0.0543	< 0.0578	< 0.0589	< 0.0576	< 0.0585	< 0.0574	< 0.0559	< 0.0582	< 0.0557
Aroclor 1221	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	< 0.0592	< 0.0552	< 0.0543	< 0.0578	< 0.0589	< 0.0576	< 0.0585	< 0.0574	< 0.0559	< 0.0582	< 0.0557
Aroclor 1232	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	< 0.0592	< 0.0552	< 0.0543	< 0.0578	< 0.0589	< 0.0576	< 0.0585	< 0.0574	< 0.0559	< 0.0582	< 0.0557
Aroclor 1242	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	< 0.0592	< 0.0552	< 0.0543	< 0.0578	< 0.0589	< 0.0576	< 0.0585	< 0.0574	< 0.0559	< 0.0582	< 0.0557
Aroclor 1248	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	< 0.0592	< 0.0552	< 0.0543	< 0.0578	< 0.0589	< 0.0576	< 0.0585	< 0.0574	< 0.0559	< 0.0582	< 0.0557
Aroclor 1254	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	1.61	0.645	< 0.0543	< 0.0578	< 0.0589	0.3	< 0.0585	< 0.0574	< 0.0559	< 0.0582	< 0.0557
Aroclor 1260	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	< 0.0592	< 0.0552	0.133	0.167	0.165	0.11	< 0.0585	< 0.0574	0.0755	0.426	0.16
Aroclor 1262	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	< 0.0592	< 0.0552	< 0.0543	< 0.0578	< 0.0589	< 0.0576	< 0.0585	< 0.0574	< 0.0559	< 0.0582	< 0.0557
Aroclor 1268	mg/kg dry	< 0.0573	< 0.0554	< 0.0579	< 0.0543	< 0.0592	< 0.0552	< 0.0543	< 0.0578	< 0.0589	< 0.0576	< 0.0585	< 0.0574	< 0.0559	< 0.0582	< 0.0557
Total Aroclors		**< 0.0573**	**< 0.0554**	**< 0.0579**	**< 0.0543**	**1.61**	**0.645**	**0.133**	**0.167**	**0.165**	**0.41**	**< 0.0585**	**< 0.0574**	**0.0755**	**0.426**	**0.16**

Sample Identification		PX-30	PX-31	PX-32	PX-33	PX-34	PX-35	PX-36	PX-37	PX-38	PX-39	PX-40	PX-41	PX-42	PX-43	PX-44
Sample Date		11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/9/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0576	< 0.0521	< 0.0537	< 0.0534	< 0.0599	< 0.0545	< 0.0516	< 0.0543	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Aroclor 1221	mg/kg dry	< 0.0576	< 0.0521	< 0.0537	< 0.0534	< 0.0599	< 0.0545	< 0.0516	< 0.0543	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Aroclor 1232	mg/kg dry	< 0.0576	< 0.0521	< 0.0537	< 0.0534	< 0.0599	< 0.0545	< 0.0516	< 0.0543	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Aroclor 1242	mg/kg dry	< 0.0576	< 0.0521	< 0.0537	< 0.0534	< 0.0599	< 0.0545	< 0.0516	< 0.0543	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Aroclor 1248	mg/kg dry	< 0.0576	< 0.0521	< 0.0537	< 0.0534	< 0.0599	< 0.0545	< 0.0516	< 0.0543	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Aroclor 1254	mg/kg dry	< 0.0576	< 0.0521	< 0.0537	< 0.0534	0.239	0.117	< 0.0516	< 0.0543	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Aroclor 1260	mg/kg dry	0.102	< 0.0521	< 0.0537	< 0.0534	0.257	0.134	0.217	0.343	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Aroclor 1262	mg/kg dry	< 0.0576	< 0.0521	< 0.0537	< 0.0534	< 0.0599	< 0.0545	< 0.0516	< 0.0543	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Aroclor 1268	mg/kg dry	< 0.0576	< 0.0521	< 0.0537	< 0.0534	< 0.0599	< 0.0545	< 0.0516	< 0.0543	< 0.0637	< 0.0541	< 0.0568	< 0.0517	< 0.0508	< 0.0511	< 0.0538
Total Aroclors		**0.102**	**< 0.0521**	**< 0.0537**	**< 0.0534**	**0.496**	**0.251**	**0.217**	**0.343**	**< 0.0637**	**< 0.0541**	**< 0.0568**	**< 0.0517**	**< 0.0508**	**< 0.0511**	**< 0.0538**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-45	PX-46	PX-47	PX-48	PX-49	PX-50	PX-51	PX-52	PX-53	PX-54	PX-55	PX-56	PX-57	PX-58	PX-59
Sample Date		11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0537	< 0.0497	< 0.056	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	< 0.0635	< 0.0627	< 0.0664
Aroclor 1221	mg/kg dry	< 0.0537	< 0.0497	< 0.056	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	< 0.0635	< 0.0627	< 0.0664
Aroclor 1232	mg/kg dry	< 0.0537	< 0.0497	< 0.056	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	< 0.0635	< 0.0627	< 0.0664
Aroclor 1242	mg/kg dry	< 0.0537	< 0.0497	< 0.056	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	< 0.0635	< 0.0627	< 0.0664
Aroclor 1248	mg/kg dry	< 0.0537	< 0.0497	< 0.056	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	< 0.0635	< 0.0627	< 0.0664
Aroclor 1254	mg/kg dry	< 0.0537	< 0.0497	< 0.056	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	0.997	< 0.0627	< 0.0664
Aroclor 1260	mg/kg dry	0.0938	< 0.0497	0.125	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	< 0.0635	< 0.0627	< 0.0664
Aroclor 1262	mg/kg dry	< 0.0537	< 0.0497	< 0.056	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	< 0.0635	< 0.0627	< 0.0664
Aroclor 1268	mg/kg dry	< 0.0537	< 0.0497	< 0.056	< 0.051	< 0.057	< 0.0584	< 0.055	< 0.0581	< 0.0584	< 0.0564	< 0.0599	< 0.0607	< 0.0635	< 0.0627	< 0.0664
Total Aroclors		**0.0938**	**< 0.0497**	**0.125**	**< 0.051**	**< 0.057**	**< 0.0584**	**< 0.055**	**< 0.0581**	**< 0.0584**	**< 0.0564**	**< 0.0599**	**< 0.0607**	**0.997**	**< 0.0627**	**< 0.0664**

Sample Identification		PX-60	PX-61	PX-62	PX-63	PX-64	PX-65	PX-66	PX-67	PX-68	PX-69	PX-70	PX-71	PX-72	PX-73	PX-74
Sample Date		11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0572	< 0.0614	< 0.0572	< 0.0567	< 0.0521	< 0.0577	< 0.0555	< 0.0536	< 0.0602	< 0.0554	< 0.0572	< 0.055	< 0.0556	< 0.0547	< 0.0581
Aroclor 1221	mg/kg dry	< 0.0572	< 0.0614	< 0.0572	< 0.0567	< 0.0521	< 0.0577	< 0.0555	< 0.0536	< 0.0602	< 0.0554	< 0.0572	< 0.055	< 0.0556	< 0.0547	< 0.0581
Aroclor 1232	mg/kg dry	< 0.0572	< 0.0614	< 0.0572	< 0.0567	< 0.0521	< 0.0577	< 0.0555	< 0.0536	< 0.0602	< 0.0554	< 0.0572	< 0.055	< 0.0556	< 0.0547	< 0.0581
Aroclor 1242	mg/kg dry	< 0.0572	< 0.0614	< 0.0572	< 0.0567	< 0.0521	< 0.0577	< 0.0555	< 0.0536	< 0.0602	< 0.0554	< 0.0572	< 0.055	< 0.0556	< 0.0547	< 0.0581
Aroclor 1248	mg/kg dry	< 0.0572	< 0.0614	< 0.0572	< 0.0567	< 0.0521	< 0.0577	< 0.0555	< 0.0536	< 0.0602	0.108	< 0.0572	< 0.055	< 0.0556	< 0.0547	< 0.0581
Aroclor 1254	mg/kg dry	< 0.0572	< 0.0614	< 0.0572	< 0.0567	< 0.0521	< 0.0577	< 0.0555	< 0.0536	< 0.0602	< 0.0554	0.135	0.15	0.273	< 0.0547	< 0.0581
Aroclor 1260	mg/kg dry	0.108	< 0.0614	0.0811	0.211	0.113	0.163	0.107	< 0.0536	< 0.0602	0.085	0.129	0.132	0.135	< 0.0547	< 0.0581
Aroclor 1262	mg/kg dry	< 0.0572	< 0.0614	< 0.0572	< 0.0567	< 0.0521	< 0.0577	< 0.0555	< 0.0536	< 0.0602	< 0.0554	< 0.0572	< 0.055	< 0.0556	< 0.0547	< 0.0581
Aroclor 1268	mg/kg dry	< 0.0572	< 0.0614	< 0.0572	< 0.0567	< 0.0521	< 0.0577	< 0.0555	< 0.0536	< 0.0602	< 0.0554	< 0.0572	< 0.055	< 0.0556	< 0.0547	< 0.0581
Total Aroclors		**0.108**	**< 0.0614**	**0.0811**	**0.211**	**0.113**	**0.163**	**0.107**	**< 0.0536**	**< 0.0602**	**0.193**	**0.264**	**0.282**	**0.408**	**< 0.0547**	**< 0.0581**

Sample Identification		PX-75	PX-76	PX-77	PX-78	PX-79	PX-80	PX-81	PX-82	PX-83	PX-84	PX-85	PX-86	PX-87	PX-88	PX-89
Sample Date		11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011	11/10/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0565	< 0.0575	< 0.055	< 0.0521	< 0.0538	< 0.0559	< 0.0563	< 0.0579	< 0.0566	< 0.056	< 0.0565	< 0.0553	< 0.055	< 0.0575	< 0.0556
Aroclor 1221	mg/kg dry	< 0.0565	< 0.0575	< 0.055	< 0.0521	< 0.0538	< 0.0559	< 0.0563	< 0.0579	< 0.0566	< 0.056	< 0.0565	< 0.0553	< 0.055	< 0.0575	< 0.0556
Aroclor 1232	mg/kg dry	< 0.0565	< 0.0575	< 0.055	< 0.0521	< 0.0538	< 0.0559	< 0.0563	< 0.0579	< 0.0566	< 0.056	< 0.0565	< 0.0553	< 0.055	< 0.0575	< 0.0556
Aroclor 1242	mg/kg dry	< 0.0565	< 0.0575	< 0.055	< 0.0521	< 0.0538	< 0.0559	< 0.0563	< 0.0579	< 0.0566	< 0.056	< 0.0565	< 0.0553	< 0.055	< 0.0575	< 0.0556
Aroclor 1248	mg/kg dry	< 0.0565	< 0.0575	< 0.055	< 0.0521	< 0.0538	< 0.0559	< 0.0563	< 0.0579	< 0.0566	< 0.056	< 0.0565	< 0.0553	< 0.055	< 0.0575	< 0.0556
Aroclor 1254	mg/kg dry	< 0.0565	< 0.0575	< 0.055	< 0.0521	< 0.0538	< 0.0559	< 0.0563	< 0.0579	0.0645	0.0667	< 0.0565	< 0.0553	< 0.055	< 0.0575	< 0.0556
Aroclor 1260	mg/kg dry	0.0799	< 0.0575	0.141	< 0.0521	0.112	0.353	< 0.0563	< 0.0579	0.134	0.0654	0.129	0.196	< 0.055	< 0.0575	0.945
Aroclor 1262	mg/kg dry	< 0.0565	< 0.0575	< 0.055	< 0.0521	< 0.0538	< 0.0559	< 0.0563	< 0.0579	< 0.0566	< 0.056	< 0.0565	< 0.0553	< 0.055	< 0.0575	< 0.0556
Aroclor 1268	mg/kg dry	< 0.0565	< 0.0575	< 0.055	< 0.0521	< 0.0538	< 0.0559	< 0.0563	< 0.0579	< 0.0566	< 0.056	< 0.0565	< 0.0553	< 0.055	< 0.0575	< 0.0556
Total Aroclors		**0.0799**	**< 0.0575**	**0.141**	**< 0.0521**	**0.112**	**0.353**	**< 0.0563**	**< 0.0579**	**0.1985**	**0.1321**	**0.129**	**0.196**	**< 0.055**	**< 0.0575**	**0.945**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-90	PX-91	PX-92	PX-93	PX-94	PX-95	PX-96	PX-97	PX-98	PX-99	PX-100	PX-101	PX-102	PX-103	PX-104
Sample Date		**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0544	< 0.0559	< 0.0568	< 0.0565	< 0.0565	< 0.0579	< 0.0585	< 0.0585	< 0.0588	< 0.0582	< 0.0581	< 0.0584	< 0.06	< 0.0589	< 0.0583
Aroclor 1221	mg/kg dry	< 0.0544	< 0.0559	< 0.0568	< 0.0565	< 0.0565	< 0.0579	< 0.0585	< 0.0585	< 0.0588	< 0.0582	< 0.0581	< 0.0584	< 0.06	< 0.0589	< 0.0583
Aroclor 1232	mg/kg dry	< 0.0544	< 0.0559	< 0.0568	< 0.0565	< 0.0565	< 0.0579	< 0.0585	< 0.0585	< 0.0588	< 0.0582	< 0.0581	< 0.0584	< 0.06	< 0.0589	< 0.0583
Aroclor 1242	mg/kg dry	< 0.0544	< 0.0559	< 0.0568	< 0.0565	< 0.0565	< 0.0579	< 0.0585	< 0.0585	< 0.0588	< 0.0582	< 0.0581	< 0.0584	< 0.06	< 0.0589	< 0.0583
Aroclor 1248	mg/kg dry	< 0.0544	< 0.0559	< 0.0568	< 0.0565	< 0.0565	< 0.0579	< 0.0585	< 0.0585	< 0.0588	< 0.0582	< 0.0581	< 0.0584	< 0.06	< 0.0589	0.0837
Aroclor 1254	mg/kg dry	< 0.0544	0.0624	< 0.0568	< 0.0565	< 0.0565	< 0.0579	< 0.0585	< 0.0585	< 0.0588	< 0.0582	< 0.0581	< 0.0584	< 0.06	0.105	< 0.0583
Aroclor 1260	mg/kg dry	0.29	0.162	0.0626	< 0.0565	< 0.0565	< 0.0579	0.192	0.594	0.338	0.17	0.275	0.292	0.311	0.218	< 0.0583
Aroclor 1262	mg/kg dry	< 0.0544	< 0.0559	< 0.0568	< 0.0565	< 0.0565	< 0.0579	< 0.0585	< 0.0585	< 0.0588	< 0.0582	< 0.0581	< 0.0584	< 0.06	< 0.0589	< 0.0583
Aroclor 1268	mg/kg dry	< 0.0544	< 0.0559	< 0.0568	< 0.0565	< 0.0565	< 0.0579	< 0.0585	< 0.0585	< 0.0588	< 0.0582	< 0.0581	< 0.0584	< 0.06	< 0.0589	< 0.0583
Total Aroclors		**0.29**	**0.2244**	**0.0626**	**< 0.0565**	**< 0.0565**	**< 0.0579**	**0.192**	**0.594**	**0.338**	**0.17**	**0.275**	**0.292**	**0.311**	**0.323**	**0.0837**

Sample Identification		PX-105	PX-106	PX-107	PX-108	PX-109	PX-110	PX-111	PX-112	PX-113	PX-114	PX-115	PX-116	PX-117	PX-118	PX-119
Sample Date		**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0581	< 0.0599	< 0.0567	< 0.0574	< 0.0583	< 0.0592	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	< 0.0593	< 0.0589
Aroclor 1221	mg/kg dry	< 0.0581	< 0.0599	< 0.0567	< 0.0574	< 0.0583	< 0.0592	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	< 0.0593	< 0.0589
Aroclor 1232	mg/kg dry	< 0.0581	< 0.0599	< 0.0567	< 0.0574	< 0.0583	< 0.0592	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	< 0.0593	< 0.0589
Aroclor 1242	mg/kg dry	< 0.0581	< 0.0599	< 0.0567	< 0.0574	< 0.0583	< 0.0592	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	< 0.0593	< 0.0589
Aroclor 1248	mg/kg dry	< 0.0581	< 0.0599	< 0.0567	< 0.0574	< 0.0583	< 0.0592	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	< 0.0593	< 0.0589
Aroclor 1254	mg/kg dry	< 0.0581	< 0.0599	0.129	< 0.0574	0.23	0.0937	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	< 0.0593	< 0.0589
Aroclor 1260	mg/kg dry	0.133	0.152	0.302	0.557	0.448	0.0939	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	0.127	< 0.0589
Aroclor 1262	mg/kg dry	< 0.0581	< 0.0599	< 0.0567	< 0.0574	< 0.0583	< 0.0592	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	< 0.0593	< 0.0589
Aroclor 1268	mg/kg dry	< 0.0581	< 0.0599	< 0.0567	< 0.0574	< 0.0583	< 0.0592	< 0.0586	< 0.0521	< 0.0574	< 0.0551	< 0.0544	< 0.0589	< 0.0592	< 0.0593	< 0.0589
Total Aroclors		**0.133**	**0.152**	**0.431**	**0.557**	**0.678**	**0.1876**	**< 0.0586**	**< 0.0521**	**< 0.0574**	**< 0.0551**	**< 0.0544**	**< 0.0589**	**< 0.0592**	**0.127**	**< 0.0589**

Sample Identification		PX-120	PX-121	PX-122	PX-123	PX-124	PX-125	PX-126	PX-127	PX-128	PX-129	PX-130	PX-131	PX-132	PX-133	PX-134
Sample Date		**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/10/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0583	< 0.058	< 0.0576	< 0.0581	< 0.0586	< 0.0567	< 0.0573	< 0.0606	< 0.0587	< 0.0573	< 0.0581	< 0.0656	< 0.0555	< 0.0602	< 0.0623
Aroclor 1221	mg/kg dry	< 0.0583	< 0.058	< 0.0576	< 0.0581	< 0.0586	< 0.0567	< 0.0573	< 0.0606	< 0.0587	< 0.0573	< 0.0581	< 0.0656	< 0.0555	< 0.0602	< 0.0623
Aroclor 1232	mg/kg dry	< 0.0583	< 0.058	< 0.0576	< 0.0581	< 0.0586	< 0.0567	< 0.0573	< 0.0606	< 0.0587	< 0.0573	< 0.0581	< 0.0656	< 0.0555	< 0.0602	< 0.0623
Aroclor 1242	mg/kg dry	< 0.0583	< 0.058	< 0.0576	< 0.0581	< 0.0586	< 0.0567	< 0.0573	< 0.0606	< 0.0587	< 0.0573	< 0.0581	< 0.0656	< 0.0555	< 0.0602	< 0.0623
Aroclor 1248	mg/kg dry	< 0.0583	< 0.058	< 0.0576	< 0.0581	< 0.0586	< 0.0567	< 0.0573	< 0.0606	< 0.0587	< 0.0573	< 0.0581	< 0.0656	< 0.0555	< 0.0602	< 0.0623
Aroclor 1254	mg/kg dry	< 0.0583	0.13	0.081	< 0.0581	< 0.0586	< 0.0567	< 0.0573	< 0.0606	< 0.0587	< 0.0573	< 0.0581	0.252	< 0.0555	< 0.0602	< 0.0623
Aroclor 1260	mg/kg dry	< 0.0583	< 0.058	< 0.0576	< 0.0581	< 0.0586	< 0.0567	< 0.0573	0.136	< 0.0587	< 0.0573	< 0.0581	0.0857	< 0.0555	0.2	0.0961
Aroclor 1262	mg/kg dry	< 0.0583	< 0.058	< 0.0576	< 0.0581	< 0.0586	< 0.0567	< 0.0573	< 0.0606	< 0.0587	< 0.0573	< 0.0581	< 0.0656	< 0.0555	< 0.0602	< 0.0623
Aroclor 1268	mg/kg dry	< 0.0583	< 0.058	< 0.0576	< 0.0581	< 0.0586	< 0.0567	< 0.0573	< 0.0606	< 0.0587	< 0.0573	< 0.0581	< 0.0656	< 0.0555	< 0.0602	< 0.0623
Total Aroclors		**< 0.0583**	**0.13**	**0.081**	**< 0.0581**	**< 0.0586**	**< 0.0567**	**< 0.0573**	**0.136**	**< 0.0587**	**< 0.0573**	**< 0.0581**	**0.3377**	**< 0.0555**	**0.2**	**0.0961**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-135	PX-136	PX-137	PX-138	PX-139	PX-140	PX-141	PX-142	PX-143	PX-144	PX-145	PX-146	PX-147	PX-148	PX-149
Sample Date		**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**11/15/2011**	**12/13/2011**	**12/13/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0598	< 0.0572	< 0.0519	< 0.0629	< 0.0605	< 0.0586	< 0.0595	< 0.0596	< 0.0587	< 0.0606	< 0.0602	< 0.0606	< 0.0586	< 0.0512	< 0.0558
Aroclor 1221	mg/kg dry	< 0.0598	< 0.0572	< 0.0519	< 0.0629	< 0.0605	< 0.0586	< 0.0595	< 0.0596	< 0.0587	< 0.0606	< 0.0602	< 0.0606	< 0.0586	< 0.0512	< 0.0558
Aroclor 1232	mg/kg dry	< 0.0598	< 0.0572	< 0.0519	< 0.0629	< 0.0605	< 0.0586	< 0.0595	< 0.0596	< 0.0587	< 0.0606	< 0.0602	< 0.0606	< 0.0586	< 0.0512	< 0.0558
Aroclor 1242	mg/kg dry	< 0.0598	< 0.0572	< 0.0519	< 0.0629	< 0.0605	< 0.0586	< 0.0595	< 0.0596	< 0.0587	< 0.0606	< 0.0602	< 0.0606	< 0.0586	< 0.0512	< 0.0558
Aroclor 1248	mg/kg dry	< 0.0598	< 0.0572	< 0.0519	< 0.0629	< 0.0605	< 0.0586	< 0.0595	< 0.0596	< 0.0587	< 0.0606	< 0.0602	< 0.0606	< 0.0586	< 0.0512	< 0.0558
Aroclor 1254	mg/kg dry	< 0.0598	0.0823	< 0.0519	0.268	< 0.0605	< 0.0586	0.102	0.0898	< 0.0587	0.114	< 0.0602	< 0.0606	< 0.0586	0.167	< 0.0558
Aroclor 1260	mg/kg dry	0.0779	0.113	< 0.0519	0.174	< 0.0605	< 0.0586	0.0836	0.114	0.128	0.168	0.0947	< 0.0606	0.21	0.11	0.174
Aroclor 1262	mg/kg dry	< 0.0598	< 0.0572	< 0.0519	< 0.0629	< 0.0605	< 0.0586	< 0.0595	< 0.0596	< 0.0587	< 0.0606	< 0.0602	< 0.0606	< 0.0586	< 0.0512	< 0.0558
Aroclor 1268	mg/kg dry	< 0.0598	< 0.0572	< 0.0519	< 0.0629	< 0.0605	< 0.0586	< 0.0595	< 0.0596	< 0.0587	< 0.0606	< 0.0602	< 0.0606	< 0.0586	< 0.0512	< 0.0558
Total Aroclors		**0.0779**	**0.1953**	**< 0.0519**	**0.442**	**< 0.0605**	**< 0.0586**	**0.1856**	**0.2038**	**0.128**	**0.282**	**0.0947**	**< 0.0606**	**0.21**	**0.277**	**0.174**

Sample Identification		PX-150	PX-151	PX-152	PX-153	PX-154	PX-155	PX-156	PX-157	PX-158	PX-159	PX-160	PX-161	PX-162	PX-163	PX-164
Sample Date		**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0562	< 0.0561	< 0.0567	< 0.0561	< 0.0558	< 0.0599	< 0.058	< 0.0563	< 0.0554	< 0.0548	< 0.0568	< 0.0585	< 0.0554	< 0.0526	< 0.0528
Aroclor 1221	mg/kg dry	< 0.0562	< 0.0561	< 0.0567	< 0.0561	< 0.0558	< 0.0599	< 0.058	< 0.0563	< 0.0554	< 0.0548	< 0.0568	< 0.0585	< 0.0554	< 0.0526	< 0.0528
Aroclor 1232	mg/kg dry	< 0.0562	< 0.0561	< 0.0567	< 0.0561	< 0.0558	< 0.0599	< 0.058	< 0.0563	< 0.0554	< 0.0548	< 0.0568	< 0.0585	< 0.0554	< 0.0526	< 0.0528
Aroclor 1242	mg/kg dry	< 0.0562	< 0.0561	< 0.0567	< 0.0561	< 0.0558	< 0.0599	< 0.058	< 0.0563	< 0.0554	< 0.0548	< 0.0568	< 0.0585	< 0.0554	< 0.0526	< 0.0528
Aroclor 1248	mg/kg dry	< 0.0562	< 0.0561	< 0.0567	< 0.0561	< 0.0558	< 0.0599	< 0.058	< 0.0563	< 0.0554	< 0.0548	< 0.0568	< 0.0585	< 0.0554	< 0.0526	< 0.0528
Aroclor 1254	mg/kg dry	< 0.0562	< 0.0561	< 0.0567	< 0.0561	< 0.0558	< 0.0599	< 0.058	< 0.0563	0.183	< 0.0548	< 0.0568	< 0.0585	< 0.0554	< 0.0526	< 0.0528
Aroclor 1260	mg/kg dry	0.0981	0.197	0.146	< 0.0561	0.0811	0.163	0.127	0.172	0.185	0.118	0.103	0.118	< 0.0554	< 0.0526	0.0982
Aroclor 1262	mg/kg dry	< 0.0562	< 0.0561	< 0.0567	< 0.0561	< 0.0558	< 0.0599	< 0.058	< 0.0563	< 0.0554	< 0.0548	< 0.0568	< 0.0585	< 0.0554	< 0.0526	< 0.0528
Aroclor 1268	mg/kg dry	< 0.0562	< 0.0561	< 0.0567	< 0.0561	< 0.0558	< 0.0599	< 0.058	< 0.0563	< 0.0554	< 0.0548	< 0.0568	< 0.0585	< 0.0554	< 0.0526	< 0.0528
Total Aroclors		**0.0981**	**0.197**	**0.146**	**< 0.0561**	**0.0811**	**0.163**	**0.127**	**0.172**	**0.368**	**0.118**	**0.103**	**0.118**	**< 0.0554**	**< 0.0526**	**0.0982**

Sample Identification		PX-165	PX-166	PX-167	PX-168	PX-169	PX-170	PX-171	PX-172	PX-173	PX-174	PX-175	PX-176	PX-177	PX-178	PX-179
Sample Date		**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0567	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	< 0.0604	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	< 0.0567	< 0.0604
Aroclor 1221	mg/kg dry	< 0.0567	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	< 0.0604	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	< 0.0567	< 0.0604
Aroclor 1232	mg/kg dry	< 0.0567	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	< 0.0604	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	< 0.0567	< 0.0604
Aroclor 1242	mg/kg dry	< 0.0567	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	< 0.0604	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	< 0.0567	< 0.0604
Aroclor 1248	mg/kg dry	< 0.0567	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	< 0.0604	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	< 0.0567	< 0.0604
Aroclor 1254	mg/kg dry	< 0.0567	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	< 0.0604	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	< 0.0567	< 0.0604
Aroclor 1260	mg/kg dry	0.131	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	0.0794	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	0.0823	< 0.0604
Aroclor 1262	mg/kg dry	< 0.0567	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	< 0.0604	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	< 0.0567	< 0.0604
Aroclor 1268	mg/kg dry	< 0.0567	< 0.0542	< 0.0599	< 0.0629	< 0.0618	< 0.0629	< 0.0604	< 0.0588	< 0.0615	< 0.0616	< 0.0632	< 0.0597	< 0.0582	< 0.0567	< 0.0604
Total Aroclors		**0.131**	**< 0.0542**	**< 0.0599**	**< 0.0629**	**< 0.0618**	**< 0.0629**	**0.0794**	**< 0.0588**	**< 0.0615**	**< 0.0616**	**< 0.0632**	**< 0.0597**	**< 0.0582**	**0.0823**	**< 0.0604**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-180	PX-181	PX-182	PX-183	PX-184	PX-185	PX-186	PX-187	PX-188	PX-189	PX-190	PX-191	PX-192	PX-193	PX-194
Sample Date		**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0591	< 0.0589	< 0.0587	< 0.059	< 0.0568	< 0.056	< 0.0575	< 0.0606	< 0.0538	< 0.0599	< 0.0517	< 0.0579	< 0.0545	< 0.0542	< 0.0575
Aroclor 1221	mg/kg dry	< 0.0591	< 0.0589	< 0.0587	< 0.059	< 0.0568	< 0.056	< 0.0575	< 0.0606	< 0.0538	< 0.0599	< 0.0517	< 0.0579	< 0.0545	< 0.0542	< 0.0575
Aroclor 1232	mg/kg dry	< 0.0591	< 0.0589	< 0.0587	< 0.059	< 0.0568	< 0.056	< 0.0575	< 0.0606	< 0.0538	< 0.0599	< 0.0517	< 0.0579	< 0.0545	< 0.0542	< 0.0575
Aroclor 1242	mg/kg dry	< 0.0591	< 0.0589	< 0.0587	< 0.059	< 0.0568	< 0.056	< 0.0575	< 0.0606	< 0.0538	< 0.0599	< 0.0517	< 0.0579	< 0.0545	< 0.0542	< 0.0575
Aroclor 1248	mg/kg dry	< 0.0591	< 0.0589	< 0.0587	< 0.059	< 0.0568	< 0.056	< 0.0575	< 0.0606	< 0.0538	< 0.0599	< 0.0517	< 0.0579	< 0.0545	< 0.0542	< 0.0575
Aroclor 1254	mg/kg dry	< 0.0591	< 0.0589	< 0.0587	< 0.059	< 0.0568	< 0.056	< 0.0575	< 0.0606	< 0.0538	< 0.0599	< 0.0517	< 0.0579	< 0.0545	< 0.0542	< 0.0575
Aroclor 1260	mg/kg dry	< 0.0591	< 0.0589	0.371	0.109	0.0571	< 0.056	0.0593	0.0917	< 0.0538	0.2	0.0974	0.214	< 0.0545	< 0.0542	< 0.0575
Aroclor 1262	mg/kg dry	< 0.0591	< 0.0589	< 0.0587	< 0.059	< 0.0568	< 0.056	< 0.0575	< 0.0606	< 0.0538	< 0.0599	< 0.0517	< 0.0579	< 0.0545	< 0.0542	< 0.0575
Aroclor 1268	mg/kg dry	< 0.0591	< 0.0589	< 0.0587	< 0.059	< 0.0568	< 0.056	< 0.0575	< 0.0606	< 0.0538	< 0.0599	< 0.0517	< 0.0579	< 0.0545	< 0.0542	< 0.0575
Total Aroclors		**< 0.0591**	**< 0.0589**	**0.371**	**0.109**	**0.0571**	**< 0.056**	**0.0593**	**0.0917**	**< 0.0538**	**0.2**	**0.0974**	**0.214**	**< 0.0545**	**< 0.0542**	**< 0.0575**

Sample Identification		PX-195	PX-196	PX-197	PX-198	PX-199	PX-200	PX-201	PX-202	PX-203	PX-204	PX-205	PX-206	PX-207	PX-208	PX-209
Sample Date		**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0532	< 0.0522	< 0.0576	< 0.0553	< 0.0575	< 0.0536	< 0.0563	< 0.056	< 0.0548	< 0.0562	< 0.0556	< 0.0559	< 0.0584	< 0.0573	< 0.0579
Aroclor 1221	mg/kg dry	< 0.0532	< 0.0522	< 0.0576	< 0.0553	< 0.0575	< 0.0536	< 0.0563	< 0.056	< 0.0548	< 0.0562	< 0.0556	< 0.0559	< 0.0584	< 0.0573	< 0.0579
Aroclor 1232	mg/kg dry	< 0.0532	< 0.0522	< 0.0576	< 0.0553	< 0.0575	< 0.0536	< 0.0563	< 0.056	< 0.0548	< 0.0562	< 0.0556	< 0.0559	< 0.0584	< 0.0573	< 0.0579
Aroclor 1242	mg/kg dry	< 0.0532	< 0.0522	< 0.0576	< 0.0553	< 0.0575	< 0.0536	< 0.0563	< 0.056	< 0.0548	< 0.0562	< 0.0556	< 0.0559	< 0.0584	< 0.0573	< 0.0579
Aroclor 1248	mg/kg dry	< 0.0532	< 0.0522	< 0.0576	< 0.0553	< 0.0575	< 0.0536	< 0.0563	< 0.056	< 0.0548	< 0.0562	< 0.0556	< 0.0559	< 0.0584	< 0.0573	< 0.0579
Aroclor 1254	mg/kg dry	< 0.0532	< 0.0522	< 0.0576	< 0.0553	< 0.0575	< 0.0536	< 0.0563	< 0.056	< 0.0548	< 0.0562	< 0.0556	< 0.0559	0.183	< 0.0573	< 0.0579
Aroclor 1260	mg/kg dry	< 0.0532	0.11	0.0881	0.279	0.255	0.27	0.39	0.13	0.354	0.317	0.255	< 0.0559	< 0.0584	0.26	< 0.0579
Aroclor 1262	mg/kg dry	< 0.0532	< 0.0522	< 0.0576	< 0.0553	< 0.0575	< 0.0536	< 0.0563	< 0.056	< 0.0548	< 0.0562	< 0.0556	< 0.0559	< 0.0584	< 0.0573	< 0.0579
Aroclor 1268	mg/kg dry	< 0.0532	< 0.0522	< 0.0576	< 0.0553	< 0.0575	< 0.0536	< 0.0563	< 0.056	< 0.0548	< 0.0562	< 0.0556	< 0.0559	< 0.0584	< 0.0573	< 0.0579
Total Aroclors		**< 0.0532**	**0.11**	**0.0881**	**0.279**	**0.255**	**0.27**	**0.39**	**0.13**	**0.354**	**0.317**	**0.255**	**< 0.0559**	**0.183**	**0.26**	**< 0.0579**

Sample Identification		PX-210	PX-211	PX-212	PX-213	PX-214	PX-215	PX-216	PX-217	PX-218	PX-219	PX-220	PX-221	PX-222	PX-223	PX-224
Sample Date		**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0559	< 0.058	< 0.0559	< 0.0559	< 0.0578	< 0.0563	< 0.0556	< 0.0573	< 0.0549	< 0.061	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Aroclor 1221	mg/kg dry	< 0.0559	< 0.058	< 0.0559	< 0.0559	< 0.0578	< 0.0563	< 0.0556	< 0.0573	< 0.0549	< 0.061	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Aroclor 1232	mg/kg dry	< 0.0559	< 0.058	< 0.0559	< 0.0559	< 0.0578	< 0.0563	< 0.0556	< 0.0573	< 0.0549	< 0.061	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Aroclor 1242	mg/kg dry	< 0.0559	< 0.058	< 0.0559	< 0.0559	< 0.0578	< 0.0563	< 0.0556	< 0.0573	< 0.0549	< 0.061	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Aroclor 1248	mg/kg dry	< 0.0559	< 0.058	< 0.0559	< 0.0559	< 0.0578	< 0.0563	< 0.0556	< 0.0573	< 0.0549	< 0.061	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Aroclor 1254	mg/kg dry	< 0.0559	0.0965	< 0.0559	< 0.0559	< 0.0578	< 0.0563	< 0.0556	< 0.0573	< 0.0549	< 0.061	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Aroclor 1260	mg/kg dry	0.0945	0.275	0.103	0.281	0.114	0.101	0.203	0.25	0.162	0.062	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Aroclor 1262	mg/kg dry	< 0.0559	< 0.058	< 0.0559	< 0.0559	< 0.0578	< 0.0563	< 0.0556	< 0.0573	< 0.0549	< 0.061	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Aroclor 1268	mg/kg dry	< 0.0559	< 0.058	< 0.0559	< 0.0559	< 0.0578	< 0.0563	< 0.0556	< 0.0573	< 0.0549	< 0.061	< 0.0552	< 0.0546	< 0.0529	< 0.0566	< 0.0602
Total Aroclors		**0.0945**	**0.3715**	**0.103**	**0.281**	**0.114**	**0.101**	**0.203**	**0.25**	**0.162**	**0.062**	**< 0.0552**	**< 0.0546**	**< 0.0529**	**< 0.0566**	**< 0.0602**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-225	PX-226	PX-227	PX-228	PX-229	PX-230	PX-231	PX-232	PX-233	PX-234	PX-235	PX-236	PX-237	PX-238	PX-239
Sample Date		**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/13/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	< 0.0594	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Aroclor 1221	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	< 0.0594	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Aroclor 1232	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	< 0.0594	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Aroclor 1242	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	< 0.0594	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Aroclor 1248	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	< 0.0594	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Aroclor 1254	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	0.192	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Aroclor 1260	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	< 0.0594	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Aroclor 1262	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	< 0.0594	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Aroclor 1268	mg/kg dry	< 0.0596	< 0.0581	< 0.0554	< 0.059	< 0.0581	< 0.0599	< 0.0588	< 0.0594	< 0.0593	< 0.0612	< 0.0534	< 0.0523	< 0.0534	< 0.0537	< 0.0576
Total Aroclors		**< 0.0596**	**< 0.0581**	**< 0.0554**	**< 0.059**	**< 0.0581**	**< 0.0599**	**< 0.0588**	**0.192**	**< 0.0593**	**< 0.0612**	**< 0.0534**	**< 0.0523**	**< 0.0534**	**< 0.0537**	**< 0.0576**

Sample Identification		PX-240	PX-241	PX-242	PX-243	PX-244	PX-245	PX-246	PX-247	PX-248	PX-249	PX-250	PX-250R	PX-251	PX-252	PX-253
Sample Date		**12/13/2011**	**12/13/2011**	**12/13/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**1/5/2012**	**12/15/2011**	**12/15/2011**	**12/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0594	< 0.059	< 0.0618	< 0.0554	< 0.0563	< 0.0571	< 0.0568	< 0.0563	< 0.0578	< 0.0592	< 0.0572	< 0.0588	< 0.0575	< 0.059	< 0.059
Aroclor 1221	mg/kg dry	< 0.0594	< 0.059	< 0.0618	< 0.0554	< 0.0563	< 0.0571	< 0.0568	< 0.0563	< 0.0578	< 0.0592	< 0.0572	< 0.0588	< 0.0575	< 0.059	< 0.059
Aroclor 1232	mg/kg dry	< 0.0594	< 0.059	< 0.0618	< 0.0554	< 0.0563	< 0.0571	< 0.0568	< 0.0563	< 0.0578	< 0.0592	< 0.0572	< 0.0588	< 0.0575	< 0.059	< 0.059
Aroclor 1242	mg/kg dry	< 0.0594	< 0.059	< 0.0618	< 0.0554	< 0.0563	< 0.0571	< 0.0568	< 0.0563	< 0.0578	< 0.0592	< 0.0572	< 0.0588	< 0.0575	< 0.059	< 0.059
Aroclor 1248	mg/kg dry	< 0.0594	< 0.059	< 0.0618	< 0.0554	< 0.0563	< 0.0571	< 0.0568	< 0.0563	< 0.0578	< 0.0592	< 0.0572	< 0.0588	< 0.0575	< 0.059	< 0.059
Aroclor 1254	mg/kg dry	< 0.0594	< 0.059	< 0.0618	< 0.0554	< 0.0563	< 0.0571	< 0.0568	< 0.0563	< 0.0578	< 0.0592	3.49	< 0.0588	0.21	< 0.059	< 0.059
Aroclor 1260	mg/kg dry	< 0.0594	0.0668	0.124	0.116	0.0692	< 0.0571	< 0.0568	< 0.0563	0.178	< 0.0592	< 0.0572	< 0.0588	< 0.0575	< 0.059	< 0.059
Aroclor 1262	mg/kg dry	< 0.0594	< 0.059	< 0.0618	< 0.0554	< 0.0563	< 0.0571	< 0.0568	< 0.0563	< 0.0578	< 0.0592	< 0.0572	< 0.0588	< 0.0575	< 0.059	< 0.059
Aroclor 1268	mg/kg dry	< 0.0594	< 0.059	< 0.0618	< 0.0554	< 0.0563	< 0.0571	< 0.0568	< 0.0563	< 0.0578	< 0.0592	< 0.0572	< 0.0588	< 0.0575	< 0.059	< 0.059
Total Aroclors		**< 0.0594**	**0.0668**	**0.124**	**0.116**	**0.0692**	**< 0.0571**	**< 0.0568**	**< 0.0563**	**0.178**	**< 0.0592**	**3.49**	**< 0.0588**	**0.21**	**< 0.059**	**< 0.059**

Sample Identification		PX-254	PX-255	PX-256	PX-257	PX-258	PX-259	PX-260	PX-261	PX-262	PX-263	PX-264	PX-265	PX-266	PX-267	PX-268
Sample Date		**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0582	< 0.059	< 0.0612	< 0.0569	< 0.0612	< 0.0634	< 0.0573	< 0.0584	< 0.0594	< 0.055	< 0.0584	< 0.0571	< 0.0583	< 0.0573	< 0.0589
Aroclor 1221	mg/kg dry	< 0.0582	< 0.059	< 0.0612	< 0.0569	< 0.0612	< 0.0634	< 0.0573	< 0.0584	< 0.0594	< 0.055	< 0.0584	< 0.0571	< 0.0583	< 0.0573	< 0.0589
Aroclor 1232	mg/kg dry	< 0.0582	< 0.059	< 0.0612	< 0.0569	< 0.0612	< 0.0634	< 0.0573	< 0.0584	< 0.0594	< 0.055	< 0.0584	< 0.0571	< 0.0583	< 0.0573	< 0.0589
Aroclor 1242	mg/kg dry	< 0.0582	< 0.059	< 0.0612	< 0.0569	< 0.0612	< 0.0634	< 0.0573	< 0.0584	< 0.0594	< 0.055	< 0.0584	< 0.0571	< 0.0583	< 0.0573	< 0.0589
Aroclor 1248	mg/kg dry	< 0.0582	< 0.059	< 0.0612	< 0.0569	< 0.0612	< 0.0634	< 0.0573	< 0.0584	< 0.0594	< 0.055	< 0.0584	< 0.0571	< 0.0583	< 0.0573	< 0.0589
Aroclor 1254	mg/kg dry	< 0.0582	< 0.059	< 0.0612	< 0.0569	< 0.0612	< 0.0634	< 0.0573	< 0.0584	< 0.0594	< 0.055	< 0.0584	< 0.0571	< 0.0583	< 0.0573	< 0.0589
Aroclor 1260	mg/kg dry	< 0.0582	< 0.059	0.315	0.621	0.626	0.304	0.659	0.421	0.844	0.804	0.616	0.52	0.111	< 0.0573	< 0.0589
Aroclor 1262	mg/kg dry	< 0.0582	< 0.059	< 0.0612	< 0.0569	< 0.0612	< 0.0634	< 0.0573	< 0.0584	< 0.0594	< 0.055	< 0.0584	< 0.0571	< 0.0583	< 0.0573	< 0.0589
Aroclor 1268	mg/kg dry	< 0.0582	< 0.059	< 0.0612	< 0.0569	< 0.0612	< 0.0634	< 0.0573	< 0.0584	< 0.0594	< 0.055	< 0.0584	< 0.0571	< 0.0583	< 0.0573	< 0.0589
Total Aroclors		**< 0.0582**	**< 0.059**	**0.315**	**0.621**	**0.626**	**0.304**	**0.659**	**0.421**	**0.844**	**0.804**	**0.616**	**0.52**	**0.111**	**< 0.0573**	**< 0.0589**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-269	PX-270	PX-271	PX-272	PX-273	PX-274	PX-275	PX-276	PX-277	PX-278	PX-279	PX-280	PX-281	PX-282	PX-283
Sample Date		**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0584	< 0.0572	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	< 0.062	< 0.0625	< 0.0604	< 0.0555	< 0.0584	< 0.0559	< 0.0554
Aroclor 1221	mg/kg dry	< 0.0584	< 0.0572	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	< 0.062	< 0.0625	< 0.0604	< 0.0555	< 0.0584	< 0.0559	< 0.0554
Aroclor 1232	mg/kg dry	< 0.0584	< 0.0572	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	< 0.062	< 0.0625	< 0.0604	< 0.0555	< 0.0584	< 0.0559	< 0.0554
Aroclor 1242	mg/kg dry	< 0.0584	< 0.0572	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	< 0.062	< 0.0625	< 0.0604	< 0.0555	< 0.0584	< 0.0559	< 0.0554
Aroclor 1248	mg/kg dry	< 0.0584	< 0.0572	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	< 0.062	< 0.0625	< 0.0604	< 0.0555	< 0.0584	< 0.0559	< 0.0554
Aroclor 1254	mg/kg dry	< 0.0584	< 0.0572	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	0.136	< 0.0625	< 0.0604	< 0.0555	< 0.0584	< 0.0559	< 0.0554
Aroclor 1260	mg/kg dry	< 0.0584	0.226	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	0.138	< 0.0625	0.785	< 0.0555	< 0.0584	0.603	2.04
Aroclor 1262	mg/kg dry	< 0.0584	< 0.0572	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	< 0.062	< 0.0625	< 0.0604	< 0.0555	< 0.0584	< 0.0559	< 0.0554
Aroclor 1268	mg/kg dry	< 0.0584	< 0.0572	< 0.0572	< 0.0591	< 0.0596	< 0.0585	< 0.0567	< 0.0595	< 0.062	< 0.0625	< 0.0604	< 0.0555	< 0.0584	< 0.0559	< 0.0554
Total Aroclors		**< 0.0584**	**0.226**	**< 0.0572**	**< 0.0591**	**< 0.0596**	**< 0.0585**	**< 0.0567**	**< 0.0595**	**0.274**	**< 0.0625**	**0.785**	**< 0.0555**	**< 0.0584**	**0.603**	**2.04**

Sample Identification		PX-283R	PX-284	PX-285	PX-286	PX-287	PX-288	PX-289	PX-290	PX-291	PX-292	PX-293	PX-294	PX-295	PX-296	PX-297
Sample Date		**1/5/2012**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0549	< 0.0548	< 0.0545	< 0.0582	< 0.0566	< 0.0591	< 0.0622	< 0.059	< 0.0576	< 0.0555	< 0.0545	< 0.0582	< 0.0581	< 0.0589	< 0.0594
Aroclor 1221	mg/kg dry	< 0.0549	< 0.0548	< 0.0545	< 0.0582	< 0.0566	< 0.0591	< 0.0622	< 0.059	< 0.0576	< 0.0555	< 0.0545	< 0.0582	< 0.0581	< 0.0589	< 0.0594
Aroclor 1232	mg/kg dry	< 0.0549	< 0.0548	< 0.0545	< 0.0582	< 0.0566	< 0.0591	< 0.0622	< 0.059	< 0.0576	< 0.0555	< 0.0545	< 0.0582	< 0.0581	< 0.0589	< 0.0594
Aroclor 1242	mg/kg dry	< 0.0549	< 0.0548	< 0.0545	< 0.0582	< 0.0566	< 0.0591	< 0.0622	< 0.059	< 0.0576	< 0.0555	< 0.0545	< 0.0582	< 0.0581	< 0.0589	< 0.0594
Aroclor 1248	mg/kg dry	< 0.0549	< 0.0548	< 0.0545	< 0.0582	< 0.0566	< 0.0591	< 0.0622	< 0.059	< 0.0576	< 0.0555	< 0.0545	< 0.0582	< 0.0581	< 0.0589	< 0.0594
Aroclor 1254	mg/kg dry	< 0.0549	< 0.0548	< 0.0545	< 0.0582	< 0.0566	< 0.0591	0.11	< 0.059	< 0.0576	0.22	< 0.0545	< 0.0582	< 0.0581	< 0.0589	< 0.0594
Aroclor 1260	mg/kg dry	< 0.0549	0.716	0.192	0.131	0.505	0.431	0.113	0.179	0.155	0.192	0.259	0.274	0.261	< 0.0589	0.168
Aroclor 1262	mg/kg dry	< 0.0549	< 0.0548	< 0.0545	< 0.0582	< 0.0566	< 0.0591	< 0.0622	< 0.059	< 0.0576	< 0.0555	< 0.0545	< 0.0582	< 0.0581	< 0.0589	< 0.0594
Aroclor 1268	mg/kg dry	< 0.0549	< 0.0548	< 0.0545	< 0.0582	< 0.0566	< 0.0591	< 0.0622	< 0.059	< 0.0576	< 0.0555	< 0.0545	< 0.0582	< 0.0581	< 0.0589	< 0.0594
Total Aroclors		**< 0.0549**	**0.716**	**0.192**	**0.131**	**0.505**	**0.431**	**0.223**	**0.179**	**0.155**	**0.412**	**0.259**	**0.274**	**0.261**	**< 0.0589**	**0.168**

Sample Identification		PX-298	PX-299	PX-300	PX-301	PX-302	PX-303	PX-304	PX-305	PX-306	PX-307	PX-308	PX-309	PX-310	PX-311	PX-312
Sample Date		**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0571	< 0.055	< 0.0583	< 0.053	< 0.0538	< 0.0572	< 0.0586	< 0.0568	< 0.0566	< 0.0575	< 0.0584	< 0.0578	< 0.0582	< 0.058	< 0.0564
Aroclor 1221	mg/kg dry	< 0.0571	< 0.055	< 0.0583	< 0.053	< 0.0538	< 0.0572	< 0.0586	< 0.0568	< 0.0566	< 0.0575	< 0.0584	< 0.0578	< 0.0582	< 0.058	< 0.0564
Aroclor 1232	mg/kg dry	< 0.0571	< 0.055	< 0.0583	< 0.053	< 0.0538	< 0.0572	< 0.0586	< 0.0568	< 0.0566	< 0.0575	< 0.0584	< 0.0578	< 0.0582	< 0.058	< 0.0564
Aroclor 1242	mg/kg dry	< 0.0571	< 0.055	< 0.0583	< 0.053	< 0.0538	< 0.0572	< 0.0586	< 0.0568	< 0.0566	< 0.0575	< 0.0584	< 0.0578	< 0.0582	< 0.058	< 0.0564
Aroclor 1248	mg/kg dry	< 0.0571	< 0.055	< 0.0583	< 0.053	< 0.0538	< 0.0572	< 0.0586	< 0.0568	< 0.0566	< 0.0575	< 0.0584	< 0.0578	< 0.0582	< 0.058	< 0.0564
Aroclor 1254	mg/kg dry	< 0.0571	0.112	< 0.0583	< 0.053	< 0.0538	< 0.0572	< 0.0586	< 0.0568	< 0.0566	< 0.0575	< 0.0584	< 0.0578	< 0.0582	< 0.058	< 0.0564
Aroclor 1260	mg/kg dry	0.136	0.134	0.147	0.132	0.159	0.0812	0.092	0.26	0.578	0.364	0.133	0.121	< 0.0582	0.081	0.063
Aroclor 1262	mg/kg dry	< 0.0571	< 0.055	< 0.0583	< 0.053	< 0.0538	< 0.0572	< 0.0586	< 0.0568	< 0.0566	< 0.0575	< 0.0584	< 0.0578	< 0.0582	< 0.058	< 0.0564
Aroclor 1268	mg/kg dry	< 0.0571	< 0.055	< 0.0583	< 0.053	< 0.0538	< 0.0572	< 0.0586	< 0.0568	< 0.0566	< 0.0575	< 0.0584	< 0.0578	< 0.0582	< 0.058	< 0.0564
Total Aroclors		**0.136**	**0.246**	**0.147**	**0.132**	**0.159**	**0.0812**	**0.092**	**0.26**	**0.578**	**0.364**	**0.133**	**0.121**	**< 0.0582**	**0.081**	**0.063**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-313	PX-314	PX-315	PX-316	PX-317	PX-318	PX-319	PX-320	PX-321	PX-322	PX-323	PX-324	PX-325	PX-326	PX-327
Sample Date		**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0521	< 0.0563	< 0.0577	< 0.0579	< 0.0516	< 0.0526	< 0.058	< 0.0574	< 0.0592	< 0.0567	< 0.0567	< 0.057	< 0.0572	< 0.0544	< 0.0569
Aroclor 1221	mg/kg dry	< 0.0521	< 0.0563	< 0.0577	< 0.0579	< 0.0516	< 0.0526	< 0.058	< 0.0574	< 0.0592	< 0.0567	< 0.0567	< 0.057	< 0.0572	< 0.0544	< 0.0569
Aroclor 1232	mg/kg dry	< 0.0521	< 0.0563	< 0.0577	< 0.0579	< 0.0516	< 0.0526	< 0.058	< 0.0574	< 0.0592	< 0.0567	< 0.0567	< 0.057	< 0.0572	< 0.0544	< 0.0569
Aroclor 1242	mg/kg dry	< 0.0521	< 0.0563	< 0.0577	< 0.0579	< 0.0516	< 0.0526	< 0.058	< 0.0574	< 0.0592	< 0.0567	< 0.0567	< 0.057	< 0.0572	< 0.0544	< 0.0569
Aroclor 1248	mg/kg dry	< 0.0521	< 0.0563	< 0.0577	< 0.0579	< 0.0516	< 0.0526	< 0.058	< 0.0574	< 0.0592	< 0.0567	< 0.0567	< 0.057	< 0.0572	< 0.0544	< 0.0569
Aroclor 1254	mg/kg dry	0.082	< 0.0563	< 0.0577	< 0.0579	< 0.0516	< 0.0526	< 0.058	< 0.0574	< 0.0592	< 0.0567	< 0.0567	< 0.057	< 0.0572	< 0.0544	< 0.0569
Aroclor 1260	mg/kg dry	< 0.0521	0.204	< 0.0577	0.157	< 0.0516	< 0.0526	0.0898	< 0.0574	< 0.0592	0.182	< 0.0567	0.175	0.168	0.284	< 0.0569
Aroclor 1262	mg/kg dry	< 0.0521	< 0.0563	< 0.0577	< 0.0579	< 0.0516	< 0.0526	< 0.058	< 0.0574	< 0.0592	< 0.0567	< 0.0567	< 0.057	< 0.0572	< 0.0544	< 0.0569
Aroclor 1268	mg/kg dry	< 0.0521	< 0.0563	< 0.0577	< 0.0579	< 0.0516	< 0.0526	< 0.058	< 0.0574	< 0.0592	< 0.0567	< 0.0567	< 0.057	< 0.0572	< 0.0544	< 0.0569
Total Aroclors		**0.082**	**0.204**	**< 0.0577**	**0.157**	**< 0.0516**	**< 0.0526**	**0.0898**	**< 0.0574**	**< 0.0592**	**0.182**	**< 0.0567**	**0.175**	**0.168**	**0.284**	**< 0.0569**

Sample Identification		PX-328	PX-329	PX-330	PX-331	PX-332	PX-333	PX-334	PX-335	PX-336	PX-337	PX-338	PX-339	PX-340	PX-341	PX-342
Sample Date		**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0649	< 0.063	< 0.0556	< 0.0554	< 0.0567	< 0.057	< 0.0592	< 0.0554	< 0.0605	< 0.0633	< 0.0624	< 0.0617	< 0.0612	< 0.0638	< 0.0569
Aroclor 1221	mg/kg dry	< 0.0649	< 0.063	< 0.0556	< 0.0554	< 0.0567	< 0.057	< 0.0592	< 0.0554	< 0.0605	< 0.0633	< 0.0624	< 0.0617	< 0.0612	< 0.0638	< 0.0569
Aroclor 1232	mg/kg dry	< 0.0649	< 0.063	< 0.0556	< 0.0554	< 0.0567	< 0.057	< 0.0592	< 0.0554	< 0.0605	< 0.0633	< 0.0624	< 0.0617	< 0.0612	< 0.0638	< 0.0569
Aroclor 1242	mg/kg dry	< 0.0649	< 0.063	< 0.0556	< 0.0554	< 0.0567	< 0.057	< 0.0592	< 0.0554	< 0.0605	< 0.0633	< 0.0624	< 0.0617	< 0.0612	< 0.0638	< 0.0569
Aroclor 1248	mg/kg dry	< 0.0649	< 0.063	< 0.0556	< 0.0554	< 0.0567	< 0.057	< 0.0592	< 0.0554	< 0.0605	< 0.0633	< 0.0624	< 0.0617	< 0.0612	< 0.0638	< 0.0569
Aroclor 1254	mg/kg dry	< 0.0649	< 0.063	< 0.0556	< 0.0554	< 0.0567	< 0.057	< 0.0592	< 0.0554	< 0.0605	< 0.0633	< 0.0624	< 0.0617	< 0.0612	< 0.0638	< 0.0569
Aroclor 1260	mg/kg dry	< 0.0649	< 0.063	0.257	0.146	0.454	0.161	< 0.0592	< 0.0554	0.26	0.0679	0.0981	0.0953	0.103	0.069	0.19
Aroclor 1262	mg/kg dry	< 0.0649	< 0.063	< 0.0556	< 0.0554	< 0.0567	< 0.057	< 0.0592	< 0.0554	< 0.0605	< 0.0633	< 0.0624	< 0.0617	< 0.0612	< 0.0638	< 0.0569
Aroclor 1268	mg/kg dry	< 0.0649	< 0.063	< 0.0556	< 0.0554	< 0.0567	< 0.057	< 0.0592	< 0.0554	< 0.0605	< 0.0633	< 0.0624	< 0.0617	< 0.0612	< 0.0638	< 0.0569
Total Aroclors		**< 0.0649**	**< 0.063**	**0.257**	**0.146**	**0.454**	**0.161**	**< 0.0592**	**< 0.0554**	**0.26**	**0.0679**	**0.0981**	**0.0953**	**0.103**	**0.069**	**0.19**

Sample Identification		PX-343	PX-344	PX-345	PX-346	PX-347	PX-348	PX-349	PX-350	PX-351	PX-352	PX-353	PX-354	PX-355	PX-356	PX-357
Sample Date		**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**	**12/15/2011**
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0579	< 0.0587	< 0.0621	< 0.0571	< 0.0562	< 0.0603	< 0.0563	< 0.0583	< 0.0547	< 0.0575	< 0.0561	< 0.0581	< 0.0578	< 0.0636	< 0.0567
Aroclor 1221	mg/kg dry	< 0.0579	< 0.0587	< 0.0621	< 0.0571	< 0.0562	< 0.0603	< 0.0563	< 0.0583	< 0.0547	< 0.0575	< 0.0561	< 0.0581	< 0.0578	< 0.0636	< 0.0567
Aroclor 1232	mg/kg dry	< 0.0579	< 0.0587	< 0.0621	< 0.0571	< 0.0562	< 0.0603	< 0.0563	< 0.0583	< 0.0547	< 0.0575	< 0.0561	< 0.0581	< 0.0578	< 0.0636	< 0.0567
Aroclor 1242	mg/kg dry	< 0.0579	< 0.0587	< 0.0621	< 0.0571	< 0.0562	< 0.0603	< 0.0563	< 0.0583	< 0.0547	< 0.0575	< 0.0561	< 0.0581	< 0.0578	< 0.0636	< 0.0567
Aroclor 1248	mg/kg dry	< 0.0579	< 0.0587	< 0.0621	< 0.0571	< 0.0562	< 0.0603	< 0.0563	< 0.0583	< 0.0547	< 0.0575	< 0.0561	< 0.0581	< 0.0578	< 0.0636	< 0.0567
Aroclor 1254	mg/kg dry	< 0.0579	< 0.0587	< 0.0621	< 0.0571	< 0.0562	< 0.0603	< 0.0563	< 0.0583	< 0.0547	< 0.0575	< 0.0561	< 0.0581	< 0.0578	< 0.0636	0.0663
Aroclor 1260	mg/kg dry	< 0.0579	0.0785	< 0.0621	< 0.0571	< 0.0562	0.0724	0.139	0.269	< 0.0547	0.0608	0.141	0.217	0.0729	< 0.0636	< 0.0567
Aroclor 1262	mg/kg dry	< 0.0579	< 0.0587	< 0.0621	< 0.0571	< 0.0562	< 0.0603	< 0.0563	< 0.0583	< 0.0547	< 0.0575	< 0.0561	< 0.0581	< 0.0578	< 0.0636	< 0.0567
Aroclor 1268	mg/kg dry	< 0.0579	< 0.0587	< 0.0621	< 0.0571	< 0.0562	< 0.0603	< 0.0563	< 0.0583	< 0.0547	< 0.0575	< 0.0561	< 0.0581	< 0.0578	< 0.0636	< 0.0567
Total Aroclors		**< 0.0579**	**0.0785**	**< 0.0621**	**< 0.0571**	**< 0.0562**	**0.0724**	**0.139**	**0.269**	**< 0.0547**	**0.0608**	**0.141**	**0.217**	**0.0729**	**< 0.0636**	**0.0663**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-358	PX-359	PX-360	PX-361	PX-362	PX-363	PX-364	PX-365	PX-366	PX-367	PX-368	PX-369	PX-370	PX-371	PX-372
Sample Date		12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0628	< 0.0625	< 0.0595	< 0.0654	< 0.0578	< 0.0567	< 0.0582	< 0.0564	< 0.0573	< 0.0603	< 0.057	< 0.0553	< 0.0577	< 0.0547	< 0.06
Aroclor 1221	mg/kg dry	< 0.0628	< 0.0625	< 0.0595	< 0.0654	< 0.0578	< 0.0567	< 0.0582	< 0.0564	< 0.0573	< 0.0603	< 0.057	< 0.0553	< 0.0577	< 0.0547	< 0.06
Aroclor 1232	mg/kg dry	< 0.0628	< 0.0625	< 0.0595	< 0.0654	< 0.0578	< 0.0567	< 0.0582	< 0.0564	< 0.0573	< 0.0603	< 0.057	< 0.0553	< 0.0577	< 0.0547	< 0.06
Aroclor 1242	mg/kg dry	< 0.0628	< 0.0625	< 0.0595	< 0.0654	< 0.0578	< 0.0567	< 0.0582	< 0.0564	< 0.0573	< 0.0603	< 0.057	< 0.0553	< 0.0577	< 0.0547	< 0.06
Aroclor 1248	mg/kg dry	< 0.0628	< 0.0625	< 0.0595	< 0.0654	< 0.0578	< 0.0567	< 0.0582	< 0.0564	< 0.0573	< 0.0603	< 0.057	< 0.0553	< 0.0577	< 0.0547	< 0.06
Aroclor 1254	mg/kg dry	< 0.0628	< 0.0625	< 0.0595	0.127	< 0.0578	< 0.0567	< 0.0582	< 0.0564	0.192	< 0.0603	< 0.057	< 0.0553	< 0.0577	< 0.0547	< 0.06
Aroclor 1260	mg/kg dry	< 0.0628	< 0.0625	0.127	< 0.0654	< 0.0578	0.156	< 0.0582	0.0613	0.0932	0.1	< 0.057	0.197	0.0732	< 0.0547	< 0.06
Aroclor 1262	mg/kg dry	< 0.0628	< 0.0625	< 0.0595	< 0.0654	< 0.0578	< 0.0567	< 0.0582	< 0.0564	< 0.0573	< 0.0603	< 0.057	< 0.0553	< 0.0577	< 0.0547	< 0.06
Aroclor 1268	mg/kg dry	< 0.0628	< 0.0625	< 0.0595	< 0.0654	< 0.0578	< 0.0567	< 0.0582	< 0.0564	< 0.0573	< 0.0603	< 0.057	< 0.0553	< 0.0577	< 0.0547	< 0.06
Total Aroclors		**< 0.0628**	**< 0.0625**	**0.127**	**0.127**	**< 0.0578**	**0.156**	**< 0.0582**	**0.0613**	**0.2852**	**0.1**	**< 0.057**	**0.197**	**0.0732**	**< 0.0547**	**< 0.06**

Sample Identification		PX-373	PX-374	PX-375	PX-376	PX-377	PX-378	PX-379	PX-380	PX-381	PX-382	PX-383	PX-384	PX-385	PX-386	PX-387
Sample Date		12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	< 0.0574	< 0.0547	< 0.0581	< 0.0592	< 0.0575	< 0.0589	< 0.053	< 0.0578	< 0.0552	< 0.052	< 0.0508	< 0.0544
Aroclor 1221	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	< 0.0574	< 0.0547	< 0.0581	< 0.0592	< 0.0575	< 0.0589	< 0.053	< 0.0578	< 0.0552	< 0.052	< 0.0508	< 0.0544
Aroclor 1232	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	< 0.0574	< 0.0547	< 0.0581	< 0.0592	< 0.0575	< 0.0589	< 0.053	< 0.0578	< 0.0552	< 0.052	< 0.0508	< 0.0544
Aroclor 1242	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	< 0.0574	< 0.0547	< 0.0581	< 0.0592	< 0.0575	< 0.0589	< 0.053	< 0.0578	< 0.0552	< 0.052	< 0.0508	< 0.0544
Aroclor 1248	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	< 0.0574	< 0.0547	< 0.0581	< 0.0592	< 0.0575	< 0.0589	< 0.053	< 0.0578	< 0.0552	< 0.052	< 0.0508	< 0.0544
Aroclor 1254	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	< 0.0574	< 0.0547	< 0.0581	< 0.0592	< 0.0575	< 0.0589	< 0.053	< 0.0578	< 0.0552	< 0.052	< 0.0508	< 0.0544
Aroclor 1260	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	0.126	< 0.0547	< 0.0581	< 0.0592	< 0.0575	0.0658	0.334	< 0.0578	0.204	< 0.052	< 0.0508	< 0.0544
Aroclor 1262	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	< 0.0574	< 0.0547	< 0.0581	< 0.0592	< 0.0575	< 0.0589	< 0.053	< 0.0578	< 0.0552	< 0.052	< 0.0508	< 0.0544
Aroclor 1268	mg/kg dry	< 0.0568	< 0.0583	< 0.0596	< 0.0574	< 0.0547	< 0.0581	< 0.0592	< 0.0575	< 0.0589	< 0.053	< 0.0578	< 0.0552	< 0.052	< 0.0508	< 0.0544
Total Aroclors		**< 0.0568**	**< 0.0583**	**< 0.0596**	**0.126**	**< 0.0547**	**< 0.0581**	**< 0.0592**	**< 0.0575**	**0.0658**	**0.334**	**< 0.0578**	**0.204**	**< 0.052**	**< 0.0508**	**< 0.0544**

Sample Identification		PX-388	PX-389	PX-390	PX-391	PX-392	PX-393	PX-394	PX-395	PX-396	PX-397	PX-398	PX-399	PX-400	PX-401	PX-402
Sample Date		12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0558	< 0.0551	< 0.0573	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Aroclor 1221	mg/kg dry	< 0.0558	< 0.0551	< 0.0573	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Aroclor 1232	mg/kg dry	< 0.0558	< 0.0551	< 0.0573	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Aroclor 1242	mg/kg dry	< 0.0558	< 0.0551	< 0.0573	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Aroclor 1248	mg/kg dry	0.0691	< 0.0551	< 0.0573	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Aroclor 1254	mg/kg dry	< 0.0558	< 0.0551	< 0.0573	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Aroclor 1260	mg/kg dry	< 0.0558	0.128	0.114	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Aroclor 1262	mg/kg dry	< 0.0558	< 0.0551	< 0.0573	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Aroclor 1268	mg/kg dry	< 0.0558	< 0.0551	< 0.0573	< 0.0584	< 0.0589	< 0.0555	< 0.0553	< 0.0596	< 0.0584	< 0.0571	< 0.0597	< 0.059	< 0.0621	< 0.0615	< 0.0615
Total Aroclors		**0.0691**	**0.128**	**0.114**	**< 0.0584**	**< 0.0589**	**< 0.0555**	**< 0.0553**	**< 0.0596**	**< 0.0584**	**< 0.0571**	**< 0.0597**	**< 0.059**	**< 0.0621**	**< 0.0615**	**< 0.0615**

Table 1 (continued)
Post-Excavation Soil Analytical Results
North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification		PX-403	PX-404	PX-405	PX-406	PX-407	PX-408	PX-409	PX-410	PX-411	PX-412	PX-413	PX-414	PX-415	PX-416	PX-417
Sample Date		12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011	12/15/2011
	Units															
Polychlorinated Biphenyls (PCB)																
Aroclor 1016	mg/kg dry	< 0.0618	< 0.0618	< 0.0599	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Aroclor 1221	mg/kg dry	< 0.0618	< 0.0618	< 0.0599	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Aroclor 1232	mg/kg dry	< 0.0618	< 0.0618	< 0.0599	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Aroclor 1242	mg/kg dry	< 0.0618	< 0.0618	< 0.0599	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Aroclor 1248	mg/kg dry	< 0.0618	< 0.0618	< 0.0599	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Aroclor 1254	mg/kg dry	< 0.0618	< 0.0618	< 0.0599	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Aroclor 1260	mg/kg dry	< 0.0618	< 0.0618	0.135	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Aroclor 1262	mg/kg dry	< 0.0618	< 0.0618	< 0.0599	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Aroclor 1268	mg/kg dry	< 0.0618	< 0.0618	< 0.0599	< 0.0518	< 0.0534	< 0.054	< 0.0614	< 0.0612	< 0.0571	< 0.0574	< 0.0578	< 0.0612	< 0.0606	< 0.0604	< 0.0566
Total Aroclors		**< 0.0618**	**< 0.0618**	**0.135**	**< 0.0518**	**< 0.0534**	**< 0.054**	**< 0.0614**	**< 0.0612**	**< 0.0571**	**< 0.0574**	**< 0.0578**	**< 0.0612**	**< 0.0606**	**< 0.0604**	**< 0.0566**

Sample Identification		PX-418
Sample Date		12/15/2011
	Units	
Polychlorinated Biphenyls (PCB)		
Aroclor 1016	mg/kg dry	< 0.0524
Aroclor 1221	mg/kg dry	< 0.0524
Aroclor 1232	mg/kg dry	< 0.0524
Aroclor 1242	mg/kg dry	< 0.0524
Aroclor 1248	mg/kg dry	< 0.0524
Aroclor 1254	mg/kg dry	< 0.0524
Aroclor 1260	mg/kg dry	< 0.0524
Aroclor 1262	mg/kg dry	< 0.0524
Aroclor 1268	mg/kg dry	< 0.0524
Total Aroclors		**< 0.0524**

Notes:
Hatching indicates additional soil was removed and the sample location was re-established.

Table 2 - Brick Verification Sampling Results
City of Worcester - North High School
140 Harrington Way
Worcester, Massachusetts

Sample Identification	**Brick-01**	**Brick-02**	**Brick-03**	**Brick-04**	**Brick-05**	**Brick-06**	**Brick-07**	**Brick-08**	**Brick-09**	**Brick-10**
Date Collected	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012	4/17/2012
Polychlorinated Biphenyls (PCBs) (mg/kg)										
Aroclor 1016	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Aroclor 1221	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Aroclor 1232	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Aroclor 1242	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Aroclor 1248	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Aroclor 1254	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Aroclor 1260	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Aroclor 1262	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Aroclor 1268	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971
Total PCBs	<0.0962	<0.0935	<0.0990	<0.0971	<0.0980	<0.0980	<0.0980	<0.0971	<0.0980	<0.0971

Notes:
mg/kg indicates milligrams per kilogram
<xx indicates compound was not detected. Detection limit is provided.

TABLE 3
Stockpile Characterization Results
Former North High School
140 Harrington Way
Worcester, Massachusetts

SAMPLE IDENTIFICATION **SAMPLING DATE** **WASTE STREAM**	**MA Unlined Landfill Criteria**	**Brick Stock-1** 7/17/2012 Crushed Brick	**Brick Stock-2** 7/17/2012 Crushed Brick	**CMU Stock-1** 7/17/2012 Crushed CMU Block	**CMU Stock-2** 7/17/2012 Crushed CMU Block	**CMU Stock-3** 7/17/2012 Crushed CMU Block	**CMU Stock-4** 7/17/2012 Crushed CMU Block	**CMU Stock-5** 7/17/2012 Crushed CMU Block	**CMU Stock-6** 7/17/2012 Crushed CMU Block	**CMU Stock-7** 7/17/2012 Crushed CMU Block	**CMU Stock-8** 7/17/2012 Crushed CMU Block	**Concrete REM** 7/20/2012 Crushed Concrete
Total Metals (mg/kg)												
Arsenic	40	8.0	11.6	9.3	11.1	9.9	9.8	12.1	11.1	12.6	10.1	13.8
Barium	NE	38.4	46.2	49.2	55.7	55.9	48.3	41.7	55.6	51.1	58.1	51.3
Cadmium	30	<0.51	<0.51	<0.50	<0.51	0.61	<0.50	<0.53	0.80	<0.58	<0.49	<0.49
Chromium	1,000	11.9	15.0	16.0	12.5	14.2	14.0	12.2	15.8	14.9	13.4	16.8
Lead	1,000	9.4	19.5	18.3	12.1	22.1	16.5	13.1	23.5	17.3	16.8	9.3
Mercury	10	0.038	0.073	0.394	0.108	0.456	0.325	0.118	0.260	0.106	0.170	0.045
Selenium	NE	<5.1	<5.1	<5.0	<5.1	<4.5	<4.9	<5.2	<5.5	<5.8	<4.9	<4.9
Silver	NE	<0.51	<0.51	<0.50	<0.51	<0.45	<0.50	<0.53	<0.55	<0.58	<0.49	<2.47
SPLP Metals (mg/L)												
Arsenic	5	<0.025	<0.025	-	-	-	-	-	-	-	-	<0.025
Barium	100	<0.025	<0.025	-	-	-	-	-	-	-	-	<0.025
Cadmium	1	<0.0025	<0.0025	-	-	-	-	-	-	-	-	<0.0025
Chromium	5	0.013	<0.010	-	-	-	-	-	-	-	-	<0.010
Lead	5	<0.010	<0.010	-	-	-	-	-	-	-	-	<0.010
Mercury	0.2	<0.00050	<0.00050	-	-	-	-	-	-	-	-	<0.00050
Selenium	1	<0.025	<0.025	-	-	-	-	-	-	-	-	<0.025
Silver	5	<0.005	<0.005	-	-	-	-	-	-	-	-	<0.005
Polychlorinated Biphenyls (mg/kg)												
Aroclor 1016	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Aroclor 1221	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Aroclor 1232	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Aroclor 1242	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	0.220	<0.0574	0.0577
Aroclor 1248	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	0.304	<0.0566	<0.0598	0.548	<0.0517
Aroclor 1254	NE	0.542	0.570	0.366	0.426	0.257	0.409	0.301	0.956	0.381	0.801	<0.0517
Aroclor 1260	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	0.852	<0.0598	<0.0574	<0.0517
Aroclor 1262	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Aroclor 1268	NE	<0.0503	<0.0506	<0.0538	<0.0562	<0.0531	<0.0550	<0.0596	<0.0566	<0.0598	<0.0574	<0.0517
Total PCBs	2	0.542	0.570	0.366	0.426	0.257	0.409	0.605	1.81	0.601	1.35	0.0577

Notes:
Results reported in milligrams per kilograms (mg/kg), equivalent to parts per million (ppm)
SPLP results reported in milligrams per litter (mg/L), equivalent to ppm
"<xx" indicates result is below the indicated method detection limit
NE - not established
-, not analyzed

Tighe&Bond

APPENDIX F

Appendix F

Laboratory Analytical Reports – See Enclosed Disc

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W1510)
ESS Laboratory Work Order Number: 1111154

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 4:29 pm, Nov 11, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111154

SAMPLE RECEIPT

The following samples were received on November 09, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111154-01	PX-1	Soil	8082A
1111154-02	PX-2	Soil	8082A
1111154-03	PX-3	Soil	8082A
1111154-04	PX-4	Soil	8082A
1111154-05	PX-5	Soil	8082A
1111154-06	PX-6	Soil	8082A
1111154-07	PX-7	Soil	8082A
1111154-08	PX-8	Soil	8082A
1111154-09	PX-9	Soil	8082A
1111154-10	PX-10	Soil	8082A
1111154-11	PX-11	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111154

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111154

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111154-01 through 1111154-11**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes (X) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: November 11, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-1
Date Sampled: 11/09/11 13:00
Percent Solids: 95
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0537)		1	11/10/11 18:06		CK10931
Aroclor 1221	ND (0.0537)		1	11/10/11 18:06		CK10931
Aroclor 1232	ND (0.0537)		1	11/10/11 18:06		CK10931
Aroclor 1242	ND (0.0537)		1	11/10/11 18:06		CK10931
Aroclor 1248	ND (0.0537)		1	11/10/11 18:06		CK10931
Aroclor 1254	ND (0.0537)		1	11/10/11 18:06		CK10931
Aroclor 1260	**0.164** (0.0537)		1	11/10/11 18:06		CK10931
Aroclor 1262	ND (0.0537)		1	11/10/11 18:06		CK10931
Aroclor 1268	ND (0.0537)		1	11/10/11 18:06		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-2
Date Sampled: 11/09/11 13:05
Percent Solids: 91
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0569)		1	11/10/11 18:25		CK10931
Aroclor 1221	ND (0.0569)		1	11/10/11 18:25		CK10931
Aroclor 1232	ND (0.0569)		1	11/10/11 18:25		CK10931
Aroclor 1242	ND (0.0569)		1	11/10/11 18:25		CK10931
Aroclor 1248	ND (0.0569)		1	11/10/11 18:25		CK10931
Aroclor 1254	ND (0.0569)		1	11/10/11 18:25		CK10931
Aroclor 1260	**0.163** (0.0569)		1	11/10/11 18:25		CK10931
Aroclor 1262	ND (0.0569)		1	11/10/11 18:25		CK10931
Aroclor 1268	ND (0.0569)		1	11/10/11 18:25		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-3
Date Sampled: 11/09/11 13:10
Percent Solids: 90
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0564)		1	11/10/11 18:44		CK10931
Aroclor 1221	ND (0.0564)		1	11/10/11 18:44		CK10931
Aroclor 1232	ND (0.0564)		1	11/10/11 18:44		CK10931
Aroclor 1242	ND (0.0564)		1	11/10/11 18:44		CK10931
Aroclor 1248	ND (0.0564)		1	11/10/11 18:44		CK10931
Aroclor 1254	ND (0.0564)		1	11/10/11 18:44		CK10931
Aroclor 1260	**0.132** (0.0564)		1	11/10/11 18:44		CK10931
Aroclor 1262	ND (0.0564)		1	11/10/11 18:44		CK10931
Aroclor 1268	ND (0.0564)		1	11/10/11 18:44		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-4
Date Sampled: 11/09/11 13:15
Percent Solids: 91
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0552)		1	11/10/11 19:03		CK10931
Aroclor 1221	ND (0.0552)		1	11/10/11 19:03		CK10931
Aroclor 1232	ND (0.0552)		1	11/10/11 19:03		CK10931
Aroclor 1242	ND (0.0552)		1	11/10/11 19:03		CK10931
Aroclor 1248	ND (0.0552)		1	11/10/11 19:03		CK10931
Aroclor 1254	ND (0.0552)		1	11/10/11 19:03		CK10931
Aroclor 1260	**0.137** (0.0552)		1	11/10/11 19:03		CK10931
Aroclor 1262	ND (0.0552)		1	11/10/11 19:03		CK10931
Aroclor 1268	ND (0.0552)		1	11/10/11 19:03		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-5
Date Sampled: 11/09/11 13:20
Percent Solids: 90
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0558)		1	11/10/11 19:22		CK10931
Aroclor 1221	ND (0.0558)		1	11/10/11 19:22		CK10931
Aroclor 1232	ND (0.0558)		1	11/10/11 19:22		CK10931
Aroclor 1242	ND (0.0558)		1	11/10/11 19:22		CK10931
Aroclor 1248	ND (0.0558)		1	11/10/11 19:22		CK10931
Aroclor 1254	ND (0.0558)		1	11/10/11 19:22		CK10931
Aroclor 1260	**0.405** (0.0558)		1	11/10/11 19:22		CK10931
Aroclor 1262	ND (0.0558)		1	11/10/11 19:22		CK10931
Aroclor 1268	ND (0.0558)		1	11/10/11 19:22		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-6
Date Sampled: 11/09/11 13:25
Percent Solids: 84
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0598)		1	11/10/11 19:41		CK10931
Aroclor 1221	ND (0.0598)		1	11/10/11 19:41		CK10931
Aroclor 1232	ND (0.0598)		1	11/10/11 19:41		CK10931
Aroclor 1242	ND (0.0598)		1	11/10/11 19:41		CK10931
Aroclor 1248	ND (0.0598)		1	11/10/11 19:41		CK10931
Aroclor 1254	ND (0.0598)		1	11/10/11 19:41		CK10931
Aroclor 1260	**0.149** (0.0598)		1	11/10/11 19:41		CK10931
Aroclor 1262	ND (0.0598)		1	11/10/11 19:41		CK10931
Aroclor 1268	ND (0.0598)		1	11/10/11 19:41		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*98 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-7
Date Sampled: 11/09/11 13:30
Percent Solids: 85
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0603)		1	11/10/11 20:00		CK10931
Aroclor 1221	ND (0.0603)		1	11/10/11 20:00		CK10931
Aroclor 1232	ND (0.0603)		1	11/10/11 20:00		CK10931
Aroclor 1242	ND (0.0603)		1	11/10/11 20:00		CK10931
Aroclor 1248	ND (0.0603)		1	11/10/11 20:00		CK10931
Aroclor 1254	**0.217** (0.0603)		1	11/10/11 20:00		CK10931
Aroclor 1260	**0.201** (0.0603)		1	11/10/11 20:00		CK10931
Aroclor 1262	ND (0.0603)		1	11/10/11 20:00		CK10931
Aroclor 1268	ND (0.0603)		1	11/10/11 20:00		CK10931

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-8
Date Sampled: 11/09/11 13:35
Percent Solids: 88
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0565)		1	11/10/11 20:18		CK10931
Aroclor 1221	ND (0.0565)		1	11/10/11 20:18		CK10931
Aroclor 1232	ND (0.0565)		1	11/10/11 20:18		CK10931
Aroclor 1242	ND (0.0565)		1	11/10/11 20:18		CK10931
Aroclor 1248	ND (0.0565)		1	11/10/11 20:18		CK10931
Aroclor 1254	ND (0.0565)		1	11/10/11 20:18		CK10931
Aroclor 1260	**0.294** (0.0565)		1	11/10/11 20:18		CK10931
Aroclor 1262	ND (0.0565)		1	11/10/11 20:18		CK10931
Aroclor 1268	ND (0.0565)		1	11/10/11 20:18		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-9
Date Sampled: 11/09/11 13:40
Percent Solids: 89
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)		1	11/10/11 20:37		CK10931
Aroclor 1221	ND (0.0573)		1	11/10/11 20:37		CK10931
Aroclor 1232	ND (0.0573)		1	11/10/11 20:37		CK10931
Aroclor 1242	ND (0.0573)		1	11/10/11 20:37		CK10931
Aroclor 1248	ND (0.0573)		1	11/10/11 20:37		CK10931
Aroclor 1254	ND (0.0573)		1	11/10/11 20:37		CK10931
Aroclor 1260	**0.153** (0.0573)		1	11/10/11 20:37		CK10931
Aroclor 1262	ND (0.0573)		1	11/10/11 20:37		CK10931
Aroclor 1268	ND (0.0573)		1	11/10/11 20:37		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*70 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-10
Date Sampled: 11/09/11 13:45
Percent Solids: 87
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0586)		1	11/10/11 20:56		CK10931
Aroclor 1221	ND (0.0586)		1	11/10/11 20:56		CK10931
Aroclor 1232	ND (0.0586)		1	11/10/11 20:56		CK10931
Aroclor 1242	ND (0.0586)		1	11/10/11 20:56		CK10931
Aroclor 1248	ND (0.0586)		1	11/10/11 20:56		CK10931
Aroclor 1254	ND (0.0586)		1	11/10/11 20:56		CK10931
Aroclor 1260	**0.148** (0.0586)		1	11/10/11 20:56		CK10931
Aroclor 1262	ND (0.0586)		1	11/10/11 20:56		CK10931
Aroclor 1268	ND (0.0586)		1	11/10/11 20:56		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-11
Date Sampled: 11/09/11 13:50
Percent Solids: 86
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111154
ESS Laboratory Sample ID: 1111154-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0587)		1	11/10/11 21:15		CK10931
Aroclor 1221	ND (0.0587)		1	11/10/11 21:15		CK10931
Aroclor 1232	ND (0.0587)		1	11/10/11 21:15		CK10931
Aroclor 1242	ND (0.0587)		1	11/10/11 21:15		CK10931
Aroclor 1248	ND (0.0587)		1	11/10/11 21:15		CK10931
Aroclor 1254	ND (0.0587)		1	11/10/11 21:15		CK10931
Aroclor 1260	**0.206** (0.0587)		1	11/10/11 21:15		CK10931
Aroclor 1262	ND (0.0587)		1	11/10/11 21:15		CK10931
Aroclor 1268	ND (0.0587)		1	11/10/11 21:15		CK10931

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*84 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111154

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK10931 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111154

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK10931 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111154

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK10931 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0204*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0230*		mg/kg wet	*0.02500*		*92*	*30-150*			
LCS										
Aroclor 1016	0.526	0.0500	mg/kg wet	0.5000		105	40-140			
Aroclor 1260	0.523	0.0500	mg/kg wet	0.5000		105	40-140			
Surrogate: Decachlorobiphenyl	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0246*		mg/kg wet	*0.02500*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
LCS Dup										
Aroclor 1016	0.495	0.0500	mg/kg wet	0.5000		99	40-140	6	30	
Aroclor 1260	0.504	0.0500	mg/kg wet	0.5000		101	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0227*		mg/kg wet	*0.02500*		*91*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111154

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111154

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110154
Date Project Due: 11/14/11
Days For Project: 2 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? * No
   Air No.:
2. Were Custody Seals Present? No
3. Were Custody Seals Intact? N/A
4. Is Radiation count < 100 CPM? Yes
5. Is a cooler present? Yes
   Cooler Temp: **3.2**
   Iced With: **Icepacks**
6. Was COC included with samples? Yes
7. Was COC signed and dated by client? Yes
8. Does the COC match the sample Yes
9. Is COC complete and correct? Yes
10. Are the samples properly preserved? Yes
11. Proper sample containers used? Yes
12. Any air bubbles in the VOA vials? N/A
13. Holding times exceeded? No
14. Sufficient sample volumes? Yes
15. Any Subcontracting needed? No
16. Are ESS labels on correct containers? Yes/No
17. Were samples received intact? Yes/No
    ESS Sample IDs: _____
    Sub Lab: _____
    Analysis: _____
    TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	8 oz Soil Jar	1	NP
2	Yes	8 oz Soil Jar	1	NP
3	Yes	8 oz Soil Jar	1	NP
4	Yes	8 oz Soil Jar	1	NP
5	Yes	8 oz Soil Jar	1	NP
6	Yes	8 oz Soil Jar	1	NP
7	Yes	8 oz Soil Jar	1	NP
8	Yes	8 oz Soil Jar	1	NP
9	Yes	8 oz Soil Jar	1	NP
10	Yes	8 oz Soil Jar	1	NP
11	Yes	8 oz Soil Jar	1	NP
~~12~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~
~~13~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~
~~14~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~
~~15~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~
~~16~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~
~~17~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~
~~18~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~
~~19~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~
~~20~~	~~Yes~~	~~8 oz Soil Jar~~	~~1~~	~~NP~~

moved to W.O.# 111171-01 th. -09

Completed By: MK Date/Time: 11/10/11
Reviewed By: BC Date/Time: 11/10/11

ESS Quote # 1106117 RUSH SAMPLES PX-1 through PX-11 1111154 1 of 2

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

48HR

CHAIN OF CUSTODY

ESS Lab #

Turn Time ___ Standard Other_Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State: (MA) RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W1510	Project Name: NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
01	11/9/11	1300	G	S	PX-1	1	1	G		X
02	11/9/11	1305	G	S	PX-2	1	1	G		X
03	11/9/11	1310	G	S	PX-3	1	1	G		X
04	11/9/11	1315	G	S	PX-4	1	1	G		X
05	11/9/11	1320	G	S	PX-5	1	1	G		X
06	11/9/11	1325	G	S	PX-6	1	1	G		X
07	11/9/11	1330	G	S	PX-7	1	1	G		X
08	11/9/11	1335	G	S	PX-8	1	1	G		X
09	11/9/11	1340	G	S	PX-9	1	1	G		X
10	11/9/11	1345	G	S	PX-10	1	1	G		X

Analysis

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ___ No

Seals Intact ___ Yes ___ No NA: ✓

Cooler Temperature: 3.2°

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: MAA

Comments: Manual Extraction by 3540
RUSH SAMPLES PX-1 through PX-11 (48 Hr)

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-9-11 1505	11-9-11 1505	11/9/11 18:00	Friday 11/9/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
Friday 11/10/11 0800	11/10/11 0800		

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS QUOTE # 1106117

PX-11 - 48 HR RUSH

PX-12 - PX-20

111157 2 of 2

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab #

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State: (MA) RI CT NH NJ (NY) ME Other_____

Electonic Deliverables Excel Access PDF

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Co. Name	Tighe & Bond, Inc.	Project # W1510	Project Name NORTH HIGH
Contact Person	Marc J. Richards	Address	446 Main Street
City	Worcester	State MA	Zip 01609 / PO # W1510
Tel.	508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com

Analysis

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
11	11/9/11	1350	G	S	PX-11	1	1	G		X
~~*12~~	11/9/11	1355	G	S	PX-12	1	1	G		X
~~*13~~	11/9/11	1400	G	S	PX-13	1	1	G		X
~~*14~~	11/9/11	1405	G	S	PX-14	1	1	G		X
~~*15~~	11/9/11	1410	G	S	PX-15	1	1	G		X
~~*16~~	11/9/11	1415	G	S	PX-16	1	1	G		X
~~*17~~	11/9/11	1420	G	S	PX-17	1	1	G		X
~~*18~~	11/9/11	1425	G	S	PX-18	1	1	G		X
~~*19~~	11/9/11	1430	G	S	PX-19	1	1	G		X
~~*20~~	11/9/11	1435	G	S	PX-20	1	1	G		X

*Snap 11/10/11

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 3.2°

Internal Use Only

[✓] Pickup

[ ] Technician___

MC 11/10/11

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540
Rush samples PX-1 through PX-11 (48 HR)

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-9-11 1505	11-9-11 15:05	11-9-11 18:00	Friday 11/9/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
Friday 11/10/11 0800	Manal Kooma 11/10/11 0800		

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Quote # 1106117

49HR RUSH SAMPLES PX-1 through PX-11 111115Y 1 of 2

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab #

Turn Time ____ Standard Other_Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State: (MA) RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
(MA-MCP) Navy USACE CT DEP Other_____

Electonic Deliverables (Excel) Access (PDF)

Co. Name: Tighe & Bond, Inc.	Project #: W1510	Project Name: NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO #: W1510
Tel.: 508-471-9621	Fax.: 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
01	11/9/11	1300	G	S	PX-1	1	1	G		X
02	11/9/11	1305	G	S	PX-2	1	1	G		X
03	11/9/11	1310	G	S	PX-3	1	1	G		X
04	11/9/11	1315	G	S	PX-4	1	1	G		X
05	11/9/11	1320	G	S	PX-5	1	1	G		X
06	11/9/11	1325	G	S	PX-6	1	1	G		X
07	11/9/11	1330	G	S	PX-7	1	1	G		X
08	11/9/11	1335	G	S	PX-8	1	1	G		X
09	11/9/11	1340	G	S	PX-9	1	1	G		X
10	11/9/11	1345	G	S	PX-10	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 3.2°

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: MAA

Comments: Manual Extraction by 3540
RUSH SAMPLES PX-1 through PX-11 (48 Hr)

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-9-11 1500	11-9-11 1505	11/9/11 18:00	Friday 11/9/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
Friday 11/10/11 0800	11/10/11 0800		

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS QUOTE # 1106117

PX-11 - 48 HR RUSH

PX-12 - PX-20

1111157 2 of 2

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab #

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State: (MA) RI CT NH NJ (NY) ME Other_____

Is this project for any of the following:(please circle)
(MA-MCP) Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W1510	Project Name: NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
11	11/9/11	1350	G	S	PX-11	1	1	G		X
12	11/9/11	1355	G	S	PX-12	1	1	G		X
13	11/9/11	1400	G	S	PX-13	1	1	G		X
14	11/9/11	1405	G	S	PX-14	1	1	G		X
15	11/9/11	1410	G	S	PX-15	1	1	G		X
16	11/9/11	1415	G	S	PX-16	1	1	G		X
17 —	11/9/11	1420	G	S	PX-17	1	1	G		X
18 —	11/9/11	1425	G	S	PX-18	1	1	G		X
19 —	11/9/11	1430	G	S	PX-19	1	1	G		X
20 —	11/9/11	1435	G	S	PX-20	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

mc 11/10/11

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 3.2°C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: MAA

Comments: Manual Extraction by 3540
Rush samples PX-1 through PX-11 (48 HR)

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
[signature] 11-9-11 1505	[signature] 11-9-11 15:05	[signature] 11-9-11 18:00	Friday 11/9/11 1800
Friday 11/10/11 0800	[signature] 11/10/11 0800		

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W1510)
ESS Laboratory Work Order Number: 1111171

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:20 pm, Nov 18, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111171

SAMPLE RECEIPT

The following samples were received on November 09, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111171-01	PX-12	Soil	8082A
1111171-02	PX-13	Soil	8082A
1111171-03	PX-14	Soil	8082A
1111171-04	PX-15	Soil	8082A
1111171-05	PX-16	Soil	8082A
1111171-06	PX-17	Soil	8082A
1111171-07	PX-18	Soil	8082A
1111171-08	PX-19	Soil	8082A
1111171-09	PX-20	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111171

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111171

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111171-01 through 1111171-09**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: November 18, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-12
Date Sampled: 11/09/11 13:55
Percent Solids: 79
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0649)		1	11/10/11 21:34		CK10931
Aroclor 1221	ND (0.0649)		1	11/10/11 21:34		CK10931
Aroclor 1232	ND (0.0649)		1	11/10/11 21:34		CK10931
Aroclor 1242	ND (0.0649)		1	11/10/11 21:34		CK10931
Aroclor 1248	ND (0.0649)		1	11/10/11 21:34		CK10931
Aroclor 1254	ND (0.0649)		1	11/10/11 21:34		CK10931
Aroclor 1260	ND (0.0649)		1	11/10/11 21:34		CK10931
Aroclor 1262	ND (0.0649)		1	11/10/11 21:34		CK10931
Aroclor 1268	ND (0.0649)		1	11/10/11 21:34		CK10931

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*55 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*54 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*47 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*46 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-13
Date Sampled: 11/09/11 14:00
Percent Solids: 89
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0585)		1	11/10/11 21:53		CK10931
Aroclor 1221	ND (0.0585)		1	11/10/11 21:53		CK10931
Aroclor 1232	ND (0.0585)		1	11/10/11 21:53		CK10931
Aroclor 1242	ND (0.0585)		1	11/10/11 21:53		CK10931
Aroclor 1248	ND (0.0585)		1	11/10/11 21:53		CK10931
Aroclor 1254	ND (0.0585)		1	11/10/11 21:53		CK10931
Aroclor 1260	**0.0831** (0.0585)		1	11/10/11 21:53		CK10931
Aroclor 1262	ND (0.0585)		1	11/10/11 21:53		CK10931
Aroclor 1268	ND (0.0585)		1	11/10/11 21:53		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*68 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*61 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*62 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*63 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-14
Date Sampled: 11/09/11 14:05
Percent Solids: 87
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/9/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0596)		1	11/10/11 22:12		CK10931
Aroclor 1221	ND (0.0596)		1	11/10/11 22:12		CK10931
Aroclor 1232	ND (0.0596)		1	11/10/11 22:12		CK10931
Aroclor 1242	ND (0.0596)		1	11/10/11 22:12		CK10931
Aroclor 1248	ND (0.0596)		1	11/10/11 22:12		CK10931
Aroclor 1254	ND (0.0596)		1	11/10/11 22:12		CK10931
Aroclor 1260	**0.0784** (0.0596)		1	11/10/11 22:12		CK10931
Aroclor 1262	ND (0.0596)		1	11/10/11 22:12		CK10931
Aroclor 1268	ND (0.0596)		1	11/10/11 22:12		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-15
Date Sampled: 11/09/11 14:10
Percent Solids: 88
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/10/11 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0586)		1	11/12/11 6:43		CK10931
Aroclor 1221	ND (0.0586)		1	11/12/11 6:43		CK10931
Aroclor 1232	ND (0.0586)		1	11/12/11 6:43		CK10931
Aroclor 1242	ND (0.0586)		1	11/12/11 6:43		CK10931
Aroclor 1248	ND (0.0586)		1	11/12/11 6:43		CK10931
Aroclor 1254	ND (0.0586)		1	11/12/11 6:43		CK10931
Aroclor 1260	**0.137** (0.0586)		1	11/12/11 6:43		CK10931
Aroclor 1262	ND (0.0586)		1	11/12/11 6:43		CK10931
Aroclor 1268	ND (0.0586)		1	11/12/11 6:43		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-16
Date Sampled: 11/09/11 14:15
Percent Solids: 89
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/10/11 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)		1	11/12/11 7:02		CK10931
Aroclor 1221	ND (0.0573)		1	11/12/11 7:02		CK10931
Aroclor 1232	ND (0.0573)		1	11/12/11 7:02		CK10931
Aroclor 1242	ND (0.0573)		1	11/12/11 7:02		CK10931
Aroclor 1248	ND (0.0573)		1	11/12/11 7:02		CK10931
Aroclor 1254	ND (0.0573)		1	11/12/11 7:02		CK10931
Aroclor 1260	ND (0.0573)		1	11/12/11 7:02		CK10931
Aroclor 1262	ND (0.0573)		1	11/12/11 7:02		CK10931
Aroclor 1268	ND (0.0573)		1	11/12/11 7:02		CK10931

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-17
Date Sampled: 11/09/11 14:20
Percent Solids: 94
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/10/11 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)		1	11/12/11 7:21		CK10931
Aroclor 1221	ND (0.0554)		1	11/12/11 7:21		CK10931
Aroclor 1232	ND (0.0554)		1	11/12/11 7:21		CK10931
Aroclor 1242	ND (0.0554)		1	11/12/11 7:21		CK10931
Aroclor 1248	ND (0.0554)		1	11/12/11 7:21		CK10931
Aroclor 1254	ND (0.0554)		1	11/12/11 7:21		CK10931
Aroclor 1260	ND (0.0554)		1	11/12/11 7:21		CK10931
Aroclor 1262	ND (0.0554)		1	11/12/11 7:21		CK10931
Aroclor 1268	ND (0.0554)		1	11/12/11 7:21		CK10931

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-18
Date Sampled: 11/09/11 14:25
Percent Solids: 89
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/10/11 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0579)		1	11/12/11 9:14		CK10931
Aroclor 1221	ND (0.0579)		1	11/12/11 9:14		CK10931
Aroclor 1232	ND (0.0579)		1	11/12/11 9:14		CK10931
Aroclor 1242	ND (0.0579)		1	11/12/11 9:14		CK10931
Aroclor 1248	ND (0.0579)		1	11/12/11 9:14		CK10931
Aroclor 1254	ND (0.0579)		1	11/12/11 9:14		CK10931
Aroclor 1260	ND (0.0579)		1	11/12/11 9:14		CK10931
Aroclor 1262	ND (0.0579)		1	11/12/11 9:14		CK10931
Aroclor 1268	ND (0.0579)		1	11/12/11 9:14		CK10931

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-19
Date Sampled: 11/09/11 14:30
Percent Solids: 95
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/10/11 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0543)		1	11/12/11 10:21		CK10931
Aroclor 1221	ND (0.0543)		1	11/12/11 10:21		CK10931
Aroclor 1232	ND (0.0543)		1	11/12/11 10:21		CK10931
Aroclor 1242	ND (0.0543)		1	11/12/11 10:21		CK10931
Aroclor 1248	ND (0.0543)		1	11/12/11 10:21		CK10931
Aroclor 1254	ND (0.0543)		1	11/12/11 10:21		CK10931
Aroclor 1260	ND (0.0543)		1	11/12/11 10:21		CK10931
Aroclor 1262	ND (0.0543)		1	11/12/11 10:21		CK10931
Aroclor 1268	ND (0.0543)		1	11/12/11 10:21		CK10931

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-20
Date Sampled: 11/09/11 14:35
Percent Solids: 88
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111171
ESS Laboratory Sample ID: 1111171-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/10/11 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0592)		1	11/12/11 10:39		CK10931
Aroclor 1221	ND (0.0592)		1	11/12/11 10:39		CK10931
Aroclor 1232	ND (0.0592)		1	11/12/11 10:39		CK10931
Aroclor 1242	ND (0.0592)		1	11/12/11 10:39		CK10931
Aroclor 1248	ND (0.0592)		1	11/12/11 10:39		CK10931
Aroclor 1254	**1.61** (0.296)		5	11/13/11 15:14		CK10931
Aroclor 1260	ND (0.0592)		1	11/12/11 10:39		CK10931
Aroclor 1262	ND (0.0592)		1	11/12/11 10:39		CK10931
Aroclor 1268	ND (0.0592)		1	11/12/11 10:39		CK10931

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111171

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK10931 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111171

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK10931 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111171

Quality Control Data

8082A Polychlorinated Biphenyls (PCB)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch CK10931 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0204*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0230*		mg/kg wet	*0.02500*		*92*	*30-150*			
LCS										
Aroclor 1016	0.526	0.0500	mg/kg wet	0.5000		105	40-140			
Aroclor 1260	0.523	0.0500	mg/kg wet	0.5000		105	40-140			
Surrogate: Decachlorobiphenyl	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0246*		mg/kg wet	*0.02500*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
LCS Dup										
Aroclor 1016	0.495	0.0500	mg/kg wet	0.5000		99	40-140	6	30	
Aroclor 1260	0.504	0.0500	mg/kg wet	0.5000		101	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0227*		mg/kg wet	*0.02500*		*91*	*30-150*			
Matrix Spike Source: 1111171-09										
Aroclor 1016	0.642	0.0583	mg/kg dry	0.5828	ND	110	40-140			
Aroclor 1260	0.722	0.0583	mg/kg dry	0.5828	ND	124	40-140			
Surrogate: Decachlorobiphenyl	*0.0244*		mg/kg dry	*0.02914*		*84*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0225*		mg/kg dry	*0.02914*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0316*		mg/kg dry	*0.02914*		*109*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0286*		mg/kg dry	*0.02914*		*98*	*30-150*			
Matrix Spike Dup Source: 1111171-09										
Aroclor 1016	0.617	0.0580	mg/kg dry	0.5798	ND	106	40-140	3	30	
Aroclor 1260	0.680	0.0580	mg/kg dry	0.5798	ND	117	40-140	6	30	
Surrogate: Decachlorobiphenyl	*0.0234*		mg/kg dry	*0.02899*		*81*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0226*		mg/kg dry	*0.02899*		*78*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0259*		mg/kg dry	*0.02899*		*89*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111171

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK10931 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0261*		mg/kg dry	*0.02899*		*90*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111171

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Diluted.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111171

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110171
Date Project Due: 11/17/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **3.2**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**
    ESS Sample IDs: _____
    Sub Lab: _____
    Analysis: _____
    TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	8 oz Soil Jar	1	NP
2	Yes	8 oz Soil Jar	1	NP
3	Yes	8 oz Soil Jar	1	NP
4	Yes	8 oz Soil Jar	1	NP
5	Yes	8 oz Soil Jar	1	NP
6	Yes	8 oz Soil Jar	1	NP
7	Yes	8 oz Soil Jar	1	NP
8	Yes	8 oz Soil Jar	1	NP
9	Yes	8 oz Soil Jar	1	NP

Completed By: MK Date/Time: 11/10/11
Reviewed By: BC Date/Time: 11/10/11

ESS QUOTE # 1106117

PX-11 - 48 HR RUSH

PX-12 - PX-20

1111171 ~~1111154~~ MK 11/10/11

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab #

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State: (MA) RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W1510	Project Name: NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

	ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
	~~11~~	11/9/11	1350	G	S	PX-11	1	1	G		X
01	~~12~~	11/9/11	1355	G	S	PX-12	1	1	G		X
02	~~13~~	11/9/11	1400	G	S	PX-13	1	1	G		X
03	~~14~~	11/9/11	1405	G	S	PX-14	1	1	G		X
04	~~15~~	11/9/11	1410	G	S	PX-15	1	1	G		X
05	~~16~~	11/9/11	1415	G	S	PX-16	1	1	G		X
06	7	11/9/11	1420	G	S	PX-17	1	1	G		X
07	8	11/9/11	1425	G	S	PX-18	1	1	G		X
08	9	11/9/11	1430	G	S	PX-19	1	1	G		X
09	10	11/9/11	1435	G	S	PX-20	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 3.2°

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540
Rush samples PX-1 through PX-11 (48 HR)

MK 11/10/11

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-9-11 1505	11-9-11 15:05	11-9-11 18:00	Friday 11/9/11 1800
Friday 11/10/11 0800	11/10/11 0800		

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1111437

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 1:38 pm, Dec 06, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111437

SAMPLE RECEIPT

The following samples were received on November 28, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111437-01	PX-20R	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111437

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111437

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111437-01**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 05, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-20R
Date Sampled: 11/25/11 14:40
Percent Solids: 91
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111437
ESS Laboratory Sample ID: 1111437-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/29/11 14:35
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0552)		1	12/01/11 2:56		CK12831
Aroclor 1221	ND (0.0552)		1	12/01/11 2:56		CK12831
Aroclor 1232	ND (0.0552)		1	12/01/11 2:56		CK12831
Aroclor 1242	ND (0.0552)		1	12/01/11 2:56		CK12831
Aroclor 1248	ND (0.0552)		1	12/01/11 2:56		CK12831
Aroclor 1254	**0.645** (0.0552)		1	12/01/11 2:56		CK12831
Aroclor 1260	ND (0.0552)		1	12/01/11 2:56		CK12831
Aroclor 1262	ND (0.0552)		1	12/01/11 2:56		CK12831
Aroclor 1268	ND (0.0552)		1	12/01/11 2:56		CK12831

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*79 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111437

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK12831 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111437

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK12831 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111437

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK12831 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0164*		mg/kg wet	*0.02500*		*66*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0165*		mg/kg wet	*0.02500*		*66*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.00941*		mg/kg wet	*0.02500*		*38*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.00974*		mg/kg wet	*0.02500*		*39*	*30-150*			
LCS										
Aroclor 1016	0.483	0.0500	mg/kg wet	0.5000		97	40-140			
Aroclor 1260	0.494	0.0500	mg/kg wet	0.5000		99	40-140			
Surrogate: Decachlorobiphenyl	*0.0273*		mg/kg wet	*0.02500*		*109*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0272*		mg/kg wet	*0.02500*		*109*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0239*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
LCS Dup										
Aroclor 1016	0.463	0.0500	mg/kg wet	0.5000		93	40-140	4	30	
Aroclor 1260	0.476	0.0500	mg/kg wet	0.5000		95	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0259*		mg/kg wet	*0.02500*		*104*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0260*		mg/kg wet	*0.02500*		*104*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0224*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111437

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111437

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110437
Date Project Due: 12/5/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **4.4**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes | No**
17. Were samples received intact? **Yes | No**
    ESS Sample IDs: _____
    Sub Lab: _____
    Analysis: _____
    TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	2 oz Soil Jar	1	NP

Completed By: BC Date/Time: 11/28/11
Reviewed By: MC Date/Time: _____

ESS Quote # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 111487

Turn Time ___ Standard Other (Hard 5 Day) TAT

Regulatory State (MA) RI CT NH NJ NY ME Other ___

Reporting Limits - <1 ppm

Is this project for any of the following:(please circle)
(MA-MCP) Navy USACE CT DEP Other ___

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.
Project # W-1510
Project Name: NORTH HIGH
Contact Person: Marc J. Richards
Address: 446 Main Street
City: Worcester
State: MA
Zip: 01609
PO # W-1510
Tel. 508-471-9621
Fax. 508-795-1087
email: MJRichards@tighebond.com

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
01	11-~~10~~-11 25	2:40pm	G	S	PX-20R	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X
	11-10-11		G	S	PX-	1	1	G		X

Analysis

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ___ No

Seals Intact ___ Yes ___ No NA: ✓

Cooler Temperature: 4.4°

Internal Use Only
[ ] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-___

Sampled by : ~~MA~~ CJK

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11/28/11 1:25	11/28/11 1:25pm	11/28/11 2:54pm	11/28/11 2:54pm
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W1510)
ESS Laboratory Work Order Number: 1111159

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:40 pm, Nov 16, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111159

SAMPLE RECEIPT

The following samples were received on November 09, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111159-01	PX-21	Soil	8082A
1111159-02	PX-22	Soil	8082A
1111159-03	PX-23	Soil	8082A
1111159-04	PX-24	Soil	8082A
1111159-05	PX-25	Soil	8082A
1111159-06	PX-26	Soil	8082A
1111159-07	PX-27	Soil	8082A
1111159-08	PX-28	Soil	8082A
1111159-09	PX-29	Soil	8082A
1111159-10	PX-30	Soil	8082A
1111159-11	PX-31	Soil	8082A
1111159-12	PX-32	Soil	8082A
1111159-13	PX-33	Soil	8082A
1111159-14	PX-34	Soil	8082A
1111159-15	PX-35	Soil	8082A
1111159-16	PX-36	Soil	8082A
1111159-17	PX-37	Soil	8082A
1111159-18	PX-38	Soil	8082A
1111159-19	PX-39	Soil	8082A
1111159-20	PX-40	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111159

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111159

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111159-01 through 1111159-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: November 16, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-21
Date Sampled: 11/09/11 14:40
Percent Solids: 92
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0543)		1	11/13/11 5:10		CK11125
Aroclor 1221	ND (0.0543)		1	11/13/11 5:10		CK11125
Aroclor 1232	ND (0.0543)		1	11/13/11 5:10		CK11125
Aroclor 1242	ND (0.0543)		1	11/13/11 5:10		CK11125
Aroclor 1248	ND (0.0543)		1	11/13/11 5:10		CK11125
Aroclor 1254	ND (0.0543)		1	11/13/11 5:10		CK11125
Aroclor 1260	**0.133** (0.0543)		1	11/13/11 5:10		CK11125
Aroclor 1262	ND (0.0543)		1	11/13/11 5:10		CK11125
Aroclor 1268	ND (0.0543)		1	11/13/11 5:10		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-22
Date Sampled: 11/09/11 14:45
Percent Solids: 87
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0578)		1	11/13/11 5:29		CK11125
Aroclor 1221	ND (0.0578)		1	11/13/11 5:29		CK11125
Aroclor 1232	ND (0.0578)		1	11/13/11 5:29		CK11125
Aroclor 1242	ND (0.0578)		1	11/13/11 5:29		CK11125
Aroclor 1248	ND (0.0578)		1	11/13/11 5:29		CK11125
Aroclor 1254	ND (0.0578)		1	11/13/11 5:29		CK11125
Aroclor 1260	**0.167** (0.0578)		1	11/13/11 5:29		CK11125
Aroclor 1262	ND (0.0578)		1	11/13/11 5:29		CK11125
Aroclor 1268	ND (0.0578)		1	11/13/11 5:29		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*83 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-23
Date Sampled: 11/09/11 14:50
Percent Solids: 88
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)		1	11/13/11 5:48		CK11125
Aroclor 1221	ND (0.0589)		1	11/13/11 5:48		CK11125
Aroclor 1232	ND (0.0589)		1	11/13/11 5:48		CK11125
Aroclor 1242	ND (0.0589)		1	11/13/11 5:48		CK11125
Aroclor 1248	ND (0.0589)		1	11/13/11 5:48		CK11125
Aroclor 1254	ND (0.0589)		1	11/13/11 5:48		CK11125
Aroclor 1260	**0.165** (0.0589)		1	11/13/11 5:48		CK11125
Aroclor 1262	ND (0.0589)		1	11/13/11 5:48		CK11125
Aroclor 1268	ND (0.0589)		1	11/13/11 5:48		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-24
Date Sampled: 11/09/11 14:55
Percent Solids: 89
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0576)		1	11/13/11 6:07		CK11125
Aroclor 1221	ND (0.0576)		1	11/13/11 6:07		CK11125
Aroclor 1232	ND (0.0576)		1	11/13/11 6:07		CK11125
Aroclor 1242	ND (0.0576)		1	11/13/11 6:07		CK11125
Aroclor 1248	ND (0.0576)		1	11/13/11 6:07		CK11125
Aroclor 1254	**0.300** (0.0576)		1	11/13/11 6:07		CK11125
Aroclor 1260	**0.110** (0.0576)		1	11/13/11 6:07		CK11125
Aroclor 1262	ND (0.0576)		1	11/13/11 6:07		CK11125
Aroclor 1268	ND (0.0576)		1	11/13/11 6:07		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-25
Date Sampled: 11/09/11 15:00
Percent Solids: 89
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0585)		1	11/13/11 6:26		CK11125
Aroclor 1221	ND (0.0585)		1	11/13/11 6:26		CK11125
Aroclor 1232	ND (0.0585)		1	11/13/11 6:26		CK11125
Aroclor 1242	ND (0.0585)		1	11/13/11 6:26		CK11125
Aroclor 1248	ND (0.0585)		1	11/13/11 6:26		CK11125
Aroclor 1254	ND (0.0585)		1	11/13/11 6:26		CK11125
Aroclor 1260	ND (0.0585)		1	11/13/11 6:26		CK11125
Aroclor 1262	ND (0.0585)		1	11/13/11 6:26		CK11125
Aroclor 1268	ND (0.0585)		1	11/13/11 6:26		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-26
Date Sampled: 11/09/11 12:05
Percent Solids: 88
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0574)		1	11/13/11 6:45		CK11125
Aroclor 1221	ND (0.0574)		1	11/13/11 6:45		CK11125
Aroclor 1232	ND (0.0574)		1	11/13/11 6:45		CK11125
Aroclor 1242	ND (0.0574)		1	11/13/11 6:45		CK11125
Aroclor 1248	ND (0.0574)		1	11/13/11 6:45		CK11125
Aroclor 1254	ND (0.0574)		1	11/13/11 6:45		CK11125
Aroclor 1260	ND (0.0574)		1	11/13/11 6:45		CK11125
Aroclor 1262	ND (0.0574)		1	11/13/11 6:45		CK11125
Aroclor 1268	ND (0.0574)		1	11/13/11 6:45		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-27
Date Sampled: 11/09/11 12:10
Percent Solids: 89
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0559)		1	11/13/11 7:03		CK11125
Aroclor 1221	ND (0.0559)		1	11/13/11 7:03		CK11125
Aroclor 1232	ND (0.0559)		1	11/13/11 7:03		CK11125
Aroclor 1242	ND (0.0559)		1	11/13/11 7:03		CK11125
Aroclor 1248	ND (0.0559)		1	11/13/11 7:03		CK11125
Aroclor 1254	ND (0.0559)		1	11/13/11 7:03		CK11125
Aroclor 1260	**0.0755** (0.0559)		1	11/13/11 7:03		CK11125
Aroclor 1262	ND (0.0559)		1	11/13/11 7:03		CK11125
Aroclor 1268	ND (0.0559)		1	11/13/11 7:03		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-28
Date Sampled: 11/09/11 12:15
Percent Solids: 89
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0582)		1	11/13/11 7:22		CK11125
Aroclor 1221	ND (0.0582)		1	11/13/11 7:22		CK11125
Aroclor 1232	ND (0.0582)		1	11/13/11 7:22		CK11125
Aroclor 1242	ND (0.0582)		1	11/13/11 7:22		CK11125
Aroclor 1248	ND (0.0582)		1	11/13/11 7:22		CK11125
Aroclor 1254	ND (0.0582)		1	11/13/11 7:22		CK11125
Aroclor 1260	**0.426** (0.0582)		1	11/13/11 7:22		CK11125
Aroclor 1262	ND (0.0582)		1	11/13/11 7:22		CK11125
Aroclor 1268	ND (0.0582)		1	11/13/11 7:22		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-29
Date Sampled: 11/09/11 12:20
Percent Solids: 93
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0557)		1	11/13/11 7:41		CK11125
Aroclor 1221	ND (0.0557)		1	11/13/11 7:41		CK11125
Aroclor 1232	ND (0.0557)		1	11/13/11 7:41		CK11125
Aroclor 1242	ND (0.0557)		1	11/13/11 7:41		CK11125
Aroclor 1248	ND (0.0557)		1	11/13/11 7:41		CK11125
Aroclor 1254	ND (0.0557)		1	11/13/11 7:41		CK11125
Aroclor 1260	**0.160** (0.0557)		1	11/13/11 7:41		CK11125
Aroclor 1262	ND (0.0557)		1	11/13/11 7:41		CK11125
Aroclor 1268	ND (0.0557)		1	11/13/11 7:41		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-30
Date Sampled: 11/09/11 12:25
Percent Solids: 90
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0576)		1	11/13/11 8:00		CK11125
Aroclor 1221	ND (0.0576)		1	11/13/11 8:00		CK11125
Aroclor 1232	ND (0.0576)		1	11/13/11 8:00		CK11125
Aroclor 1242	ND (0.0576)		1	11/13/11 8:00		CK11125
Aroclor 1248	ND (0.0576)		1	11/13/11 8:00		CK11125
Aroclor 1254	ND (0.0576)		1	11/13/11 8:00		CK11125
Aroclor 1260	**0.102** (0.0576)		1	11/13/11 8:00		CK11125
Aroclor 1262	ND (0.0576)		1	11/13/11 8:00		CK11125
Aroclor 1268	ND (0.0576)		1	11/13/11 8:00		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-31
Date Sampled: 11/09/11 12:30
Percent Solids: 97
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0521)		1	11/13/11 10:31		CK11125
Aroclor 1221	ND (0.0521)		1	11/13/11 10:31		CK11125
Aroclor 1232	ND (0.0521)		1	11/13/11 10:31		CK11125
Aroclor 1242	ND (0.0521)		1	11/13/11 10:31		CK11125
Aroclor 1248	ND (0.0521)		1	11/13/11 10:31		CK11125
Aroclor 1254	ND (0.0521)		1	11/13/11 10:31		CK11125
Aroclor 1260	ND (0.0521)		1	11/13/11 10:31		CK11125
Aroclor 1262	ND (0.0521)		1	11/13/11 10:31		CK11125
Aroclor 1268	ND (0.0521)		1	11/13/11 10:31		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-32
Date Sampled: 11/09/11 12:35
Percent Solids: 96
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0537)		1	11/13/11 10:50		CK11125
Aroclor 1221	ND (0.0537)		1	11/13/11 10:50		CK11125
Aroclor 1232	ND (0.0537)		1	11/13/11 10:50		CK11125
Aroclor 1242	ND (0.0537)		1	11/13/11 10:50		CK11125
Aroclor 1248	ND (0.0537)		1	11/13/11 10:50		CK11125
Aroclor 1254	ND (0.0537)		1	11/13/11 10:50		CK11125
Aroclor 1260	ND (0.0537)		1	11/13/11 10:50		CK11125
Aroclor 1262	ND (0.0537)		1	11/13/11 10:50		CK11125
Aroclor 1268	ND (0.0537)		1	11/13/11 10:50		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-33
Date Sampled: 11/09/11 12:40
Percent Solids: 97
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0534)		1	11/13/11 11:09		CK11125
Aroclor 1221	ND (0.0534)		1	11/13/11 11:09		CK11125
Aroclor 1232	ND (0.0534)		1	11/13/11 11:09		CK11125
Aroclor 1242	ND (0.0534)		1	11/13/11 11:09		CK11125
Aroclor 1248	ND (0.0534)		1	11/13/11 11:09		CK11125
Aroclor 1254	ND (0.0534)		1	11/13/11 11:09		CK11125
Aroclor 1260	ND (0.0534)		1	11/13/11 11:09		CK11125
Aroclor 1262	ND (0.0534)		1	11/13/11 11:09		CK11125
Aroclor 1268	ND (0.0534)		1	11/13/11 11:09		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-34
Date Sampled: 11/09/11 12:45
Percent Solids: 87
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0599)		1	11/13/11 11:27		CK11125
Aroclor 1221	ND (0.0599)		1	11/13/11 11:27		CK11125
Aroclor 1232	ND (0.0599)		1	11/13/11 11:27		CK11125
Aroclor 1242	ND (0.0599)		1	11/13/11 11:27		CK11125
Aroclor 1248	ND (0.0599)		1	11/13/11 11:27		CK11125
Aroclor 1254	**0.239** (0.0599)		1	11/13/11 11:27		CK11125
Aroclor 1260	**0.257** (0.0599)		1	11/13/11 11:27		CK11125
Aroclor 1262	ND (0.0599)		1	11/13/11 11:27		CK11125
Aroclor 1268	ND (0.0599)		1	11/13/11 11:27		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-35
Date Sampled: 11/09/11 12:50
Percent Solids: 85
Initial Volume: 21.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0545)		1	11/14/11 19:49		CK11125
Aroclor 1221	ND (0.0545)		1	11/14/11 19:49		CK11125
Aroclor 1232	ND (0.0545)		1	11/14/11 19:49		CK11125
Aroclor 1242	ND (0.0545)		1	11/14/11 19:49		CK11125
Aroclor 1248	ND (0.0545)		1	11/14/11 19:49		CK11125
Aroclor 1254	**0.117** (0.0545)		1	11/14/11 19:49		CK11125
Aroclor 1260	**0.134** (0.0545)		1	11/14/11 19:49		CK11125
Aroclor 1262	ND (0.0545)		1	11/14/11 19:49		CK11125
Aroclor 1268	ND (0.0545)		1	11/14/11 19:49		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-36
Date Sampled: 11/09/11 12:55
Percent Solids: 91
Initial Volume: 21.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0516)		1	11/14/11 20:08		CK11125
Aroclor 1221	ND (0.0516)		1	11/14/11 20:08		CK11125
Aroclor 1232	ND (0.0516)		1	11/14/11 20:08		CK11125
Aroclor 1242	ND (0.0516)		1	11/14/11 20:08		CK11125
Aroclor 1248	ND (0.0516)		1	11/14/11 20:08		CK11125
Aroclor 1254	ND (0.0516)		1	11/14/11 20:08		CK11125
Aroclor 1260	**0.217** (0.0516)		1	11/14/11 20:08		CK11125
Aroclor 1262	ND (0.0516)		1	11/14/11 20:08		CK11125
Aroclor 1268	ND (0.0516)		1	11/14/11 20:08		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-37
Date Sampled: 11/09/11 12:58
Percent Solids: 89
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0543)		1	11/14/11 20:27		CK11125
Aroclor 1221	ND (0.0543)		1	11/14/11 20:27		CK11125
Aroclor 1232	ND (0.0543)		1	11/14/11 20:27		CK11125
Aroclor 1242	ND (0.0543)		1	11/14/11 20:27		CK11125
Aroclor 1248	ND (0.0543)		1	11/14/11 20:27		CK11125
Aroclor 1254	ND (0.0543)		1	11/14/11 20:27		CK11125
Aroclor 1260	**0.343** (0.0543)		1	11/14/11 20:27		CK11125
Aroclor 1262	ND (0.0543)		1	11/14/11 20:27		CK11125
Aroclor 1268	ND (0.0543)		1	11/14/11 20:27		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*76 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*84 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-38
Date Sampled: 11/09/11 12:59
Percent Solids: 77
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0637)		1	11/14/11 20:46		CK11125
Aroclor 1221	ND (0.0637)		1	11/14/11 20:46		CK11125
Aroclor 1232	ND (0.0637)		1	11/14/11 20:46		CK11125
Aroclor 1242	ND (0.0637)		1	11/14/11 20:46		CK11125
Aroclor 1248	ND (0.0637)		1	11/14/11 20:46		CK11125
Aroclor 1254	ND (0.0637)		1	11/14/11 20:46		CK11125
Aroclor 1260	ND (0.0637)		1	11/14/11 20:46		CK11125
Aroclor 1262	ND (0.0637)		1	11/14/11 20:46		CK11125
Aroclor 1268	ND (0.0637)		1	11/14/11 20:46		CK11125

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*83 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-39
Date Sampled: 11/09/11 13:01
Percent Solids: 92
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0541)		1	11/14/11 21:04		CK11125
Aroclor 1221	ND (0.0541)		1	11/14/11 21:04		CK11125
Aroclor 1232	ND (0.0541)		1	11/14/11 21:04		CK11125
Aroclor 1242	ND (0.0541)		1	11/14/11 21:04		CK11125
Aroclor 1248	ND (0.0541)		1	11/14/11 21:04		CK11125
Aroclor 1254	ND (0.0541)		1	11/14/11 21:04		CK11125
Aroclor 1260	ND (0.0541)		1	11/14/11 21:04		CK11125
Aroclor 1262	ND (0.0541)		1	11/14/11 21:04		CK11125
Aroclor 1268	ND (0.0541)		1	11/14/11 21:04		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-40
Date Sampled: 11/09/11 13:02
Percent Solids: 88
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111159
ESS Laboratory Sample ID: 1111159-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/11/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0568)		1	11/14/11 21:23		CK11125
Aroclor 1221	ND (0.0568)		1	11/14/11 21:23		CK11125
Aroclor 1232	ND (0.0568)		1	11/14/11 21:23		CK11125
Aroclor 1242	ND (0.0568)		1	11/14/11 21:23		CK11125
Aroclor 1248	ND (0.0568)		1	11/14/11 21:23		CK11125
Aroclor 1254	ND (0.0568)		1	11/14/11 21:23		CK11125
Aroclor 1260	ND (0.0568)		1	11/14/11 21:23		CK11125
Aroclor 1262	ND (0.0568)		1	11/14/11 21:23		CK11125
Aroclor 1268	ND (0.0568)		1	11/14/11 21:23		CK11125

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*68 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*66 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*70 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*73 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111159

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11125 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111159

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11125 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111159

Quality Control Data

8082A Polychlorinated Biphenyls (PCB)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch CK11125 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0200*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0192*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0197*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
LCS										
Aroclor 1016	0.520	0.0500	mg/kg wet	0.5000		104	40-140			
Aroclor 1260	0.502	0.0500	mg/kg wet	0.5000		100	40-140			
Surrogate: Decachlorobiphenyl	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0221*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
LCS Dup										
Aroclor 1016	0.507	0.0500	mg/kg wet	0.5000		101	40-140	3	30	
Aroclor 1260	0.494	0.0500	mg/kg wet	0.5000		99	40-140	2	30	
Surrogate: Decachlorobiphenyl	*0.0203*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0196*		mg/kg wet	*0.02500*		*78*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Matrix Spike Source: 1111159-20										
Aroclor 1016	0.416	0.0557	mg/kg dry	0.5570	ND	75	40-140			
Aroclor 1260	0.491	0.0557	mg/kg dry	0.5570	0.0177	85	40-140			
Surrogate: Decachlorobiphenyl	*0.0187*		mg/kg dry	*0.02785*		*67*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0183*		mg/kg dry	*0.02785*		*66*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0201*		mg/kg dry	*0.02785*		*72*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0194*		mg/kg dry	*0.02785*		*70*	*30-150*			
Matrix Spike Dup Source: 1111159-20										
Aroclor 1016	0.556	0.0552	mg/kg dry	0.5516	ND	101	40-140	30	30	
Aroclor 1260	0.555	0.0552	mg/kg dry	0.5516	0.0177	97	40-140	14	30	
Surrogate: Decachlorobiphenyl	*0.0245*		mg/kg dry	*0.02758*		*89*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg dry	*0.02758*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0279*		mg/kg dry	*0.02758*		*101*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111159

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11125 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0276*		mg/kg dry	*0.02758*		*100*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111159

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111159

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110159
Date Project Due: 11/14/11
Days For Project: 2 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **3.2**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes | No**
17. Were samples received intact? **Yes | No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	8 oz Soil Jar	1	NP
2	Yes	8 oz Soil Jar	1	NP
3	Yes	8 oz Soil Jar	1	NP
4	Yes	8 oz Soil Jar	1	NP
5	Yes	8 oz Soil Jar	1	NP
6	Yes	8 oz Soil Jar	1	NP
7	Yes	8 oz Soil Jar	1	NP
8	Yes	8 oz Soil Jar	1	NP
9	Yes	8 oz Soil Jar	1	NP
10	Yes	8 oz Soil Jar	1	NP
11	Yes	8 oz Soil Jar	1	NP
12	Yes	8 oz Soil Jar	1	NP
13	Yes	8 oz Soil Jar	1	NP
14	Yes	8 oz Soil Jar	1	NP
15	Yes	8 oz Soil Jar	1	NP
16	Yes	8 oz Soil Jar	1	NP
17	Yes	8 oz Soil Jar	1	NP
18	Yes	8 oz Soil Jar	1	NP
19	Yes	8 oz Soil Jar	1	NP
20	Yes	8 oz Soil Jar	1	NP

Completed By: MK Date/Time: 11/10/11
Reviewed By: BC Date/Time: 11/10/11

ESS Quote # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1111159

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1ppm

Regulatory State: (MA) RI CT NH NJ NY ME Other_____

Electonic Deliverables (Excel) Access (PDF)

Is this project for any of the following:(please circle)
(MA-MCP) Navy USACE CT DEP Other_____

Co. Name: Tighe & Bond, Inc.	Project # W1510	Project Name NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
01	11/9/11	1440	G	S	PX-21	1	1	G		X
02	11/9/11	1445	G	S	PX-22	1	1	G		X
03	11/9/11	1450	G	S	PX-23	1	1	G		X
04	11/9/11	1455	G	S	PX-24	1	1	G		X
05	11/9/11	1500	G	S	PX-25	1	1	G		X
06	11/9/11	1205	G	S	PX-26	1	1	G		X
07	11/9/11	1210	G	S	PX-27	1	1	G		X
08	11/9/11	1215	G	S	PX-28	1	1	G		X
09	11/9/11	1220	G	S	PX-29	1	1	G		X
10	11/9/11	1225	G	S	PX-30	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 3.2°C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-9-11 1505	11-9-11 · 15:05	11/9/11 18:00	Fedex 11/9/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
Fedex 11/9/11 0800	11/10/11 0800		

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

MK 11/10/11

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Quote # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 111159

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State: (MA) RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W1510	Project Name: NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W1570
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
11	11/9/11	1230	G	S	PX-31	1	1	G		X
12	11/9/11	1235	G	S	PX-32	1	1	G		X
13	11/9/11	1240	G	S	PX-33	1	1	G		X
14	11/9/11	1245	G	S	PX-34	1	1	G		X
15	11/9/11	1250	G	S	PX-35	1	1	G		X
16	11/9/11	1255	G	S	PX-36	1	1	G		X
17	11/9/11	1258	G	S	PX-37	1	1	G		X
18	11/9/11	1259	G	S	PX-38	1	1	G		X
19	11/9/11	1301	G	S	PX-39	1	1	G		X
20	11/9/11	1302	G	S	PX-40	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 3.2°C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-9-11 1505	11-9-11 15:05	11-9-11 - 18:00	Friday 11/9/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
Friday 11/10/11 0800	11/10/11 0800		

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1111210

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:53 pm, Nov 18, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111210

SAMPLE RECEIPT

The following samples were received on November 10, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111210-01	PX-41	Soil	8082A
1111210-02	PX-42	Soil	8082A
1111210-03	PX-43	Soil	8082A
1111210-04	PX-44	Soil	8082A
1111210-05	PX-45	Soil	8082A
1111210-06	PX-46	Soil	8082A
1111210-07	PX-47	Soil	8082A
1111210-08	PX-48	Soil	8082A
1111210-09	PX-49	Soil	8082A
1111210-10	PX-50	Soil	8082A
1111210-11	PX-51	Soil	8082A
1111210-12	PX-52	Soil	8082A
1111210-13	PX-53	Soil	8082A
1111210-14	PX-54	Soil	8082A
1111210-15	PX-55	Soil	8082A
1111210-16	PX-56	Soil	8082A
1111210-17	PX-57	Soil	8082A
1111210-18	PX-58	Soil	8082A
1111210-19	PX-59	Soil	8082A
1111210-20	PX-60	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111210

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111210

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111210-01 through 1111210-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: _____ Date: November 18, 2011

Printed Name: Laurel Stoddard Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-41
Date Sampled: 11/10/11 08:00
Percent Solids: 93
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0517)		1	11/15/11 2:44		CK11406
Aroclor 1221	ND (0.0517)		1	11/15/11 2:44		CK11406
Aroclor 1232	ND (0.0517)		1	11/15/11 2:44		CK11406
Aroclor 1242	ND (0.0517)		1	11/15/11 2:44		CK11406
Aroclor 1248	ND (0.0517)		1	11/15/11 2:44		CK11406
Aroclor 1254	ND (0.0517)		1	11/15/11 2:44		CK11406
Aroclor 1260	ND (0.0517)		1	11/15/11 2:44		CK11406
Aroclor 1262	ND (0.0517)		1	11/15/11 2:44		CK11406
Aroclor 1268	ND (0.0517)		1	11/15/11 2:44		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-42
Date Sampled: 11/10/11 08:02
Percent Solids: 96
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0508)		1	11/15/11 3:02		CK11406
Aroclor 1221	ND (0.0508)		1	11/15/11 3:02		CK11406
Aroclor 1232	ND (0.0508)		1	11/15/11 3:02		CK11406
Aroclor 1242	ND (0.0508)		1	11/15/11 3:02		CK11406
Aroclor 1248	ND (0.0508)		1	11/15/11 3:02		CK11406
Aroclor 1254	ND (0.0508)		1	11/15/11 3:02		CK11406
Aroclor 1260	ND (0.0508)		1	11/15/11 3:02		CK11406
Aroclor 1262	ND (0.0508)		1	11/15/11 3:02		CK11406
Aroclor 1268	ND (0.0508)		1	11/15/11 3:02		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-43
Date Sampled: 11/10/11 08:04
Percent Solids: 95
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0511)		1	11/15/11 3:21		CK11406
Aroclor 1221	ND (0.0511)		1	11/15/11 3:21		CK11406
Aroclor 1232	ND (0.0511)		1	11/15/11 3:21		CK11406
Aroclor 1242	ND (0.0511)		1	11/15/11 3:21		CK11406
Aroclor 1248	ND (0.0511)		1	11/15/11 3:21		CK11406
Aroclor 1254	ND (0.0511)		1	11/15/11 3:21		CK11406
Aroclor 1260	ND (0.0511)		1	11/15/11 3:21		CK11406
Aroclor 1262	ND (0.0511)		1	11/15/11 3:21		CK11406
Aroclor 1268	ND (0.0511)		1	11/15/11 3:21		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-44
Date Sampled: 11/10/11 08:06
Percent Solids: 93
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0538)		1	11/15/11 3:40		CK11406
Aroclor 1221	ND (0.0538)		1	11/15/11 3:40		CK11406
Aroclor 1232	ND (0.0538)		1	11/15/11 3:40		CK11406
Aroclor 1242	ND (0.0538)		1	11/15/11 3:40		CK11406
Aroclor 1248	ND (0.0538)		1	11/15/11 3:40		CK11406
Aroclor 1254	ND (0.0538)		1	11/15/11 3:40		CK11406
Aroclor 1260	ND (0.0538)		1	11/15/11 3:40		CK11406
Aroclor 1262	ND (0.0538)		1	11/15/11 3:40		CK11406
Aroclor 1268	ND (0.0538)		1	11/15/11 3:40		CK11406

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-45
Date Sampled: 11/10/11 08:08
Percent Solids: 87
Initial Volume: 21.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0537)		1	11/15/11 3:59		CK11406
Aroclor 1221	ND (0.0537)		1	11/15/11 3:59		CK11406
Aroclor 1232	ND (0.0537)		1	11/15/11 3:59		CK11406
Aroclor 1242	ND (0.0537)		1	11/15/11 3:59		CK11406
Aroclor 1248	ND (0.0537)		1	11/15/11 3:59		CK11406
Aroclor 1254	ND (0.0537)		1	11/15/11 3:59		CK11406
Aroclor 1260	**0.0938** (0.0537)		1	11/15/11 3:59		CK11406
Aroclor 1262	ND (0.0537)		1	11/15/11 3:59		CK11406
Aroclor 1268	ND (0.0537)		1	11/15/11 3:59		CK11406

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-46
Date Sampled: 11/10/11 08:10
Percent Solids: 94
Initial Volume: 21.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0497)		1	11/15/11 4:18		CK11406
Aroclor 1221	ND (0.0497)		1	11/15/11 4:18		CK11406
Aroclor 1232	ND (0.0497)		1	11/15/11 4:18		CK11406
Aroclor 1242	ND (0.0497)		1	11/15/11 4:18		CK11406
Aroclor 1248	ND (0.0497)		1	11/15/11 4:18		CK11406
Aroclor 1254	ND (0.0497)		1	11/15/11 4:18		CK11406
Aroclor 1260	ND (0.0497)		1	11/15/11 4:18		CK11406
Aroclor 1262	ND (0.0497)		1	11/15/11 4:18		CK11406
Aroclor 1268	ND (0.0497)		1	11/15/11 4:18		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-47
Date Sampled: 11/10/11 08:12
Percent Solids: 88
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0560)		1	11/15/11 4:37		CK11406
Aroclor 1221	ND (0.0560)		1	11/15/11 4:37		CK11406
Aroclor 1232	ND (0.0560)		1	11/15/11 4:37		CK11406
Aroclor 1242	ND (0.0560)		1	11/15/11 4:37		CK11406
Aroclor 1248	ND (0.0560)		1	11/15/11 4:37		CK11406
Aroclor 1254	ND (0.0560)		1	11/15/11 4:37		CK11406
Aroclor 1260	**0.125** (0.0560)		1	11/15/11 4:37		CK11406
Aroclor 1262	ND (0.0560)		1	11/15/11 4:37		CK11406
Aroclor 1268	ND (0.0560)		1	11/15/11 4:37		CK11406

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-48
Date Sampled: 11/10/11 08:14
Percent Solids: 90
Initial Volume: 21.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0510)		1	11/15/11 4:56		CK11406
Aroclor 1221	ND (0.0510)		1	11/15/11 4:56		CK11406
Aroclor 1232	ND (0.0510)		1	11/15/11 4:56		CK11406
Aroclor 1242	ND (0.0510)		1	11/15/11 4:56		CK11406
Aroclor 1248	ND (0.0510)		1	11/15/11 4:56		CK11406
Aroclor 1254	ND (0.0510)		1	11/15/11 4:56		CK11406
Aroclor 1260	ND (0.0510)		1	11/15/11 4:56		CK11406
Aroclor 1262	ND (0.0510)		1	11/15/11 4:56		CK11406
Aroclor 1268	ND (0.0510)		1	11/15/11 4:56		CK11406

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-49
Date Sampled: 11/10/11 08:16
Percent Solids: 86
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0570)		1	11/15/11 5:14		CK11406
Aroclor 1221	ND (0.0570)		1	11/15/11 5:14		CK11406
Aroclor 1232	ND (0.0570)		1	11/15/11 5:14		CK11406
Aroclor 1242	ND (0.0570)		1	11/15/11 5:14		CK11406
Aroclor 1248	ND (0.0570)		1	11/15/11 5:14		CK11406
Aroclor 1254	ND (0.0570)		1	11/15/11 5:14		CK11406
Aroclor 1260	ND (0.0570)		1	11/15/11 5:14		CK11406
Aroclor 1262	ND (0.0570)		1	11/15/11 5:14		CK11406
Aroclor 1268	ND (0.0570)		1	11/15/11 5:14		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-50
Date Sampled: 11/10/11 08:18
Percent Solids: 86
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)		1	11/15/11 5:33		CK11406
Aroclor 1221	ND (0.0584)		1	11/15/11 5:33		CK11406
Aroclor 1232	ND (0.0584)		1	11/15/11 5:33		CK11406
Aroclor 1242	ND (0.0584)		1	11/15/11 5:33		CK11406
Aroclor 1248	ND (0.0584)		1	11/15/11 5:33		CK11406
Aroclor 1254	ND (0.0584)		1	11/15/11 5:33		CK11406
Aroclor 1260	ND (0.0584)		1	11/15/11 5:33		CK11406
Aroclor 1262	ND (0.0584)		1	11/15/11 5:33		CK11406
Aroclor 1268	ND (0.0584)		1	11/15/11 5:33		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-51
Date Sampled: 11/10/11 08:20
Percent Solids: 87
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0550)		1	11/15/11 5:52		CK11406
Aroclor 1221	ND (0.0550)		1	11/15/11 5:52		CK11406
Aroclor 1232	ND (0.0550)		1	11/15/11 5:52		CK11406
Aroclor 1242	ND (0.0550)		1	11/15/11 5:52		CK11406
Aroclor 1248	ND (0.0550)		1	11/15/11 5:52		CK11406
Aroclor 1254	ND (0.0550)		1	11/15/11 5:52		CK11406
Aroclor 1260	ND (0.0550)		1	11/15/11 5:52		CK11406
Aroclor 1262	ND (0.0550)		1	11/15/11 5:52		CK11406
Aroclor 1268	ND (0.0550)		1	11/15/11 5:52		CK11406

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-52
Date Sampled: 11/10/11 08:22
Percent Solids: 86
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	11/15/11 6:11		CK11406
Aroclor 1221	ND (0.0581)		1	11/15/11 6:11		CK11406
Aroclor 1232	ND (0.0581)		1	11/15/11 6:11		CK11406
Aroclor 1242	ND (0.0581)		1	11/15/11 6:11		CK11406
Aroclor 1248	ND (0.0581)		1	11/15/11 6:11		CK11406
Aroclor 1254	ND (0.0581)		1	11/15/11 6:11		CK11406
Aroclor 1260	ND (0.0581)		1	11/15/11 6:11		CK11406
Aroclor 1262	ND (0.0581)		1	11/15/11 6:11		CK11406
Aroclor 1268	ND (0.0581)		1	11/15/11 6:11		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-53
Date Sampled: 11/10/11 08:24
Percent Solids: 86
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)		1	11/17/11 14:48		CK11624
Aroclor 1221	ND (0.0584)		1	11/17/11 14:48		CK11624
Aroclor 1232	ND (0.0584)		1	11/17/11 14:48		CK11624
Aroclor 1242	ND (0.0584)		1	11/17/11 14:48		CK11624
Aroclor 1248	ND (0.0584)		1	11/17/11 14:48		CK11624
Aroclor 1254	ND (0.0584)		1	11/17/11 14:48		CK11624
Aroclor 1260	ND (0.0584)		1	11/17/11 14:48		CK11624
Aroclor 1262	ND (0.0584)		1	11/17/11 14:48		CK11624
Aroclor 1268	ND (0.0584)		1	11/17/11 14:48		CK11624

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-54
Date Sampled: 11/10/11 08:26
Percent Solids: 86
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0564)		1	11/15/11 6:30		CK11406
Aroclor 1221	ND (0.0564)		1	11/15/11 6:30		CK11406
Aroclor 1232	ND (0.0564)		1	11/15/11 6:30		CK11406
Aroclor 1242	ND (0.0564)		1	11/15/11 6:30		CK11406
Aroclor 1248	ND (0.0564)		1	11/15/11 6:30		CK11406
Aroclor 1254	ND (0.0564)		1	11/15/11 6:30		CK11406
Aroclor 1260	ND (0.0564)		1	11/15/11 6:30		CK11406
Aroclor 1262	ND (0.0564)		1	11/15/11 6:30		CK11406
Aroclor 1268	ND (0.0564)		1	11/15/11 6:30		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-55
Date Sampled: 11/10/11 08:28
Percent Solids: 86
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0599)		1	11/15/11 6:49		CK11406
Aroclor 1221	ND (0.0599)		1	11/15/11 6:49		CK11406
Aroclor 1232	ND (0.0599)		1	11/15/11 6:49		CK11406
Aroclor 1242	ND (0.0599)		1	11/15/11 6:49		CK11406
Aroclor 1248	ND (0.0599)		1	11/15/11 6:49		CK11406
Aroclor 1254	ND (0.0599)		1	11/15/11 6:49		CK11406
Aroclor 1260	ND (0.0599)		1	11/15/11 6:49		CK11406
Aroclor 1262	ND (0.0599)		1	11/15/11 6:49		CK11406
Aroclor 1268	ND (0.0599)		1	11/15/11 6:49		CK11406

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-56
Date Sampled: 11/10/11 08:30
Percent Solids: 82
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0607)		1	11/15/11 7:08		CK11406
Aroclor 1221	ND (0.0607)		1	11/15/11 7:08		CK11406
Aroclor 1232	ND (0.0607)		1	11/15/11 7:08		CK11406
Aroclor 1242	ND (0.0607)		1	11/15/11 7:08		CK11406
Aroclor 1248	ND (0.0607)		1	11/15/11 7:08		CK11406
Aroclor 1254	ND (0.0607)		1	11/15/11 7:08		CK11406
Aroclor 1260	ND (0.0607)		1	11/15/11 7:08		CK11406
Aroclor 1262	ND (0.0607)		1	11/15/11 7:08		CK11406
Aroclor 1268	ND (0.0607)		1	11/15/11 7:08		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-57
Date Sampled: 11/10/11 08:32
Percent Solids: 78
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0635)		1	11/15/11 7:26		CK11406
Aroclor 1221	ND (0.0635)		1	11/15/11 7:26		CK11406
Aroclor 1232	ND (0.0635)		1	11/15/11 7:26		CK11406
Aroclor 1242	ND (0.0635)		1	11/15/11 7:26		CK11406
Aroclor 1248	ND (0.0635)		1	11/15/11 7:26		CK11406
Aroclor 1254	**0.997** (0.0635)		1	11/15/11 7:26		CK11406
Aroclor 1260	ND (0.0635)		1	11/15/11 7:26		CK11406
Aroclor 1262	ND (0.0635)		1	11/15/11 7:26		CK11406
Aroclor 1268	ND (0.0635)		1	11/15/11 7:26		CK11406

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-58
Date Sampled: 11/10/11 08:34
Percent Solids: 77
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0627)		1	11/15/11 9:38		CK11406
Aroclor 1221	ND (0.0627)		1	11/15/11 9:38		CK11406
Aroclor 1232	ND (0.0627)		1	11/15/11 9:38		CK11406
Aroclor 1242	ND (0.0627)		1	11/15/11 9:38		CK11406
Aroclor 1248	ND (0.0627)		1	11/15/11 9:38		CK11406
Aroclor 1254	ND (0.0627)		1	11/15/11 9:38		CK11406
Aroclor 1260	ND (0.0627)		1	11/15/11 9:38		CK11406
Aroclor 1262	ND (0.0627)		1	11/15/11 9:38		CK11406
Aroclor 1268	ND (0.0627)		1	11/15/11 9:38		CK11406

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-59
Date Sampled: 11/10/11 08:36
Percent Solids: 81
Initial Volume: 18.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0664)		1	11/17/11 15:07		CK11624
Aroclor 1221	ND (0.0664)		1	11/17/11 15:07		CK11624
Aroclor 1232	ND (0.0664)		1	11/17/11 15:07		CK11624
Aroclor 1242	ND (0.0664)		1	11/17/11 15:07		CK11624
Aroclor 1248	ND (0.0664)		1	11/17/11 15:07		CK11624
Aroclor 1254	ND (0.0664)		1	11/17/11 15:07		CK11624
Aroclor 1260	ND (0.0664)		1	11/17/11 15:07		CK11624
Aroclor 1262	ND (0.0664)		1	11/17/11 15:07		CK11624
Aroclor 1268	ND (0.0664)		1	11/17/11 15:07		CK11624

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*61 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*61 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*77 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-60
Date Sampled: 11/10/11 08:38
Percent Solids: 84
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111210
ESS Laboratory Sample ID: 1111210-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/12/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)		1	11/17/11 15:26		CK11406
Aroclor 1221	ND (0.0572)		1	11/17/11 15:26		CK11406
Aroclor 1232	ND (0.0572)		1	11/17/11 15:26		CK11406
Aroclor 1242	ND (0.0572)		1	11/17/11 15:26		CK11406
Aroclor 1248	ND (0.0572)		1	11/17/11 15:26		CK11406
Aroclor 1254	ND (0.0572)		1	11/17/11 15:26		CK11406
Aroclor 1260	**0.108** (0.0572)		1	11/17/11 15:26		CK11406
Aroclor 1262	ND (0.0572)		1	11/17/11 15:26		CK11406
Aroclor 1268	ND (0.0572)		1	11/17/11 15:26		CK11406

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111210

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11406 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111210

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11406 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111210

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11406 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
LCS										
Aroclor 1016	0.407	0.0500	mg/kg wet	0.5000		81	40-140			
Aroclor 1260	0.405	0.0500	mg/kg wet	0.5000		81	40-140			
Surrogate: Decachlorobiphenyl	*0.0245*		mg/kg wet	*0.02500*		*98*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0239*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0248*		mg/kg wet	*0.02500*		*99*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0246*		mg/kg wet	*0.02500*		*98*	*30-150*			
LCS Dup										
Aroclor 1016	0.396	0.0500	mg/kg wet	0.5000		79	40-140	3	30	
Aroclor 1260	0.393	0.0500	mg/kg wet	0.5000		79	40-140	3	30	
Surrogate: Decachlorobiphenyl	*0.0193*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0188*		mg/kg wet	*0.02500*		*75*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0186*		mg/kg wet	*0.02500*		*74*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0180*		mg/kg wet	*0.02500*		*72*	*30-150*			
Batch CK11624 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111210

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11624 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111210

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11624 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0193*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0187*		mg/kg wet	*0.02500*		*75*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0201*		mg/kg wet	*0.02500*		*81*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111210

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11624 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
LCS										
Aroclor 1016	0.472	0.0500	mg/kg wet	0.5000		94	40-140			
Aroclor 1260	0.452	0.0500	mg/kg wet	0.5000		90	40-140			
Surrogate: Decachlorobiphenyl	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0208*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0227*		mg/kg wet	*0.02500*		*91*	*30-150*			
LCS Dup										
Aroclor 1016	0.470	0.0500	mg/kg wet	0.5000		94	40-140	0.3	30	
Aroclor 1260	0.445	0.0500	mg/kg wet	0.5000		89	40-140	2	30	
Surrogate: Decachlorobiphenyl	*0.0204*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0199*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111210

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111210

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110210
Date Project Due: 11/18/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **4.6**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	2 oz Soil Jar	1	NP
2	Yes	2 oz Soil Jar	1	NP
3	Yes	2 oz Soil Jar	1	NP
4	Yes	2 oz Soil Jar	1	NP
5	Yes	2 oz Soil Jar	1	NP
6	Yes	2 oz Soil Jar	1	NP
7	Yes	2 oz Soil Jar	1	NP
8	Yes	2 oz Soil Jar	1	NP
9	Yes	2 oz Soil Jar	1	NP
10	Yes	2 oz Soil Jar	1	NP
11	Yes	2 oz Soil Jar	1	NP
12	Yes	2 oz Soil Jar	1	NP
13	Yes	2 oz Soil Jar	1	NP
14	Yes	2 oz Soil Jar	1	NP
15	Yes	2 oz Soil Jar	1	NP
16	Yes	2 oz Soil Jar	1	NP
17	Yes	2 oz Soil Jar	1	NP
18	Yes	2 oz Soil Jar	1	NP
19	Yes	2 oz Soil Jar	1	NP
20	Yes	2 oz Soil Jar	1	NP

Completed By: CLD Date/Time: 11/11/11
Reviewed By: BC Date/Time: 11/11/11

ESS Quote # 1106 117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1111210

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State [MA] RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name	Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH
Contact Person	Marc J. Richards	Address 446 Main Street	
City Worcester	State MA	Zip 01609	PO # W-1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: PCBs by 3540/8082
01	11-10-11	0800 am	G	S	PX- 41	1	1	G		X
02	11-10-11	0802 am	G	S	PX- 42	1	1	G		X
03	11-10-11	0804 am	G	S	PX- 43	1	1	G		X
04	11-10-11	0806 am	G	S	PX- 44	1	1	G		X
05	11-10-11	0808 am	G	S	PX- 45	1	1	G		X
06	11-10-11	0810 am	G	S	PX- 46	1	1	G		X
07	11-10-11	0812 am	G	S	PX- 47	1	1	G		X
08	11-10-11	0814 am	G	S	PX- 48	1	1	G		X
09	11-10-11	0816 am	G	S	PX- 49	1	1	G		X
10	11-10-11	0818 am	G	S	PX- 50	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 4.6 °C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-10-11 1510	11/10/11 1510	11/11 8:00	Manal Keera 11/10/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Quote # 1106 117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab #

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State [MA] RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name	Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH
Contact Person	Marc J. Richards	Address	446 Main Street
City	Worcester	State MA	Zip 01609 / PO # W-1510
Tel.	508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: PCBs by 3540/8082								
11	11-10-11	0820 am	G	S	PX-51	1	1	G		X								
12	11-10-11	0822 am	G	S	PX-52	1	1	G		X								
13	11-10-11	0824 am	G	S	PX-53	1	1	G		X								
14	11-10-11	0826 am	G	S	PX-54	1	1	G		X								
15	11-10-11	0828 am	G	S	PX-55	1	1	G		X								
16	11-10-11	0830 am	G	S	PX-56	1	1	G		X								
17	11-10-11	0832 am	G	S	PX-57	1	1	G		X								
18	11-10-11	0834 am	G	S	PX-58	1	1	G		X								
19	11-10-11	0836 am	G	S	PX-59	1	1	G		X								
20	11-10-11	0838 am	G	S	PX-60	1	1	G		X								

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 4.6°C

Internal Use Only
[ ] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-10-11 1510	11/10/11 1510	11/10/11 1800	11/10/11, 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1111211

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:57 pm, Nov 18, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

SAMPLE RECEIPT

The following samples were received on November 10, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111211-01	PX-61	Soil	8082A
1111211-02	PX-62	Soil	8082A
1111211-03	PX-63	Soil	8082A
1111211-04	PX-64	Soil	8082A
1111211-05	PX-65	Soil	8082A
1111211-06	PX-66	Soil	8082A
1111211-07	PX-67	Soil	8082A
1111211-08	PX-68	Soil	8082A
1111211-09	PX-69	Soil	8082A
1111211-10	PX-70	Soil	8082A
1111211-11	PX-71	Soil	8082A
1111211-12	PX-72	Soil	8082A
1111211-13	PX-73	Soil	8082A
1111211-14	PX-74	Soil	8082A
1111211-15	PX-75	Soil	8082A
1111211-16	PX-76	Soil	8082A
1111211-17	PX-77	Soil	8082A
1111211-18	PX-78	Soil	8082A
1111211-19	PX-79	Soil	8082A
1111211-20	PX-80	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111211

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111211-01 through 1111211-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: November 18, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-61
Date Sampled: 11/10/11 08:40
Percent Solids: 84
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0614)		1	11/17/11 13:34		CK11522
Aroclor 1221	ND (0.0614)		1	11/17/11 13:34		CK11522
Aroclor 1232	ND (0.0614)		1	11/17/11 13:34		CK11522
Aroclor 1242	ND (0.0614)		1	11/17/11 13:34		CK11522
Aroclor 1248	ND (0.0614)		1	11/17/11 13:34		CK11522
Aroclor 1254	ND (0.0614)		1	11/17/11 13:34		CK11522
Aroclor 1260	ND (0.0614)		1	11/17/11 13:34		CK11522
Aroclor 1262	ND (0.0614)		1	11/17/11 13:34		CK11522
Aroclor 1268	ND (0.0614)		1	11/17/11 13:34		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*70 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*72 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-62
Date Sampled: 11/10/11 08:42
Percent Solids: 81
Initial Volume: 21.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)		1	11/14/11 22:20		CK11407
Aroclor 1221	ND (0.0572)		1	11/14/11 22:20		CK11407
Aroclor 1232	ND (0.0572)		1	11/14/11 22:20		CK11407
Aroclor 1242	ND (0.0572)		1	11/14/11 22:20		CK11407
Aroclor 1248	ND (0.0572)		1	11/14/11 22:20		CK11407
Aroclor 1254	ND (0.0572)		1	11/14/11 22:20		CK11407
Aroclor 1260	**0.0811** (0.0572)		1	11/14/11 22:20		CK11407
Aroclor 1262	ND (0.0572)		1	11/14/11 22:20		CK11407
Aroclor 1268	ND (0.0572)		1	11/14/11 22:20		CK11407

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-63
Date Sampled: 11/10/11 08:44
Percent Solids: 86
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)		1	11/14/11 22:39		CK11407
Aroclor 1221	ND (0.0567)		1	11/14/11 22:39		CK11407
Aroclor 1232	ND (0.0567)		1	11/14/11 22:39		CK11407
Aroclor 1242	ND (0.0567)		1	11/14/11 22:39		CK11407
Aroclor 1248	ND (0.0567)		1	11/14/11 22:39		CK11407
Aroclor 1254	ND (0.0567)		1	11/14/11 22:39		CK11407
Aroclor 1260	**0.211** (0.0567)		1	11/14/11 22:39		CK11407
Aroclor 1262	ND (0.0567)		1	11/14/11 22:39		CK11407
Aroclor 1268	ND (0.0567)		1	11/14/11 22:39		CK11407

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-64
Date Sampled: 11/10/11 08:46
Percent Solids: 88
Initial Volume: 21.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0521)		1	11/14/11 22:57		CK11407
Aroclor 1221	ND (0.0521)		1	11/14/11 22:57		CK11407
Aroclor 1232	ND (0.0521)		1	11/14/11 22:57		CK11407
Aroclor 1242	ND (0.0521)		1	11/14/11 22:57		CK11407
Aroclor 1248	ND (0.0521)		1	11/14/11 22:57		CK11407
Aroclor 1254	ND (0.0521)		1	11/14/11 22:57		CK11407
Aroclor 1260	**0.113** (0.0521)		1	11/14/11 22:57		CK11407
Aroclor 1262	ND (0.0521)		1	11/14/11 22:57		CK11407
Aroclor 1268	ND (0.0521)		1	11/14/11 22:57		CK11407

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-65
Date Sampled: 11/10/11 08:48
Percent Solids: 85
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0577)		1	11/14/11 23:16		CK11407
Aroclor 1221	ND (0.0577)		1	11/14/11 23:16		CK11407
Aroclor 1232	ND (0.0577)		1	11/14/11 23:16		CK11407
Aroclor 1242	ND (0.0577)		1	11/14/11 23:16		CK11407
Aroclor 1248	ND (0.0577)		1	11/14/11 23:16		CK11407
Aroclor 1254	ND (0.0577)		1	11/14/11 23:16		CK11407
Aroclor 1260	**0.163** (0.0577)		1	11/14/11 23:16		CK11407
Aroclor 1262	ND (0.0577)		1	11/14/11 23:16		CK11407
Aroclor 1268	ND (0.0577)		1	11/14/11 23:16		CK11407

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*76 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-66
Date Sampled: 11/10/11 08:50
Percent Solids: 87
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0555)		1	11/15/11 1:28		CK11407
Aroclor 1221	ND (0.0555)		1	11/15/11 1:28		CK11407
Aroclor 1232	ND (0.0555)		1	11/15/11 1:28		CK11407
Aroclor 1242	ND (0.0555)		1	11/15/11 1:28		CK11407
Aroclor 1248	ND (0.0555)		1	11/15/11 1:28		CK11407
Aroclor 1254	ND (0.0555)		1	11/15/11 1:28		CK11407
Aroclor 1260	**0.107** (0.0555)		1	11/15/11 1:28		CK11407
Aroclor 1262	ND (0.0555)		1	11/15/11 1:28		CK11407
Aroclor 1268	ND (0.0555)		1	11/15/11 1:28		CK11407

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-67
Date Sampled: 11/10/11 08:52
Percent Solids: 88
Initial Volume: 21.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0536)		1	11/15/11 1:47		CK11407
Aroclor 1221	ND (0.0536)		1	11/15/11 1:47		CK11407
Aroclor 1232	ND (0.0536)		1	11/15/11 1:47		CK11407
Aroclor 1242	ND (0.0536)		1	11/15/11 1:47		CK11407
Aroclor 1248	ND (0.0536)		1	11/15/11 1:47		CK11407
Aroclor 1254	ND (0.0536)		1	11/15/11 1:47		CK11407
Aroclor 1260	ND (0.0536)		1	11/15/11 1:47		CK11407
Aroclor 1262	ND (0.0536)		1	11/15/11 1:47		CK11407
Aroclor 1268	ND (0.0536)		1	11/15/11 1:47		CK11407

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-68
Date Sampled: 11/10/11 08:54
Percent Solids: 86
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0602)		1	11/15/11 2:06		CK11407
Aroclor 1221	ND (0.0602)		1	11/15/11 2:06		CK11407
Aroclor 1232	ND (0.0602)		1	11/15/11 2:06		CK11407
Aroclor 1242	ND (0.0602)		1	11/15/11 2:06		CK11407
Aroclor 1248	ND (0.0602)		1	11/15/11 2:06		CK11407
Aroclor 1254	ND (0.0602)		1	11/15/11 2:06		CK11407
Aroclor 1260	ND (0.0602)		1	11/15/11 2:06		CK11407
Aroclor 1262	ND (0.0602)		1	11/15/11 2:06		CK11407
Aroclor 1268	ND (0.0602)		1	11/15/11 2:06		CK11407

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-69
Date Sampled: 11/10/11 08:56
Percent Solids: 86
Initial Volume: 21
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 10:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)		1	11/15/11 2:25		CK11407
Aroclor 1221	ND (0.0554)		1	11/15/11 2:25		CK11407
Aroclor 1232	ND (0.0554)		1	11/15/11 2:25		CK11407
Aroclor 1242	ND (0.0554)		1	11/15/11 2:25		CK11407
Aroclor 1248	**0.108** (0.0554)		1	11/15/11 2:25		CK11407
Aroclor 1254	ND (0.0554)		1	11/15/11 2:25		CK11407
Aroclor 1260	**0.0850** (0.0554)		1	11/15/11 2:25		CK11407
Aroclor 1262	ND (0.0554)		1	11/15/11 2:25		CK11407
Aroclor 1268	ND (0.0554)		1	11/15/11 2:25		CK11407

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-70
Date Sampled: 11/10/11 08:58
Percent Solids: 87
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)		1	11/15/11 18:57		CK11502
Aroclor 1221	ND (0.0572)		1	11/15/11 18:57		CK11502
Aroclor 1232	ND (0.0572)		1	11/15/11 18:57		CK11502
Aroclor 1242	ND (0.0572)		1	11/15/11 18:57		CK11502
Aroclor 1248	ND (0.0572)		1	11/15/11 18:57		CK11502
Aroclor 1254	**0.135** (0.0572)		1	11/15/11 18:57		CK11502
Aroclor 1260	**0.129** (0.0572)		1	11/15/11 18:57		CK11502
Aroclor 1262	ND (0.0572)		1	11/15/11 18:57		CK11502
Aroclor 1268	ND (0.0572)		1	11/15/11 18:57		CK11502

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-71
Date Sampled: 11/10/11 09:00
Percent Solids: 87
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0550)		1	11/15/11 19:16		CK11502
Aroclor 1221	ND (0.0550)		1	11/15/11 19:16		CK11502
Aroclor 1232	ND (0.0550)		1	11/15/11 19:16		CK11502
Aroclor 1242	ND (0.0550)		1	11/15/11 19:16		CK11502
Aroclor 1248	ND (0.0550)		1	11/15/11 19:16		CK11502
Aroclor 1254	**0.150** (0.0550)		1	11/15/11 19:16		CK11502
Aroclor 1260	**0.132** (0.0550)		1	11/15/11 19:16		CK11502
Aroclor 1262	ND (0.0550)		1	11/15/11 19:16		CK11502
Aroclor 1268	ND (0.0550)		1	11/15/11 19:16		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-72
Date Sampled: 11/10/11 09:02
Percent Solids: 89
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0556)		1	11/15/11 19:35		CK11502
Aroclor 1221	ND (0.0556)		1	11/15/11 19:35		CK11502
Aroclor 1232	ND (0.0556)		1	11/15/11 19:35		CK11502
Aroclor 1242	ND (0.0556)		1	11/15/11 19:35		CK11502
Aroclor 1248	ND (0.0556)		1	11/15/11 19:35		CK11502
Aroclor 1254	**0.273** (0.0556)		1	11/15/11 19:35		CK11502
Aroclor 1260	**0.135** (0.0556)		1	11/15/11 19:35		CK11502
Aroclor 1262	ND (0.0556)		1	11/15/11 19:35		CK11502
Aroclor 1268	ND (0.0556)		1	11/15/11 19:35		CK11502

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-73
Date Sampled: 11/10/11 09:04
Percent Solids: 90
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0547)		1	11/15/11 19:54		CK11502
Aroclor 1221	ND (0.0547)		1	11/15/11 19:54		CK11502
Aroclor 1232	ND (0.0547)		1	11/15/11 19:54		CK11502
Aroclor 1242	ND (0.0547)		1	11/15/11 19:54		CK11502
Aroclor 1248	ND (0.0547)		1	11/15/11 19:54		CK11502
Aroclor 1254	ND (0.0547)		1	11/15/11 19:54		CK11502
Aroclor 1260	ND (0.0547)		1	11/15/11 19:54		CK11502
Aroclor 1262	ND (0.0547)		1	11/15/11 19:54		CK11502
Aroclor 1268	ND (0.0547)		1	11/15/11 19:54		CK11502

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-74
Date Sampled: 11/10/11 09:06
Percent Solids: 86
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	11/15/11 20:13		CK11502
Aroclor 1221	ND (0.0581)		1	11/15/11 20:13		CK11502
Aroclor 1232	ND (0.0581)		1	11/15/11 20:13		CK11502
Aroclor 1242	ND (0.0581)		1	11/15/11 20:13		CK11502
Aroclor 1248	ND (0.0581)		1	11/15/11 20:13		CK11502
Aroclor 1254	ND (0.0581)		1	11/15/11 20:13		CK11502
Aroclor 1260	ND (0.0581)		1	11/15/11 20:13		CK11502
Aroclor 1262	ND (0.0581)		1	11/15/11 20:13		CK11502
Aroclor 1268	ND (0.0581)		1	11/15/11 20:13		CK11502

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-75
Date Sampled: 11/10/11 09:08
Percent Solids: 88
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0565)		1	11/15/11 20:31		CK11502
Aroclor 1221	ND (0.0565)		1	11/15/11 20:31		CK11502
Aroclor 1232	ND (0.0565)		1	11/15/11 20:31		CK11502
Aroclor 1242	ND (0.0565)		1	11/15/11 20:31		CK11502
Aroclor 1248	ND (0.0565)		1	11/15/11 20:31		CK11502
Aroclor 1254	ND (0.0565)		1	11/15/11 20:31		CK11502
Aroclor 1260	**0.0799** (0.0565)		1	11/15/11 20:31		CK11502
Aroclor 1262	ND (0.0565)		1	11/15/11 20:31		CK11502
Aroclor 1268	ND (0.0565)		1	11/15/11 20:31		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-76
Date Sampled: 11/10/11 09:10
Percent Solids: 87
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)		1	11/15/11 20:50		CK11502
Aroclor 1221	ND (0.0575)		1	11/15/11 20:50		CK11502
Aroclor 1232	ND (0.0575)		1	11/15/11 20:50		CK11502
Aroclor 1242	ND (0.0575)		1	11/15/11 20:50		CK11502
Aroclor 1248	ND (0.0575)		1	11/15/11 20:50		CK11502
Aroclor 1254	ND (0.0575)		1	11/15/11 20:50		CK11502
Aroclor 1260	ND (0.0575)		1	11/15/11 20:50		CK11502
Aroclor 1262	ND (0.0575)		1	11/15/11 20:50		CK11502
Aroclor 1268	ND (0.0575)		1	11/15/11 20:50		CK11502

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-77
Date Sampled: 11/10/11 09:12
Percent Solids: 90
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0550)		1	11/15/11 21:09		CK11502
Aroclor 1221	ND (0.0550)		1	11/15/11 21:09		CK11502
Aroclor 1232	ND (0.0550)		1	11/15/11 21:09		CK11502
Aroclor 1242	ND (0.0550)		1	11/15/11 21:09		CK11502
Aroclor 1248	ND (0.0550)		1	11/15/11 21:09		CK11502
Aroclor 1254	ND (0.0550)		1	11/15/11 21:09		CK11502
Aroclor 1260	**0.141** (0.0550)		1	11/15/11 21:09		CK11502
Aroclor 1262	ND (0.0550)		1	11/15/11 21:09		CK11502
Aroclor 1268	ND (0.0550)		1	11/15/11 21:09		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-78
Date Sampled: 11/10/11 09:14
Percent Solids: 95
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0521)		1	11/15/11 21:28		CK11502
Aroclor 1221	ND (0.0521)		1	11/15/11 21:28		CK11502
Aroclor 1232	ND (0.0521)		1	11/15/11 21:28		CK11502
Aroclor 1242	ND (0.0521)		1	11/15/11 21:28		CK11502
Aroclor 1248	ND (0.0521)		1	11/15/11 21:28		CK11502
Aroclor 1254	ND (0.0521)		1	11/15/11 21:28		CK11502
Aroclor 1260	ND (0.0521)		1	11/15/11 21:28		CK11502
Aroclor 1262	ND (0.0521)		1	11/15/11 21:28		CK11502
Aroclor 1268	ND (0.0521)		1	11/15/11 21:28		CK11502

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-79
Date Sampled: 11/10/11 09:16
Percent Solids: 92
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0538)		1	11/15/11 21:47		CK11502
Aroclor 1221	ND (0.0538)		1	11/15/11 21:47		CK11502
Aroclor 1232	ND (0.0538)		1	11/15/11 21:47		CK11502
Aroclor 1242	ND (0.0538)		1	11/15/11 21:47		CK11502
Aroclor 1248	ND (0.0538)		1	11/15/11 21:47		CK11502
Aroclor 1254	ND (0.0538)		1	11/15/11 21:47		CK11502
Aroclor 1260	**0.112** (0.0538)		1	11/15/11 21:47		CK11502
Aroclor 1262	ND (0.0538)		1	11/15/11 21:47		CK11502
Aroclor 1268	ND (0.0538)		1	11/15/11 21:47		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-80
Date Sampled: 11/10/11 09:18
Percent Solids: 89
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111211
ESS Laboratory Sample ID: 1111211-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0559)		1	11/15/11 22:06		CK11502
Aroclor 1221	ND (0.0559)		1	11/15/11 22:06		CK11502
Aroclor 1232	ND (0.0559)		1	11/15/11 22:06		CK11502
Aroclor 1242	ND (0.0559)		1	11/15/11 22:06		CK11502
Aroclor 1248	ND (0.0559)		1	11/15/11 22:06		CK11502
Aroclor 1254	ND (0.0559)		1	11/15/11 22:06		CK11502
Aroclor 1260	**0.353** (0.0559)		1	11/15/11 22:06		CK11502
Aroclor 1262	ND (0.0559)		1	11/15/11 22:06		CK11502
Aroclor 1268	ND (0.0559)		1	11/15/11 22:06		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11407 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11407 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11407 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0204*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
LCS										
Aroclor 1016	0.498	0.0500	mg/kg wet	0.5000		100	40-140			
Aroclor 1260	0.490	0.0500	mg/kg wet	0.5000		98	40-140			
Surrogate: Decachlorobiphenyl	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
LCS Dup										
Aroclor 1016	0.484	0.0500	mg/kg wet	0.5000		97	40-140	3	30	
Aroclor 1260	0.478	0.0500	mg/kg wet	0.5000		96	40-140	2	30	
Surrogate: Decachlorobiphenyl	*0.0227*		mg/kg wet	*0.02500*		*91*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0218*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0239*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			
Batch CK11502 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11502 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11502 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0209*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11502 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
LCS										
Aroclor 1016	0.442	0.0500	mg/kg wet	0.5000		88	40-140			
Aroclor 1260	0.432	0.0500	mg/kg wet	0.5000		86	40-140			
Surrogate: Decachlorobiphenyl	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
LCS Dup										
Aroclor 1016	0.469	0.0500	mg/kg wet	0.5000		94	40-140	6	30	
Aroclor 1260	0.457	0.0500	mg/kg wet	0.5000		91	40-140	6	30	
Surrogate: Decachlorobiphenyl	*0.0216*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0221*		mg/kg wet	*0.02500*		*89*	*30-150*			
Batch CK11522 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11522 - 3540										
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11522 - 3540										
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0201*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0191*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
LCS										
Aroclor 1016	0.488	0.0500	mg/kg wet	0.5000		98	40-140			
Aroclor 1260	0.465	0.0500	mg/kg wet	0.5000		93	40-140			
Surrogate: Decachlorobiphenyl	*0.0220*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
LCS Dup										
Aroclor 1016	0.495	0.0500	mg/kg wet	0.5000		99	40-140	2	30	
Aroclor 1260	0.469	0.0500	mg/kg wet	0.5000		94	40-140	0.7	30	

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111211

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11522 - 3540										
Surrogate: Decachlorobiphenyl	*0.0216*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0250*		mg/kg wet	*0.02500*		*100*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0247*		mg/kg wet	*0.02500*		*99*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111211

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111211

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110211
Date Project Due: 11/18/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **4.6**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	2 oz Soil Jar	1	NP
2	Yes	2 oz Soil Jar	1	NP
3	Yes	2 oz Soil Jar	1	NP
4	Yes	2 oz Soil Jar	1	NP
5	Yes	2 oz Soil Jar	1	NP
6	Yes	2 oz Soil Jar	1	NP
7	Yes	2 oz Soil Jar	1	NP
8	Yes	2 oz Soil Jar	1	NP
9	Yes	2 oz Soil Jar	1	NP
10	Yes	2 oz Soil Jar	1	NP
11	Yes	2 oz Soil Jar	1	NP
12	Yes	2 oz Soil Jar	1	NP
13	Yes	2 oz Soil Jar	1	NP
14	Yes	2 oz Soil Jar	1	NP
15	Yes	2 oz Soil Jar	1	NP
16	Yes	2 oz Soil Jar	1	NP
17	Yes	2 oz Soil Jar	1	NP
18	Yes	2 oz Soil Jar	1	NP
19	Yes	2 oz Soil Jar	1	NP
20	Yes	2 oz Soil Jar	1	NP

Completed By: CLD Date/Time: 11/11/11
Reviewed By: BC Date/Time: 11/11/11

ESS Quote # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1111211

Turn Time ____ Standard Other **Hard 5 Day** TAT

Reporting Limits - <1 ppm

Regulatory State **[MA]** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.
Project # W-1510
Project Name: NORTH HIGH
Contact Person: Marc J. Richards
Address: 446 Main Street
City: Worcester
State: MA
Zip: 01609
PO # W-1510
Tel. 508-471-9621
Fax. 508-795-1087
email: MJRichards@tighebond.com

Analysis

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082								
01	11-10-11	0840 am	G	S	PX-61	1	1	G		X								
02	11-10-11	0842 am	G	S	PX-62	1	1	G		X								
03	11-10-11	0844 am	G	S	PX-63	1	1	G		X								
04	11-10-11	0846 am	G	S	PX-64	1	1	G		X								
05	11-10-11	0848 am	G	S	PX-65	1	1	G		X								
06	11-10-11	0850 am	G	S	PX-66	1	1	G		X								
07	11-10-11	0852 am	G	S	PX-67	1	1	G		X								
08	11-10-11	0854 am	G	S	PX-68	1	1	G		X								
09	11-10-11	0856 am	G	S	PX-69	1	1	G		X								
10	11-10-11	0858 am	G	S	PX-70	1	1	G		X								

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 4.6 °C

Internal Use Only
[ ] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-10-11 1510	11/10/11 1510	11/10/11 1800	Manal Keenan 11/10/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Quote # 1106 117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time ____ Standard Other Hard 5 Day TAT

Regulatory State [MA] RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

ESS Lab #

Reporting Limits - <1 ppm

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project #: W-1510	Project Name: NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO #: W-1510
Tel.: 508-471-9621	Fax.: 508-795-1087	email: MJRichards@tighebond.com	

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: PCBs by 3540/8082
11	11-10-11	0900 am	G	S	PX- 71	1	1	G		X
12	11-10-11	0902 am	G	S	PX- 72	1	1	G		X
13	11-10-11	0904 am	G	S	PX- 73	1	1	G		X
14	11-10-11	0906 am	G	S	PX- 74	1	1	G		X
15	11-10-11	0908 am	G	S	PX- 75	1	1	G		X
16	11-10-11	0910 am	G	S	PX- 76	1	1	G		X
17	11-10-11	0912 am	G	S	PX- 77	1	1	G		X
18	11-10-11	0914 am	G	S	PX- 78	1	1	G		X
19	11-10-11	0916 am	G	S	PX- 79	1	1	G		X
20	11-10-11	0918 am	G	S	PX- 80	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 46 °C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
[signature] 11-10-11 1510	[signature] 11/10/11 1510	[signature] 11/10/11 1810	Manal Kooran 11/10/11 1800

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1111212

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:45 pm, Nov 17, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111212

SAMPLE RECEIPT

The following samples were received on November 10, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111212-01	PX-81	Soil	8082A
1111212-02	PX-82	Soil	8082A
1111212-03	PX-83	Soil	8082A
1111212-04	PX-84	Soil	8082A
1111212-05	PX-85	Soil	8082A
1111212-06	PX-86	Soil	8082A
1111212-07	PX-87	Soil	8082A
1111212-08	PX-88	Soil	8082A
1111212-09	PX-89	Soil	8082A
1111212-10	PX-90	Soil	8082A
1111212-11	PX-91	Soil	8082A
1111212-12	PX-92	Soil	8082A
1111212-13	PX-93	Soil	8082A
1111212-14	PX-94	Soil	8082A
1111212-15	PX-95	Soil	8082A
1111212-16	PX-96	Soil	8082A
1111212-17	PX-97	Soil	8082A
1111212-18	PX-98	Soil	8082A
1111212-19	PX-99	Soil	8082A
1111212-20	PX-100	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111212

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111212

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111212-01 through 1111212-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: November 17, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-81
Date Sampled: 11/10/11 09:20
Percent Solids: 88
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0563)		1	11/16/11 14:44		CK11501
Aroclor 1221	ND (0.0563)		1	11/16/11 14:44		CK11501
Aroclor 1232	ND (0.0563)		1	11/16/11 14:44		CK11501
Aroclor 1242	ND (0.0563)		1	11/16/11 14:44		CK11501
Aroclor 1248	ND (0.0563)		1	11/16/11 14:44		CK11501
Aroclor 1254	ND (0.0563)		1	11/16/11 14:44		CK11501
Aroclor 1260	ND (0.0563)		1	11/16/11 14:44		CK11501
Aroclor 1262	ND (0.0563)		1	11/16/11 14:44		CK11501
Aroclor 1268	ND (0.0563)		1	11/16/11 14:44		CK11501

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*53 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*52 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*31 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*31 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-82
Date Sampled: 11/10/11 09:22
Percent Solids: 86
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0579)		1	11/16/11 1:33		CK11501
Aroclor 1221	ND (0.0579)		1	11/16/11 1:33		CK11501
Aroclor 1232	ND (0.0579)		1	11/16/11 1:33		CK11501
Aroclor 1242	ND (0.0579)		1	11/16/11 1:33		CK11501
Aroclor 1248	ND (0.0579)		1	11/16/11 1:33		CK11501
Aroclor 1254	ND (0.0579)		1	11/16/11 1:33		CK11501
Aroclor 1260	ND (0.0579)		1	11/16/11 1:33		CK11501
Aroclor 1262	ND (0.0579)		1	11/16/11 1:33		CK11501
Aroclor 1268	ND (0.0579)		1	11/16/11 1:33		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-83
Date Sampled: 11/10/11 09:24
Percent Solids: 87
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0566)		1	11/16/11 1:51		CK11501
Aroclor 1221	ND (0.0566)		1	11/16/11 1:51		CK11501
Aroclor 1232	ND (0.0566)		1	11/16/11 1:51		CK11501
Aroclor 1242	ND (0.0566)		1	11/16/11 1:51		CK11501
Aroclor 1248	ND (0.0566)		1	11/16/11 1:51		CK11501
Aroclor 1254	**0.0645** (0.0566)		1	11/16/11 1:51		CK11501
Aroclor 1260	**0.134** (0.0566)		1	11/16/11 1:51		CK11501
Aroclor 1262	ND (0.0566)		1	11/16/11 1:51		CK11501
Aroclor 1268	ND (0.0566)		1	11/16/11 1:51		CK11501

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-84
Date Sampled: 11/10/11 09:26
Percent Solids: 88
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0560)		1	11/16/11 2:10		CK11501
Aroclor 1221	ND (0.0560)		1	11/16/11 2:10		CK11501
Aroclor 1232	ND (0.0560)		1	11/16/11 2:10		CK11501
Aroclor 1242	ND (0.0560)		1	11/16/11 2:10		CK11501
Aroclor 1248	ND (0.0560)		1	11/16/11 2:10		CK11501
Aroclor 1254	**0.0667** (0.0560)		1	11/16/11 2:10		CK11501
Aroclor 1260	**0.0654** (0.0560)		1	11/16/11 2:10		CK11501
Aroclor 1262	ND (0.0560)		1	11/16/11 2:10		CK11501
Aroclor 1268	ND (0.0560)		1	11/16/11 2:10		CK11501

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-85
Date Sampled: 11/10/11 09:28
Percent Solids: 88
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0565)		1	11/16/11 2:29		CK11501
Aroclor 1221	ND (0.0565)		1	11/16/11 2:29		CK11501
Aroclor 1232	ND (0.0565)		1	11/16/11 2:29		CK11501
Aroclor 1242	ND (0.0565)		1	11/16/11 2:29		CK11501
Aroclor 1248	ND (0.0565)		1	11/16/11 2:29		CK11501
Aroclor 1254	ND (0.0565)		1	11/16/11 2:29		CK11501
Aroclor 1260	**0.129** (0.0565)		1	11/16/11 2:29		CK11501
Aroclor 1262	ND (0.0565)		1	11/16/11 2:29		CK11501
Aroclor 1268	ND (0.0565)		1	11/16/11 2:29		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-86
Date Sampled: 11/10/11 09:30
Percent Solids: 89
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0553)		1	11/16/11 2:48		CK11501
Aroclor 1221	ND (0.0553)		1	11/16/11 2:48		CK11501
Aroclor 1232	ND (0.0553)		1	11/16/11 2:48		CK11501
Aroclor 1242	ND (0.0553)		1	11/16/11 2:48		CK11501
Aroclor 1248	ND (0.0553)		1	11/16/11 2:48		CK11501
Aroclor 1254	ND (0.0553)		1	11/16/11 2:48		CK11501
Aroclor 1260	**0.196** (0.0553)		1	11/16/11 2:48		CK11501
Aroclor 1262	ND (0.0553)		1	11/16/11 2:48		CK11501
Aroclor 1268	ND (0.0553)		1	11/16/11 2:48		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-87
Date Sampled: 11/10/11 09:32
Percent Solids: 90
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0550)		1	11/16/11 3:07		CK11501
Aroclor 1221	ND (0.0550)		1	11/16/11 3:07		CK11501
Aroclor 1232	ND (0.0550)		1	11/16/11 3:07		CK11501
Aroclor 1242	ND (0.0550)		1	11/16/11 3:07		CK11501
Aroclor 1248	ND (0.0550)		1	11/16/11 3:07		CK11501
Aroclor 1254	ND (0.0550)		1	11/16/11 3:07		CK11501
Aroclor 1260	ND (0.0550)		1	11/16/11 3:07		CK11501
Aroclor 1262	ND (0.0550)		1	11/16/11 3:07		CK11501
Aroclor 1268	ND (0.0550)		1	11/16/11 3:07		CK11501

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-88
Date Sampled: 11/10/11 09:34
Percent Solids: 87
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)		1	11/16/11 3:26		CK11501
Aroclor 1221	ND (0.0575)		1	11/16/11 3:26		CK11501
Aroclor 1232	ND (0.0575)		1	11/16/11 3:26		CK11501
Aroclor 1242	ND (0.0575)		1	11/16/11 3:26		CK11501
Aroclor 1248	ND (0.0575)		1	11/16/11 3:26		CK11501
Aroclor 1254	ND (0.0575)		1	11/16/11 3:26		CK11501
Aroclor 1260	ND (0.0575)		1	11/16/11 3:26		CK11501
Aroclor 1262	ND (0.0575)		1	11/16/11 3:26		CK11501
Aroclor 1268	ND (0.0575)		1	11/16/11 3:26		CK11501

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-89
Date Sampled: 11/10/11 09:36
Percent Solids: 89
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0556)		1	11/16/11 3:45		CK11501
Aroclor 1221	ND (0.0556)		1	11/16/11 3:45		CK11501
Aroclor 1232	ND (0.0556)		1	11/16/11 3:45		CK11501
Aroclor 1242	ND (0.0556)		1	11/16/11 3:45		CK11501
Aroclor 1248	ND (0.0556)		1	11/16/11 3:45		CK11501
Aroclor 1254	ND (0.0556)		1	11/16/11 3:45		CK11501
Aroclor 1260	**0.945** (0.0556)		1	11/16/11 3:45		CK11501
Aroclor 1262	ND (0.0556)		1	11/16/11 3:45		CK11501
Aroclor 1268	ND (0.0556)		1	11/16/11 3:45		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-90
Date Sampled: 11/10/11 09:38
Percent Solids: 91
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0544)		1	11/16/11 4:03		CK11501
Aroclor 1221	ND (0.0544)		1	11/16/11 4:03		CK11501
Aroclor 1232	ND (0.0544)		1	11/16/11 4:03		CK11501
Aroclor 1242	ND (0.0544)		1	11/16/11 4:03		CK11501
Aroclor 1248	ND (0.0544)		1	11/16/11 4:03		CK11501
Aroclor 1254	ND (0.0544)		1	11/16/11 4:03		CK11501
Aroclor 1260	**0.290** (0.0544)		1	11/16/11 4:03		CK11501
Aroclor 1262	ND (0.0544)		1	11/16/11 4:03		CK11501
Aroclor 1268	ND (0.0544)		1	11/16/11 4:03		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-91
Date Sampled: 11/10/11 09:40
Percent Solids: 89
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0559)		1	11/16/11 4:22		CK11501
Aroclor 1221	ND (0.0559)		1	11/16/11 4:22		CK11501
Aroclor 1232	ND (0.0559)		1	11/16/11 4:22		CK11501
Aroclor 1242	ND (0.0559)		1	11/16/11 4:22		CK11501
Aroclor 1248	ND (0.0559)		1	11/16/11 4:22		CK11501
Aroclor 1254	**0.0624** (0.0559)		1	11/16/11 4:22		CK11501
Aroclor 1260	**0.162** (0.0559)		1	11/16/11 4:22		CK11501
Aroclor 1262	ND (0.0559)		1	11/16/11 4:22		CK11501
Aroclor 1268	ND (0.0559)		1	11/16/11 4:22		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-92
Date Sampled: 11/10/11 09:42
Percent Solids: 88
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0568)		1	11/16/11 4:41		CK11501
Aroclor 1221	ND (0.0568)		1	11/16/11 4:41		CK11501
Aroclor 1232	ND (0.0568)		1	11/16/11 4:41		CK11501
Aroclor 1242	ND (0.0568)		1	11/16/11 4:41		CK11501
Aroclor 1248	ND (0.0568)		1	11/16/11 4:41		CK11501
Aroclor 1254	ND (0.0568)		1	11/16/11 4:41		CK11501
Aroclor 1260	**0.0626** (0.0568)		1	11/16/11 4:41		CK11501
Aroclor 1262	ND (0.0568)		1	11/16/11 4:41		CK11501
Aroclor 1268	ND (0.0568)		1	11/16/11 4:41		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-93
Date Sampled: 11/10/11 09:44
Percent Solids: 88
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0565)		1	11/16/11 5:00		CK11501
Aroclor 1221	ND (0.0565)		1	11/16/11 5:00		CK11501
Aroclor 1232	ND (0.0565)		1	11/16/11 5:00		CK11501
Aroclor 1242	ND (0.0565)		1	11/16/11 5:00		CK11501
Aroclor 1248	ND (0.0565)		1	11/16/11 5:00		CK11501
Aroclor 1254	ND (0.0565)		1	11/16/11 5:00		CK11501
Aroclor 1260	ND (0.0565)		1	11/16/11 5:00		CK11501
Aroclor 1262	ND (0.0565)		1	11/16/11 5:00		CK11501
Aroclor 1268	ND (0.0565)		1	11/16/11 5:00		CK11501

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-94
Date Sampled: 11/10/11 09:46
Percent Solids: 88
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0565)		1	11/16/11 5:19		CK11501
Aroclor 1221	ND (0.0565)		1	11/16/11 5:19		CK11501
Aroclor 1232	ND (0.0565)		1	11/16/11 5:19		CK11501
Aroclor 1242	ND (0.0565)		1	11/16/11 5:19		CK11501
Aroclor 1248	ND (0.0565)		1	11/16/11 5:19		CK11501
Aroclor 1254	ND (0.0565)		1	11/16/11 5:19		CK11501
Aroclor 1260	ND (0.0565)		1	11/16/11 5:19		CK11501
Aroclor 1262	ND (0.0565)		1	11/16/11 5:19		CK11501
Aroclor 1268	ND (0.0565)		1	11/16/11 5:19		CK11501

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-95
Date Sampled: 11/10/11 09:48
Percent Solids: 86
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0579)		1	11/16/11 5:37		CK11501
Aroclor 1221	ND (0.0579)		1	11/16/11 5:37		CK11501
Aroclor 1232	ND (0.0579)		1	11/16/11 5:37		CK11501
Aroclor 1242	ND (0.0579)		1	11/16/11 5:37		CK11501
Aroclor 1248	ND (0.0579)		1	11/16/11 5:37		CK11501
Aroclor 1254	ND (0.0579)		1	11/16/11 5:37		CK11501
Aroclor 1260	ND (0.0579)		1	11/16/11 5:37		CK11501
Aroclor 1262	ND (0.0579)		1	11/16/11 5:37		CK11501
Aroclor 1268	ND (0.0579)		1	11/16/11 5:37		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-96
Date Sampled: 11/10/11 09:50
Percent Solids: 85
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0585)		1	11/16/11 5:56		CK11501
Aroclor 1221	ND (0.0585)		1	11/16/11 5:56		CK11501
Aroclor 1232	ND (0.0585)		1	11/16/11 5:56		CK11501
Aroclor 1242	ND (0.0585)		1	11/16/11 5:56		CK11501
Aroclor 1248	ND (0.0585)		1	11/16/11 5:56		CK11501
Aroclor 1254	ND (0.0585)		1	11/16/11 5:56		CK11501
Aroclor 1260	**0.192** (0.0585)		1	11/16/11 5:56		CK11501
Aroclor 1262	ND (0.0585)		1	11/16/11 5:56		CK11501
Aroclor 1268	ND (0.0585)		1	11/16/11 5:56		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*80 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-97
Date Sampled: 11/10/11 09:52
Percent Solids: 85
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0585)		1	11/16/11 6:15		CK11501
Aroclor 1221	ND (0.0585)		1	11/16/11 6:15		CK11501
Aroclor 1232	ND (0.0585)		1	11/16/11 6:15		CK11501
Aroclor 1242	ND (0.0585)		1	11/16/11 6:15		CK11501
Aroclor 1248	ND (0.0585)		1	11/16/11 6:15		CK11501
Aroclor 1254	ND (0.0585)		1	11/16/11 6:15		CK11501
Aroclor 1260	**0.594** (0.0585)		1	11/16/11 6:15		CK11501
Aroclor 1262	ND (0.0585)		1	11/16/11 6:15		CK11501
Aroclor 1268	ND (0.0585)		1	11/16/11 6:15		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-98
Date Sampled: 11/10/11 09:54
Percent Solids: 85
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0588)		1	11/16/11 6:34		CK11501
Aroclor 1221	ND (0.0588)		1	11/16/11 6:34		CK11501
Aroclor 1232	ND (0.0588)		1	11/16/11 6:34		CK11501
Aroclor 1242	ND (0.0588)		1	11/16/11 6:34		CK11501
Aroclor 1248	ND (0.0588)		1	11/16/11 6:34		CK11501
Aroclor 1254	ND (0.0588)		1	11/16/11 6:34		CK11501
Aroclor 1260	**0.338** (0.0588)		1	11/16/11 6:34		CK11501
Aroclor 1262	ND (0.0588)		1	11/16/11 6:34		CK11501
Aroclor 1268	ND (0.0588)		1	11/16/11 6:34		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-99
Date Sampled: 11/10/11 09:56
Percent Solids: 85
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0582)		1	11/16/11 6:53		CK11501
Aroclor 1221	ND (0.0582)		1	11/16/11 6:53		CK11501
Aroclor 1232	ND (0.0582)		1	11/16/11 6:53		CK11501
Aroclor 1242	ND (0.0582)		1	11/16/11 6:53		CK11501
Aroclor 1248	ND (0.0582)		1	11/16/11 6:53		CK11501
Aroclor 1254	ND (0.0582)		1	11/16/11 6:53		CK11501
Aroclor 1260	**0.170** (0.0582)		1	11/16/11 6:53		CK11501
Aroclor 1262	ND (0.0582)		1	11/16/11 6:53		CK11501
Aroclor 1268	ND (0.0582)		1	11/16/11 6:53		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-100
Date Sampled: 11/10/11 09:58
Percent Solids: 86
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111212
ESS Laboratory Sample ID: 1111212-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	11/16/11 7:12		CK11501
Aroclor 1221	ND (0.0581)		1	11/16/11 7:12		CK11501
Aroclor 1232	ND (0.0581)		1	11/16/11 7:12		CK11501
Aroclor 1242	ND (0.0581)		1	11/16/11 7:12		CK11501
Aroclor 1248	ND (0.0581)		1	11/16/11 7:12		CK11501
Aroclor 1254	ND (0.0581)		1	11/16/11 7:12		CK11501
Aroclor 1260	**0.275** (0.0581)		1	11/16/11 7:12		CK11501
Aroclor 1262	ND (0.0581)		1	11/16/11 7:12		CK11501
Aroclor 1268	ND (0.0581)		1	11/16/11 7:12		CK11501

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111212

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11501 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111212

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11501 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111212

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11501 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0114*		mg/kg wet	*0.02500*		*46*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0113*		mg/kg wet	*0.02500*		*45*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0111*		mg/kg wet	*0.02500*		*44*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0114*		mg/kg wet	*0.02500*		*45*	*30-150*			
LCS										
Aroclor 1016	0.475	0.0500	mg/kg wet	0.5000		95	40-140			
Aroclor 1260	0.459	0.0500	mg/kg wet	0.5000		92	40-140			
Surrogate: Decachlorobiphenyl	*0.0217*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0214*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
LCS Dup										
Aroclor 1016	0.471	0.0500	mg/kg wet	0.5000		94	40-140	0.8	30	
Aroclor 1260	0.453	0.0500	mg/kg wet	0.5000		91	40-140	1	30	
Surrogate: Decachlorobiphenyl	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0209*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111212

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111212

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110212
Date Project Due: 11/18/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **4.6**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	2 oz Soil Jar	1	NP
2	Yes	2 oz Soil Jar	1	NP
3	Yes	2 oz Soil Jar	1	NP
4	Yes	2 oz Soil Jar	1	NP
5	Yes	2 oz Soil Jar	1	NP
6	Yes	2 oz Soil Jar	1	NP
7	Yes	2 oz Soil Jar	1	NP
8	Yes	2 oz Soil Jar	1	NP
9	Yes	2 oz Soil Jar	1	NP
10	Yes	2 oz Soil Jar	1	NP
11	Yes	2 oz Soil Jar	1	NP
12	Yes	2 oz Soil Jar	1	NP
13	Yes	2 oz Soil Jar	1	NP
14	Yes	2 oz Soil Jar	1	NP
15	Yes	2 oz Soil Jar	1	NP
16	Yes	2 oz Soil Jar	1	NP
17	Yes	2 oz Soil Jar	1	NP
18	Yes	2 oz Soil Jar	1	NP
19	Yes	2 oz Soil Jar	1	NP
20	Yes	2 oz Soil Jar	1	NP

Completed By: CLD Date/Time: 11/11/11
Reviewed By: BC Date/Time: 11/11/11

ESS Quote # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 111112

Turn Time ____ Standard Other Hard 5 Day TAT

Regulatory State [MA] RI CT NH NJ NY ME Other____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other____

Reporting Limits - <1 ppm

Electonic Deliverables Excel Access PDF

Co. Name	Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH
Contact Person	Marc J. Richards	Address 446 Main Street	
City Worcester	State MA	Zip 01609	PO # W-1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
01	11-10-11	0920 am	G	S	PX-81	1	1	G		X
02	11-10-11	0922 am	G	S	PX-82	1	1	G		X
03	11-10-11	0924 am	G	S	PX-83	1	1	G		X
04	11-10-11	0926 am	G	S	PX-84	1	1	G		X
05	11-10-11	0928 am	G	S	PX-85	1	1	G		X
06	11-10-11	0930 am	G	S	PX-86	1	1	G		X
07	11-10-11	0932 am	G	S	PX-87	1	1	G		X
08	11-10-11	0934 am	G	S	PX-88	1	1	G		X
09	11-10-11	0936 am	G	S	PX-89	1	1	G		X
10	11-10-11	0938 am	G	S	PX-90	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 4.6 °C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-10-11 1510	11/10/11 1510	11/10/11 18:00	11/10/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Quote # 1106 117

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CHAIN OF CUSTODY

ESS Lab #

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State [MA] RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W-1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
11	11-10-11	0940 am	G	S	PX-91	1	1	G		X
12	11-10-11	0942 am	G	S	PX-92	1	1	G		X
13	11-10-11	0944 am	G	S	PX-93	1	1	G		X
14	11-10-11	0946 am	G	S	PX-94	1	1	G		X
15	11-10-11	0948 am	G	S	PX-95	1	1	G		X
16	11-10-11	0950 am	G	S	PX-96	1	1	G		X
17	11-10-11	0952 am	G	S	PX-97	1	1	G		X
18	11-10-11	0954 am	G	S	PX-98	1	1	G		X
19	11-10-11	0956 am	G	S	PX-99	1	1	G		X
20	11-10-11	0958 am	G	S	PX-100	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 4.6 °C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-10-11 1500	11/10/11 1510	11/10/11 1810	Manal Keenan 11/10/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1111213

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:47 pm, Nov 18, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

SAMPLE RECEIPT

The following samples were received on November 10, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111213-01	PX-101	Soil	8082A
1111213-02	PX-102	Soil	8082A
1111213-03	PX-103	Soil	8082A
1111213-04	PX-104	Soil	8082A
1111213-05	PX-105	Soil	8082A
1111213-06	PX-106	Soil	8082A
1111213-07	PX-107	Soil	8082A
1111213-08	PX-108	Soil	8082A
1111213-09	PX-109	Soil	8082A
1111213-10	PX-110	Soil	8082A
1111213-11	PX-111	Soil	8082A
1111213-12	PX-112	Soil	8082A
1111213-13	PX-113	Soil	8082A
1111213-14	PX-114	Soil	8082A
1111213-15	PX-115	Soil	8082A
1111213-16	PX-116	Soil	8082A
1111213-17	PX-117	Soil	8082A
1111213-18	PX-118	Soil	8082A
1111213-19	PX-119	Soil	8082A
1111213-20	PX-120	Soil	8082A
1111213-21	PX-121	Soil	8082A
1111213-22	PX-122	Soil	8082A
1111213-23	PX-123	Soil	8082A
1111213-24	PX-124	Soil	8082A
1111213-25	PX-125	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111213

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111213-01 through 1111213-25**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: November 18, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-101
Date Sampled: 11/10/11 10:00
Percent Solids: 84
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)		1	11/16/11 17:39		CK11502
Aroclor 1221	ND (0.0584)		1	11/16/11 17:39		CK11502
Aroclor 1232	ND (0.0584)		1	11/16/11 17:39		CK11502
Aroclor 1242	ND (0.0584)		1	11/16/11 17:39		CK11502
Aroclor 1248	ND (0.0584)		1	11/16/11 17:39		CK11502
Aroclor 1254	ND (0.0584)		1	11/16/11 17:39		CK11502
Aroclor 1260	**0.292** (0.0584)		1	11/16/11 17:39		CK11502
Aroclor 1262	ND (0.0584)		1	11/16/11 17:39		CK11502
Aroclor 1268	ND (0.0584)		1	11/16/11 17:39		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-102
Date Sampled: 11/10/11 10:02
Percent Solids: 85
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0600)		1	11/16/11 17:57		CK11502
Aroclor 1221	ND (0.0600)		1	11/16/11 17:57		CK11502
Aroclor 1232	ND (0.0600)		1	11/16/11 17:57		CK11502
Aroclor 1242	ND (0.0600)		1	11/16/11 17:57		CK11502
Aroclor 1248	ND (0.0600)		1	11/16/11 17:57		CK11502
Aroclor 1254	ND (0.0600)		1	11/16/11 17:57		CK11502
Aroclor 1260	**0.311** (0.0600)		1	11/16/11 17:57		CK11502
Aroclor 1262	ND (0.0600)		1	11/16/11 17:57		CK11502
Aroclor 1268	ND (0.0600)		1	11/16/11 17:57		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-103
Date Sampled: 11/10/11 10:04
Percent Solids: 84
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)		1	11/16/11 18:16		CK11502
Aroclor 1221	ND (0.0589)		1	11/16/11 18:16		CK11502
Aroclor 1232	ND (0.0589)		1	11/16/11 18:16		CK11502
Aroclor 1242	ND (0.0589)		1	11/16/11 18:16		CK11502
Aroclor 1248	ND (0.0589)		1	11/16/11 18:16		CK11502
Aroclor 1254	**0.105** (0.0589)		1	11/16/11 18:16		CK11502
Aroclor 1260	**0.218** (0.0589)		1	11/16/11 18:16		CK11502
Aroclor 1262	ND (0.0589)		1	11/16/11 18:16		CK11502
Aroclor 1268	ND (0.0589)		1	11/16/11 18:16		CK11502

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-104
Date Sampled: 11/10/11 10:06
Percent Solids: 87
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0583)		1	11/16/11 18:35		CK11502
Aroclor 1221	ND (0.0583)		1	11/16/11 18:35		CK11502
Aroclor 1232	ND (0.0583)		1	11/16/11 18:35		CK11502
Aroclor 1242	ND (0.0583)		1	11/16/11 18:35		CK11502
Aroclor 1248	**0.0837** (0.0583)		1	11/16/11 18:35		CK11502
Aroclor 1254	ND (0.0583)		1	11/16/11 18:35		CK11502
Aroclor 1260	ND (0.0583)		1	11/16/11 18:35		CK11502
Aroclor 1262	ND (0.0583)		1	11/16/11 18:35		CK11502
Aroclor 1268	ND (0.0583)		1	11/16/11 18:35		CK11502

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-105
Date Sampled: 11/10/11 10:08
Percent Solids: 86
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	11/16/11 18:54		CK11502
Aroclor 1221	ND (0.0581)		1	11/16/11 18:54		CK11502
Aroclor 1232	ND (0.0581)		1	11/16/11 18:54		CK11502
Aroclor 1242	ND (0.0581)		1	11/16/11 18:54		CK11502
Aroclor 1248	ND (0.0581)		1	11/16/11 18:54		CK11502
Aroclor 1254	ND (0.0581)		1	11/16/11 18:54		CK11502
Aroclor 1260	**0.133** (0.0581)		1	11/16/11 18:54		CK11502
Aroclor 1262	ND (0.0581)		1	11/16/11 18:54		CK11502
Aroclor 1268	ND (0.0581)		1	11/16/11 18:54		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-106
Date Sampled: 11/10/11 10:10
Percent Solids: 86
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0599)		1	11/16/11 19:13		CK11502
Aroclor 1221	ND (0.0599)		1	11/16/11 19:13		CK11502
Aroclor 1232	ND (0.0599)		1	11/16/11 19:13		CK11502
Aroclor 1242	ND (0.0599)		1	11/16/11 19:13		CK11502
Aroclor 1248	ND (0.0599)		1	11/16/11 19:13		CK11502
Aroclor 1254	ND (0.0599)		1	11/16/11 19:13		CK11502
Aroclor 1260	**0.152** (0.0599)		1	11/16/11 19:13		CK11502
Aroclor 1262	ND (0.0599)		1	11/16/11 19:13		CK11502
Aroclor 1268	ND (0.0599)		1	11/16/11 19:13		CK11502

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-107
Date Sampled: 11/10/11 10:12
Percent Solids: 90
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)		1	11/16/11 19:32		CK11522
Aroclor 1221	ND (0.0567)		1	11/16/11 19:32		CK11522
Aroclor 1232	ND (0.0567)		1	11/16/11 19:32		CK11522
Aroclor 1242	ND (0.0567)		1	11/16/11 19:32		CK11522
Aroclor 1248	ND (0.0567)		1	11/16/11 19:32		CK11522
Aroclor 1254	**0.129** (0.0567)		1	11/16/11 19:32		CK11522
Aroclor 1260	**0.302** (0.0567)		1	11/16/11 19:32		CK11522
Aroclor 1262	ND (0.0567)		1	11/16/11 19:32		CK11522
Aroclor 1268	ND (0.0567)		1	11/16/11 19:32		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-108
Date Sampled: 11/10/11 10:14
Percent Solids: 88
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0574)		1	11/16/11 19:50		CK11522
Aroclor 1221	ND (0.0574)		1	11/16/11 19:50		CK11522
Aroclor 1232	ND (0.0574)		1	11/16/11 19:50		CK11522
Aroclor 1242	ND (0.0574)		1	11/16/11 19:50		CK11522
Aroclor 1248	ND (0.0574)		1	11/16/11 19:50		CK11522
Aroclor 1254	ND (0.0574)		1	11/16/11 19:50		CK11522
Aroclor 1260	**0.557** (0.0574)		1	11/16/11 19:50		CK11522
Aroclor 1262	ND (0.0574)		1	11/16/11 19:50		CK11522
Aroclor 1268	ND (0.0574)		1	11/16/11 19:50		CK11522

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-109
Date Sampled: 11/10/11 10:16
Percent Solids: 88
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0583)		1	11/16/11 20:09		CK11522
Aroclor 1221	ND (0.0583)		1	11/16/11 20:09		CK11522
Aroclor 1232	ND (0.0583)		1	11/16/11 20:09		CK11522
Aroclor 1242	ND (0.0583)		1	11/16/11 20:09		CK11522
Aroclor 1248	ND (0.0583)		1	11/16/11 20:09		CK11522
Aroclor 1254	**0.230** (0.0583)		1	11/16/11 20:09		CK11522
Aroclor 1260	**0.448** (0.0583)		1	11/16/11 20:09		CK11522
Aroclor 1262	ND (0.0583)		1	11/16/11 20:09		CK11522
Aroclor 1268	ND (0.0583)		1	11/16/11 20:09		CK11522

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*76 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-110
Date Sampled: 11/10/11 10:18
Percent Solids: 87
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0592)		1	11/16/11 20:28		CK11522
Aroclor 1221	ND (0.0592)		1	11/16/11 20:28		CK11522
Aroclor 1232	ND (0.0592)		1	11/16/11 20:28		CK11522
Aroclor 1242	ND (0.0592)		1	11/16/11 20:28		CK11522
Aroclor 1248	ND (0.0592)		1	11/16/11 20:28		CK11522
Aroclor 1254	**0.0937** (0.0592)		1	11/16/11 20:28		CK11522
Aroclor 1260	**0.0939** (0.0592)		1	11/16/11 20:28		CK11522
Aroclor 1262	ND (0.0592)		1	11/16/11 20:28		CK11522
Aroclor 1268	ND (0.0592)		1	11/16/11 20:28		CK11522

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-111
Date Sampled: 11/10/11 10:20
Percent Solids: 88
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0586)		1	11/16/11 20:47		CK11522
Aroclor 1221	ND (0.0586)		1	11/16/11 20:47		CK11522
Aroclor 1232	ND (0.0586)		1	11/16/11 20:47		CK11522
Aroclor 1242	ND (0.0586)		1	11/16/11 20:47		CK11522
Aroclor 1248	ND (0.0586)		1	11/16/11 20:47		CK11522
Aroclor 1254	ND (0.0586)		1	11/16/11 20:47		CK11522
Aroclor 1260	ND (0.0586)		1	11/16/11 20:47		CK11522
Aroclor 1262	ND (0.0586)		1	11/16/11 20:47		CK11522
Aroclor 1268	ND (0.0586)		1	11/16/11 20:47		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-112
Date Sampled: 11/10/11 10:22
Percent Solids: 97
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0521)		1	11/16/11 21:06		CK11522
Aroclor 1221	ND (0.0521)		1	11/16/11 21:06		CK11522
Aroclor 1232	ND (0.0521)		1	11/16/11 21:06		CK11522
Aroclor 1242	ND (0.0521)		1	11/16/11 21:06		CK11522
Aroclor 1248	ND (0.0521)		1	11/16/11 21:06		CK11522
Aroclor 1254	ND (0.0521)		1	11/16/11 21:06		CK11522
Aroclor 1260	ND (0.0521)		1	11/16/11 21:06		CK11522
Aroclor 1262	ND (0.0521)		1	11/16/11 21:06		CK11522
Aroclor 1268	ND (0.0521)		1	11/16/11 21:06		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-113
Date Sampled: 11/10/11 10:24
Percent Solids: 88
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0574)		1	11/16/11 21:25		CK11522
Aroclor 1221	ND (0.0574)		1	11/16/11 21:25		CK11522
Aroclor 1232	ND (0.0574)		1	11/16/11 21:25		CK11522
Aroclor 1242	ND (0.0574)		1	11/16/11 21:25		CK11522
Aroclor 1248	ND (0.0574)		1	11/16/11 21:25		CK11522
Aroclor 1254	ND (0.0574)		1	11/16/11 21:25		CK11522
Aroclor 1260	ND (0.0574)		1	11/16/11 21:25		CK11522
Aroclor 1262	ND (0.0574)		1	11/16/11 21:25		CK11522
Aroclor 1268	ND (0.0574)		1	11/16/11 21:25		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-114
Date Sampled: 11/10/11 10:26
Percent Solids: 94
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0551)		1	11/16/11 21:44		CK11522
Aroclor 1221	ND (0.0551)		1	11/16/11 21:44		CK11522
Aroclor 1232	ND (0.0551)		1	11/16/11 21:44		CK11522
Aroclor 1242	ND (0.0551)		1	11/16/11 21:44		CK11522
Aroclor 1248	ND (0.0551)		1	11/16/11 21:44		CK11522
Aroclor 1254	ND (0.0551)		1	11/16/11 21:44		CK11522
Aroclor 1260	ND (0.0551)		1	11/16/11 21:44		CK11522
Aroclor 1262	ND (0.0551)		1	11/16/11 21:44		CK11522
Aroclor 1268	ND (0.0551)		1	11/16/11 21:44		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-115
Date Sampled: 11/10/11 10:28
Percent Solids: 91
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0544)		1	11/16/11 22:02		CK11522
Aroclor 1221	ND (0.0544)		1	11/16/11 22:02		CK11522
Aroclor 1232	ND (0.0544)		1	11/16/11 22:02		CK11522
Aroclor 1242	ND (0.0544)		1	11/16/11 22:02		CK11522
Aroclor 1248	ND (0.0544)		1	11/16/11 22:02		CK11522
Aroclor 1254	ND (0.0544)		1	11/16/11 22:02		CK11522
Aroclor 1260	ND (0.0544)		1	11/16/11 22:02		CK11522
Aroclor 1262	ND (0.0544)		1	11/16/11 22:02		CK11522
Aroclor 1268	ND (0.0544)		1	11/16/11 22:02		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-116
Date Sampled: 11/10/11 10:30
Percent Solids: 88
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)		1	11/16/11 22:21		CK11522
Aroclor 1221	ND (0.0589)		1	11/16/11 22:21		CK11522
Aroclor 1232	ND (0.0589)		1	11/16/11 22:21		CK11522
Aroclor 1242	ND (0.0589)		1	11/16/11 22:21		CK11522
Aroclor 1248	ND (0.0589)		1	11/16/11 22:21		CK11522
Aroclor 1254	ND (0.0589)		1	11/16/11 22:21		CK11522
Aroclor 1260	ND (0.0589)		1	11/16/11 22:21		CK11522
Aroclor 1262	ND (0.0589)		1	11/16/11 22:21		CK11522
Aroclor 1268	ND (0.0589)		1	11/16/11 22:21		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-117
Date Sampled: 11/10/11 10:32
Percent Solids: 87
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0592)		1	11/17/11 0:33		CK11522
Aroclor 1221	ND (0.0592)		1	11/17/11 0:33		CK11522
Aroclor 1232	ND (0.0592)		1	11/17/11 0:33		CK11522
Aroclor 1242	ND (0.0592)		1	11/17/11 0:33		CK11522
Aroclor 1248	ND (0.0592)		1	11/17/11 0:33		CK11522
Aroclor 1254	ND (0.0592)		1	11/17/11 0:33		CK11522
Aroclor 1260	ND (0.0592)		1	11/17/11 0:33		CK11522
Aroclor 1262	ND (0.0592)		1	11/17/11 0:33		CK11522
Aroclor 1268	ND (0.0592)		1	11/17/11 0:33		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-118
Date Sampled: 11/10/11 10:34
Percent Solids: 86
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0593)		1	11/17/11 0:52		CK11522
Aroclor 1221	ND (0.0593)		1	11/17/11 0:52		CK11522
Aroclor 1232	ND (0.0593)		1	11/17/11 0:52		CK11522
Aroclor 1242	ND (0.0593)		1	11/17/11 0:52		CK11522
Aroclor 1248	ND (0.0593)		1	11/17/11 0:52		CK11522
Aroclor 1254	ND (0.0593)		1	11/17/11 0:52		CK11522
Aroclor 1260	**0.127** (0.0593)		1	11/17/11 0:52		CK11522
Aroclor 1262	ND (0.0593)		1	11/17/11 0:52		CK11522
Aroclor 1268	ND (0.0593)		1	11/17/11 0:52		CK11522

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*68 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*71 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*68 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-119
Date Sampled: 11/10/11 10:36
Percent Solids: 88
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)		1	11/17/11 1:11		CK11522
Aroclor 1221	ND (0.0589)		1	11/17/11 1:11		CK11522
Aroclor 1232	ND (0.0589)		1	11/17/11 1:11		CK11522
Aroclor 1242	ND (0.0589)		1	11/17/11 1:11		CK11522
Aroclor 1248	ND (0.0589)		1	11/17/11 1:11		CK11522
Aroclor 1254	ND (0.0589)		1	11/17/11 1:11		CK11522
Aroclor 1260	ND (0.0589)		1	11/17/11 1:11		CK11522
Aroclor 1262	ND (0.0589)		1	11/17/11 1:11		CK11522
Aroclor 1268	ND (0.0589)		1	11/17/11 1:11		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-120
Date Sampled: 11/10/11 10:38
Percent Solids: 87
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0583)		1	11/17/11 1:30		CK11522
Aroclor 1221	ND (0.0583)		1	11/17/11 1:30		CK11522
Aroclor 1232	ND (0.0583)		1	11/17/11 1:30		CK11522
Aroclor 1242	ND (0.0583)		1	11/17/11 1:30		CK11522
Aroclor 1248	ND (0.0583)		1	11/17/11 1:30		CK11522
Aroclor 1254	ND (0.0583)		1	11/17/11 1:30		CK11522
Aroclor 1260	ND (0.0583)		1	11/17/11 1:30		CK11522
Aroclor 1262	ND (0.0583)		1	11/17/11 1:30		CK11522
Aroclor 1268	ND (0.0583)		1	11/17/11 1:30		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-121
Date Sampled: 11/10/11 10:40
Percent Solids: 88
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-21
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0580)		1	11/17/11 1:49		CK11522
Aroclor 1221	ND (0.0580)		1	11/17/11 1:49		CK11522
Aroclor 1232	ND (0.0580)		1	11/17/11 1:49		CK11522
Aroclor 1242	ND (0.0580)		1	11/17/11 1:49		CK11522
Aroclor 1248	ND (0.0580)		1	11/17/11 1:49		CK11522
Aroclor 1254	**0.130** (0.0580)		1	11/17/11 1:49		CK11522
Aroclor 1260	ND (0.0580)		1	11/17/11 1:49		CK11522
Aroclor 1262	ND (0.0580)		1	11/17/11 1:49		CK11522
Aroclor 1268	ND (0.0580)		1	11/17/11 1:49		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-122
Date Sampled: 11/10/11 10:42
Percent Solids: 89
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-22
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0576)		1	11/17/11 2:07		CK11522
Aroclor 1221	ND (0.0576)		1	11/17/11 2:07		CK11522
Aroclor 1232	ND (0.0576)		1	11/17/11 2:07		CK11522
Aroclor 1242	ND (0.0576)		1	11/17/11 2:07		CK11522
Aroclor 1248	ND (0.0576)		1	11/17/11 2:07		CK11522
Aroclor 1254	**0.0810** (0.0576)		1	11/17/11 2:07		CK11522
Aroclor 1260	ND (0.0576)		1	11/17/11 2:07		CK11522
Aroclor 1262	ND (0.0576)		1	11/17/11 2:07		CK11522
Aroclor 1268	ND (0.0576)		1	11/17/11 2:07		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-123
Date Sampled: 11/10/11 10:44
Percent Solids: 87
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-23
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	11/17/11 2:26		CK11522
Aroclor 1221	ND (0.0581)		1	11/17/11 2:26		CK11522
Aroclor 1232	ND (0.0581)		1	11/17/11 2:26		CK11522
Aroclor 1242	ND (0.0581)		1	11/17/11 2:26		CK11522
Aroclor 1248	ND (0.0581)		1	11/17/11 2:26		CK11522
Aroclor 1254	ND (0.0581)		1	11/17/11 2:26		CK11522
Aroclor 1260	ND (0.0581)		1	11/17/11 2:26		CK11522
Aroclor 1262	ND (0.0581)		1	11/17/11 2:26		CK11522
Aroclor 1268	ND (0.0581)		1	11/17/11 2:26		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-124
Date Sampled: 11/10/11 10:46
Percent Solids: 88
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-24
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0586)		1	11/17/11 11:30		CK11522
Aroclor 1221	ND (0.0586)		1	11/17/11 11:30		CK11522
Aroclor 1232	ND (0.0586)		1	11/17/11 11:30		CK11522
Aroclor 1242	ND (0.0586)		1	11/17/11 11:30		CK11522
Aroclor 1248	ND (0.0586)		1	11/17/11 11:30		CK11522
Aroclor 1254	ND (0.0586)		1	11/17/11 11:30		CK11522
Aroclor 1260	ND (0.0586)		1	11/17/11 11:30		CK11522
Aroclor 1262	ND (0.0586)		1	11/17/11 11:30		CK11522
Aroclor 1268	ND (0.0586)		1	11/17/11 11:30		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-125
Date Sampled: 11/10/11 10:48
Percent Solids: 89
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111213
ESS Laboratory Sample ID: 1111213-25
Sample Matrix: Soil
Units: mg/kg dry
Analyst: IBM
Prepared: 11/15/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)		1	11/17/11 7:40		CK11522
Aroclor 1221	ND (0.0567)		1	11/17/11 7:40		CK11522
Aroclor 1232	ND (0.0567)		1	11/17/11 7:40		CK11522
Aroclor 1242	ND (0.0567)		1	11/17/11 7:40		CK11522
Aroclor 1248	ND (0.0567)		1	11/17/11 7:40		CK11522
Aroclor 1254	ND (0.0567)		1	11/17/11 7:40		CK11522
Aroclor 1260	ND (0.0567)		1	11/17/11 7:40		CK11522
Aroclor 1262	ND (0.0567)		1	11/17/11 7:40		CK11522
Aroclor 1268	ND (0.0567)		1	11/17/11 7:40		CK11522

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*84 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11502 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11502 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11502 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0209*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
LCS										
Aroclor 1016	0.442	0.0500	mg/kg wet	0.5000		88	40-140			
Aroclor 1260	0.432	0.0500	mg/kg wet	0.5000		86	40-140			
Surrogate: Decachlorobiphenyl	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
LCS Dup										
Aroclor 1016	0.469	0.0500	mg/kg wet	0.5000		94	40-140	6	30	
Aroclor 1260	0.457	0.0500	mg/kg wet	0.5000		91	40-140	6	30	
Surrogate: Decachlorobiphenyl	*0.0216*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0221*		mg/kg wet	*0.02500*		*89*	*30-150*			
Batch CK11522 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11522 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11522 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0201*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0191*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11522 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
LCS										
Aroclor 1016	0.488	0.0500	mg/kg wet	0.5000		98	40-140			
Aroclor 1260	0.465	0.0500	mg/kg wet	0.5000		93	40-140			
Surrogate: Decachlorobiphenyl	*0.0220*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
LCS Dup										
Aroclor 1016	0.495	0.0500	mg/kg wet	0.5000		99	40-140	2	30	
Aroclor 1260	0.469	0.0500	mg/kg wet	0.5000		94	40-140	0.7	30	
Surrogate: Decachlorobiphenyl	*0.0216*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0250*		mg/kg wet	*0.02500*		*100*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0247*		mg/kg wet	*0.02500*		*99*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111213

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111213

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110213
Date Project Due: 11/18/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **4.6**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	2 oz Soil Jar	1	NP
2	Yes	2 oz Soil Jar	1	NP
3	Yes	2 oz Soil Jar	1	NP
4	Yes	2 oz Soil Jar	1	NP
5	Yes	2 oz Soil Jar	1	NP
6	Yes	2 oz Soil Jar	1	NP
7	Yes	2 oz Soil Jar	1	NP
8	Yes	2 oz Soil Jar	1	NP
9	Yes	2 oz Soil Jar	1	NP
10	Yes	2 oz Soil Jar	1	NP
11	Yes	2 oz Soil Jar	1	NP
12	Yes	2 oz Soil Jar	1	NP
13	Yes	2 oz Soil Jar	1	NP
14	Yes	2 oz Soil Jar	1	NP
15	Yes	2 oz Soil Jar	1	NP
16	Yes	2 oz Soil Jar	1	NP
17	Yes	2 oz Soil Jar	1	NP
18	Yes	2 oz Soil Jar	1	NP
19	Yes	2 oz Soil Jar	1	NP
20	Yes	2 oz Soil Jar	1	NP
21	Yes	2 oz Soil Jar	1	NP
22	Yes	2 oz Soil Jar	1	NP
23	Yes	2 oz Soil Jar	1	NP
24	Yes	2 oz Soil Jar	1	NP
25	Yes	2 oz Soil Jar	1	NP

Sample and Cooler Receipt Checklist

Client: Tighe & Bond

ESS Project ID: 11110213

Completed By: CLD

Date/Time: 11/11/11

Reviewed By: BC

Date/Time: 11/11/11

ESS Quote # 1106 117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1111213

Turn Time ____ Standard Other **Hard 5 Day** TAT

Reporting Limits - <1 ppm

Regulatory State **[MA]** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W-1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
01	11-10-11	1000 am	G	S	PX-101	1	1	G		X
02	11-10-11	1002 am	G	S	PX-102	1	1	G		X
03	11-10-11	1004 am	G	S	PX-103	1	1	G		X
04	11-10-11	1006 am	G	S	PX-104	1	1	G		X
05	11-10-11	1008 am	G	S	PX-105	1	1	G		X
06	11-10-11	1010 am	G	S	PX-106	1	1	G		X
07	11-10-11	1012 am	G	S	PX-107	1	1	G		X
08	11-10-11	1014 am	G	S	PX-108	1	1	G		X
09	11-10-11	1016 am	G	S	PX-109	1	1	G		X
10	11-10-11	1018 am	G	S	PX-110	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 4.6 °C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-10-11 1510	11/10/11 1510	11/10/11 1800	11/10/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Quote # 1106 117

ESS Laboratory

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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab #

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State [MA] RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W-1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
11	11-10-11	1020 am	G	S	PX-111	1	1	G		X
12	11-10-11	1022 am	G	S	PX-112	1	1	G		X
13	11-10-11	1024 am	G	S	PX-113	1	1	G		X
14	11-10-11	1026 am	G	S	PX-114	1	1	G		X
15	11-10-11	1028 am	G	S	PX-115	1	1	G		X
16	11-10-11	1030 am	G	S	PX-116	1	1	G		X
17	11-10-11	1032 am	G	S	PX-117	1	1	G		X
18	11-10-11	1034 am	G	S	PX-118	1	1	G		X
19	11-10-11	1036 am	G	S	PX-119	1	1	G		X
20	11-10-11	1038 am	G	S	PX-120	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 4.6 °C

Internal Use Only
[ ] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-10-11 1500	11/10/11 1510	11/10/11 18:00	11/10/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Quote # 1106 117

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www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab #

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State [MA] RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH	
Contact Person: Marc J. Richards	Address 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W-1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: PCBs by 3540/8082	
21	11-10-11	1040 am	G	S	PX-121	1	1	G		X	
22	11-10-11	1042 am	G	S	PX-122	1	1	G		X	
23	11-10-11	1044 am	G	S	PX-123	1	1	G		X	
24	11-10-11	1046 am	G	S	PX-124	1	1	G		X	
25	11-10-11	1048 am	G	S	PX-125	1	1	G		X	
	11-10-11		G	S	PX-126	1	1	G		X	
	11-10-11		G	S	PX-127	1	1	G		X	
	11-10-11		G	S	PX-128	1	1	G		X	
	11-10-11		G	S	PX-129	1	1	G		X	
	11-10-11		G	S	PX-130	1	1	G		X	

NOT COLLECTED 11-10-11 MAA

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 4/12°C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : MAA

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-10-11 1500	11/10/11 1500	11/10/11 1800	Manal Kooran 11/10/11 1800
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1111269

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 2:31 pm, Nov 22, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

SAMPLE RECEIPT

The following samples were received on November 15, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1111269-01	PX-126	Soil	8082A
1111269-02	PX-127	Soil	8082A
1111269-03	PX-128	Soil	8082A
1111269-04	PX-129	Soil	8082A
1111269-05	PX-130	Soil	8082A
1111269-06	PX-131	Soil	8082A
1111269-07	PX-132	Soil	8082A
1111269-08	PX-133	Soil	8082A
1111269-09	PX-134	Soil	8082A
1111269-10	PX-135	Soil	8082A
1111269-11	PX-136	Soil	8082A
1111269-12	PX-137	Soil	8082A
1111269-13	PX-138	Soil	8082A
1111269-14	PX-139	Soil	8082A
1111269-15	PX-140	Soil	8082A
1111269-16	PX-141	Soil	8082A
1111269-17	PX-142	Soil	8082A
1111269-18	PX-143	Soil	8082A
1111269-19	PX-144	Soil	8082A
1111269-20	PX-145	Soil	8082A
1111269-21	PX-146	Soil	8082A
1111269-22	PX-147	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111269

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1111269-01 through 1111269-22**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: November 22, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-126
Date Sampled: 11/15/11 11:12
Percent Solids: 89
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)		1	11/18/11 16:32		CK11625
Aroclor 1221	ND (0.0573)		1	11/18/11 16:32		CK11625
Aroclor 1232	ND (0.0573)		1	11/18/11 16:32		CK11625
Aroclor 1242	ND (0.0573)		1	11/18/11 16:32		CK11625
Aroclor 1248	ND (0.0573)		1	11/18/11 16:32		CK11625
Aroclor 1254	ND (0.0573)		1	11/18/11 16:32		CK11625
Aroclor 1260	ND (0.0573)		1	11/18/11 16:32		CK11625
Aroclor 1262	ND (0.0573)		1	11/18/11 16:32		CK11625
Aroclor 1268	ND (0.0573)		1	11/18/11 16:32		CK11625

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-127
Date Sampled: 11/15/11 11:08
Percent Solids: 85
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0606)		1	11/18/11 16:51		CK11625
Aroclor 1221	ND (0.0606)		1	11/18/11 16:51		CK11625
Aroclor 1232	ND (0.0606)		1	11/18/11 16:51		CK11625
Aroclor 1242	ND (0.0606)		1	11/18/11 16:51		CK11625
Aroclor 1248	ND (0.0606)		1	11/18/11 16:51		CK11625
Aroclor 1254	ND (0.0606)		1	11/18/11 16:51		CK11625
Aroclor 1260	**0.136** (0.0606)		1	11/18/11 16:51		CK11625
Aroclor 1262	ND (0.0606)		1	11/18/11 16:51		CK11625
Aroclor 1268	ND (0.0606)		1	11/18/11 16:51		CK11625

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-128
Date Sampled: 11/15/11 11:04
Percent Solids: 86
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0587)		1	11/18/11 17:10		CK11625
Aroclor 1221	ND (0.0587)		1	11/18/11 17:10		CK11625
Aroclor 1232	ND (0.0587)		1	11/18/11 17:10		CK11625
Aroclor 1242	ND (0.0587)		1	11/18/11 17:10		CK11625
Aroclor 1248	ND (0.0587)		1	11/18/11 17:10		CK11625
Aroclor 1254	ND (0.0587)		1	11/18/11 17:10		CK11625
Aroclor 1260	ND (0.0587)		1	11/18/11 17:10		CK11625
Aroclor 1262	ND (0.0587)		1	11/18/11 17:10		CK11625
Aroclor 1268	ND (0.0587)		1	11/18/11 17:10		CK11625

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-129
Date Sampled: 11/15/11 11:00
Percent Solids: 90
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)		1	11/18/11 17:28		CK11625
Aroclor 1221	ND (0.0573)		1	11/18/11 17:28		CK11625
Aroclor 1232	ND (0.0573)		1	11/18/11 17:28		CK11625
Aroclor 1242	ND (0.0573)		1	11/18/11 17:28		CK11625
Aroclor 1248	ND (0.0573)		1	11/18/11 17:28		CK11625
Aroclor 1254	ND (0.0573)		1	11/18/11 17:28		CK11625
Aroclor 1260	ND (0.0573)		1	11/18/11 17:28		CK11625
Aroclor 1262	ND (0.0573)		1	11/18/11 17:28		CK11625
Aroclor 1268	ND (0.0573)		1	11/18/11 17:28		CK11625

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-130
Date Sampled: 11/15/11 10:54
Percent Solids: 87
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	11/18/11 17:47		CK11625
Aroclor 1221	ND (0.0581)		1	11/18/11 17:47		CK11625
Aroclor 1232	ND (0.0581)		1	11/18/11 17:47		CK11625
Aroclor 1242	ND (0.0581)		1	11/18/11 17:47		CK11625
Aroclor 1248	ND (0.0581)		1	11/18/11 17:47		CK11625
Aroclor 1254	ND (0.0581)		1	11/18/11 17:47		CK11625
Aroclor 1260	ND (0.0581)		1	11/18/11 17:47		CK11625
Aroclor 1262	ND (0.0581)		1	11/18/11 17:47		CK11625
Aroclor 1268	ND (0.0581)		1	11/18/11 17:47		CK11625

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-131
Date Sampled: 11/15/11 10:50
Percent Solids: 79
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0656)		1	11/18/11 21:52		CK11721
Aroclor 1221	ND (0.0656)		1	11/18/11 21:52		CK11721
Aroclor 1232	ND (0.0656)		1	11/18/11 21:52		CK11721
Aroclor 1242	ND (0.0656)		1	11/18/11 21:52		CK11721
Aroclor 1248	ND (0.0656)		1	11/18/11 21:52		CK11721
Aroclor 1254	**0.252** (0.0656)		1	11/18/11 21:52		CK11721
Aroclor 1260	**0.0857** (0.0656)		1	11/18/11 21:52		CK11721
Aroclor 1262	ND (0.0656)		1	11/18/11 21:52		CK11721
Aroclor 1268	ND (0.0656)		1	11/18/11 21:52		CK11721

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-132
Date Sampled: 11/15/11 10:45
Percent Solids: 91
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0555)		1	11/18/11 22:10		CK11721
Aroclor 1221	ND (0.0555)		1	11/18/11 22:10		CK11721
Aroclor 1232	ND (0.0555)		1	11/18/11 22:10		CK11721
Aroclor 1242	ND (0.0555)		1	11/18/11 22:10		CK11721
Aroclor 1248	ND (0.0555)		1	11/18/11 22:10		CK11721
Aroclor 1254	ND (0.0555)		1	11/18/11 22:10		CK11721
Aroclor 1260	ND (0.0555)		1	11/18/11 22:10		CK11721
Aroclor 1262	ND (0.0555)		1	11/18/11 22:10		CK11721
Aroclor 1268	ND (0.0555)		1	11/18/11 22:10		CK11721

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-133
Date Sampled: 11/15/11 11:16
Percent Solids: 87
Initial Volume: 19.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0602)		1	11/18/11 22:29		CK11721
Aroclor 1221	ND (0.0602)		1	11/18/11 22:29		CK11721
Aroclor 1232	ND (0.0602)		1	11/18/11 22:29		CK11721
Aroclor 1242	ND (0.0602)		1	11/18/11 22:29		CK11721
Aroclor 1248	ND (0.0602)		1	11/18/11 22:29		CK11721
Aroclor 1254	ND (0.0602)		1	11/18/11 22:29		CK11721
Aroclor 1260	**0.200** (0.0602)		1	11/18/11 22:29		CK11721
Aroclor 1262	ND (0.0602)		1	11/18/11 22:29		CK11721
Aroclor 1268	ND (0.0602)		1	11/18/11 22:29		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-134
Date Sampled: 11/15/11 11:21
Percent Solids: 84
Initial Volume: 19.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0623)		1	11/18/11 22:48		CK11721
Aroclor 1221	ND (0.0623)		1	11/18/11 22:48		CK11721
Aroclor 1232	ND (0.0623)		1	11/18/11 22:48		CK11721
Aroclor 1242	ND (0.0623)		1	11/18/11 22:48		CK11721
Aroclor 1248	ND (0.0623)		1	11/18/11 22:48		CK11721
Aroclor 1254	ND (0.0623)		1	11/18/11 22:48		CK11721
Aroclor 1260	**0.0961** (0.0623)		1	11/18/11 22:48		CK11721
Aroclor 1262	ND (0.0623)		1	11/18/11 22:48		CK11721
Aroclor 1268	ND (0.0623)		1	11/18/11 22:48		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-135
Date Sampled: 11/15/11 11:27
Percent Solids: 84
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0598)		1	11/18/11 23:07		CK11721
Aroclor 1221	ND (0.0598)		1	11/18/11 23:07		CK11721
Aroclor 1232	ND (0.0598)		1	11/18/11 23:07		CK11721
Aroclor 1242	ND (0.0598)		1	11/18/11 23:07		CK11721
Aroclor 1248	ND (0.0598)		1	11/18/11 23:07		CK11721
Aroclor 1254	ND (0.0598)		1	11/18/11 23:07		CK11721
Aroclor 1260	**0.0779** (0.0598)		1	11/18/11 23:07		CK11721
Aroclor 1262	ND (0.0598)		1	11/18/11 23:07		CK11721
Aroclor 1268	ND (0.0598)		1	11/18/11 23:07		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*69 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*71 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-136
Date Sampled: 11/15/11 11:31
Percent Solids: 87
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)		1	11/18/11 23:26		CK11721
Aroclor 1221	ND (0.0572)		1	11/18/11 23:26		CK11721
Aroclor 1232	ND (0.0572)		1	11/18/11 23:26		CK11721
Aroclor 1242	ND (0.0572)		1	11/18/11 23:26		CK11721
Aroclor 1248	ND (0.0572)		1	11/18/11 23:26		CK11721
Aroclor 1254	**0.0823** (0.0572)		1	11/18/11 23:26		CK11721
Aroclor 1260	**0.113** (0.0572)		1	11/18/11 23:26		CK11721
Aroclor 1262	ND (0.0572)		1	11/18/11 23:26		CK11721
Aroclor 1268	ND (0.0572)		1	11/18/11 23:26		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*71 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-137
Date Sampled: 11/15/11 11:35
Percent Solids: 95
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0519)		1	11/18/11 23:44		CK11721
Aroclor 1221	ND (0.0519)		1	11/18/11 23:44		CK11721
Aroclor 1232	ND (0.0519)		1	11/18/11 23:44		CK11721
Aroclor 1242	ND (0.0519)		1	11/18/11 23:44		CK11721
Aroclor 1248	ND (0.0519)		1	11/18/11 23:44		CK11721
Aroclor 1254	ND (0.0519)		1	11/18/11 23:44		CK11721
Aroclor 1260	ND (0.0519)		1	11/18/11 23:44		CK11721
Aroclor 1262	ND (0.0519)		1	11/18/11 23:44		CK11721
Aroclor 1268	ND (0.0519)		1	11/18/11 23:44		CK11721

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-138
Date Sampled: 11/15/11 11:52
Percent Solids: 82
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0629)		1	11/19/11 0:03		CK11721
Aroclor 1221	ND (0.0629)		1	11/19/11 0:03		CK11721
Aroclor 1232	ND (0.0629)		1	11/19/11 0:03		CK11721
Aroclor 1242	ND (0.0629)		1	11/19/11 0:03		CK11721
Aroclor 1248	ND (0.0629)		1	11/19/11 0:03		CK11721
Aroclor 1254	**0.268** (0.0629)		1	11/19/11 0:03		CK11721
Aroclor 1260	**0.174** (0.0629)		1	11/19/11 0:03		CK11721
Aroclor 1262	ND (0.0629)		1	11/19/11 0:03		CK11721
Aroclor 1268	ND (0.0629)		1	11/19/11 0:03		CK11721

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*76 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-139
Date Sampled: 11/15/11 12:01
Percent Solids: 83
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0605)		1	11/19/11 0:22		CK11721
Aroclor 1221	ND (0.0605)		1	11/19/11 0:22		CK11721
Aroclor 1232	ND (0.0605)		1	11/19/11 0:22		CK11721
Aroclor 1242	ND (0.0605)		1	11/19/11 0:22		CK11721
Aroclor 1248	ND (0.0605)		1	11/19/11 0:22		CK11721
Aroclor 1254	ND (0.0605)		1	11/19/11 0:22		CK11721
Aroclor 1260	ND (0.0605)		1	11/19/11 0:22		CK11721
Aroclor 1262	ND (0.0605)		1	11/19/11 0:22		CK11721
Aroclor 1268	ND (0.0605)		1	11/19/11 0:22		CK11721

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-140
Date Sampled: 11/15/11 12:11
Percent Solids: 88
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0586)		1	11/19/11 0:41		CK11721
Aroclor 1221	ND (0.0586)		1	11/19/11 0:41		CK11721
Aroclor 1232	ND (0.0586)		1	11/19/11 0:41		CK11721
Aroclor 1242	ND (0.0586)		1	11/19/11 0:41		CK11721
Aroclor 1248	ND (0.0586)		1	11/19/11 0:41		CK11721
Aroclor 1254	ND (0.0586)		1	11/19/11 0:41		CK11721
Aroclor 1260	ND (0.0586)		1	11/19/11 0:41		CK11721
Aroclor 1262	ND (0.0586)		1	11/19/11 0:41		CK11721
Aroclor 1268	ND (0.0586)		1	11/19/11 0:41		CK11721

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-141
Date Sampled: 11/15/11 12:19
Percent Solids: 84
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0595)		1	11/19/11 1:00		CK11721
Aroclor 1221	ND (0.0595)		1	11/19/11 1:00		CK11721
Aroclor 1232	ND (0.0595)		1	11/19/11 1:00		CK11721
Aroclor 1242	ND (0.0595)		1	11/19/11 1:00		CK11721
Aroclor 1248	ND (0.0595)		1	11/19/11 1:00		CK11721
Aroclor 1254	**0.102** (0.0595)		1	11/19/11 1:00		CK11721
Aroclor 1260	**0.0836** (0.0595)		1	11/19/11 1:00		CK11721
Aroclor 1262	ND (0.0595)		1	11/19/11 1:00		CK11721
Aroclor 1268	ND (0.0595)		1	11/19/11 1:00		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-142
Date Sampled: 11/15/11 12:23
Percent Solids: 86
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0596)		1	11/19/11 1:18		CK11721
Aroclor 1221	ND (0.0596)		1	11/19/11 1:18		CK11721
Aroclor 1232	ND (0.0596)		1	11/19/11 1:18		CK11721
Aroclor 1242	ND (0.0596)		1	11/19/11 1:18		CK11721
Aroclor 1248	ND (0.0596)		1	11/19/11 1:18		CK11721
Aroclor 1254	**0.0898** (0.0596)		1	11/19/11 1:18		CK11721
Aroclor 1260	**0.114** (0.0596)		1	11/19/11 1:18		CK11721
Aroclor 1262	ND (0.0596)		1	11/19/11 1:18		CK11721
Aroclor 1268	ND (0.0596)		1	11/19/11 1:18		CK11721

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-143
Date Sampled: 11/15/11 11:57
Percent Solids: 86
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0587)		1	11/19/11 1:37		CK11721
Aroclor 1221	ND (0.0587)		1	11/19/11 1:37		CK11721
Aroclor 1232	ND (0.0587)		1	11/19/11 1:37		CK11721
Aroclor 1242	ND (0.0587)		1	11/19/11 1:37		CK11721
Aroclor 1248	ND (0.0587)		1	11/19/11 1:37		CK11721
Aroclor 1254	ND (0.0587)		1	11/19/11 1:37		CK11721
Aroclor 1260	**0.128** (0.0587)		1	11/19/11 1:37		CK11721
Aroclor 1262	ND (0.0587)		1	11/19/11 1:37		CK11721
Aroclor 1268	ND (0.0587)		1	11/19/11 1:37		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-144
Date Sampled: 11/15/11 12:06
Percent Solids: 86
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0606)		1	11/19/11 1:56		CK11721
Aroclor 1221	ND (0.0606)		1	11/19/11 1:56		CK11721
Aroclor 1232	ND (0.0606)		1	11/19/11 1:56		CK11721
Aroclor 1242	ND (0.0606)		1	11/19/11 1:56		CK11721
Aroclor 1248	ND (0.0606)		1	11/19/11 1:56		CK11721
Aroclor 1254	**0.114** (0.0606)		1	11/19/11 1:56		CK11721
Aroclor 1260	**0.168** (0.0606)		1	11/19/11 1:56		CK11721
Aroclor 1262	ND (0.0606)		1	11/19/11 1:56		CK11721
Aroclor 1268	ND (0.0606)		1	11/19/11 1:56		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-145
Date Sampled: 11/15/11 12:15
Percent Solids: 86
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0602)		1	11/19/11 2:15		CK11721
Aroclor 1221	ND (0.0602)		1	11/19/11 2:15		CK11721
Aroclor 1232	ND (0.0602)		1	11/19/11 2:15		CK11721
Aroclor 1242	ND (0.0602)		1	11/19/11 2:15		CK11721
Aroclor 1248	ND (0.0602)		1	11/19/11 2:15		CK11721
Aroclor 1254	ND (0.0602)		1	11/19/11 2:15		CK11721
Aroclor 1260	**0.0947** (0.0602)		1	11/19/11 2:15		CK11721
Aroclor 1262	ND (0.0602)		1	11/19/11 2:15		CK11721
Aroclor 1268	ND (0.0602)		1	11/19/11 2:15		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-146
Date Sampled: 11/15/11 12:31
Percent Solids: 86
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-21
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0606)		1	11/19/11 2:34		CK11721
Aroclor 1221	ND (0.0606)		1	11/19/11 2:34		CK11721
Aroclor 1232	ND (0.0606)		1	11/19/11 2:34		CK11721
Aroclor 1242	ND (0.0606)		1	11/19/11 2:34		CK11721
Aroclor 1248	ND (0.0606)		1	11/19/11 2:34		CK11721
Aroclor 1254	ND (0.0606)		1	11/19/11 2:34		CK11721
Aroclor 1260	ND (0.0606)		1	11/19/11 2:34		CK11721
Aroclor 1262	ND (0.0606)		1	11/19/11 2:34		CK11721
Aroclor 1268	ND (0.0606)		1	11/19/11 2:34		CK11721

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-147
Date Sampled: 11/15/11 12:35
Percent Solids: 87
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1111269
ESS Laboratory Sample ID: 1111269-22
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 11/17/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0586)		1	11/19/11 2:52		CK11721
Aroclor 1221	ND (0.0586)		1	11/19/11 2:52		CK11721
Aroclor 1232	ND (0.0586)		1	11/19/11 2:52		CK11721
Aroclor 1242	ND (0.0586)		1	11/19/11 2:52		CK11721
Aroclor 1248	ND (0.0586)		1	11/19/11 2:52		CK11721
Aroclor 1254	ND (0.0586)		1	11/19/11 2:52		CK11721
Aroclor 1260	**0.210** (0.0586)		1	11/19/11 2:52		CK11721
Aroclor 1262	ND (0.0586)		1	11/19/11 2:52		CK11721
Aroclor 1268	ND (0.0586)		1	11/19/11 2:52		CK11721

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11625 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11625 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11625 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0220*		mg/kg wet	*0.02500*		*88*	*30-150*			
LCS										
Aroclor 1016	0.438	0.0500	mg/kg wet	0.5000		88	40-140			
Aroclor 1260	0.417	0.0500	mg/kg wet	0.5000		83	40-140			
Surrogate: Decachlorobiphenyl	*0.0198*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0193*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0206*		mg/kg wet	*0.02500*		*82*	*30-150*			
LCS Dup										
Aroclor 1016	0.449	0.0500	mg/kg wet	0.5000		90	40-140	3	30	
Aroclor 1260	0.435	0.0500	mg/kg wet	0.5000		87	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0202*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0209*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			
Batch CK11721 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11721 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11721 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0198*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0192*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0203*		mg/kg wet	*0.02500*		*81*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CK11721 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0211*		mg/kg wet	*0.02500*		*85*	*30-150*			
LCS										
Aroclor 1016	0.413	0.0500	mg/kg wet	0.5000		83	40-140			
Aroclor 1260	0.393	0.0500	mg/kg wet	0.5000		79	40-140			
Surrogate: Decachlorobiphenyl	*0.0182*		mg/kg wet	*0.02500*		*73*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0178*		mg/kg wet	*0.02500*		*71*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0193*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0190*		mg/kg wet	*0.02500*		*76*	*30-150*			
LCS Dup										
Aroclor 1016	0.451	0.0500	mg/kg wet	0.5000		90	40-140	9	30	
Aroclor 1260	0.430	0.0500	mg/kg wet	0.5000		86	40-140	9	30	
Surrogate: Decachlorobiphenyl	*0.0199*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0194*		mg/kg wet	*0.02500*		*78*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0209*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1111269

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1111269

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11110269
Date Project Due: 11/22/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **3.1**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes | No**
17. Were samples received intact? **Yes | No**
    ESS Sample IDs: _____
    Sub Lab: _____
    Analysis: _____
    TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	2 oz Soil Jar	1	NP
2	Yes	2 oz Soil Jar	1	NP
3	Yes	2 oz Soil Jar	1	NP
4	Yes	2 oz Soil Jar	1	NP
5	Yes	2 oz Soil Jar	1	NP
6	Yes	2 oz Soil Jar	1	NP
7	Yes	2 oz Soil Jar	1	NP
8	Yes	2 oz Soil Jar	1	NP
9	Yes	2 oz Soil Jar	1	NP
10	Yes	2 oz Soil Jar	1	NP
11	Yes	2 oz Soil Jar	1	NP
12	Yes	2 oz Soil Jar	1	NP
13	Yes	2 oz Soil Jar	1	NP
14	Yes	2 oz Soil Jar	1	NP
15	Yes	2 oz Soil Jar	1	NP
16	Yes	2 oz Soil Jar	1	NP
17	Yes	2 oz Soil Jar	1	NP
18	Yes	2 oz Soil Jar	1	NP
19	Yes	2 oz Soil Jar	1	NP
20	Yes	2 oz Soil Jar	1	NP
21	Yes	2 oz Soil Jar	1	NP
22	Yes	2 oz Soil Jar	1	NP

Completed By: BK Date/Time: 11/15/11
Reviewed By: MJK Date/Time: 11/15/11

ESS Quote # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1111269

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State [MA] RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.
Project # W-1510
Project Name: NORTH HIGH
Contact Person: Marc J. Richards
Address: 446 Main Street
City: Worcester
State: MA
Zip: 01609
PO # W-1510
Tel. 508-471-9621
Fax. 508-795-1087
email: MJRichards@tighebond.com

Analysis

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
01	11-15-11	1112	G	S	PX-126	1	1	G		X
02	11-15-11	1108	G	S	PX-127	1	1	G		X
03	11-15-11	1104	G	S	PX-128	1	1	G		X
04	11-15-11	1100	G	S	PX-129	1	1	G		X
05	11-15-11	1054	G	S	PX-130	1	1	G		X
06	11-15-11	1050	G	S	PX-131	1	1	G		X
07	11-15-11	1045	G	S	PX-132	1	1	G		X
08	11-15-11	1116	G	S	PX-133	1	1	G		X
09	11-15-11	1121	G	S	PX-134	1	1	G		X
10	11-15-11	1127	G	S	PX-135	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 3.1°C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by : ~~MAA~~ CJK

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11/15/11 15:00	11/15/11 15:00	11/15/11 1650	11/15/11 1650
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

ESS Quote # 1106 117

ESS Laboratory
Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1111269

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State [MA] RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH	
Contact Person: Marc J. Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W-1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
11	11-15-11	1131	G	S	PX-136	1	1	G		X
12	11-15-11	1135	G	S	PX-137	1	1	G		X
13	11-15-11	1152	G	S	PX-138	1	1	G		X
14	11-15-11	1201	G	S	PX-139	1	1	G		X
15	11-15-11	1211	G	S	PX-140	1	1	G		X
16	11-15-11	1219	G	S	PX-141	1	1	G		X
17	11-15-11	1223	G	S	PX-142	1	1	G		X
18	11-15-11	1157	G	S	PX-143	1	1	G		X
19	11-15-11	1206	G	S	PX-144	1	1	G		X
20	11-15-11	1215	G	S	PX-145	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature 3.1°C

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by: ~~MJR~~ CJK

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
11-15-11 15:00	11/15/11 15:00	11/15/11 1650	11/15/11 1650
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1111269

Turn Time ____ Standard Other Hard 5 Day TAT

Reporting Limits - <1 ppm

Regulatory State [MA] RI CT NH NJ NY ME Other____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond, Inc.	Project # W-1510	Project Name NORTH HIGH	
Contact Person: Marc J. Richards	Address 446 Main Street		
City: Worcester	State: MA	Zip: 01609	PO # W-1510
Tel. 508-471-9621	Fax. 508-795-1087	email: MJRichards@tighebond.com	

Analysis: PCBs by 3540/8082

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs by 3540/8082
21	11-15-11	1231	G	S	PX-146	1	1	G		X
22	11-15-11	1235	G	S	PX-147	1	1	G		X
	11-15-11		G	S	PX-	1	1	G		X
	11-15-11		G	S	PX-	1	1	G		X
	11-15-11		G	S	PX-	1	1	G		X
	11-15-11		G	S	PX-	1	1	G		X
	11-15-11		G	S	PX-	1	1	G		X
	11-15-11		G	S	PX-	1	1	G		X
	11-15-11		G	S	PX-	1	1	G		X
	11-15-11		G	S	PX-	1	1	G		X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No

Seals Intact ____ Yes ____ No NA: ✓

Cooler Temperature: 3.1°C

Internal Use Only
[✓] Pickup
[ ] Technician____

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-____

Sampled by : ~~MA~~ CJK

Comments: Manual Extraction by 3540

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
4/15/11 15:00	11/15/11 15:00	11/15/11 1650	11/15/11 1650
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112253

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 3:34 pm, Dec 20, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112253

SAMPLE RECEIPT

The following samples were received on December 13, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112253-01	PX-148	Soil	8082A
1112253-02	PX-149	Soil	8082A
1112253-03	PX-150	Soil	8082A
1112253-04	PX-151	Soil	8082A
1112253-05	PX-152	Soil	8082A
1112253-06	PX-153	Soil	8082A
1112253-07	PX-154	Soil	8082A
1112253-08	PX-155	Soil	8082A
1112253-09	PX-156	Soil	8082A
1112253-10	PX-157	Soil	8082A
1112253-11	PX-158	Soil	8082A
1112253-12	PX-159	Soil	8082A
1112253-13	PX-160	Soil	8082A
1112253-14	PX-161	Soil	8082A
1112253-15	PX-162	Soil	8082A
1112253-16	PX-163	Soil	8082A
1112253-17	PX-164	Soil	8082A
1112253-18	PX-165	Soil	8082A
1112253-19	PX-166	Soil	8082A
1112253-20	PX-167	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112253

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112253

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112253-01 through 1112253-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: _____ Date: December 20, 2011

Printed Name: Laurel Stoddard Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-148
Date Sampled: 12/13/11 09:47
Percent Solids: 88
Initial Volume: 22.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0512)	2	1	12/15/11 2:26		CL11337
Aroclor 1221	ND (0.0512)	2	1	12/15/11 2:26		CL11337
Aroclor 1232	ND (0.0512)	2	1	12/15/11 2:26		CL11337
Aroclor 1242	ND (0.0512)	2	1	12/15/11 2:26		CL11337
Aroclor 1248	ND (0.0512)	2	1	12/15/11 2:26		CL11337
Aroclor 1254	**0.167** (0.0512)	2	1	12/15/11 2:26		CL11337
Aroclor 1260	**0.110** (0.0512)	2	1	12/15/11 2:26		CL11337
Aroclor 1262	ND (0.0512)	2	1	12/15/11 2:26		CL11337
Aroclor 1268	ND (0.0512)	2	1	12/15/11 2:26		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*106 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*70 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*63 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-149
Date Sampled: 12/13/11 09:53
Percent Solids: 91
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0558)	2	1	12/15/11 2:54		CL11337
Aroclor 1221	ND (0.0558)	2	1	12/15/11 2:54		CL11337
Aroclor 1232	ND (0.0558)	2	1	12/15/11 2:54		CL11337
Aroclor 1242	ND (0.0558)	2	1	12/15/11 2:54		CL11337
Aroclor 1248	ND (0.0558)	2	1	12/15/11 2:54		CL11337
Aroclor 1254	ND (0.0558)	2	1	12/15/11 2:54		CL11337
Aroclor 1260	**0.174** (0.0558)	2	1	12/15/11 2:54		CL11337
Aroclor 1262	ND (0.0558)	2	1	12/15/11 2:54		CL11337
Aroclor 1268	ND (0.0558)	2	1	12/15/11 2:54		CL11337

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-150
Date Sampled: 12/13/11 09:59
Percent Solids: 89
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0562)	2	1	12/15/11 3:23		CL11337
Aroclor 1221	ND (0.0562)	2	1	12/15/11 3:23		CL11337
Aroclor 1232	ND (0.0562)	2	1	12/15/11 3:23		CL11337
Aroclor 1242	ND (0.0562)	2	1	12/15/11 3:23		CL11337
Aroclor 1248	ND (0.0562)	2	1	12/15/11 3:23		CL11337
Aroclor 1254	ND (0.0562)	2	1	12/15/11 3:23		CL11337
Aroclor 1260	**0.0981** (0.0562)	2	1	12/15/11 3:23		CL11337
Aroclor 1262	ND (0.0562)	2	1	12/15/11 3:23		CL11337
Aroclor 1268	ND (0.0562)	2	1	12/15/11 3:23		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-151
Date Sampled: 12/13/11 10:05
Percent Solids: 90
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0561)	2	1	12/15/11 3:52		CL11337
Aroclor 1221	ND (0.0561)	2	1	12/15/11 3:52		CL11337
Aroclor 1232	ND (0.0561)	2	1	12/15/11 3:52		CL11337
Aroclor 1242	ND (0.0561)	2	1	12/15/11 3:52		CL11337
Aroclor 1248	ND (0.0561)	2	1	12/15/11 3:52		CL11337
Aroclor 1254	ND (0.0561)	2	1	12/15/11 3:52		CL11337
Aroclor 1260	**0.197** (0.0561)	2	1	12/15/11 3:52		CL11337
Aroclor 1262	ND (0.0561)	2	1	12/15/11 3:52		CL11337
Aroclor 1268	ND (0.0561)	2	1	12/15/11 3:52		CL11337

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-152
Date Sampled: 12/13/11 10:12
Percent Solids: 86
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)	2	1	12/15/11 4:21		CL11337
Aroclor 1221	ND (0.0567)	2	1	12/15/11 4:21		CL11337
Aroclor 1232	ND (0.0567)	2	1	12/15/11 4:21		CL11337
Aroclor 1242	ND (0.0567)	2	1	12/15/11 4:21		CL11337
Aroclor 1248	ND (0.0567)	2	1	12/15/11 4:21		CL11337
Aroclor 1254	ND (0.0567)	2	1	12/15/11 4:21		CL11337
Aroclor 1260	**0.146** (0.0567)	2	1	12/15/11 4:21		CL11337
Aroclor 1262	ND (0.0567)	2	1	12/15/11 4:21		CL11337
Aroclor 1268	ND (0.0567)	2	1	12/15/11 4:21		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*107 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-153
Date Sampled: 12/13/11 10:20
Percent Solids: 90
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0561)	2	1	12/15/11 7:44		CL11337
Aroclor 1221	ND (0.0561)	2	1	12/15/11 7:44		CL11337
Aroclor 1232	ND (0.0561)	2	1	12/15/11 7:44		CL11337
Aroclor 1242	ND (0.0561)	2	1	12/15/11 7:44		CL11337
Aroclor 1248	ND (0.0561)	2	1	12/15/11 7:44		CL11337
Aroclor 1254	ND (0.0561)	2	1	12/15/11 7:44		CL11337
Aroclor 1260	ND (0.0561)	2	1	12/15/11 7:44		CL11337
Aroclor 1262	ND (0.0561)	2	1	12/15/11 7:44		CL11337
Aroclor 1268	ND (0.0561)	2	1	12/15/11 7:44		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*77 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-154
Date Sampled: 12/13/11 10:28
Percent Solids: 85
Initial Volume: 21.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0558)	2	1	12/15/11 8:13		CL11337
Aroclor 1221	ND (0.0558)	2	1	12/15/11 8:13		CL11337
Aroclor 1232	ND (0.0558)	2	1	12/15/11 8:13		CL11337
Aroclor 1242	ND (0.0558)	2	1	12/15/11 8:13		CL11337
Aroclor 1248	ND (0.0558)	2	1	12/15/11 8:13		CL11337
Aroclor 1254	ND (0.0558)	2	1	12/15/11 8:13		CL11337
Aroclor 1260	**0.0811** (0.0558)	2	1	12/15/11 8:13		CL11337
Aroclor 1262	ND (0.0558)	2	1	12/15/11 8:13		CL11337
Aroclor 1268	ND (0.0558)	2	1	12/15/11 8:13		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*101 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-155
Date Sampled: 12/13/11 09:50
Percent Solids: 86
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0599)	2	1	12/15/11 8:42		CL11337
Aroclor 1221	ND (0.0599)	2	1	12/15/11 8:42		CL11337
Aroclor 1232	ND (0.0599)	2	1	12/15/11 8:42		CL11337
Aroclor 1242	ND (0.0599)	2	1	12/15/11 8:42		CL11337
Aroclor 1248	ND (0.0599)	2	1	12/15/11 8:42		CL11337
Aroclor 1254	ND (0.0599)	2	1	12/15/11 8:42		CL11337
Aroclor 1260	**0.163** (0.0599)	2	1	12/15/11 8:42		CL11337
Aroclor 1262	ND (0.0599)	2	1	12/15/11 8:42		CL11337
Aroclor 1268	ND (0.0599)	2	1	12/15/11 8:42		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*79 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-156
Date Sampled: 12/13/11 09:56
Percent Solids: 88
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0580)	2	1	12/15/11 9:11		CL11337
Aroclor 1221	ND (0.0580)	2	1	12/15/11 9:11		CL11337
Aroclor 1232	ND (0.0580)	2	1	12/15/11 9:11		CL11337
Aroclor 1242	ND (0.0580)	2	1	12/15/11 9:11		CL11337
Aroclor 1248	ND (0.0580)	2	1	12/15/11 9:11		CL11337
Aroclor 1254	ND (0.0580)	2	1	12/15/11 9:11		CL11337
Aroclor 1260	**0.127** (0.0580)	2	1	12/15/11 9:11		CL11337
Aroclor 1262	ND (0.0580)	2	1	12/15/11 9:11		CL11337
Aroclor 1268	ND (0.0580)	2	1	12/15/11 9:11		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*81 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-157
Date Sampled: 12/13/11 10:02
Percent Solids: 87
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0563)	2	1	12/15/11 9:40		CL11337
Aroclor 1221	ND (0.0563)	2	1	12/15/11 9:40		CL11337
Aroclor 1232	ND (0.0563)	2	1	12/15/11 9:40		CL11337
Aroclor 1242	ND (0.0563)	2	1	12/15/11 9:40		CL11337
Aroclor 1248	ND (0.0563)	2	1	12/15/11 9:40		CL11337
Aroclor 1254	ND (0.0563)	2	1	12/15/11 9:40		CL11337
Aroclor 1260	**0.172** (0.0563)	2	1	12/15/11 9:40		CL11337
Aroclor 1262	ND (0.0563)	2	1	12/15/11 9:40		CL11337
Aroclor 1268	ND (0.0563)	2	1	12/15/11 9:40		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-158
Date Sampled: 12/13/11 10:09
Percent Solids: 88
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)	2	1	12/15/11 10:09		CL11337
Aroclor 1221	ND (0.0554)	2	1	12/15/11 10:09		CL11337
Aroclor 1232	ND (0.0554)	2	1	12/15/11 10:09		CL11337
Aroclor 1242	ND (0.0554)	2	1	12/15/11 10:09		CL11337
Aroclor 1248	ND (0.0554)	2	1	12/15/11 10:09		CL11337
Aroclor 1254	**0.183** (0.0554)	2	1	12/15/11 10:09		CL11337
Aroclor 1260	**0.185** (0.0554)	2	1	12/15/11 10:09		CL11337
Aroclor 1262	ND (0.0554)	2	1	12/15/11 10:09		CL11337
Aroclor 1268	ND (0.0554)	2	1	12/15/11 10:09		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*83 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-159
Date Sampled: 12/13/11 10:16
Percent Solids: 86
Initial Volume: 21.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0548)	2	1	12/15/11 10:38		CL11337
Aroclor 1221	ND (0.0548)	2	1	12/15/11 10:38		CL11337
Aroclor 1232	ND (0.0548)	2	1	12/15/11 10:38		CL11337
Aroclor 1242	ND (0.0548)	2	1	12/15/11 10:38		CL11337
Aroclor 1248	ND (0.0548)	2	1	12/15/11 10:38		CL11337
Aroclor 1254	ND (0.0548)	2	1	12/15/11 10:38		CL11337
Aroclor 1260	**0.118** (0.0548)	2	1	12/15/11 10:38		CL11337
Aroclor 1262	ND (0.0548)	2	1	12/15/11 10:38		CL11337
Aroclor 1268	ND (0.0548)	2	1	12/15/11 10:38		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-160
Date Sampled: 12/13/11 10:24
Percent Solids: 85
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0568)	2	1	12/15/11 11:07		CL11337
Aroclor 1221	ND (0.0568)	2	1	12/15/11 11:07		CL11337
Aroclor 1232	ND (0.0568)	2	1	12/15/11 11:07		CL11337
Aroclor 1242	ND (0.0568)	2	1	12/15/11 11:07		CL11337
Aroclor 1248	ND (0.0568)	2	1	12/15/11 11:07		CL11337
Aroclor 1254	ND (0.0568)	2	1	12/15/11 11:07		CL11337
Aroclor 1260	**0.103** (0.0568)	2	1	12/15/11 11:07		CL11337
Aroclor 1262	ND (0.0568)	2	1	12/15/11 11:07		CL11337
Aroclor 1268	ND (0.0568)	2	1	12/15/11 11:07		CL11337

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*113 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-161
Date Sampled: 12/13/11 10:33
Percent Solids: 85
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0585)	2	1	12/15/11 11:36		CL11337
Aroclor 1221	ND (0.0585)	2	1	12/15/11 11:36		CL11337
Aroclor 1232	ND (0.0585)	2	1	12/15/11 11:36		CL11337
Aroclor 1242	ND (0.0585)	2	1	12/15/11 11:36		CL11337
Aroclor 1248	ND (0.0585)	2	1	12/15/11 11:36		CL11337
Aroclor 1254	ND (0.0585)	2	1	12/15/11 11:36		CL11337
Aroclor 1260	**0.118** (0.0585)	2	1	12/15/11 11:36		CL11337
Aroclor 1262	ND (0.0585)	2	1	12/15/11 11:36		CL11337
Aroclor 1268	ND (0.0585)	2	1	12/15/11 11:36		CL11337

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-162
Date Sampled: 12/13/11 11:15
Percent Solids: 82
Initial Volume: 22
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)	2	1	12/15/11 12:05		CL11337
Aroclor 1221	ND (0.0554)	2	1	12/15/11 12:05		CL11337
Aroclor 1232	ND (0.0554)	2	1	12/15/11 12:05		CL11337
Aroclor 1242	ND (0.0554)	2	1	12/15/11 12:05		CL11337
Aroclor 1248	ND (0.0554)	2	1	12/15/11 12:05		CL11337
Aroclor 1254	ND (0.0554)	2	1	12/15/11 12:05		CL11337
Aroclor 1260	ND (0.0554)	2	1	12/15/11 12:05		CL11337
Aroclor 1262	ND (0.0554)	2	1	12/15/11 12:05		CL11337
Aroclor 1268	ND (0.0554)	2	1	12/15/11 12:05		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-163
Date Sampled: 12/13/11 11:21
Percent Solids: 82
Initial Volume: 23.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0526)	2	1	12/15/11 12:34		CL11337
Aroclor 1221	ND (0.0526)	2	1	12/15/11 12:34		CL11337
Aroclor 1232	ND (0.0526)	2	1	12/15/11 12:34		CL11337
Aroclor 1242	ND (0.0526)	2	1	12/15/11 12:34		CL11337
Aroclor 1248	ND (0.0526)	2	1	12/15/11 12:34		CL11337
Aroclor 1254	ND (0.0526)	2	1	12/15/11 12:34		CL11337
Aroclor 1260	ND (0.0526)	2	1	12/15/11 12:34		CL11337
Aroclor 1262	ND (0.0526)	2	1	12/15/11 12:34		CL11337
Aroclor 1268	ND (0.0526)	2	1	12/15/11 12:34		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-164
Date Sampled: 12/13/11 11:27
Percent Solids: 85
Initial Volume: 22.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0528)	2	1	12/16/11 2:05		CL11337
Aroclor 1221	ND (0.0528)	2	1	12/16/11 2:05		CL11337
Aroclor 1232	ND (0.0528)	2	1	12/16/11 2:05		CL11337
Aroclor 1242	ND (0.0528)	2	1	12/16/11 2:05		CL11337
Aroclor 1248	ND (0.0528)	2	1	12/16/11 2:05		CL11337
Aroclor 1254	ND (0.0528)	2	1	12/16/11 2:05		CL11337
Aroclor 1260	**0.0982** (0.0528)	2	1	12/16/11 2:05		CL11337
Aroclor 1262	ND (0.0528)	2	1	12/16/11 2:05		CL11337
Aroclor 1268	ND (0.0528)	2	1	12/16/11 2:05		CL11337

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-165
Date Sampled: 12/13/11 11:33
Percent Solids: 84
Initial Volume: 21
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)	2	1	12/15/11 13:32		CL11337
Aroclor 1221	ND (0.0567)	2	1	12/15/11 13:32		CL11337
Aroclor 1232	ND (0.0567)	2	1	12/15/11 13:32		CL11337
Aroclor 1242	ND (0.0567)	2	1	12/15/11 13:32		CL11337
Aroclor 1248	ND (0.0567)	2	1	12/15/11 13:32		CL11337
Aroclor 1254	ND (0.0567)	2	1	12/15/11 13:32		CL11337
Aroclor 1260	**0.131** (0.0567)	2	1	12/15/11 13:32		CL11337
Aroclor 1262	ND (0.0567)	2	1	12/15/11 13:32		CL11337
Aroclor 1268	ND (0.0567)	2	1	12/15/11 13:32		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-166
Date Sampled: 12/13/11 11:37
Percent Solids: 82
Initial Volume: 22.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0542)	2	1	12/15/11 14:01		CL11337
Aroclor 1221	ND (0.0542)	2	1	12/15/11 14:01		CL11337
Aroclor 1232	ND (0.0542)	2	1	12/15/11 14:01		CL11337
Aroclor 1242	ND (0.0542)	2	1	12/15/11 14:01		CL11337
Aroclor 1248	ND (0.0542)	2	1	12/15/11 14:01		CL11337
Aroclor 1254	ND (0.0542)	2	1	12/15/11 14:01		CL11337
Aroclor 1260	ND (0.0542)	2	1	12/15/11 14:01		CL11337
Aroclor 1262	ND (0.0542)	2	1	12/15/11 14:01		CL11337
Aroclor 1268	ND (0.0542)	2	1	12/15/11 14:01		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-167
Date Sampled: 12/13/11 11:43
Percent Solids: 81
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112253
ESS Laboratory Sample ID: 1112253-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/13/11 19:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0599)	2	1	12/15/11 14:30		CL11337
Aroclor 1221	ND (0.0599)	2	1	12/15/11 14:30		CL11337
Aroclor 1232	ND (0.0599)	2	1	12/15/11 14:30		CL11337
Aroclor 1242	ND (0.0599)	2	1	12/15/11 14:30		CL11337
Aroclor 1248	ND (0.0599)	2	1	12/15/11 14:30		CL11337
Aroclor 1254	ND (0.0599)	2	1	12/15/11 14:30		CL11337
Aroclor 1260	ND (0.0599)	2	1	12/15/11 14:30		CL11337
Aroclor 1262	ND (0.0599)	2	1	12/15/11 14:30		CL11337
Aroclor 1268	ND (0.0599)	2	1	12/15/11 14:30		CL11337

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112253

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11337 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112253

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11337 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112253

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11337 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0202*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0183*		mg/kg wet	*0.02500*		*73*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0194*		mg/kg wet	*0.02500*		*78*	*30-150*			
LCS										
Aroclor 1016	0.421	0.0500	mg/kg wet	0.5000		84	40-140			
Aroclor 1260	0.401	0.0500	mg/kg wet	0.5000		80	40-140			
Surrogate: Decachlorobiphenyl	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0194*		mg/kg wet	*0.02500*		*78*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
LCS Dup										
Aroclor 1016	0.447	0.0500	mg/kg wet	0.5000		89	40-140	6	30	
Aroclor 1260	0.418	0.0500	mg/kg wet	0.5000		84	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0220*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0221*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0203*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Matrix Spike Source: 1112253-20										
Aroclor 1016	0.511	0.0636	mg/kg dry	0.6364	ND	80	40-140			
Aroclor 1260	0.436	0.0636	mg/kg dry	0.6364	ND	69	40-140			
Surrogate: Decachlorobiphenyl	*0.0271*		mg/kg dry	*0.03182*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0263*		mg/kg dry	*0.03182*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0206*		mg/kg dry	*0.03182*		*65*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0206*		mg/kg dry	*0.03182*		*65*	*30-150*			
Matrix Spike Dup Source: 1112253-20										
Aroclor 1016	0.515	0.0633	mg/kg dry	0.6331	ND	81	40-140	1	30	
Aroclor 1260	0.497	0.0633	mg/kg dry	0.6331	ND	79	40-140	14	30	
Surrogate: Decachlorobiphenyl	*0.0282*		mg/kg dry	*0.03166*		*89*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0275*		mg/kg dry	*0.03166*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0267*		mg/kg dry	*0.03166*		*84*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112253

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11337 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0258*		mg/kg dry	*0.03166*		*82*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112253

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112253

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page ~~1~~ 1112253 of ~~10~~ 2

Turn Time (X) Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____
State where samples were collected from: (MA) RI CT NH NJ NY ME Other _____
Is this project for any of the following: (MA-MCP) Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: ~~1106117~~ MK 12/14/11

Electronic Deliverable Yes X No ___
Format: Excel X Access ___ PDF X Other _____

Co. Name	Tighe + Bond
Project #	W-1510
Project Name (20 Char. or less)	North High
Contact Person	MARC Richards
Address	446 Main St
City	Worcester
State	MA
Zip	01610
PO#	W-1510
Telephone #	508-754-2201
Fax #	
Email Address	

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA	624 524.2	8021 MTBE/BTEX	8015 GRO VPH w/targets	8100 TPH	8015 DRO	EPH w/o PAHs	EPH w/PAHs	EPH 4 Diesel	8081 Pesticides	8082 PCB	608 Pesticides	608 PCB	8270 SVOA	625 PAH 8270	RCRA5	RCRA8	PP13	TAL23	TCLP-RCRA8	NBC7	MCP-METALS (13)	MCP-METALS (13) w/Hg	PCB				
1	12/13/11	947		X	S	PX-148	1	1	G																								X				
2		953			S	PX-149																											X				
3		959				PX-150																											X				
4		1005				PX-151																											X				
5		1012				PX-152																											X				
6		1020				PX-153																											X				
7		1028				PX-154																											X				
8		950				PX-155																											X				
9		956				PX-156																											X				
10		1002				PX-157																											X				

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ___
Cooler Temp: 3.2

Internal Use Only
[ ] Pickup
[ ] Technicians ___

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____
Sampled by:
Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12/13/11 1600	J Davis	12/13/11 1600	J Davis	12/13/11 1715	Fridge	12/13/11 1715
Fridge	12/14/11 0800	Ben Cole	12/14/11 0800	Ben Cole	12/14/11 0800		

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time (X) Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
(MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following:
(MA-MCP) Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: ~~110611~~

Electronic Deliverable: Yes (X) No ____
Format: Excel (X) Access ____ PDF (X) Other _____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W-1510	North High

Contact Person	Address
MARC Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W-1510

Telephone #	Fax #	Email Address
508 754 2201		

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH w/targets	8100 TPH / 8015 DRO	EPH w/o PAHs / EPH w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg	PCB				
11	12/13/11	1009		X	S	PX-158	1	1	G										X				
12		1016				PX-159													X				
13		1024				PX-160													X				
14		1033				PX-161													X				
15		1115				PX-162													X				
16		1121				PX-163													X				
17		1127				PX-164													X				
18		1133				PX-165													X				
19		1137				PX-166													X				
20		1143				PX-167													X				

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present (✓) Yes ___ No
Seals Intact ___ Yes ___ No NA: ____
Cooler Temp: 3.2

Internal Use Only
[ ] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by:

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12/13/11 1600	[signature]	12/13/11 1600	[signature]	12/13/11 1715	[signature]	12/13/11 1715
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12/14/11 0800	[signature]	12/14/11 0800				

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112266

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 1:05 pm, Dec 22, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112266

SAMPLE RECEIPT

The following samples were received on December 13, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112266-01	PX-168	Soil	8082A
1112266-02	PX-169	Soil	8082A
1112266-03	PX-170	Soil	8082A
1112266-04	PX-171	Soil	8082A
1112266-05	PX-172	Soil	8082A
1112266-06	PX-173	Soil	8082A
1112266-07	PX-174	Soil	8082A
1112266-08	PX-175	Soil	8082A
1112266-09	PX-176	Soil	8082A
1112266-10	PX-177	Soil	8082A
1112266-11	PX-178	Soil	8082A
1112266-12	PX-179	Soil	8082A
1112266-13	PX-180	Soil	8082A
1112266-14	PX-181	Soil	8082A
1112266-15	PX-182	Soil	8082A
1112266-16	PX-183	Soil	8082A
1112266-17	PX-184	Soil	8082A
1112266-18	PX-185	Soil	8082A
1112266-19	PX-186	Soil	8082A
1112266-20	PX-187	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112266

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112266

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112266-01 through 1112266-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 22, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-168
Date Sampled: 12/13/11 11:48
Percent Solids: 82
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0629)	2	1	12/17/11 11:26		CL11424
Aroclor 1221	ND (0.0629)	2	1	12/17/11 11:26		CL11424
Aroclor 1232	ND (0.0629)	2	1	12/17/11 11:26		CL11424
Aroclor 1242	ND (0.0629)	2	1	12/17/11 11:26		CL11424
Aroclor 1248	ND (0.0629)	2	1	12/17/11 11:26		CL11424
Aroclor 1254	ND (0.0629)	2	1	12/17/11 11:26		CL11424
Aroclor 1260	ND (0.0629)	2	1	12/17/11 11:26		CL11424
Aroclor 1262	ND (0.0629)	2	1	12/17/11 11:26		CL11424
Aroclor 1268	ND (0.0629)	2	1	12/17/11 11:26		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-169
Date Sampled: 12/13/11 11:54
Percent Solids: 83
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0618)	2	1	12/16/11 16:18		CL11424
Aroclor 1221	ND (0.0618)	2	1	12/16/11 16:18		CL11424
Aroclor 1232	ND (0.0618)	2	1	12/16/11 16:18		CL11424
Aroclor 1242	ND (0.0618)	2	1	12/16/11 16:18		CL11424
Aroclor 1248	ND (0.0618)	2	1	12/16/11 16:18		CL11424
Aroclor 1254	ND (0.0618)	2	1	12/16/11 16:18		CL11424
Aroclor 1260	ND (0.0618)	2	1	12/16/11 16:18		CL11424
Aroclor 1262	ND (0.0618)	2	1	12/16/11 16:18		CL11424
Aroclor 1268	ND (0.0618)	2	1	12/16/11 16:18		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-170
Date Sampled: 12/13/11 12:00
Percent Solids: 82
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0629)	2	1	12/16/11 16:37		CL11424
Aroclor 1221	ND (0.0629)	2	1	12/16/11 16:37		CL11424
Aroclor 1232	ND (0.0629)	2	1	12/16/11 16:37		CL11424
Aroclor 1242	ND (0.0629)	2	1	12/16/11 16:37		CL11424
Aroclor 1248	ND (0.0629)	2	1	12/16/11 16:37		CL11424
Aroclor 1254	ND (0.0629)	2	1	12/16/11 16:37		CL11424
Aroclor 1260	ND (0.0629)	2	1	12/16/11 16:37		CL11424
Aroclor 1262	ND (0.0629)	2	1	12/16/11 16:37		CL11424
Aroclor 1268	ND (0.0629)	2	1	12/16/11 16:37		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-171
Date Sampled: 12/13/11 11:16
Percent Solids: 84
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0604)	2	1	12/16/11 16:56		CL11424
Aroclor 1221	ND (0.0604)	2	1	12/16/11 16:56		CL11424
Aroclor 1232	ND (0.0604)	2	1	12/16/11 16:56		CL11424
Aroclor 1242	ND (0.0604)	2	1	12/16/11 16:56		CL11424
Aroclor 1248	ND (0.0604)	2	1	12/16/11 16:56		CL11424
Aroclor 1254	ND (0.0604)	2	1	12/16/11 16:56		CL11424
Aroclor 1260	**0.0794** (0.0604)	2	1	12/16/11 16:56		CL11424
Aroclor 1262	ND (0.0604)	2	1	12/16/11 16:56		CL11424
Aroclor 1268	ND (0.0604)	2	1	12/16/11 16:56		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-172
Date Sampled: 12/13/11 11:18
Percent Solids: 85
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0588)	2	1	12/16/11 17:16		CL11424
Aroclor 1221	ND (0.0588)	2	1	12/16/11 17:16		CL11424
Aroclor 1232	ND (0.0588)	2	1	12/16/11 17:16		CL11424
Aroclor 1242	ND (0.0588)	2	1	12/16/11 17:16		CL11424
Aroclor 1248	ND (0.0588)	2	1	12/16/11 17:16		CL11424
Aroclor 1254	ND (0.0588)	2	1	12/16/11 17:16		CL11424
Aroclor 1260	ND (0.0588)	2	1	12/16/11 17:16		CL11424
Aroclor 1262	ND (0.0588)	2	1	12/16/11 17:16		CL11424
Aroclor 1268	ND (0.0588)	2	1	12/16/11 17:16		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*72 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-173
Date Sampled: 12/13/11 11:23
Percent Solids: 83
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0615)	2	1	12/16/11 17:34		CL11424
Aroclor 1221	ND (0.0615)	2	1	12/16/11 17:34		CL11424
Aroclor 1232	ND (0.0615)	2	1	12/16/11 17:34		CL11424
Aroclor 1242	ND (0.0615)	2	1	12/16/11 17:34		CL11424
Aroclor 1248	ND (0.0615)	2	1	12/16/11 17:34		CL11424
Aroclor 1254	ND (0.0615)	2	1	12/16/11 17:34		CL11424
Aroclor 1260	ND (0.0615)	2	1	12/16/11 17:34		CL11424
Aroclor 1262	ND (0.0615)	2	1	12/16/11 17:34		CL11424
Aroclor 1268	ND (0.0615)	2	1	12/16/11 17:34		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-174
Date Sampled: 12/13/11 11:29
Percent Solids: 82
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0616)	2	1	12/16/11 17:52		CL11424
Aroclor 1221	ND (0.0616)	2	1	12/16/11 17:52		CL11424
Aroclor 1232	ND (0.0616)	2	1	12/16/11 17:52		CL11424
Aroclor 1242	ND (0.0616)	2	1	12/16/11 17:52		CL11424
Aroclor 1248	ND (0.0616)	2	1	12/16/11 17:52		CL11424
Aroclor 1254	ND (0.0616)	2	1	12/16/11 17:52		CL11424
Aroclor 1260	ND (0.0616)	2	1	12/16/11 17:52		CL11424
Aroclor 1262	ND (0.0616)	2	1	12/16/11 17:52		CL11424
Aroclor 1268	ND (0.0616)	2	1	12/16/11 17:52		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-175
Date Sampled: 12/13/11 11:34
Percent Solids: 82
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0632)	2	1	12/16/11 20:04		CL11424
Aroclor 1221	ND (0.0632)	2	1	12/16/11 20:04		CL11424
Aroclor 1232	ND (0.0632)	2	1	12/16/11 20:04		CL11424
Aroclor 1242	ND (0.0632)	2	1	12/16/11 20:04		CL11424
Aroclor 1248	ND (0.0632)	2	1	12/16/11 20:04		CL11424
Aroclor 1254	ND (0.0632)	2	1	12/16/11 20:04		CL11424
Aroclor 1260	ND (0.0632)	2	1	12/16/11 20:04		CL11424
Aroclor 1262	ND (0.0632)	2	1	12/16/11 20:04		CL11424
Aroclor 1268	ND (0.0632)	2	1	12/16/11 20:04		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-176
Date Sampled: 12/13/11 11:39
Percent Solids: 85
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0597)	2	1	12/16/11 20:23		CL11424
Aroclor 1221	ND (0.0597)	2	1	12/16/11 20:23		CL11424
Aroclor 1232	ND (0.0597)	2	1	12/16/11 20:23		CL11424
Aroclor 1242	ND (0.0597)	2	1	12/16/11 20:23		CL11424
Aroclor 1248	ND (0.0597)	2	1	12/16/11 20:23		CL11424
Aroclor 1254	ND (0.0597)	2	1	12/16/11 20:23		CL11424
Aroclor 1260	ND (0.0597)	2	1	12/16/11 20:23		CL11424
Aroclor 1262	ND (0.0597)	2	1	12/16/11 20:23		CL11424
Aroclor 1268	ND (0.0597)	2	1	12/16/11 20:23		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-177
Date Sampled: 12/13/11 11:45
Percent Solids: 85
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0582)	2	1	12/16/11 20:42		CL11424
Aroclor 1221	ND (0.0582)	2	1	12/16/11 20:42		CL11424
Aroclor 1232	ND (0.0582)	2	1	12/16/11 20:42		CL11424
Aroclor 1242	ND (0.0582)	2	1	12/16/11 20:42		CL11424
Aroclor 1248	ND (0.0582)	2	1	12/16/11 20:42		CL11424
Aroclor 1254	ND (0.0582)	2	1	12/16/11 20:42		CL11424
Aroclor 1260	ND (0.0582)	2	1	12/16/11 20:42		CL11424
Aroclor 1262	ND (0.0582)	2	1	12/16/11 20:42		CL11424
Aroclor 1268	ND (0.0582)	2	1	12/16/11 20:42		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-178
Date Sampled: 12/13/11 11:47
Percent Solids: 90
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)	2	1	12/16/11 21:01		CL11424
Aroclor 1221	ND (0.0567)	2	1	12/16/11 21:01		CL11424
Aroclor 1232	ND (0.0567)	2	1	12/16/11 21:01		CL11424
Aroclor 1242	ND (0.0567)	2	1	12/16/11 21:01		CL11424
Aroclor 1248	ND (0.0567)	2	1	12/16/11 21:01		CL11424
Aroclor 1254	ND (0.0567)	2	1	12/16/11 21:01		CL11424
Aroclor 1260	**0.0823** (0.0567)	2	1	12/16/11 21:01		CL11424
Aroclor 1262	ND (0.0567)	2	1	12/16/11 21:01		CL11424
Aroclor 1268	ND (0.0567)	2	1	12/16/11 21:01		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-179
Date Sampled: 12/13/11 11:50
Percent Solids: 84
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0604)	2	1	12/16/11 21:19		CL11424
Aroclor 1221	ND (0.0604)	2	1	12/16/11 21:19		CL11424
Aroclor 1232	ND (0.0604)	2	1	12/16/11 21:19		CL11424
Aroclor 1242	ND (0.0604)	2	1	12/16/11 21:19		CL11424
Aroclor 1248	ND (0.0604)	2	1	12/16/11 21:19		CL11424
Aroclor 1254	ND (0.0604)	2	1	12/16/11 21:19		CL11424
Aroclor 1260	ND (0.0604)	2	1	12/16/11 21:19		CL11424
Aroclor 1262	ND (0.0604)	2	1	12/16/11 21:19		CL11424
Aroclor 1268	ND (0.0604)	2	1	12/16/11 21:19		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-180
Date Sampled: 12/13/11 11:53
Percent Solids: 85
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0591)	2	1	12/16/11 21:38		CL11424
Aroclor 1221	ND (0.0591)	2	1	12/16/11 21:38		CL11424
Aroclor 1232	ND (0.0591)	2	1	12/16/11 21:38		CL11424
Aroclor 1242	ND (0.0591)	2	1	12/16/11 21:38		CL11424
Aroclor 1248	ND (0.0591)	2	1	12/16/11 21:38		CL11424
Aroclor 1254	ND (0.0591)	2	1	12/16/11 21:38		CL11424
Aroclor 1260	ND (0.0591)	2	1	12/16/11 21:38		CL11424
Aroclor 1262	ND (0.0591)	2	1	12/16/11 21:38		CL11424
Aroclor 1268	ND (0.0591)	2	1	12/16/11 21:38		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*68 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*73 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-181
Date Sampled: 12/13/11 11:57
Percent Solids: 87
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)	2	1	12/16/11 21:57		CL11424
Aroclor 1221	ND (0.0589)	2	1	12/16/11 21:57		CL11424
Aroclor 1232	ND (0.0589)	2	1	12/16/11 21:57		CL11424
Aroclor 1242	ND (0.0589)	2	1	12/16/11 21:57		CL11424
Aroclor 1248	ND (0.0589)	2	1	12/16/11 21:57		CL11424
Aroclor 1254	ND (0.0589)	2	1	12/16/11 21:57		CL11424
Aroclor 1260	ND (0.0589)	2	1	12/16/11 21:57		CL11424
Aroclor 1262	ND (0.0589)	2	1	12/16/11 21:57		CL11424
Aroclor 1268	ND (0.0589)	2	1	12/16/11 21:57		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-182
Date Sampled: 12/13/11 12:10
Percent Solids: 86
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0587)	2	1	12/16/11 22:16		CL11424
Aroclor 1221	ND (0.0587)	2	1	12/16/11 22:16		CL11424
Aroclor 1232	ND (0.0587)	2	1	12/16/11 22:16		CL11424
Aroclor 1242	ND (0.0587)	2	1	12/16/11 22:16		CL11424
Aroclor 1248	ND (0.0587)	2	1	12/16/11 22:16		CL11424
Aroclor 1254	ND (0.0587)	2	1	12/16/11 22:16		CL11424
Aroclor 1260	**0.371** (0.0587)	2	1	12/16/11 22:16		CL11424
Aroclor 1262	ND (0.0587)	2	1	12/16/11 22:16		CL11424
Aroclor 1268	ND (0.0587)	2	1	12/16/11 22:16		CL11424

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-183
Date Sampled: 12/13/11 12:12
Percent Solids: 86
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0590)	2	1	12/16/11 22:35		CL11424
Aroclor 1221	ND (0.0590)	2	1	12/16/11 22:35		CL11424
Aroclor 1232	ND (0.0590)	2	1	12/16/11 22:35		CL11424
Aroclor 1242	ND (0.0590)	2	1	12/16/11 22:35		CL11424
Aroclor 1248	ND (0.0590)	2	1	12/16/11 22:35		CL11424
Aroclor 1254	ND (0.0590)	2	1	12/16/11 22:35		CL11424
Aroclor 1260	**0.109** (0.0590)	2	1	12/16/11 22:35		CL11424
Aroclor 1262	ND (0.0590)	2	1	12/16/11 22:35		CL11424
Aroclor 1268	ND (0.0590)	2	1	12/16/11 22:35		CL11424

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-184
Date Sampled: 12/13/11 12:14
Percent Solids: 88
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0568)	2	1	12/16/11 22:53		CL11424
Aroclor 1221	ND (0.0568)	2	1	12/16/11 22:53		CL11424
Aroclor 1232	ND (0.0568)	2	1	12/16/11 22:53		CL11424
Aroclor 1242	ND (0.0568)	2	1	12/16/11 22:53		CL11424
Aroclor 1248	ND (0.0568)	2	1	12/16/11 22:53		CL11424
Aroclor 1254	ND (0.0568)	2	1	12/16/11 22:53		CL11424
Aroclor 1260	**0.0571** (0.0568)	2	1	12/16/11 22:53		CL11424
Aroclor 1262	ND (0.0568)	2	1	12/16/11 22:53		CL11424
Aroclor 1268	ND (0.0568)	2	1	12/16/11 22:53		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-185
Date Sampled: 12/13/11 12:16
Percent Solids: 92
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0560)	2	1	12/16/11 23:12		CL11424
Aroclor 1221	ND (0.0560)	2	1	12/16/11 23:12		CL11424
Aroclor 1232	ND (0.0560)	2	1	12/16/11 23:12		CL11424
Aroclor 1242	ND (0.0560)	2	1	12/16/11 23:12		CL11424
Aroclor 1248	ND (0.0560)	2	1	12/16/11 23:12		CL11424
Aroclor 1254	ND (0.0560)	2	1	12/16/11 23:12		CL11424
Aroclor 1260	ND (0.0560)	2	1	12/16/11 23:12		CL11424
Aroclor 1262	ND (0.0560)	2	1	12/16/11 23:12		CL11424
Aroclor 1268	ND (0.0560)	2	1	12/16/11 23:12		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-186
Date Sampled: 12/13/11 12:18
Percent Solids: 84
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)	2	1	12/16/11 23:31		CL11424
Aroclor 1221	ND (0.0575)	2	1	12/16/11 23:31		CL11424
Aroclor 1232	ND (0.0575)	2	1	12/16/11 23:31		CL11424
Aroclor 1242	ND (0.0575)	2	1	12/16/11 23:31		CL11424
Aroclor 1248	ND (0.0575)	2	1	12/16/11 23:31		CL11424
Aroclor 1254	ND (0.0575)	2	1	12/16/11 23:31		CL11424
Aroclor 1260	**0.0593** (0.0575)	2	1	12/16/11 23:31		CL11424
Aroclor 1262	ND (0.0575)	2	1	12/16/11 23:31		CL11424
Aroclor 1268	ND (0.0575)	2	1	12/16/11 23:31		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-187
Date Sampled: 12/13/11 12:20
Percent Solids: 85
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112266
ESS Laboratory Sample ID: 1112266-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/14/11 17:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0606)	2	1	12/16/11 23:50		CL11424
Aroclor 1221	ND (0.0606)	2	1	12/16/11 23:50		CL11424
Aroclor 1232	ND (0.0606)	2	1	12/16/11 23:50		CL11424
Aroclor 1242	ND (0.0606)	2	1	12/16/11 23:50		CL11424
Aroclor 1248	ND (0.0606)	2	1	12/16/11 23:50		CL11424
Aroclor 1254	ND (0.0606)	2	1	12/16/11 23:50		CL11424
Aroclor 1260	**0.0917** (0.0606)	2	1	12/16/11 23:50		CL11424
Aroclor 1262	ND (0.0606)	2	1	12/16/11 23:50		CL11424
Aroclor 1268	ND (0.0606)	2	1	12/16/11 23:50		CL11424

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112266

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11424 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112266

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11424 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112266

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11424 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0226*		mg/kg wet	*0.02500*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0208*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0229*		mg/kg wet	*0.02500*		*92*	*30-150*			
LCS										
Aroclor 1016	0.482	0.0500	mg/kg wet	0.5000		96	40-140			
Aroclor 1260	0.452	0.0500	mg/kg wet	0.5000		90	40-140			
Surrogate: Decachlorobiphenyl	*0.0239*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
LCS Dup										
Aroclor 1016	0.465	0.0500	mg/kg wet	0.5000		93	40-140	4	30	
Aroclor 1260	0.419	0.0500	mg/kg wet	0.5000		84	40-140	8	30	
Surrogate: Decachlorobiphenyl	*0.0244*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0221*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0217*		mg/kg wet	*0.02500*		*87*	*30-150*			
Matrix Spike **Source: 1112266-20**										
Aroclor 1016	0.529	0.0585	mg/kg dry	0.5853	ND	90	40-140			
Aroclor 1260	0.560	0.0585	mg/kg dry	0.5853	0.0917	80	40-140			
Surrogate: Decachlorobiphenyl	*0.0252*		mg/kg dry	*0.02927*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0245*		mg/kg dry	*0.02927*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0235*		mg/kg dry	*0.02927*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0259*		mg/kg dry	*0.02927*		*88*	*30-150*			
Matrix Spike Dup **Source: 1112266-20**										
Aroclor 1016	0.603	0.0600	mg/kg dry	0.6002	ND	100	40-140	10	30	
Aroclor 1260	0.568	0.0600	mg/kg dry	0.6002	0.0917	79	40-140	0.8	30	
Surrogate: Decachlorobiphenyl	*0.0287*		mg/kg dry	*0.03001*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0253*		mg/kg dry	*0.03001*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0262*		mg/kg dry	*0.03001*		*87*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112266

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11424 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0277*		mg/kg dry	*0.03001*		*92*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112266

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112266

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Attachment B
SOP 10_0001

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120266
Date Project Due: 12/21/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? * No
   Air No.:
2. Were Custody Seals Present? No
3. Were Custody Seals Intact? N/A
4. Is Radiation count < 100 CPM? Yes
5. Is a cooler present? Yes
   Cooler Temp: **3.2**
   Iced With: **None**
6. Was COC included with samples? Yes
7. Was COC signed and dated by client? Yes
8. Does the COC match the sample Yes
9. Is COC complete and correct? Yes
10. Are the samples properly preserved? Yes
11. Proper sample containers used? Yes
12. Any air bubbles in the VOA vials? N/A
13. Holding times exceeded? No
14. Sufficient sample volumes? Yes
15. Any Subcontracting needed? No
16. Are ESS labels on correct containers? Yes | No
17. Were samples received intact? Yes | No

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/14/11
Reviewed By: _____ Date/Time: _____

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

1112266 BC 12/14/11 Page 1 of 2

Turn Time (X) Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
(MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following:
(MA-MCP) Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: ~~406117~~ 1112266

Electronic Deliverable Yes (X) No ____
Format: Excel (X) Access ___ PDF (X) Other _____

Co. Name: Tighe + Bond	Project #: W7510	Project Name (20 Char. or less): North High	
Contact Person: Marc Richards	Address: 446 Main St		
City: Worcester	State: MA	Zip: 01610	PO#: W7510
Telephone #: 508 754 2201	Fax #	Email Address	

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH w/targets	8100 TPH / 8015 DRO	EPH w/o PAHs / EPH w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg	PCB				
01	12/13/11	1148		X	S	PX-168	0	0	G										X				
02		1154				PX-169													X				
03		1200				PX-170													X				
04		1116				PX-171													X				
05		1118				PX-172													X				
06		1123				PX-173													X				
07		1129				PX-174													X				
08		1134				PX-175													X				
09		1139				PX-176													X				
10		1145				PX-177													X				

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present (✓) Yes ___ No
Seals Intact ___ Yes ___ No NA: ___
Cooler Temp: 3.2

Internal Use Only
[ ] Pickup
[ ] Technicians ____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by:

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12/13/11 1600	[signature]	12/13/11 1600	[signature]	12/13/11 1715	[signature]	12/13/11 1715
[signature]	12/14/11 0800	[signature]	12/14/11 0800				

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

ESS Laboratory

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CHAIN OF CUSTODY 1112266

BC 12/14/11 Page 2 of 2

Turn Time: X Standard Other ____
If faster than 5 days, prior approval by laboratory is required # ____

State where samples were collected from: MA RI CT NH NJ NY ME Other ____

Is this project for any of the following: MA-MCP Navy USACE Other ____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: 1106117 1112266

Electronic Deliverable: Yes X No ____
Format: Excel X Access ____ PDF X Other ____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W-1510	North High

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W-1510

Telephone #	Fax #	Email Address
508 754 2201		

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA	624	524.2	8021 MTBE/BTEX	8015 GRO	VPH w/targets	8100 TPH	8015 DRO	EPH w/o PAHs	EPH w/PAHs	EPH 4 Diesel	8081 Pesticides	8082 PCB	608 Pesticides	608 PCB	8270 SVOA	625	PAH 8270	RCRA5	RCRA8	PP13	TAL23	TCLP-RCRA8	NBC7	MCP-METALS (13)	MCP-METALS (13) w/Hg	PCB				
11	12/13/11	1147		X	S	PX-178	1	1	G																											X				
12		1150				PX-179																														X				
13		1153				PX-180																														X				
14		1157				PX-181																														X				
15		1210				PX-182																														X				
16		1212				PX-183																														X				
17		1214				PX-184																														X				
18		1216				PX-185																														X				
19		1218				PX-186																														X				
20		1220				PX-187																														X				

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ✓ Yes ____ No
Seals Intact: ____ Yes ____ No NA: ____
Cooler Temp: 3.2

Internal Use Only: [ ] Pickup [ ] Technicians ____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ____

Sampled by:

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12/13/11 1600	J Davis	12/13/11 1600	J Davis	12/13/11 1715	Fridge	12/13/11 1715
Fridge	12/14/11 0800	[signature]	12/14/11 0800				

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112267

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 1:04 pm, Dec 23, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

SAMPLE RECEIPT

The following samples were received on December 13, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112267-01	PX-188	Soil	8082A
1112267-02	PX-189	Soil	8082A
1112267-03	PX-190	Soil	8082A
1112267-04	PX-191	Soil	8082A
1112267-05	PX-192	Soil	8082A
1112267-06	PX-193	Soil	8082A
1112267-07	PX-194	Soil	8082A
1112267-08	PX-195	Soil	8082A
1112267-09	PX-196	Soil	8082A
1112267-10	PX-197	Soil	8082A
1112267-11	PX-198	Soil	8082A
1112267-12	PX-199	Soil	8082A
1112267-13	PX-200	Soil	8082A
1112267-14	PX-201	Soil	8082A
1112267-15	PX-202	Soil	8082A
1112267-16	PX-203	Soil	8082A
1112267-17	PX-204	Soil	8082A
1112267-18	PX-205	Soil	8082A
1112267-19	PX-206	Soil	8082A
1112267-20	PX-207	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112267

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112267-01 through 1112267-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 22, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-188
Date Sampled: 12/13/11 12:22
Percent Solids: 92
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0538)	2	1	12/21/11 1:30		CL11918
Aroclor 1221	ND (0.0538)	2	1	12/21/11 1:30		CL11918
Aroclor 1232	ND (0.0538)	2	1	12/21/11 1:30		CL11918
Aroclor 1242	ND (0.0538)	2	1	12/21/11 1:30		CL11918
Aroclor 1248	ND (0.0538)	2	1	12/21/11 1:30		CL11918
Aroclor 1254	ND (0.0538)	2	1	12/21/11 1:30		CL11918
Aroclor 1260	ND (0.0538)	2	1	12/21/11 1:30		CL11918
Aroclor 1262	ND (0.0538)	2	1	12/21/11 1:30		CL11918
Aroclor 1268	ND (0.0538)	2	1	12/21/11 1:30		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-189
Date Sampled: 12/13/11 12:24
Percent Solids: 83
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0599)	2	1	12/17/11 1:40		CL11510
Aroclor 1221	ND (0.0599)	2	1	12/17/11 1:40		CL11510
Aroclor 1232	ND (0.0599)	2	1	12/17/11 1:40		CL11510
Aroclor 1242	ND (0.0599)	2	1	12/17/11 1:40		CL11510
Aroclor 1248	ND (0.0599)	2	1	12/17/11 1:40		CL11510
Aroclor 1254	ND (0.0599)	2	1	12/17/11 1:40		CL11510
Aroclor 1260	**0.200** (0.0599)	2	1	12/17/11 1:40		CL11510
Aroclor 1262	ND (0.0599)	2	1	12/17/11 1:40		CL11510
Aroclor 1268	ND (0.0599)	2	1	12/17/11 1:40		CL11510

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*106 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*72 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-190
Date Sampled: 12/13/11 12:26
Percent Solids: 93
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0517)	2	1	12/17/11 2:09		CL11510
Aroclor 1221	ND (0.0517)	2	1	12/17/11 2:09		CL11510
Aroclor 1232	ND (0.0517)	2	1	12/17/11 2:09		CL11510
Aroclor 1242	ND (0.0517)	2	1	12/17/11 2:09		CL11510
Aroclor 1248	ND (0.0517)	2	1	12/17/11 2:09		CL11510
Aroclor 1254	ND (0.0517)	2	1	12/17/11 2:09		CL11510
Aroclor 1260	**0.0974** (0.0517)	2	1	12/17/11 2:09		CL11510
Aroclor 1262	ND (0.0517)	2	1	12/17/11 2:09		CL11510
Aroclor 1268	ND (0.0517)	2	1	12/17/11 2:09		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-191
Date Sampled: 12/13/11 12:28
Percent Solids: 86
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0579)	2	1	12/17/11 2:38		CL11510
Aroclor 1221	ND (0.0579)	2	1	12/17/11 2:38		CL11510
Aroclor 1232	ND (0.0579)	2	1	12/17/11 2:38		CL11510
Aroclor 1242	ND (0.0579)	2	1	12/17/11 2:38		CL11510
Aroclor 1248	ND (0.0579)	2	1	12/17/11 2:38		CL11510
Aroclor 1254	ND (0.0579)	2	1	12/17/11 2:38		CL11510
Aroclor 1260	**0.214** (0.0579)	2	1	12/17/11 2:38		CL11510
Aroclor 1262	ND (0.0579)	2	1	12/17/11 2:38		CL11510
Aroclor 1268	ND (0.0579)	2	1	12/17/11 2:38		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-192
Date Sampled: 12/13/11 12:30
Percent Solids: 90
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0545)	2	1	12/17/11 3:07		CL11510
Aroclor 1221	ND (0.0545)	2	1	12/17/11 3:07		CL11510
Aroclor 1232	ND (0.0545)	2	1	12/17/11 3:07		CL11510
Aroclor 1242	ND (0.0545)	2	1	12/17/11 3:07		CL11510
Aroclor 1248	ND (0.0545)	2	1	12/17/11 3:07		CL11510
Aroclor 1254	ND (0.0545)	2	1	12/17/11 3:07		CL11510
Aroclor 1260	ND (0.0545)	2	1	12/17/11 3:07		CL11510
Aroclor 1262	ND (0.0545)	2	1	12/17/11 3:07		CL11510
Aroclor 1268	ND (0.0545)	2	1	12/17/11 3:07		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*83 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-193
Date Sampled: 12/13/11 12:32
Percent Solids: 90
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0542)	2	1	12/17/11 3:36		CL11510
Aroclor 1221	ND (0.0542)	2	1	12/17/11 3:36		CL11510
Aroclor 1232	ND (0.0542)	2	1	12/17/11 3:36		CL11510
Aroclor 1242	ND (0.0542)	2	1	12/17/11 3:36		CL11510
Aroclor 1248	ND (0.0542)	2	1	12/17/11 3:36		CL11510
Aroclor 1254	ND (0.0542)	2	1	12/17/11 3:36		CL11510
Aroclor 1260	ND (0.0542)	2	1	12/17/11 3:36		CL11510
Aroclor 1262	ND (0.0542)	2	1	12/17/11 3:36		CL11510
Aroclor 1268	ND (0.0542)	2	1	12/17/11 3:36		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-194
Date Sampled: 12/13/11 12:34
Percent Solids: 87
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)	2	1	12/17/11 4:04		CL11510
Aroclor 1221	ND (0.0575)	2	1	12/17/11 4:04		CL11510
Aroclor 1232	ND (0.0575)	2	1	12/17/11 4:04		CL11510
Aroclor 1242	ND (0.0575)	2	1	12/17/11 4:04		CL11510
Aroclor 1248	ND (0.0575)	2	1	12/17/11 4:04		CL11510
Aroclor 1254	ND (0.0575)	2	1	12/17/11 4:04		CL11510
Aroclor 1260	ND (0.0575)	2	1	12/17/11 4:04		CL11510
Aroclor 1262	ND (0.0575)	2	1	12/17/11 4:04		CL11510
Aroclor 1268	ND (0.0575)	2	1	12/17/11 4:04		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-195
Date Sampled: 12/13/11 12:36
Percent Solids: 93
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0532)	2	1	12/17/11 4:33		CL11510
Aroclor 1221	ND (0.0532)	2	1	12/17/11 4:33		CL11510
Aroclor 1232	ND (0.0532)	2	1	12/17/11 4:33		CL11510
Aroclor 1242	ND (0.0532)	2	1	12/17/11 4:33		CL11510
Aroclor 1248	ND (0.0532)	2	1	12/17/11 4:33		CL11510
Aroclor 1254	ND (0.0532)	2	1	12/17/11 4:33		CL11510
Aroclor 1260	ND (0.0532)	2	1	12/17/11 4:33		CL11510
Aroclor 1262	ND (0.0532)	2	1	12/17/11 4:33		CL11510
Aroclor 1268	ND (0.0532)	2	1	12/17/11 4:33		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-196
Date Sampled: 12/13/11 12:38
Percent Solids: 93
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0522)	2	1	12/17/11 5:02		CL11510
Aroclor 1221	ND (0.0522)	2	1	12/17/11 5:02		CL11510
Aroclor 1232	ND (0.0522)	2	1	12/17/11 5:02		CL11510
Aroclor 1242	ND (0.0522)	2	1	12/17/11 5:02		CL11510
Aroclor 1248	ND (0.0522)	2	1	12/17/11 5:02		CL11510
Aroclor 1254	ND (0.0522)	2	1	12/17/11 5:02		CL11510
Aroclor 1260	**0.110** (0.0522)	2	1	12/17/11 5:02		CL11510
Aroclor 1262	ND (0.0522)	2	1	12/17/11 5:02		CL11510
Aroclor 1268	ND (0.0522)	2	1	12/17/11 5:02		CL11510

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*81 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-197
Date Sampled: 12/13/11 12:40
Percent Solids: 86
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0576)	2	1	12/17/11 5:31		CL11510
Aroclor 1221	ND (0.0576)	2	1	12/17/11 5:31		CL11510
Aroclor 1232	ND (0.0576)	2	1	12/17/11 5:31		CL11510
Aroclor 1242	ND (0.0576)	2	1	12/17/11 5:31		CL11510
Aroclor 1248	ND (0.0576)	2	1	12/17/11 5:31		CL11510
Aroclor 1254	ND (0.0576)	2	1	12/17/11 5:31		CL11510
Aroclor 1260	**0.0881** (0.0576)	2	1	12/17/11 5:31		CL11510
Aroclor 1262	ND (0.0576)	2	1	12/17/11 5:31		CL11510
Aroclor 1268	ND (0.0576)	2	1	12/17/11 5:31		CL11510

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*67 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-198
Date Sampled: 12/13/11 12:42
Percent Solids: 89
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0553)	2	1	12/17/11 6:00		CL11510
Aroclor 1221	ND (0.0553)	2	1	12/17/11 6:00		CL11510
Aroclor 1232	ND (0.0553)	2	1	12/17/11 6:00		CL11510
Aroclor 1242	ND (0.0553)	2	1	12/17/11 6:00		CL11510
Aroclor 1248	ND (0.0553)	2	1	12/17/11 6:00		CL11510
Aroclor 1254	ND (0.0553)	2	1	12/17/11 6:00		CL11510
Aroclor 1260	**0.279** (0.0553)	2	1	12/17/11 6:00		CL11510
Aroclor 1262	ND (0.0553)	2	1	12/17/11 6:00		CL11510
Aroclor 1268	ND (0.0553)	2	1	12/17/11 6:00		CL11510

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-199
Date Sampled: 12/13/11 12:44
Percent Solids: 87
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)	2	1	12/17/11 6:29		CL11510
Aroclor 1221	ND (0.0575)	2	1	12/17/11 6:29		CL11510
Aroclor 1232	ND (0.0575)	2	1	12/17/11 6:29		CL11510
Aroclor 1242	ND (0.0575)	2	1	12/17/11 6:29		CL11510
Aroclor 1248	ND (0.0575)	2	1	12/17/11 6:29		CL11510
Aroclor 1254	ND (0.0575)	2	1	12/17/11 6:29		CL11510
Aroclor 1260	**0.255** (0.0575)	2	1	12/17/11 6:29		CL11510
Aroclor 1262	ND (0.0575)	2	1	12/17/11 6:29		CL11510
Aroclor 1268	ND (0.0575)	2	1	12/17/11 6:29		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*62 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*33 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*46 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*51 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-200
Date Sampled: 12/13/11 12:46
Percent Solids: 91
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0536)	2	1	12/17/11 6:58		CL11510
Aroclor 1221	ND (0.0536)	2	1	12/17/11 6:58		CL11510
Aroclor 1232	ND (0.0536)	2	1	12/17/11 6:58		CL11510
Aroclor 1242	ND (0.0536)	2	1	12/17/11 6:58		CL11510
Aroclor 1248	ND (0.0536)	2	1	12/17/11 6:58		CL11510
Aroclor 1254	ND (0.0536)	2	1	12/17/11 6:58		CL11510
Aroclor 1260	**0.270** (0.0536)	2	1	12/17/11 6:58		CL11510
Aroclor 1262	ND (0.0536)	2	1	12/17/11 6:58		CL11510
Aroclor 1268	ND (0.0536)	2	1	12/17/11 6:58		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-201
Date Sampled: 12/13/11 12:48
Percent Solids: 87
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0563)	2	1	12/17/11 7:27		CL11510
Aroclor 1221	ND (0.0563)	2	1	12/17/11 7:27		CL11510
Aroclor 1232	ND (0.0563)	2	1	12/17/11 7:27		CL11510
Aroclor 1242	ND (0.0563)	2	1	12/17/11 7:27		CL11510
Aroclor 1248	ND (0.0563)	2	1	12/17/11 7:27		CL11510
Aroclor 1254	ND (0.0563)	2	1	12/17/11 7:27		CL11510
Aroclor 1260	**0.390** (0.0563)	2	1	12/17/11 7:27		CL11510
Aroclor 1262	ND (0.0563)	2	1	12/17/11 7:27		CL11510
Aroclor 1268	ND (0.0563)	2	1	12/17/11 7:27		CL11510

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*100 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*80 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-202
Date Sampled: 12/13/11 12:50
Percent Solids: 88
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0560)	2	1	12/17/11 7:56		CL11510
Aroclor 1221	ND (0.0560)	2	1	12/17/11 7:56		CL11510
Aroclor 1232	ND (0.0560)	2	1	12/17/11 7:56		CL11510
Aroclor 1242	ND (0.0560)	2	1	12/17/11 7:56		CL11510
Aroclor 1248	ND (0.0560)	2	1	12/17/11 7:56		CL11510
Aroclor 1254	ND (0.0560)	2	1	12/17/11 7:56		CL11510
Aroclor 1260	**0.130** (0.0560)	2	1	12/17/11 7:56		CL11510
Aroclor 1262	ND (0.0560)	2	1	12/17/11 7:56		CL11510
Aroclor 1268	ND (0.0560)	2	1	12/17/11 7:56		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*77 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-203
Date Sampled: 12/13/11 12:52
Percent Solids: 89
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0548)	2	1	12/17/11 8:25		CL11510
Aroclor 1221	ND (0.0548)	2	1	12/17/11 8:25		CL11510
Aroclor 1232	ND (0.0548)	2	1	12/17/11 8:25		CL11510
Aroclor 1242	ND (0.0548)	2	1	12/17/11 8:25		CL11510
Aroclor 1248	ND (0.0548)	2	1	12/17/11 8:25		CL11510
Aroclor 1254	ND (0.0548)	2	1	12/17/11 8:25		CL11510
Aroclor 1260	**0.354** (0.0548)	2	1	12/17/11 8:25		CL11510
Aroclor 1262	ND (0.0548)	2	1	12/17/11 8:25		CL11510
Aroclor 1268	ND (0.0548)	2	1	12/17/11 8:25		CL11510

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*107 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*72 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-204
Date Sampled: 12/13/11 12:54
Percent Solids: 89
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0562)	2	1	12/17/11 8:54		CL11510
Aroclor 1221	ND (0.0562)	2	1	12/17/11 8:54		CL11510
Aroclor 1232	ND (0.0562)	2	1	12/17/11 8:54		CL11510
Aroclor 1242	ND (0.0562)	2	1	12/17/11 8:54		CL11510
Aroclor 1248	ND (0.0562)	2	1	12/17/11 8:54		CL11510
Aroclor 1254	ND (0.0562)	2	1	12/17/11 8:54		CL11510
Aroclor 1260	**0.317** (0.0562)	2	1	12/17/11 8:54		CL11510
Aroclor 1262	ND (0.0562)	2	1	12/17/11 8:54		CL11510
Aroclor 1268	ND (0.0562)	2	1	12/17/11 8:54		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*83 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-205
Date Sampled: 12/13/11 12:56
Percent Solids: 89
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0556)	2	1	12/17/11 9:23		CL11510
Aroclor 1221	ND (0.0556)	2	1	12/17/11 9:23		CL11510
Aroclor 1232	ND (0.0556)	2	1	12/17/11 9:23		CL11510
Aroclor 1242	ND (0.0556)	2	1	12/17/11 9:23		CL11510
Aroclor 1248	ND (0.0556)	2	1	12/17/11 9:23		CL11510
Aroclor 1254	ND (0.0556)	2	1	12/17/11 9:23		CL11510
Aroclor 1260	**0.255** (0.0556)	2	1	12/17/11 9:23		CL11510
Aroclor 1262	ND (0.0556)	2	1	12/17/11 9:23		CL11510
Aroclor 1268	ND (0.0556)	2	1	12/17/11 9:23		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*98 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*84 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-206
Date Sampled: 12/13/11 12:58
Percent Solids: 86
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0559)	2	1	12/17/11 6:25		CL11512
Aroclor 1221	ND (0.0559)	2	1	12/17/11 6:25		CL11512
Aroclor 1232	ND (0.0559)	2	1	12/17/11 6:25		CL11512
Aroclor 1242	ND (0.0559)	2	1	12/17/11 6:25		CL11512
Aroclor 1248	ND (0.0559)	2	1	12/17/11 6:25		CL11512
Aroclor 1254	ND (0.0559)	2	1	12/17/11 6:25		CL11512
Aroclor 1260	ND (0.0559)	2	1	12/17/11 6:25		CL11512
Aroclor 1262	ND (0.0559)	2	1	12/17/11 6:25		CL11512
Aroclor 1268	ND (0.0559)	2	1	12/17/11 6:25		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-207
Date Sampled: 12/13/11 13:00
Percent Solids: 84
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112267
ESS Laboratory Sample ID: 1112267-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)	2	1	12/17/11 6:44		CL11512
Aroclor 1221	ND (0.0584)	2	1	12/17/11 6:44		CL11512
Aroclor 1232	ND (0.0584)	2	1	12/17/11 6:44		CL11512
Aroclor 1242	ND (0.0584)	2	1	12/17/11 6:44		CL11512
Aroclor 1248	ND (0.0584)	2	1	12/17/11 6:44		CL11512
Aroclor 1254	**0.183** (0.0584)	2	1	12/17/11 6:44		CL11512
Aroclor 1260	ND (0.0584)	2	1	12/17/11 6:44		CL11512
Aroclor 1262	ND (0.0584)	2	1	12/17/11 6:44		CL11512
Aroclor 1268	ND (0.0584)	2	1	12/17/11 6:44		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11510 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11510 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11510 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0239*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0236*		mg/kg wet	*0.02500*		*95*	*30-150*			
LCS										
Aroclor 1016	0.482	0.0500	mg/kg wet	0.5000		96	40-140			
Aroclor 1260	0.464	0.0500	mg/kg wet	0.5000		93	40-140			
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0245*		mg/kg wet	*0.02500*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0229*		mg/kg wet	*0.02500*		*92*	*30-150*			
LCS Dup										
Aroclor 1016	0.476	0.0500	mg/kg wet	0.5000		95	40-140	1	30	
Aroclor 1260	0.442	0.0500	mg/kg wet	0.5000		88	40-140	5	30	
Surrogate: Decachlorobiphenyl	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0220*		mg/kg wet	*0.02500*		*88*	*30-150*			
Batch CL11512 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11512 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11512 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0234*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0224*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0208*		mg/kg wet	*0.02500*		*83*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11512 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
LCS										
Aroclor 1016	0.493	0.0500	mg/kg wet	0.5000		99	40-140			
Aroclor 1260	0.458	0.0500	mg/kg wet	0.5000		92	40-140			
Surrogate: Decachlorobiphenyl	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0229*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
LCS Dup										
Aroclor 1016	0.497	0.0500	mg/kg wet	0.5000		99	40-140	0.9	30	
Aroclor 1260	0.473	0.0500	mg/kg wet	0.5000		95	40-140	3	30	
Surrogate: Decachlorobiphenyl	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0224*		mg/kg wet	*0.02500*		*90*	*30-150*			
Batch CL11918 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0248*		mg/kg wet	*0.02500*		*99*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0188*		mg/kg wet	*0.02500*		*75*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
LCS										
Aroclor 1016	0.492	0.0500	mg/kg wet	0.5000		98	40-140			
Aroclor 1260	0.481	0.0500	mg/kg wet	0.5000		96	40-140			
Surrogate: Decachlorobiphenyl	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0242*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0206*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS Dup										
Aroclor 1016	0.526	0.0500	mg/kg wet	0.5000		105	40-140	7	30	
Aroclor 1260	0.514	0.0500	mg/kg wet	0.5000		103	40-140	7	30	

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112267

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Surrogate: Decachlorobiphenyl	*0.0247*		mg/kg wet	*0.02500*		*99*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0258*		mg/kg wet	*0.02500*		*103*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112267

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112267

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120267
Date Project Due: 12/21/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **3.2**
   Iced With: **None**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes | No**
17. Were samples received intact? **Yes | No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/14/11
Reviewed By: MK Date/Time: 12/14/11

1112267 BC 12/14/11 1 2

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page 5 of 10

Turn Time: X Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from: MA RI CT NH NJ NY ME Other _____

Is this project for any of the following: MA-MCP Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: 1100117 1112267

Electronic Deliverable: Yes X No ____
Format: Excel X Access ____ PDF X Other _____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W7510	

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	

Telephone #	Fax #	Email Address
508 754 2201		

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA	624	524.2	8021 MTBE/BTEX	8015 GRO	VPH w/targets	8100 TPH	8015 DRO	EPH w/o PAHs	EPH w/PAHs	EPH 4 Diesel	8081 Pesticides	8082 PCB	608 Pesticides	608 PCB	8270 SVOA	625	PAH 8270	RCRA5	RCRA8	PP13	TAL23	TCLP-RCRA8	NBC7	MCP-METALS (13)	MCP-METALS (13) w/Hg	PCB				
01	12/13/11	1222		X	S	PX-188	1	1	G																											X				
02		1224				PX-189																														X				
03		1226				PX-190																														X				
04		1228				PX-191																														X				
05		1230				PX-192																														X				
06		1232				PX-193																														X				
07		1234				PX-194																														X				
08		1236				PX-195																														X				
09		1238				PX-196																														X				
10		1240				PX-197																														X				

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ____
Cooler Temp: 3.2

Internal Use Only
[ ] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by:

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-13-11 1600	J Davis	12-13-11 1600	J Davis	12-13-11 1715	[signature]	12/13/11 1715
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

1112267 BC 12/14/11

Turn Time (2) Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
MA RI CT NH NJ NY ME Other _____

Is this project for any of the following:
MA-MCP Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: ~~H06117~~ 1112267

Electronic Deliverable: Yes X No

Format: Excel X Access __ PDF X Other _____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W7510	North High

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W7510

Telephone #	Fax #	Email Address
508 754 2201		

Circle and/orWrite Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO w/targets / VPH	8100 TPH / 8015 DRO	EPH w/o PAHs / EPH w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg	PCB				
11	12/13/11	1242		X	S	PX-198	1	1	G										X				
12		1244				PX-199													X				
13		1246				PX-200													X				
14		1248				PX-201													X				
15		1250				PX-202													X				
16		1252				PX-203													X				
17		1254				PX-204													X				
18		1256				PX-205													X				
19		1258				PX-206													X				
20		1300				PX-207													X				

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No

Seals Intact ___ Yes ___ No NA: ___

Cooler Temp: 3.2

Internal Use Only
[ ] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by:

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12/13/11 1600	[signature]	12-13-11 1600	[signature]	12/13/11 1715	[signature]	12/13/11 1715
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112268

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:16 pm, Dec 22, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

SAMPLE RECEIPT

The following samples were received on December 13, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112268-01	PX-208	Soil	8082A
1112268-02	PX-209	Soil	8082A
1112268-03	PX-210	Soil	8082A
1112268-04	PX-211	Soil	8082A
1112268-05	PX-212	Soil	8082A
1112268-06	PX-213	Soil	8082A
1112268-07	PX-214	Soil	8082A
1112268-08	PX-215	Soil	8082A
1112268-09	PX-216	Soil	8082A
1112268-10	PX-217	Soil	8082A
1112268-11	PX-218	Soil	8082A
1112268-12	PX-219	Soil	8082A
1112268-13	PX-220	Soil	8082A
1112268-14	PX-221	Soil	8082A
1112268-15	PX-222	Soil	8082A
1112268-16	PX-223	Soil	8082A
1112268-17	PX-224	Soil	8082A
1112268-18	PX-225	Soil	8082A
1112268-19	PX-226	Soil	8082A
1112268-20	PX-227	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112268

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112268-01 through 1112268-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 22, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-208
Date Sampled: 12/13/11 13:02
Percent Solids: 86
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)	2	1	12/17/11 7:03		CL11512
Aroclor 1221	ND (0.0573)	2	1	12/17/11 7:03		CL11512
Aroclor 1232	ND (0.0573)	2	1	12/17/11 7:03		CL11512
Aroclor 1242	ND (0.0573)	2	1	12/17/11 7:03		CL11512
Aroclor 1248	ND (0.0573)	2	1	12/17/11 7:03		CL11512
Aroclor 1254	ND (0.0573)	2	1	12/17/11 7:03		CL11512
Aroclor 1260	**0.260** (0.0573)	2	1	12/17/11 7:03		CL11512
Aroclor 1262	ND (0.0573)	2	1	12/17/11 7:03		CL11512
Aroclor 1268	ND (0.0573)	2	1	12/17/11 7:03		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-209
Date Sampled: 12/13/11 13:04
Percent Solids: 86
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0579)	2	1	12/17/11 7:22		CL11512
Aroclor 1221	ND (0.0579)	2	1	12/17/11 7:22		CL11512
Aroclor 1232	ND (0.0579)	2	1	12/17/11 7:22		CL11512
Aroclor 1242	ND (0.0579)	2	1	12/17/11 7:22		CL11512
Aroclor 1248	ND (0.0579)	2	1	12/17/11 7:22		CL11512
Aroclor 1254	ND (0.0579)	2	1	12/17/11 7:22		CL11512
Aroclor 1260	ND (0.0579)	2	1	12/17/11 7:22		CL11512
Aroclor 1262	ND (0.0579)	2	1	12/17/11 7:22		CL11512
Aroclor 1268	ND (0.0579)	2	1	12/17/11 7:22		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-210
Date Sampled: 12/13/11 13:06
Percent Solids: 86
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/15/11 16:15
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0559)	2	1	12/17/11 8:18		CL11512
Aroclor 1221	ND (0.0559)	2	1	12/17/11 8:18		CL11512
Aroclor 1232	ND (0.0559)	2	1	12/17/11 8:18		CL11512
Aroclor 1242	ND (0.0559)	2	1	12/17/11 8:18		CL11512
Aroclor 1248	ND (0.0559)	2	1	12/17/11 8:18		CL11512
Aroclor 1254	ND (0.0559)	2	1	12/17/11 8:18		CL11512
Aroclor 1260	**0.0945** (0.0559)	2	1	12/17/11 8:18		CL11512
Aroclor 1262	ND (0.0559)	2	1	12/17/11 8:18		CL11512
Aroclor 1268	ND (0.0559)	2	1	12/17/11 8:18		CL11512

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-211
Date Sampled: 12/13/11 13:08
Percent Solids: 88
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0580)	2	1	12/17/11 17:05		CL11512
Aroclor 1221	ND (0.0580)	2	1	12/17/11 17:05		CL11512
Aroclor 1232	ND (0.0580)	2	1	12/17/11 17:05		CL11512
Aroclor 1242	ND (0.0580)	2	1	12/17/11 17:05		CL11512
Aroclor 1248	ND (0.0580)	2	1	12/17/11 17:05		CL11512
Aroclor 1254	**0.0965** (0.0580)	2	1	12/17/11 17:05		CL11512
Aroclor 1260	**0.275** (0.0580)	2	1	12/17/11 17:05		CL11512
Aroclor 1262	ND (0.0580)	2	1	12/17/11 17:05		CL11512
Aroclor 1268	ND (0.0580)	2	1	12/17/11 17:05		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*65 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*81 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-212
Date Sampled: 12/13/11 13:10
Percent Solids: 89
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0559)	2	1	12/17/11 17:24		CL11512
Aroclor 1221	ND (0.0559)	2	1	12/17/11 17:24		CL11512
Aroclor 1232	ND (0.0559)	2	1	12/17/11 17:24		CL11512
Aroclor 1242	ND (0.0559)	2	1	12/17/11 17:24		CL11512
Aroclor 1248	ND (0.0559)	2	1	12/17/11 17:24		CL11512
Aroclor 1254	ND (0.0559)	2	1	12/17/11 17:24		CL11512
Aroclor 1260	**0.103** (0.0559)	2	1	12/17/11 17:24		CL11512
Aroclor 1262	ND (0.0559)	2	1	12/17/11 17:24		CL11512
Aroclor 1268	ND (0.0559)	2	1	12/17/11 17:24		CL11512

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-213
Date Sampled: 12/13/11 13:12
Percent Solids: 89
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0559)	2	1	12/17/11 17:43		CL11512
Aroclor 1221	ND (0.0559)	2	1	12/17/11 17:43		CL11512
Aroclor 1232	ND (0.0559)	2	1	12/17/11 17:43		CL11512
Aroclor 1242	ND (0.0559)	2	1	12/17/11 17:43		CL11512
Aroclor 1248	ND (0.0559)	2	1	12/17/11 17:43		CL11512
Aroclor 1254	ND (0.0559)	2	1	12/17/11 17:43		CL11512
Aroclor 1260	**0.281** (0.0559)	2	1	12/17/11 17:43		CL11512
Aroclor 1262	ND (0.0559)	2	1	12/17/11 17:43		CL11512
Aroclor 1268	ND (0.0559)	2	1	12/17/11 17:43		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-214
Date Sampled: 12/13/11 13:14
Percent Solids: 87
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0578)	2	1	12/17/11 18:01		CL11512
Aroclor 1221	ND (0.0578)	2	1	12/17/11 18:01		CL11512
Aroclor 1232	ND (0.0578)	2	1	12/17/11 18:01		CL11512
Aroclor 1242	ND (0.0578)	2	1	12/17/11 18:01		CL11512
Aroclor 1248	ND (0.0578)	2	1	12/17/11 18:01		CL11512
Aroclor 1254	ND (0.0578)	2	1	12/17/11 18:01		CL11512
Aroclor 1260	**0.114** (0.0578)	2	1	12/17/11 18:01		CL11512
Aroclor 1262	ND (0.0578)	2	1	12/17/11 18:01		CL11512
Aroclor 1268	ND (0.0578)	2	1	12/17/11 18:01		CL11512

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-215
Date Sampled: 12/13/11 13:16
Percent Solids: 88
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0563)	2	1	12/17/11 18:20		CL11512
Aroclor 1221	ND (0.0563)	2	1	12/17/11 18:20		CL11512
Aroclor 1232	ND (0.0563)	2	1	12/17/11 18:20		CL11512
Aroclor 1242	ND (0.0563)	2	1	12/17/11 18:20		CL11512
Aroclor 1248	ND (0.0563)	2	1	12/17/11 18:20		CL11512
Aroclor 1254	ND (0.0563)	2	1	12/17/11 18:20		CL11512
Aroclor 1260	**0.101** (0.0563)	2	1	12/17/11 18:20		CL11512
Aroclor 1262	ND (0.0563)	2	1	12/17/11 18:20		CL11512
Aroclor 1268	ND (0.0563)	2	1	12/17/11 18:20		CL11512

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-216
Date Sampled: 12/13/11 13:18
Percent Solids: 90
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0556)	2	1	12/17/11 18:39		CL11512
Aroclor 1221	ND (0.0556)	2	1	12/17/11 18:39		CL11512
Aroclor 1232	ND (0.0556)	2	1	12/17/11 18:39		CL11512
Aroclor 1242	ND (0.0556)	2	1	12/17/11 18:39		CL11512
Aroclor 1248	ND (0.0556)	2	1	12/17/11 18:39		CL11512
Aroclor 1254	ND (0.0556)	2	1	12/17/11 18:39		CL11512
Aroclor 1260	**0.203** (0.0556)	2	1	12/17/11 18:39		CL11512
Aroclor 1262	ND (0.0556)	2	1	12/17/11 18:39		CL11512
Aroclor 1268	ND (0.0556)	2	1	12/17/11 18:39		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-217
Date Sampled: 12/13/11 13:20
Percent Solids: 89
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)	2	1	12/17/11 18:58		CL11512
Aroclor 1221	ND (0.0573)	2	1	12/17/11 18:58		CL11512
Aroclor 1232	ND (0.0573)	2	1	12/17/11 18:58		CL11512
Aroclor 1242	ND (0.0573)	2	1	12/17/11 18:58		CL11512
Aroclor 1248	ND (0.0573)	2	1	12/17/11 18:58		CL11512
Aroclor 1254	ND (0.0573)	2	1	12/17/11 18:58		CL11512
Aroclor 1260	**0.250** (0.0573)	2	1	12/17/11 18:58		CL11512
Aroclor 1262	ND (0.0573)	2	1	12/17/11 18:58		CL11512
Aroclor 1268	ND (0.0573)	2	1	12/17/11 18:58		CL11512

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-218
Date Sampled: 12/13/11 13:22
Percent Solids: 92
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0549)	2	1	12/17/11 19:17		CL11512
Aroclor 1221	ND (0.0549)	2	1	12/17/11 19:17		CL11512
Aroclor 1232	ND (0.0549)	2	1	12/17/11 19:17		CL11512
Aroclor 1242	ND (0.0549)	2	1	12/17/11 19:17		CL11512
Aroclor 1248	ND (0.0549)	2	1	12/17/11 19:17		CL11512
Aroclor 1254	ND (0.0549)	2	1	12/17/11 19:17		CL11512
Aroclor 1260	**0.162** (0.0549)	2	1	12/17/11 19:17		CL11512
Aroclor 1262	ND (0.0549)	2	1	12/17/11 19:17		CL11512
Aroclor 1268	ND (0.0549)	2	1	12/17/11 19:17		CL11512

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-219
Date Sampled: 12/13/11 13:24
Percent Solids: 85
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0610)	2	1	12/17/11 19:36		CL11512
Aroclor 1221	ND (0.0610)	2	1	12/17/11 19:36		CL11512
Aroclor 1232	ND (0.0610)	2	1	12/17/11 19:36		CL11512
Aroclor 1242	ND (0.0610)	2	1	12/17/11 19:36		CL11512
Aroclor 1248	ND (0.0610)	2	1	12/17/11 19:36		CL11512
Aroclor 1254	ND (0.0610)	2	1	12/17/11 19:36		CL11512
Aroclor 1260	**0.0620** (0.0610)	2	1	12/17/11 19:36		CL11512
Aroclor 1262	ND (0.0610)	2	1	12/17/11 19:36		CL11512
Aroclor 1268	ND (0.0610)	2	1	12/17/11 19:36		CL11512

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-220
Date Sampled: 12/13/11 13:26
Percent Solids: 92
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0552)	2	1	12/17/11 19:54		CL11512
Aroclor 1221	ND (0.0552)	2	1	12/17/11 19:54		CL11512
Aroclor 1232	ND (0.0552)	2	1	12/17/11 19:54		CL11512
Aroclor 1242	ND (0.0552)	2	1	12/17/11 19:54		CL11512
Aroclor 1248	ND (0.0552)	2	1	12/17/11 19:54		CL11512
Aroclor 1254	ND (0.0552)	2	1	12/17/11 19:54		CL11512
Aroclor 1260	ND (0.0552)	2	1	12/17/11 19:54		CL11512
Aroclor 1262	ND (0.0552)	2	1	12/17/11 19:54		CL11512
Aroclor 1268	ND (0.0552)	2	1	12/17/11 19:54		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-221
Date Sampled: 12/13/11 13:28
Percent Solids: 94
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0546)	2	1	12/17/11 20:13		CL11512
Aroclor 1221	ND (0.0546)	2	1	12/17/11 20:13		CL11512
Aroclor 1232	ND (0.0546)	2	1	12/17/11 20:13		CL11512
Aroclor 1242	ND (0.0546)	2	1	12/17/11 20:13		CL11512
Aroclor 1248	ND (0.0546)	2	1	12/17/11 20:13		CL11512
Aroclor 1254	ND (0.0546)	2	1	12/17/11 20:13		CL11512
Aroclor 1260	ND (0.0546)	2	1	12/17/11 20:13		CL11512
Aroclor 1262	ND (0.0546)	2	1	12/17/11 20:13		CL11512
Aroclor 1268	ND (0.0546)	2	1	12/17/11 20:13		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-222
Date Sampled: 12/13/11 13:30
Percent Solids: 94
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0529)	2	1	12/17/11 20:32		CL11512
Aroclor 1221	ND (0.0529)	2	1	12/17/11 20:32		CL11512
Aroclor 1232	ND (0.0529)	2	1	12/17/11 20:32		CL11512
Aroclor 1242	ND (0.0529)	2	1	12/17/11 20:32		CL11512
Aroclor 1248	ND (0.0529)	2	1	12/17/11 20:32		CL11512
Aroclor 1254	ND (0.0529)	2	1	12/17/11 20:32		CL11512
Aroclor 1260	ND (0.0529)	2	1	12/17/11 20:32		CL11512
Aroclor 1262	ND (0.0529)	2	1	12/17/11 20:32		CL11512
Aroclor 1268	ND (0.0529)	2	1	12/17/11 20:32		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-223
Date Sampled: 12/13/11 13:32
Percent Solids: 91
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0566)	2	1	12/17/11 20:51		CL11512
Aroclor 1221	ND (0.0566)	2	1	12/17/11 20:51		CL11512
Aroclor 1232	ND (0.0566)	2	1	12/17/11 20:51		CL11512
Aroclor 1242	ND (0.0566)	2	1	12/17/11 20:51		CL11512
Aroclor 1248	ND (0.0566)	2	1	12/17/11 20:51		CL11512
Aroclor 1254	ND (0.0566)	2	1	12/17/11 20:51		CL11512
Aroclor 1260	ND (0.0566)	2	1	12/17/11 20:51		CL11512
Aroclor 1262	ND (0.0566)	2	1	12/17/11 20:51		CL11512
Aroclor 1268	ND (0.0566)	2	1	12/17/11 20:51		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-224
Date Sampled: 12/13/11 13:34
Percent Solids: 86
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0602)	2	1	12/17/11 21:10		CL11512
Aroclor 1221	ND (0.0602)	2	1	12/17/11 21:10		CL11512
Aroclor 1232	ND (0.0602)	2	1	12/17/11 21:10		CL11512
Aroclor 1242	ND (0.0602)	2	1	12/17/11 21:10		CL11512
Aroclor 1248	ND (0.0602)	2	1	12/17/11 21:10		CL11512
Aroclor 1254	ND (0.0602)	2	1	12/17/11 21:10		CL11512
Aroclor 1260	ND (0.0602)	2	1	12/17/11 21:10		CL11512
Aroclor 1262	ND (0.0602)	2	1	12/17/11 21:10		CL11512
Aroclor 1268	ND (0.0602)	2	1	12/17/11 21:10		CL11512

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-225
Date Sampled: 12/13/11 13:36
Percent Solids: 86
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0596)	2	1	12/17/11 21:29		CL11510
Aroclor 1221	ND (0.0596)	2	1	12/17/11 21:29		CL11510
Aroclor 1232	ND (0.0596)	2	1	12/17/11 21:29		CL11510
Aroclor 1242	ND (0.0596)	2	1	12/17/11 21:29		CL11510
Aroclor 1248	ND (0.0596)	2	1	12/17/11 21:29		CL11510
Aroclor 1254	ND (0.0596)	2	1	12/17/11 21:29		CL11510
Aroclor 1260	ND (0.0596)	2	1	12/17/11 21:29		CL11510
Aroclor 1262	ND (0.0596)	2	1	12/17/11 21:29		CL11510
Aroclor 1268	ND (0.0596)	2	1	12/17/11 21:29		CL11510

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-226
Date Sampled: 12/13/11 13:38
Percent Solids: 86
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)	2	1	12/17/11 21:47		CL11510
Aroclor 1221	ND (0.0581)	2	1	12/17/11 21:47		CL11510
Aroclor 1232	ND (0.0581)	2	1	12/17/11 21:47		CL11510
Aroclor 1242	ND (0.0581)	2	1	12/17/11 21:47		CL11510
Aroclor 1248	ND (0.0581)	2	1	12/17/11 21:47		CL11510
Aroclor 1254	ND (0.0581)	2	1	12/17/11 21:47		CL11510
Aroclor 1260	ND (0.0581)	2	1	12/17/11 21:47		CL11510
Aroclor 1262	ND (0.0581)	2	1	12/17/11 21:47		CL11510
Aroclor 1268	ND (0.0581)	2	1	12/17/11 21:47		CL11510

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-227
Date Sampled: 12/13/11 13:40
Percent Solids: 94
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112268
ESS Laboratory Sample ID: 1112268-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)	2	1	12/17/11 22:06		CL11620
Aroclor 1221	ND (0.0554)	2	1	12/17/11 22:06		CL11620
Aroclor 1232	ND (0.0554)	2	1	12/17/11 22:06		CL11620
Aroclor 1242	ND (0.0554)	2	1	12/17/11 22:06		CL11620
Aroclor 1248	ND (0.0554)	2	1	12/17/11 22:06		CL11620
Aroclor 1254	ND (0.0554)	2	1	12/17/11 22:06		CL11620
Aroclor 1260	ND (0.0554)	2	1	12/17/11 22:06		CL11620
Aroclor 1262	ND (0.0554)	2	1	12/17/11 22:06		CL11620
Aroclor 1268	ND (0.0554)	2	1	12/17/11 22:06		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11510 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11510 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11510 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0239*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0236*		mg/kg wet	*0.02500*		*95*	*30-150*			
LCS										
Aroclor 1016	0.482	0.0500	mg/kg wet	0.5000		96	40-140			
Aroclor 1260	0.464	0.0500	mg/kg wet	0.5000		93	40-140			
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0245*		mg/kg wet	*0.02500*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0229*		mg/kg wet	*0.02500*		*92*	*30-150*			
LCS Dup										
Aroclor 1016	0.476	0.0500	mg/kg wet	0.5000		95	40-140	1	30	
Aroclor 1260	0.442	0.0500	mg/kg wet	0.5000		88	40-140	5	30	
Surrogate: Decachlorobiphenyl	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0220*		mg/kg wet	*0.02500*		*88*	*30-150*			
Batch CL11512 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11512 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11512 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0234*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0224*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0208*		mg/kg wet	*0.02500*		*83*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11512 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
LCS										
Aroclor 1016	0.493	0.0500	mg/kg wet	0.5000		99	40-140			
Aroclor 1260	0.458	0.0500	mg/kg wet	0.5000		92	40-140			
Surrogate: Decachlorobiphenyl	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0229*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
LCS Dup										
Aroclor 1016	0.497	0.0500	mg/kg wet	0.5000		99	40-140	0.9	30	
Aroclor 1260	0.473	0.0500	mg/kg wet	0.5000		95	40-140	3	30	
Surrogate: Decachlorobiphenyl	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0224*		mg/kg wet	*0.02500*		*90*	*30-150*			
Matrix Spike **Source: 1112268-02**										
Aroclor 1016	0.511	0.0579	mg/kg dry	0.5785	ND	88	40-140			
Aroclor 1260	0.496	0.0579	mg/kg dry	0.5785	0.0270	81	40-140			
Surrogate: Decachlorobiphenyl	*0.0243*		mg/kg dry	*0.02893*		*84*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0229*		mg/kg dry	*0.02893*		*79*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0224*		mg/kg dry	*0.02893*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0240*		mg/kg dry	*0.02893*		*83*	*30-150*			
Matrix Spike Dup **Source: 1112268-02**										
Aroclor 1016	0.563	0.0570	mg/kg dry	0.5700	ND	99	40-140	11	30	
Aroclor 1260	0.532	0.0570	mg/kg dry	0.5700	0.0270	89	40-140	9	30	
Surrogate: Decachlorobiphenyl	*0.0258*		mg/kg dry	*0.02850*		*90*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0246*		mg/kg dry	*0.02850*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0250*		mg/kg dry	*0.02850*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0252*		mg/kg dry	*0.02850*		*89*	*30-150*			
Batch CL11620 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11620 - 3540										
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11620 - 3540										
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11620 - 3540										
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
LCS										
Aroclor 1016	0.462	0.0500	mg/kg wet	0.5000		92	40-140			
Aroclor 1260	0.449	0.0500	mg/kg wet	0.5000		90	40-140			
Surrogate: Decachlorobiphenyl	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
LCS Dup										
Aroclor 1016	0.462	0.0500	mg/kg wet	0.5000		92	40-140	0.06	30	
Aroclor 1260	0.430	0.0500	mg/kg wet	0.5000		86	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0199*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112268

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112268

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120268
Date Project Due: 12/21/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **3.2**
   Iced With: **None**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes | No**
17. Were samples received intact? **Yes | No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/14/11
Reviewed By: MK Date/Time: 12/14/11

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

1112268 BC 12/14/11

Turn Time X Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____
State where samples were collected from: MA RI CT NH NJ NY ME Other _____
Is this project for any of the following: MA-MCP Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: 1106117

Electronic Deliverable: Yes X No 1112268
Format: Excel X Access __ PDF X Other _____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W7510	North High

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W-7510

Telephone #	Fax #	Email Address
508 754 2201		

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH w/targets	8100 TPH / 8015 DRO	EPH w/o PAHs / EPH w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg	PCB				
01	12/13/11	1302		X	S	PX-208	1	1	G										X				
02	↓	1304		↓	↓	PX-209	↓	↓	↓										X				
03		1306				PX-210													X				
04		1308				PX-211													X				
05		1310				PX-212													X				
06		1312				PX-213													X				
07		1314				PX-214													X				
08		1316				PX-215													X				
09		1318				PX-216													X				
10		1320				PX-217													X				

Container Type: P-Poly G-Glass S-Sterile V-VOA
Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ____
Cooler Temp: 3.2

Internal Use Only
[ ] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____
Sampled by:
Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-13-11 1600	[signature]	12-13-11 1600	[signature]	12-13-11 1715	[signature]	12/13/11 1715
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes ro Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

1112268 BC 12/14/11 2 2

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page 8 of 10

Turn Time: X Standard Other ____
If faster than 5 days, prior approval by laboratory is required # ____
State where samples were collected from: MA RI CT NH NJ NY ME Other ____
Is this project for any of the following: MA-MCP Navy USACE Other ____

Reporting Limits: RCS-1
ESS LAB PROJECT ID: 1106117
Electronic Deliverable: Yes X No 1112268
Format: Excel X Access ___ PDF X Other ____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W-1510	North High

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W-1510

Telephone #	Fax #	Email Address
508 754 2201		

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH w/targets	8100 TPH / 8015 DRO	EPH w/o PAHs / EPH w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg	PCB				
11	12/13/11	1322		X	S	PX-218	1	1	G										X				
12		1324				PX-219													X				
13		1326				PX-220													X				
14		1328				PX-221													X				
15		1330				PX-222													X				
16		1332				PX-223													X				
17		1334				PX-224													X				
18		1336				PX-225													X				
19		1338				PX-226													X				
20		1340				PX-227													X				

Container Type: P-Poly G-Glass S-Sterile V-VOA
Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ___
Cooler Temp: 3.2

Internal Use Only
[ ] Pickup
[ ] Technicians ___

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ____
Sampled by:
Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-13-11 1600	[signature]	12-13-11 1600	[signature]	12-13-11 1715	[signature]	12/13/11 1719
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112269

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 1:31 pm, Dec 23, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

SAMPLE RECEIPT

The following samples were received on December 13, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112269-01	PX-228	Soil	8082A
1112269-02	PX-229	Soil	8082A
1112269-03	PX-230	Soil	8082A
1112269-04	PX-231	Soil	8082A
1112269-05	PX-232	Soil	8082A
1112269-06	PX-233	Soil	8082A
1112269-07	PX-234	Soil	8082A
1112269-08	PX-235	Soil	8082A
1112269-09	PX-236	Soil	8082A
1112269-10	PX-237	Soil	8082A
1112269-11	PX-238	Soil	8082A
1112269-12	PX-239	Soil	8082A
1112269-13	PX-240	Soil	8082A
1112269-14	PX-241	Soil	8082A
1112269-15	PX-242	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112269

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112269-01 through 1112269-15**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 23, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-228
Date Sampled: 12/13/11 13:42
Percent Solids: 86
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0590)	2	1	12/17/11 22:25		CL11620
Aroclor 1221	ND (0.0590)	2	1	12/17/11 22:25		CL11620
Aroclor 1232	ND (0.0590)	2	1	12/17/11 22:25		CL11620
Aroclor 1242	ND (0.0590)	2	1	12/17/11 22:25		CL11620
Aroclor 1248	ND (0.0590)	2	1	12/17/11 22:25		CL11620
Aroclor 1254	ND (0.0590)	2	1	12/17/11 22:25		CL11620
Aroclor 1260	ND (0.0590)	2	1	12/17/11 22:25		CL11620
Aroclor 1262	ND (0.0590)	2	1	12/17/11 22:25		CL11620
Aroclor 1268	ND (0.0590)	2	1	12/17/11 22:25		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-229
Date Sampled: 12/13/11 13:44
Percent Solids: 86
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)	2	1	12/17/11 22:44		CL11620
Aroclor 1221	ND (0.0581)	2	1	12/17/11 22:44		CL11620
Aroclor 1232	ND (0.0581)	2	1	12/17/11 22:44		CL11620
Aroclor 1242	ND (0.0581)	2	1	12/17/11 22:44		CL11620
Aroclor 1248	ND (0.0581)	2	1	12/17/11 22:44		CL11620
Aroclor 1254	ND (0.0581)	2	1	12/17/11 22:44		CL11620
Aroclor 1260	ND (0.0581)	2	1	12/17/11 22:44		CL11620
Aroclor 1262	ND (0.0581)	2	1	12/17/11 22:44		CL11620
Aroclor 1268	ND (0.0581)	2	1	12/17/11 22:44		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-230
Date Sampled: 12/13/11 13:46
Percent Solids: 86
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0599)	2	1	12/17/11 23:03		CL11620
Aroclor 1221	ND (0.0599)	2	1	12/17/11 23:03		CL11620
Aroclor 1232	ND (0.0599)	2	1	12/17/11 23:03		CL11620
Aroclor 1242	ND (0.0599)	2	1	12/17/11 23:03		CL11620
Aroclor 1248	ND (0.0599)	2	1	12/17/11 23:03		CL11620
Aroclor 1254	ND (0.0599)	2	1	12/17/11 23:03		CL11620
Aroclor 1260	ND (0.0599)	2	1	12/17/11 23:03		CL11620
Aroclor 1262	ND (0.0599)	2	1	12/17/11 23:03		CL11620
Aroclor 1268	ND (0.0599)	2	1	12/17/11 23:03		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-231
Date Sampled: 12/13/11 13:48
Percent Solids: 85
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0588)	2	1	12/19/11 16:27		CL11620
Aroclor 1221	ND (0.0588)	2	1	12/19/11 16:27		CL11620
Aroclor 1232	ND (0.0588)	2	1	12/19/11 16:27		CL11620
Aroclor 1242	ND (0.0588)	2	1	12/19/11 16:27		CL11620
Aroclor 1248	ND (0.0588)	2	1	12/19/11 16:27		CL11620
Aroclor 1254	ND (0.0588)	2	1	12/19/11 16:27		CL11620
Aroclor 1260	ND (0.0588)	2	1	12/19/11 16:27		CL11620
Aroclor 1262	ND (0.0588)	2	1	12/19/11 16:27		CL11620
Aroclor 1268	ND (0.0588)	2	1	12/19/11 16:27		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-232
Date Sampled: 12/13/11 13:50
Percent Solids: 85
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0594)	2	1	12/20/11 22:07		CL11620
Aroclor 1221	ND (0.0594)	2	1	12/20/11 22:07		CL11620
Aroclor 1232	ND (0.0594)	2	1	12/20/11 22:07		CL11620
Aroclor 1242	ND (0.0594)	2	1	12/20/11 22:07		CL11620
Aroclor 1248	ND (0.0594)	2	1	12/20/11 22:07		CL11620
Aroclor 1254	**0.192** (0.0594)	2	1	12/20/11 22:07		CL11620
Aroclor 1260	ND (0.0594)	2	1	12/20/11 22:07		CL11620
Aroclor 1262	ND (0.0594)	2	1	12/20/11 22:07		CL11620
Aroclor 1268	ND (0.0594)	2	1	12/20/11 22:07		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*138 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-233
Date Sampled: 12/13/11 13:52
Percent Solids: 86
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0593)	2	1	12/20/11 22:36		CL11620
Aroclor 1221	ND (0.0593)	2	1	12/20/11 22:36		CL11620
Aroclor 1232	ND (0.0593)	2	1	12/20/11 22:36		CL11620
Aroclor 1242	ND (0.0593)	2	1	12/20/11 22:36		CL11620
Aroclor 1248	ND (0.0593)	2	1	12/20/11 22:36		CL11620
Aroclor 1254	ND (0.0593)	2	1	12/20/11 22:36		CL11620
Aroclor 1260	ND (0.0593)	2	1	12/20/11 22:36		CL11620
Aroclor 1262	ND (0.0593)	2	1	12/20/11 22:36		CL11620
Aroclor 1268	ND (0.0593)	2	1	12/20/11 22:36		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*100 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*125 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-234
Date Sampled: 12/13/11 13:54
Percent Solids: 83
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0612)	2	1	12/20/11 23:05		CL11620
Aroclor 1221	ND (0.0612)	2	1	12/20/11 23:05		CL11620
Aroclor 1232	ND (0.0612)	2	1	12/20/11 23:05		CL11620
Aroclor 1242	ND (0.0612)	2	1	12/20/11 23:05		CL11620
Aroclor 1248	ND (0.0612)	2	1	12/20/11 23:05		CL11620
Aroclor 1254	ND (0.0612)	2	1	12/20/11 23:05		CL11620
Aroclor 1260	ND (0.0612)	2	1	12/20/11 23:05		CL11620
Aroclor 1262	ND (0.0612)	2	1	12/20/11 23:05		CL11620
Aroclor 1268	ND (0.0612)	2	1	12/20/11 23:05		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*102 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-235
Date Sampled: 12/13/11 13:56
Percent Solids: 95
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0534)	2	1	12/20/11 23:34		CL11620
Aroclor 1221	ND (0.0534)	2	1	12/20/11 23:34		CL11620
Aroclor 1232	ND (0.0534)	2	1	12/20/11 23:34		CL11620
Aroclor 1242	ND (0.0534)	2	1	12/20/11 23:34		CL11620
Aroclor 1248	ND (0.0534)	2	1	12/20/11 23:34		CL11620
Aroclor 1254	ND (0.0534)	2	1	12/20/11 23:34		CL11620
Aroclor 1260	ND (0.0534)	2	1	12/20/11 23:34		CL11620
Aroclor 1262	ND (0.0534)	2	1	12/20/11 23:34		CL11620
Aroclor 1268	ND (0.0534)	2	1	12/20/11 23:34		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*101 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*106 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-236
Date Sampled: 12/13/11 13:58
Percent Solids: 96
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0523)	2	1	12/18/11 1:14		CL11620
Aroclor 1221	ND (0.0523)	2	1	12/18/11 1:14		CL11620
Aroclor 1232	ND (0.0523)	2	1	12/18/11 1:14		CL11620
Aroclor 1242	ND (0.0523)	2	1	12/18/11 1:14		CL11620
Aroclor 1248	ND (0.0523)	2	1	12/18/11 1:14		CL11620
Aroclor 1254	ND (0.0523)	2	1	12/18/11 1:14		CL11620
Aroclor 1260	ND (0.0523)	2	1	12/18/11 1:14		CL11620
Aroclor 1262	ND (0.0523)	2	1	12/18/11 1:14		CL11620
Aroclor 1268	ND (0.0523)	2	1	12/18/11 1:14		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-237
Date Sampled: 12/13/11 14:00
Percent Solids: 96
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0534)	2	1	12/18/11 1:33		CL11620
Aroclor 1221	ND (0.0534)	2	1	12/18/11 1:33		CL11620
Aroclor 1232	ND (0.0534)	2	1	12/18/11 1:33		CL11620
Aroclor 1242	ND (0.0534)	2	1	12/18/11 1:33		CL11620
Aroclor 1248	ND (0.0534)	2	1	12/18/11 1:33		CL11620
Aroclor 1254	ND (0.0534)	2	1	12/18/11 1:33		CL11620
Aroclor 1260	ND (0.0534)	2	1	12/18/11 1:33		CL11620
Aroclor 1262	ND (0.0534)	2	1	12/18/11 1:33		CL11620
Aroclor 1268	ND (0.0534)	2	1	12/18/11 1:33		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-238
Date Sampled: 12/13/11 14:02
Percent Solids: 95
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0537)	2	1	12/18/11 1:52		CL11620
Aroclor 1221	ND (0.0537)	2	1	12/18/11 1:52		CL11620
Aroclor 1232	ND (0.0537)	2	1	12/18/11 1:52		CL11620
Aroclor 1242	ND (0.0537)	2	1	12/18/11 1:52		CL11620
Aroclor 1248	ND (0.0537)	2	1	12/18/11 1:52		CL11620
Aroclor 1254	ND (0.0537)	2	1	12/18/11 1:52		CL11620
Aroclor 1260	ND (0.0537)	2	1	12/18/11 1:52		CL11620
Aroclor 1262	ND (0.0537)	2	1	12/18/11 1:52		CL11620
Aroclor 1268	ND (0.0537)	2	1	12/18/11 1:52		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-239
Date Sampled: 12/13/11 14:04
Percent Solids: 86
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/16/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0576)	2	1	12/18/11 2:11		CL11620
Aroclor 1221	ND (0.0576)	2	1	12/18/11 2:11		CL11620
Aroclor 1232	ND (0.0576)	2	1	12/18/11 2:11		CL11620
Aroclor 1242	ND (0.0576)	2	1	12/18/11 2:11		CL11620
Aroclor 1248	ND (0.0576)	2	1	12/18/11 2:11		CL11620
Aroclor 1254	ND (0.0576)	2	1	12/18/11 2:11		CL11620
Aroclor 1260	ND (0.0576)	2	1	12/18/11 2:11		CL11620
Aroclor 1262	ND (0.0576)	2	1	12/18/11 2:11		CL11620
Aroclor 1268	ND (0.0576)	2	1	12/18/11 2:11		CL11620

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-240
Date Sampled: 12/13/11 14:06
Percent Solids: 85
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/17/11 12:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0594)	2	1	12/19/11 17:41		CL11701
Aroclor 1221	ND (0.0594)	2	1	12/19/11 17:41		CL11701
Aroclor 1232	ND (0.0594)	2	1	12/19/11 17:41		CL11701
Aroclor 1242	ND (0.0594)	2	1	12/19/11 17:41		CL11701
Aroclor 1248	ND (0.0594)	2	1	12/19/11 17:41		CL11701
Aroclor 1254	ND (0.0594)	2	1	12/19/11 17:41		CL11701
Aroclor 1260	ND (0.0594)	2	1	12/19/11 17:41		CL11701
Aroclor 1262	ND (0.0594)	2	1	12/19/11 17:41		CL11701
Aroclor 1268	ND (0.0594)	2	1	12/19/11 17:41		CL11701

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-241
Date Sampled: 12/13/11 14:08
Percent Solids: 86
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/17/11 12:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0590)	2	1	12/19/11 18:00		CL11701
Aroclor 1221	ND (0.0590)	2	1	12/19/11 18:00		CL11701
Aroclor 1232	ND (0.0590)	2	1	12/19/11 18:00		CL11701
Aroclor 1242	ND (0.0590)	2	1	12/19/11 18:00		CL11701
Aroclor 1248	ND (0.0590)	2	1	12/19/11 18:00		CL11701
Aroclor 1254	ND (0.0590)	2	1	12/19/11 18:00		CL11701
Aroclor 1260	**0.0668** (0.0590)	2	1	12/19/11 18:00		CL11701
Aroclor 1262	ND (0.0590)	2	1	12/19/11 18:00		CL11701
Aroclor 1268	ND (0.0590)	2	1	12/19/11 18:00		CL11701

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*103 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*103 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-242
Date Sampled: 12/13/11 14:10
Percent Solids: 83
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112269
ESS Laboratory Sample ID: 1112269-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/17/11 12:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0618)	2	1	12/19/11 18:19		CL11701
Aroclor 1221	ND (0.0618)	2	1	12/19/11 18:19		CL11701
Aroclor 1232	ND (0.0618)	2	1	12/19/11 18:19		CL11701
Aroclor 1242	ND (0.0618)	2	1	12/19/11 18:19		CL11701
Aroclor 1248	ND (0.0618)	2	1	12/19/11 18:19		CL11701
Aroclor 1254	ND (0.0618)	2	1	12/19/11 18:19		CL11701
Aroclor 1260	**0.124** (0.0618)	2	1	12/19/11 18:19		CL11701
Aroclor 1262	ND (0.0618)	2	1	12/19/11 18:19		CL11701
Aroclor 1268	ND (0.0618)	2	1	12/19/11 18:19		CL11701

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*101 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11620 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11620 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11620 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
LCS										
Aroclor 1016	0.462	0.0500	mg/kg wet	0.5000		92	40-140			
Aroclor 1260	0.449	0.0500	mg/kg wet	0.5000		90	40-140			
Surrogate: Decachlorobiphenyl	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
LCS Dup										
Aroclor 1016	0.462	0.0500	mg/kg wet	0.5000		92	40-140	0.06	30	
Aroclor 1260	0.430	0.0500	mg/kg wet	0.5000		86	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0199*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Batch CL11701 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11701 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11701 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0246*		mg/kg wet	*0.02500*		*98*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0258*		mg/kg wet	*0.02500*		*103*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0217*		mg/kg wet	*0.02500*		*87*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11701 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0247*		mg/kg wet	*0.02500*		*99*	*30-150*			
LCS										
Aroclor 1016	0.504	0.0500	mg/kg wet	0.5000		101	40-140			
Aroclor 1260	0.476	0.0500	mg/kg wet	0.5000		95	40-140			
Surrogate: Decachlorobiphenyl	*0.0247*		mg/kg wet	*0.02500*		*99*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0261*		mg/kg wet	*0.02500*		*104*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0230*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0251*		mg/kg wet	*0.02500*		*100*	*30-150*			
LCS Dup										
Aroclor 1016	0.495	0.0500	mg/kg wet	0.5000		99	40-140	2	30	
Aroclor 1260	0.463	0.0500	mg/kg wet	0.5000		93	40-140	3	30	
Surrogate: Decachlorobiphenyl	*0.0228*		mg/kg wet	*0.02500*		*91*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0203*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0217*		mg/kg wet	*0.02500*		*87*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112269

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112269

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120269
Date Project Due: 12/21/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **3.2**
   Iced With: **None**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/14/11
Reviewed By: MK Date/Time: 12/14/11

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

BC 12/14/11 1 2

Page 9 of 10

Turn Time X Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from: (MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following: (MA-MCP) Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: 1106117

Electronic Deliverable: Yes X No 11/22/09

Format: Excel X Access __ PDF X Other _____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W-1510	North High

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W-1510

Telephone #	Fax #	Email Address
508 754 2201		

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH w/targets	8100 TPH / 8015 DRO	EPH w/o PAHs w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg	PCB				
01	12/13/11	1342				PX-228	1	1	G										X				
02		1344				PX-229													X				
03		1346				PX-230													X				
04		1348				PX-231													X				
05		1350				PX-232													X				
06		1352				PX-233													X				
07		1354				PX-234													X				
08		1356				PX-235													X				
09		1358				PX-236													X				
10		1400				PX-237													X				

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No

Seals Intact ___ Yes ___ No NA: ___

Cooler Temp: 3.2

Internal Use Only
[ ] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by:

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-13-11 1600	[signature]	12-13-11 1600	[signature]	12/13/11 1715	[signature]	12/13/11 1715
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY 111/2269

BC 12/14/11 2 2

Page 10 of 10

Turn Time: X Standard Other ____
If faster than 5 days, prior approval by laboratory is required # ____

State where samples were collected from: MA RI CT NH NJ NY ME Other ____

Is this project for any of the following: MA-MCP Navy USACE Other ____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: ~~1106117~~

Electronic Deliverable: Yes X No 111/2269

Format: Excel X Access ___ PDF X Other ____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W-1510	

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W-1510

Telephone #	Fax #	Email Address
508 754 2201		

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH w/targets	8100 TPH / 8015 DRO	EPH w/o PAHs / EPH w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg	PCB				
11	12/13/11	1402		X	S	PX-238	1	1	G										X				
12	↓	1404		↓	↓	PX-239	↓	↓	↓										X				
13	↓	1406		↓	↓	PX-240	↓	↓	↓										X				
14	↓	1408		↓	↓	PX-241	↓	↓	↓										X				
15	↓	1410		↓	↓	PX-242	↓	↓	↓										X				
~~16~~																							
~~17~~																							
~~18~~																							
~~19~~																							
~~20~~																							

MK 12/14/11

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ✓ Yes ___ No

Seals Intact: ___ Yes ___ No NA: ____

Cooler Temp: 3.2

Internal Use Only: [ ] Pickup [ ] Technicians ____

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ____

Sampled by:

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-13-11 1600	[signature]	12-13-11 1600	[signature]	12-13-11 1715	[signature]	12/13/11 1715
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112311

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 4:17 pm, Dec 27, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

SAMPLE RECEIPT

The following samples were received on December 15, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112311-01	PX-243	Soil	8082A
1112311-02	PX-244	Soil	8082A
1112311-03	PX-245	Soil	8082A
1112311-04	PX-246	Soil	8082A
1112311-05	PX-247	Soil	8082A
1112311-06	PX-248	Soil	8082A
1112311-07	PX-249	Soil	8082A
1112311-08	PX-250	Soil	8082A
1112311-09	PX-251	Soil	8082A
1112311-10	PX-252	Soil	8082A
1112311-11	PX-253	Soil	8082A
1112311-12	PX-254	Soil	8082A
1112311-13	PX-255	Soil	8082A
1112311-14	PX-256	Soil	8082A
1112311-15	PX-257	Soil	8082A
1112311-16	PX-258	Soil	8082A
1112311-17	PX-259	Soil	8082A
1112311-18	PX-260	Soil	8082A
1112311-19	PX-261	Soil	8082A
1112311-20	PX-262	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112311

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112311-01 through 1112311-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 27, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-243
Date Sampled: 12/15/11 10:40
Percent Solids: 88
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)	2	1	12/21/11 3:06		CL11916
Aroclor 1221	ND (0.0554)	2	1	12/21/11 3:06		CL11916
Aroclor 1232	ND (0.0554)	2	1	12/21/11 3:06		CL11916
Aroclor 1242	ND (0.0554)	2	1	12/21/11 3:06		CL11916
Aroclor 1248	ND (0.0554)	2	1	12/21/11 3:06		CL11916
Aroclor 1254	ND (0.0554)	2	1	12/21/11 3:06		CL11916
Aroclor 1260	**0.116** (0.0554)	2	1	12/21/11 3:06		CL11916
Aroclor 1262	ND (0.0554)	2	1	12/21/11 3:06		CL11916
Aroclor 1268	ND (0.0554)	2	1	12/21/11 3:06		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-244
Date Sampled: 12/15/11 10:42
Percent Solids: 88
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0563)	2	1	12/21/11 3:25		CL11916
Aroclor 1221	ND (0.0563)	2	1	12/21/11 3:25		CL11916
Aroclor 1232	ND (0.0563)	2	1	12/21/11 3:25		CL11916
Aroclor 1242	ND (0.0563)	2	1	12/21/11 3:25		CL11916
Aroclor 1248	ND (0.0563)	2	1	12/21/11 3:25		CL11916
Aroclor 1254	ND (0.0563)	2	1	12/21/11 3:25		CL11916
Aroclor 1260	**0.0692** (0.0563)	2	1	12/21/11 3:25		CL11916
Aroclor 1262	ND (0.0563)	2	1	12/21/11 3:25		CL11916
Aroclor 1268	ND (0.0563)	2	1	12/21/11 3:25		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-245
Date Sampled: 12/15/11 10:44
Percent Solids: 88
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0571)	2	1	12/21/11 3:43		CL11916
Aroclor 1221	ND (0.0571)	2	1	12/21/11 3:43		CL11916
Aroclor 1232	ND (0.0571)	2	1	12/21/11 3:43		CL11916
Aroclor 1242	ND (0.0571)	2	1	12/21/11 3:43		CL11916
Aroclor 1248	ND (0.0571)	2	1	12/21/11 3:43		CL11916
Aroclor 1254	ND (0.0571)	2	1	12/21/11 3:43		CL11916
Aroclor 1260	ND (0.0571)	2	1	12/21/11 3:43		CL11916
Aroclor 1262	ND (0.0571)	2	1	12/21/11 3:43		CL11916
Aroclor 1268	ND (0.0571)	2	1	12/21/11 3:43		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-246
Date Sampled: 12/15/11 10:46
Percent Solids: 88
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0568)	2	1	12/21/11 4:02		CL11916
Aroclor 1221	ND (0.0568)	2	1	12/21/11 4:02		CL11916
Aroclor 1232	ND (0.0568)	2	1	12/21/11 4:02		CL11916
Aroclor 1242	ND (0.0568)	2	1	12/21/11 4:02		CL11916
Aroclor 1248	ND (0.0568)	2	1	12/21/11 4:02		CL11916
Aroclor 1254	ND (0.0568)	2	1	12/21/11 4:02		CL11916
Aroclor 1260	ND (0.0568)	2	1	12/21/11 4:02		CL11916
Aroclor 1262	ND (0.0568)	2	1	12/21/11 4:02		CL11916
Aroclor 1268	ND (0.0568)	2	1	12/21/11 4:02		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-247
Date Sampled: 12/15/11 10:48
Percent Solids: 88
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0563)	2	1	12/21/11 4:21		CL11916
Aroclor 1221	ND (0.0563)	2	1	12/21/11 4:21		CL11916
Aroclor 1232	ND (0.0563)	2	1	12/21/11 4:21		CL11916
Aroclor 1242	ND (0.0563)	2	1	12/21/11 4:21		CL11916
Aroclor 1248	ND (0.0563)	2	1	12/21/11 4:21		CL11916
Aroclor 1254	ND (0.0563)	2	1	12/21/11 4:21		CL11916
Aroclor 1260	ND (0.0563)	2	1	12/21/11 4:21		CL11916
Aroclor 1262	ND (0.0563)	2	1	12/21/11 4:21		CL11916
Aroclor 1268	ND (0.0563)	2	1	12/21/11 4:21		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-248
Date Sampled: 12/15/11 10:50
Percent Solids: 84
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0578)	2	1	12/21/11 4:40		CL11916
Aroclor 1221	ND (0.0578)	2	1	12/21/11 4:40		CL11916
Aroclor 1232	ND (0.0578)	2	1	12/21/11 4:40		CL11916
Aroclor 1242	ND (0.0578)	2	1	12/21/11 4:40		CL11916
Aroclor 1248	ND (0.0578)	2	1	12/21/11 4:40		CL11916
Aroclor 1254	ND (0.0578)	2	1	12/21/11 4:40		CL11916
Aroclor 1260	**0.178** (0.0578)	2	1	12/21/11 4:40		CL11916
Aroclor 1262	ND (0.0578)	2	1	12/21/11 4:40		CL11916
Aroclor 1268	ND (0.0578)	2	1	12/21/11 4:40		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-249
Date Sampled: 12/15/11 10:52
Percent Solids: 82
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0592)	2	1	12/21/11 4:59		CL11916
Aroclor 1221	ND (0.0592)	2	1	12/21/11 4:59		CL11916
Aroclor 1232	ND (0.0592)	2	1	12/21/11 4:59		CL11916
Aroclor 1242	ND (0.0592)	2	1	12/21/11 4:59		CL11916
Aroclor 1248	ND (0.0592)	2	1	12/21/11 4:59		CL11916
Aroclor 1254	ND (0.0592)	2	1	12/21/11 4:59		CL11916
Aroclor 1260	ND (0.0592)	2	1	12/21/11 4:59		CL11916
Aroclor 1262	ND (0.0592)	2	1	12/21/11 4:59		CL11916
Aroclor 1268	ND (0.0592)	2	1	12/21/11 4:59		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-250
Date Sampled: 12/15/11 10:54
Percent Solids: 87
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)	2	1	12/21/11 5:17		CL11916
Aroclor 1221	ND (0.0572)	2	1	12/21/11 5:17		CL11916
Aroclor 1232	ND (0.0572)	2	1	12/21/11 5:17		CL11916
Aroclor 1242	ND (0.0572)	2	1	12/21/11 5:17		CL11916
Aroclor 1248	ND (0.0572)	2	1	12/21/11 5:17		CL11916
Aroclor 1254	**3.49** (0.286)	2	5	12/22/11 6:14		CL11916
Aroclor 1260	ND (0.0572)	2	1	12/21/11 5:17		CL11916
Aroclor 1262	ND (0.0572)	2	1	12/21/11 5:17		CL11916
Aroclor 1268	ND (0.0572)	2	1	12/21/11 5:17		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-251
Date Sampled: 12/15/11 10:56
Percent Solids: 87
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)	2	1	12/21/11 5:36		CL11916
Aroclor 1221	ND (0.0575)	2	1	12/21/11 5:36		CL11916
Aroclor 1232	ND (0.0575)	2	1	12/21/11 5:36		CL11916
Aroclor 1242	ND (0.0575)	2	1	12/21/11 5:36		CL11916
Aroclor 1248	ND (0.0575)	2	1	12/21/11 5:36		CL11916
Aroclor 1254	**0.210** (0.0575)	2	1	12/21/11 5:36		CL11916
Aroclor 1260	ND (0.0575)	2	1	12/21/11 5:36		CL11916
Aroclor 1262	ND (0.0575)	2	1	12/21/11 5:36		CL11916
Aroclor 1268	ND (0.0575)	2	1	12/21/11 5:36		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-252
Date Sampled: 12/15/11 10:58
Percent Solids: 86
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0590)	2	1	12/21/11 5:55		CL11916
Aroclor 1221	ND (0.0590)	2	1	12/21/11 5:55		CL11916
Aroclor 1232	ND (0.0590)	2	1	12/21/11 5:55		CL11916
Aroclor 1242	ND (0.0590)	2	1	12/21/11 5:55		CL11916
Aroclor 1248	ND (0.0590)	2	1	12/21/11 5:55		CL11916
Aroclor 1254	ND (0.0590)	2	1	12/21/11 5:55		CL11916
Aroclor 1260	ND (0.0590)	2	1	12/21/11 5:55		CL11916
Aroclor 1262	ND (0.0590)	2	1	12/21/11 5:55		CL11916
Aroclor 1268	ND (0.0590)	2	1	12/21/11 5:55		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-253
Date Sampled: 12/15/11 11:00
Percent Solids: 86
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0590)	2	1	12/21/11 6:14		CL11916
Aroclor 1221	ND (0.0590)	2	1	12/21/11 6:14		CL11916
Aroclor 1232	ND (0.0590)	2	1	12/21/11 6:14		CL11916
Aroclor 1242	ND (0.0590)	2	1	12/21/11 6:14		CL11916
Aroclor 1248	ND (0.0590)	2	1	12/21/11 6:14		CL11916
Aroclor 1254	ND (0.0590)	2	1	12/21/11 6:14		CL11916
Aroclor 1260	ND (0.0590)	2	1	12/21/11 6:14		CL11916
Aroclor 1262	ND (0.0590)	2	1	12/21/11 6:14		CL11916
Aroclor 1268	ND (0.0590)	2	1	12/21/11 6:14		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-254
Date Sampled: 12/15/11 11:02
Percent Solids: 83
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0582)	2	1	12/21/11 6:33		CL11916
Aroclor 1221	ND (0.0582)	2	1	12/21/11 6:33		CL11916
Aroclor 1232	ND (0.0582)	2	1	12/21/11 6:33		CL11916
Aroclor 1242	ND (0.0582)	2	1	12/21/11 6:33		CL11916
Aroclor 1248	ND (0.0582)	2	1	12/21/11 6:33		CL11916
Aroclor 1254	ND (0.0582)	2	1	12/21/11 6:33		CL11916
Aroclor 1260	ND (0.0582)	2	1	12/21/11 6:33		CL11916
Aroclor 1262	ND (0.0582)	2	1	12/21/11 6:33		CL11916
Aroclor 1268	ND (0.0582)	2	1	12/21/11 6:33		CL11916

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-255
Date Sampled: 12/15/11 11:04
Percent Solids: 86
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0590)	2	1	12/21/11 1:58		CL11918
Aroclor 1221	ND (0.0590)	2	1	12/21/11 1:58		CL11918
Aroclor 1232	ND (0.0590)	2	1	12/21/11 1:58		CL11918
Aroclor 1242	ND (0.0590)	2	1	12/21/11 1:58		CL11918
Aroclor 1248	ND (0.0590)	2	1	12/21/11 1:58		CL11918
Aroclor 1254	ND (0.0590)	2	1	12/21/11 1:58		CL11918
Aroclor 1260	ND (0.0590)	2	1	12/21/11 1:58		CL11918
Aroclor 1262	ND (0.0590)	2	1	12/21/11 1:58		CL11918
Aroclor 1268	ND (0.0590)	2	1	12/21/11 1:58		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*98 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-256
Date Sampled: 12/15/11 11:06
Percent Solids: 83
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0612)	2	1	12/21/11 10:59		CL11918
Aroclor 1221	ND (0.0612)	2	1	12/21/11 10:59		CL11918
Aroclor 1232	ND (0.0612)	2	1	12/21/11 10:59		CL11918
Aroclor 1242	ND (0.0612)	2	1	12/21/11 10:59		CL11918
Aroclor 1248	ND (0.0612)	2	1	12/21/11 10:59		CL11918
Aroclor 1254	ND (0.0612)	2	1	12/21/11 10:59		CL11918
Aroclor 1260	**0.315** (0.0612)	2	1	12/21/11 10:59		CL11918
Aroclor 1262	ND (0.0612)	2	1	12/21/11 10:59		CL11918
Aroclor 1268	ND (0.0612)	2	1	12/21/11 10:59		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-257
Date Sampled: 12/15/11 11:08
Percent Solids: 87
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0569)	2	1	12/21/11 3:25		CL11918
Aroclor 1221	ND (0.0569)	2	1	12/21/11 3:25		CL11918
Aroclor 1232	ND (0.0569)	2	1	12/21/11 3:25		CL11918
Aroclor 1242	ND (0.0569)	2	1	12/21/11 3:25		CL11918
Aroclor 1248	ND (0.0569)	2	1	12/21/11 3:25		CL11918
Aroclor 1254	ND (0.0569)	2	1	12/21/11 3:25		CL11918
Aroclor 1260	**0.621** (0.0569)	2	1	12/21/11 3:25		CL11918
Aroclor 1262	ND (0.0569)	2	1	12/21/11 3:25		CL11918
Aroclor 1268	ND (0.0569)	2	1	12/21/11 3:25		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*99 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*103 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-258
Date Sampled: 12/15/11 11:10
Percent Solids: 83
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0612)	2	1	12/21/11 3:54		CL11918
Aroclor 1221	ND (0.0612)	2	1	12/21/11 3:54		CL11918
Aroclor 1232	ND (0.0612)	2	1	12/21/11 3:54		CL11918
Aroclor 1242	ND (0.0612)	2	1	12/21/11 3:54		CL11918
Aroclor 1248	ND (0.0612)	2	1	12/21/11 3:54		CL11918
Aroclor 1254	ND (0.0612)	2	1	12/21/11 3:54		CL11918
Aroclor 1260	**0.626** (0.0612)	2	1	12/21/11 3:54		CL11918
Aroclor 1262	ND (0.0612)	2	1	12/21/11 3:54		CL11918
Aroclor 1268	ND (0.0612)	2	1	12/21/11 3:54		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*86 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-259
Date Sampled: 12/15/11 11:12
Percent Solids: 77
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0634)	2	1	12/21/11 4:23		CL11918
Aroclor 1221	ND (0.0634)	2	1	12/21/11 4:23		CL11918
Aroclor 1232	ND (0.0634)	2	1	12/21/11 4:23		CL11918
Aroclor 1242	ND (0.0634)	2	1	12/21/11 4:23		CL11918
Aroclor 1248	ND (0.0634)	2	1	12/21/11 4:23		CL11918
Aroclor 1254	ND (0.0634)	2	1	12/21/11 4:23		CL11918
Aroclor 1260	**0.304** (0.0634)	2	1	12/21/11 4:23		CL11918
Aroclor 1262	ND (0.0634)	2	1	12/21/11 4:23		CL11918
Aroclor 1268	ND (0.0634)	2	1	12/21/11 4:23		CL11918

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*68 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*70 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-260
Date Sampled: 12/15/11 11:14
Percent Solids: 86
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)	2	1	12/21/11 7:46		CL11918
Aroclor 1221	ND (0.0573)	2	1	12/21/11 7:46		CL11918
Aroclor 1232	ND (0.0573)	2	1	12/21/11 7:46		CL11918
Aroclor 1242	ND (0.0573)	2	1	12/21/11 7:46		CL11918
Aroclor 1248	ND (0.0573)	2	1	12/21/11 7:46		CL11918
Aroclor 1254	ND (0.0573)	2	1	12/21/11 7:46		CL11918
Aroclor 1260	**0.659** (0.0573)	2	1	12/21/11 7:46		CL11918
Aroclor 1262	ND (0.0573)	2	1	12/21/11 7:46		CL11918
Aroclor 1268	ND (0.0573)	2	1	12/21/11 7:46		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*100 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-261
Date Sampled: 12/15/11 11:16
Percent Solids: 84
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)	2	1	12/21/11 8:15		CL11918
Aroclor 1221	ND (0.0584)	2	1	12/21/11 8:15		CL11918
Aroclor 1232	ND (0.0584)	2	1	12/21/11 8:15		CL11918
Aroclor 1242	ND (0.0584)	2	1	12/21/11 8:15		CL11918
Aroclor 1248	ND (0.0584)	2	1	12/21/11 8:15		CL11918
Aroclor 1254	ND (0.0584)	2	1	12/21/11 8:15		CL11918
Aroclor 1260	**0.421** (0.0584)	2	1	12/21/11 8:15		CL11918
Aroclor 1262	ND (0.0584)	2	1	12/21/11 8:15		CL11918
Aroclor 1268	ND (0.0584)	2	1	12/21/11 8:15		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*98 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*80 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-262
Date Sampled: 12/15/11 11:18
Percent Solids: 83
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112311
ESS Laboratory Sample ID: 1112311-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0594)	2	1	12/21/11 8:44		CL11918
Aroclor 1221	ND (0.0594)	2	1	12/21/11 8:44		CL11918
Aroclor 1232	ND (0.0594)	2	1	12/21/11 8:44		CL11918
Aroclor 1242	ND (0.0594)	2	1	12/21/11 8:44		CL11918
Aroclor 1248	ND (0.0594)	2	1	12/21/11 8:44		CL11918
Aroclor 1254	ND (0.0594)	2	1	12/21/11 8:44		CL11918
Aroclor 1260	**0.844** (0.0594)	2	1	12/21/11 8:44		CL11918
Aroclor 1262	ND (0.0594)	2	1	12/21/11 8:44		CL11918
Aroclor 1268	ND (0.0594)	2	1	12/21/11 8:44		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*99 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*77 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11916 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11916 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11916 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0217*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0195*		mg/kg wet	*0.02500*		*78*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS										
Aroclor 1016	0.515	0.0500	mg/kg wet	0.5000		103	40-140			
Aroclor 1260	0.498	0.0500	mg/kg wet	0.5000		100	40-140			
Surrogate: Decachlorobiphenyl	*0.0236*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0219*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
LCS Dup										
Aroclor 1016	0.514	0.0500	mg/kg wet	0.5000		103	40-140	0.4	30	
Aroclor 1260	0.497	0.0500	mg/kg wet	0.5000		99	40-140	0.1	30	
Surrogate: Decachlorobiphenyl	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0228*		mg/kg wet	*0.02500*		*91*	*30-150*			
Batch CL11918 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0248*		mg/kg wet	*0.02500*		*99*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0188*		mg/kg wet	*0.02500*		*75*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
LCS										
Aroclor 1016	0.492	0.0500	mg/kg wet	0.5000		98	40-140			
Aroclor 1260	0.481	0.0500	mg/kg wet	0.5000		96	40-140			
Surrogate: Decachlorobiphenyl	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0242*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0206*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS Dup										
Aroclor 1016	0.526	0.0500	mg/kg wet	0.5000		105	40-140	7	30	
Aroclor 1260	0.514	0.0500	mg/kg wet	0.5000		103	40-140	7	30	
Surrogate: Decachlorobiphenyl	*0.0247*		mg/kg wet	*0.02500*		*99*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0258*		mg/kg wet	*0.02500*		*103*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			
Matrix Spike **Source: 1112311-13**										
Aroclor 1016	0.576	0.0590	mg/kg dry	0.5902	ND	98	40-140			
Aroclor 1260	0.580	0.0590	mg/kg dry	0.5902	ND	98	40-140			
Surrogate: Decachlorobiphenyl	*0.0275*		mg/kg dry	*0.02951*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0290*		mg/kg dry	*0.02951*		*98*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0240*		mg/kg dry	*0.02951*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0263*		mg/kg dry	*0.02951*		*89*	*30-150*			
Matrix Spike Dup **Source: 1112311-13**										
Aroclor 1016	0.580	0.0590	mg/kg dry	0.5902	ND	98	40-140	0.8	30	
Aroclor 1260	0.579	0.0590	mg/kg dry	0.5902	ND	98	40-140	0.1	30	
Surrogate: Decachlorobiphenyl	*0.0271*		mg/kg dry	*0.02951*		*92*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0285*		mg/kg dry	*0.02951*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0249*		mg/kg dry	*0.02951*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0266*		mg/kg dry	*0.02951*		*90*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112311

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Diluted.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112311

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120311
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **5.3**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes/No**
17. Were samples received intact? **Yes/No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/16/11
Reviewed By: MK Date/Time: 12/16/11

BC 12/16/11 2

CHAIN OF CUSTODY

Page 1 of 8

ESS Laboratory
Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

Turn Time: (X) Standard Other ____
If faster than 5 days, prior approval by laboratory is required # ____

State where samples were collected from: (MA) RI CT NH NJ NY ME Other ____

Is this project for any of the following: (MA-MCP*) Navy USACE Other ____

Reporting Limits: RCS 1

ESS LAB PROJECT ID: 1112311

Electronic Deliverable: X Yes ___ No

Format: excel / PDF

Co. Name: Tighe + Bond

Project #: W-1510

Project Name (20 Char. or less): North High

Contact Person: Marc Richards

Address: 448 Main St

City: Worcester State: MA Zip: 01610 PO#: W-1510

Telephone #: Fax #: Email Address:

Circle and/or Write Required Analysis

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	8260 624 524.2	8021 MTBE/BTEX 8015 GRO VPH	8100 TPH 8015 DRO EPH No Targets	8081 Pesticides 8082 PCB 608 Pesticides 608 PCB	8270 625 PAH only	RCRA5 RCRA8 PP13 TAL23	TCLP8 MCP MCPw/Hg NBC7	PCB
01	12-15-11	1040		X	S	PX-243	1	G								X
02		1042				PX-244										X
03		1044				PX-245										X
04		1046				PX-246										X
05		1048				PX-247										X
06		1050				PX-248										X
07		1052				PX-249										X
08		1054				PX-250										X
09		1056				PX-251										X
10		1058				PX-252										X

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ✓ Yes ___ No
Seals Intact: ___ Yes ___ No NA: ✓
Cooler Temp: 5.3°C In

Internal Use Only: [✓] Pickup [ ] Technicians ____

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-15-11 1215	[signature]	12/15/11 1215	[signature]	12/15/11 1215	[signature]	12/15/11 1115
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time (Standard) Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from: (MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following: (MA-MCP*) Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: 111231

Electronic Deliverable: X Yes ___ No

Format: excel / PDF

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W-1510	North High

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W-1510

Telephone #	Fax #	Email Address

Circle and/or Write Required Analysis

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	8260 / 524.2	624 / VPH	8021 MTBE/BTEX / 8015 GRO	8100 TPH / 8015 DRO / EPH	8081 Pesticides / 8082 PCB / No Targets	608 Pesticides / 608 PCB	8270 / 625 / PAH only	RCRA5 / RCRA8 / PP13 / TAL23	TCLP8 / MCP / MCPw/Hg / NBC7	PCB						
11	12-15-11	1100		X	S	PX-253	1	G										X						
12	↓	1102		↓	↓	PX-254	↓	↓										X						
13		1104				PX-255												X						
14		1106				PX-256												X						
15		1108				PX-257												X						
16		1110				PX-258												X						
17		1112				PX-259												X						
18		1114				PX-260												X						
19		1116				PX-261												X						
20	↓	1118		↓	↓	PX-262	↓	↓										X						

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ✓ Yes ___ No
Seals Intact: ___ Yes ___ No NA: ✓
Cooler Temp: 5.2 °C

Internal Use Only
[✓] Pickup
[ ] Technicians _____

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-15-11 | 12:15	[signature]	12/15/11 | 12:15	[signature]	12/15/11 | 1:15	[signature]	12/15/11 | 1:15
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
446 Main Street
Worcester, MA 01608

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1201049

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 2:59 pm, Jan 12, 2012

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1201049

SAMPLE RECEIPT

The following samples were received on January 05, 2012 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1201049-01	PX-250R	Soil	8082A
1201049-02	PX-283R	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1201049

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1201049

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1201049-01 through 1201049-02**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: January 12, 2012
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-250R
Date Sampled: 01/05/12 11:30
Percent Solids: 85
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1201049
ESS Laboratory Sample ID: 1201049-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 1/9/12 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0588)	2	1	01/10/12 14:24		CA20911
Aroclor 1221	ND (0.0588)	2	1	01/10/12 14:24		CA20911
Aroclor 1232	ND (0.0588)	2	1	01/10/12 14:24		CA20911
Aroclor 1242	ND (0.0588)	2	1	01/10/12 14:24		CA20911
Aroclor 1248	ND (0.0588)	2	1	01/10/12 14:24		CA20911
Aroclor 1254	ND (0.0588)	2	1	01/10/12 14:24		CA20911
Aroclor 1260	ND (0.0588)	2	1	01/10/12 14:24		CA20911
Aroclor 1262	ND (0.0588)	2	1	01/10/12 14:24		CA20911
Aroclor 1268	ND (0.0588)	2	1	01/10/12 14:24		CA20911

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*63 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*61 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-283R
Date Sampled: 01/05/12 11:25
Percent Solids: 91
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1201049
ESS Laboratory Sample ID: 1201049-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 1/9/12 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0549)	2	1	01/10/12 14:43		CA20911
Aroclor 1221	ND (0.0549)	2	1	01/10/12 14:43		CA20911
Aroclor 1232	ND (0.0549)	2	1	01/10/12 14:43		CA20911
Aroclor 1242	ND (0.0549)	2	1	01/10/12 14:43		CA20911
Aroclor 1248	ND (0.0549)	2	1	01/10/12 14:43		CA20911
Aroclor 1254	ND (0.0549)	2	1	01/10/12 14:43		CA20911
Aroclor 1260	ND (0.0549)	2	1	01/10/12 14:43		CA20911
Aroclor 1262	ND (0.0549)	2	1	01/10/12 14:43		CA20911
Aroclor 1268	ND (0.0549)	2	1	01/10/12 14:43		CA20911

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*68 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*68 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1201049

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CA20911 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1201049

Quality Control Data

8082A Polychlorinated Biphenyls (PCB)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch CA20911 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1201049

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CA20911 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0218*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0202*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
LCS										
Aroclor 1016	0.509	0.0500	mg/kg wet	0.5000		102	40-140			
Aroclor 1260	0.465	0.0500	mg/kg wet	0.5000		93	40-140			
Surrogate: Decachlorobiphenyl	*0.0214*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0197*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
LCS Dup										
Aroclor 1016	0.512	0.0500	mg/kg wet	0.5000		102	40-140	0.8	30	
Aroclor 1260	0.487	0.0500	mg/kg wet	0.5000		97	40-140	5	30	
Surrogate: Decachlorobiphenyl	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0207*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1201049

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1201049

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 12010049
Date Project Due: 1/12/12
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **2.9**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	8 oz Soil Jar	1	NP
2	Yes	8 oz Soil Jar	1	NP

Completed By: KMD Date/Time: 1/5/12
Reviewed By: EO Date/Time: 1/5/12

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

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Turn Time X Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____
State where samples were collected from: MA RI CT NH NJ NY ME Other _____
Is this project for any of the following: MA-MCP Navy USACE Other _____

Reporting Limits: RCS-1
ESS LAB PROJECT ID: ~~1106117~~
Electronic Deliverable Yes X No ____
Format: Excel X Access ___ PDF X Other _____

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W-1510	North High

Contact Person	Address
Marc Richards	446 Main St. 13th Fl.

City	State	Zip	PO#
Worcester	MA	01608	W-1510

Telephone #	Fax #	Email Address
508-754-2201	508-795-1087	mjrichards@tighebond.com

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH w/targets	8100 TPH / 8015 DRO	EPH w/o PAHs / EPH w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg	PCBs				
01	01/05/12	11:30		X	S	PX-250 R	1	1	G										X				
02	01/05/12	11:25		X	S	PX-283 R	1	1	G										X				
~~[illegible]~~ 1/5/12						END																	

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ✓
Cooler Temp: 2.9°C

Internal Use Only
[✓] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____
Sampled by:
Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	1/5/12 1:40	[signature]	1/5/12 1:40	[signature]	1/5/12 1630	[signature]	1/5/12 1630
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112312

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 4:30 pm, Dec 27, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

SAMPLE RECEIPT

The following samples were received on December 15, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112312-01	PX-263	Soil	8082A
1112312-02	PX-264	Soil	8082A
1112312-03	PX-265	Soil	8082A
1112312-04	PX-266	Soil	8082A
1112312-05	PX-267	Soil	8082A
1112312-06	PX-268	Soil	8082A
1112312-07	PX-269	Soil	8082A
1112312-08	PX-270	Soil	8082A
1112312-09	PX-271	Soil	8082A
1112312-10	PX-272	Soil	8082A
1112312-11	PX-273	Soil	8082A
1112312-12	PX-274	Soil	8082A
1112312-13	PX-275	Soil	8082A
1112312-14	PX-276	Soil	8082A
1112312-15	PX-277	Soil	8082A
1112312-16	PX-278	Soil	8082A
1112312-17	PX-279	Soil	8082A
1112312-18	PX-280	Soil	8082A
1112312-19	PX-281	Soil	8082A
1112312-20	PX-282	Soil	8082A
1112312-21	PX-283	Soil	8082A
1112312-22	PX-284	Soil	8082A
1112312-23	PX-285	Soil	8082A
1112312-24	PX-286	Soil	8082A
1112312-25	PX-287	Soil	8082A
1112312-26	PX-288	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112312

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112312-01 through 1112312-26**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: _____ Date: December 27, 2011

Printed Name: Laurel Stoddard Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-263
Date Sampled: 12/15/11 11:20
Percent Solids: 87
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0550)	2	1	12/21/11 9:13		CL11918
Aroclor 1221	ND (0.0550)	2	1	12/21/11 9:13		CL11918
Aroclor 1232	ND (0.0550)	2	1	12/21/11 9:13		CL11918
Aroclor 1242	ND (0.0550)	2	1	12/21/11 9:13		CL11918
Aroclor 1248	ND (0.0550)	2	1	12/21/11 9:13		CL11918
Aroclor 1254	ND (0.0550)	2	1	12/21/11 9:13		CL11918
Aroclor 1260	**0.804** (0.0550)	2	1	12/21/11 9:13		CL11918
Aroclor 1262	ND (0.0550)	2	1	12/21/11 9:13		CL11918
Aroclor 1268	ND (0.0550)	2	1	12/21/11 9:13		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*100 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-264
Date Sampled: 12/15/11 11:22
Percent Solids: 86
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)	2	1	12/21/11 9:26		CL11918
Aroclor 1221	ND (0.0584)	2	1	12/21/11 9:26		CL11918
Aroclor 1232	ND (0.0584)	2	1	12/21/11 9:26		CL11918
Aroclor 1242	ND (0.0584)	2	1	12/21/11 9:26		CL11918
Aroclor 1248	ND (0.0584)	2	1	12/21/11 9:26		CL11918
Aroclor 1254	ND (0.0584)	2	1	12/21/11 9:26		CL11918
Aroclor 1260	**0.616** (0.0584)	2	1	12/21/11 9:26		CL11918
Aroclor 1262	ND (0.0584)	2	1	12/21/11 9:26		CL11918
Aroclor 1268	ND (0.0584)	2	1	12/21/11 9:26		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-265
Date Sampled: 12/15/11 11:24
Percent Solids: 85
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0571)	2	1	12/21/11 9:43		CL11918
Aroclor 1221	ND (0.0571)	2	1	12/21/11 9:43		CL11918
Aroclor 1232	ND (0.0571)	2	1	12/21/11 9:43		CL11918
Aroclor 1242	ND (0.0571)	2	1	12/21/11 9:43		CL11918
Aroclor 1248	ND (0.0571)	2	1	12/21/11 9:43		CL11918
Aroclor 1254	ND (0.0571)	2	1	12/21/11 9:43		CL11918
Aroclor 1260	**0.520** (0.0571)	2	1	12/21/11 9:43		CL11918
Aroclor 1262	ND (0.0571)	2	1	12/21/11 9:43		CL11918
Aroclor 1268	ND (0.0571)	2	1	12/21/11 9:43		CL11918

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-266
Date Sampled: 12/15/11 11:26
Percent Solids: 87
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0583)	2	1	12/21/11 10:02		CL11918
Aroclor 1221	ND (0.0583)	2	1	12/21/11 10:02		CL11918
Aroclor 1232	ND (0.0583)	2	1	12/21/11 10:02		CL11918
Aroclor 1242	ND (0.0583)	2	1	12/21/11 10:02		CL11918
Aroclor 1248	ND (0.0583)	2	1	12/21/11 10:02		CL11918
Aroclor 1254	ND (0.0583)	2	1	12/21/11 10:02		CL11918
Aroclor 1260	**0.111** (0.0583)	2	1	12/21/11 10:02		CL11918
Aroclor 1262	ND (0.0583)	2	1	12/21/11 10:02		CL11918
Aroclor 1268	ND (0.0583)	2	1	12/21/11 10:02		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*81 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-267
Date Sampled: 12/15/11 11:28
Percent Solids: 86
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/19/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)	2	1	12/21/11 10:40		CL11918
Aroclor 1221	ND (0.0573)	2	1	12/21/11 10:40		CL11918
Aroclor 1232	ND (0.0573)	2	1	12/21/11 10:40		CL11918
Aroclor 1242	ND (0.0573)	2	1	12/21/11 10:40		CL11918
Aroclor 1248	ND (0.0573)	2	1	12/21/11 10:40		CL11918
Aroclor 1254	ND (0.0573)	2	1	12/21/11 10:40		CL11918
Aroclor 1260	ND (0.0573)	2	1	12/21/11 10:40		CL11918
Aroclor 1262	ND (0.0573)	2	1	12/21/11 10:40		CL11918
Aroclor 1268	ND (0.0573)	2	1	12/21/11 10:40		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-268
Date Sampled: 12/15/11 11:30
Percent Solids: 84
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)	2	1	12/21/11 21:08		CL11918
Aroclor 1221	ND (0.0589)	2	1	12/21/11 21:08		CL11918
Aroclor 1232	ND (0.0589)	2	1	12/21/11 21:08		CL11918
Aroclor 1242	ND (0.0589)	2	1	12/21/11 21:08		CL11918
Aroclor 1248	ND (0.0589)	2	1	12/21/11 21:08		CL11918
Aroclor 1254	ND (0.0589)	2	1	12/21/11 21:08		CL11918
Aroclor 1260	ND (0.0589)	2	1	12/21/11 21:08		CL11918
Aroclor 1262	ND (0.0589)	2	1	12/21/11 21:08		CL11918
Aroclor 1268	ND (0.0589)	2	1	12/21/11 21:08		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-269
Date Sampled: 12/15/11 11:32
Percent Solids: 86
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)	2	1	12/21/11 21:27		CL11918
Aroclor 1221	ND (0.0584)	2	1	12/21/11 21:27		CL11918
Aroclor 1232	ND (0.0584)	2	1	12/21/11 21:27		CL11918
Aroclor 1242	ND (0.0584)	2	1	12/21/11 21:27		CL11918
Aroclor 1248	ND (0.0584)	2	1	12/21/11 21:27		CL11918
Aroclor 1254	ND (0.0584)	2	1	12/21/11 21:27		CL11918
Aroclor 1260	ND (0.0584)	2	1	12/21/11 21:27		CL11918
Aroclor 1262	ND (0.0584)	2	1	12/21/11 21:27		CL11918
Aroclor 1268	ND (0.0584)	2	1	12/21/11 21:27		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-270
Date Sampled: 12/15/11 11:34
Percent Solids: 87
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)	2	1	12/21/11 21:45		CL11918
Aroclor 1221	ND (0.0572)	2	1	12/21/11 21:45		CL11918
Aroclor 1232	ND (0.0572)	2	1	12/21/11 21:45		CL11918
Aroclor 1242	ND (0.0572)	2	1	12/21/11 21:45		CL11918
Aroclor 1248	ND (0.0572)	2	1	12/21/11 21:45		CL11918
Aroclor 1254	ND (0.0572)	2	1	12/21/11 21:45		CL11918
Aroclor 1260	**0.226** (0.0572)	2	1	12/21/11 21:45		CL11918
Aroclor 1262	ND (0.0572)	2	1	12/21/11 21:45		CL11918
Aroclor 1268	ND (0.0572)	2	1	12/21/11 21:45		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-271
Date Sampled: 12/15/11 11:36
Percent Solids: 87
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)	2	1	12/21/11 22:04		CL11918
Aroclor 1221	ND (0.0572)	2	1	12/21/11 22:04		CL11918
Aroclor 1232	ND (0.0572)	2	1	12/21/11 22:04		CL11918
Aroclor 1242	ND (0.0572)	2	1	12/21/11 22:04		CL11918
Aroclor 1248	ND (0.0572)	2	1	12/21/11 22:04		CL11918
Aroclor 1254	ND (0.0572)	2	1	12/21/11 22:04		CL11918
Aroclor 1260	ND (0.0572)	2	1	12/21/11 22:04		CL11918
Aroclor 1262	ND (0.0572)	2	1	12/21/11 22:04		CL11918
Aroclor 1268	ND (0.0572)	2	1	12/21/11 22:04		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-272
Date Sampled: 12/15/11 11:38
Percent Solids: 83
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0591)	2	1	12/21/11 22:23		CL11918
Aroclor 1221	ND (0.0591)	2	1	12/21/11 22:23		CL11918
Aroclor 1232	ND (0.0591)	2	1	12/21/11 22:23		CL11918
Aroclor 1242	ND (0.0591)	2	1	12/21/11 22:23		CL11918
Aroclor 1248	ND (0.0591)	2	1	12/21/11 22:23		CL11918
Aroclor 1254	ND (0.0591)	2	1	12/21/11 22:23		CL11918
Aroclor 1260	ND (0.0591)	2	1	12/21/11 22:23		CL11918
Aroclor 1262	ND (0.0591)	2	1	12/21/11 22:23		CL11918
Aroclor 1268	ND (0.0591)	2	1	12/21/11 22:23		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*81 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-273
Date Sampled: 12/15/11 11:40
Percent Solids: 83
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0596)	2	1	12/21/11 22:42		CL11918
Aroclor 1221	ND (0.0596)	2	1	12/21/11 22:42		CL11918
Aroclor 1232	ND (0.0596)	2	1	12/21/11 22:42		CL11918
Aroclor 1242	ND (0.0596)	2	1	12/21/11 22:42		CL11918
Aroclor 1248	ND (0.0596)	2	1	12/21/11 22:42		CL11918
Aroclor 1254	ND (0.0596)	2	1	12/21/11 22:42		CL11918
Aroclor 1260	ND (0.0596)	2	1	12/21/11 22:42		CL11918
Aroclor 1262	ND (0.0596)	2	1	12/21/11 22:42		CL11918
Aroclor 1268	ND (0.0596)	2	1	12/21/11 22:42		CL11918

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-274
Date Sampled: 12/15/11 11:42
Percent Solids: 83
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0585)	2	1	12/21/11 23:01		CL12019
Aroclor 1221	ND (0.0585)	2	1	12/21/11 23:01		CL12019
Aroclor 1232	ND (0.0585)	2	1	12/21/11 23:01		CL12019
Aroclor 1242	ND (0.0585)	2	1	12/21/11 23:01		CL12019
Aroclor 1248	ND (0.0585)	2	1	12/21/11 23:01		CL12019
Aroclor 1254	ND (0.0585)	2	1	12/21/11 23:01		CL12019
Aroclor 1260	ND (0.0585)	2	1	12/21/11 23:01		CL12019
Aroclor 1262	ND (0.0585)	2	1	12/21/11 23:01		CL12019
Aroclor 1268	ND (0.0585)	2	1	12/21/11 23:01		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-275
Date Sampled: 12/15/11 11:44
Percent Solids: 86
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)	2	1	12/21/11 23:57		CL12019
Aroclor 1221	ND (0.0567)	2	1	12/21/11 23:57		CL12019
Aroclor 1232	ND (0.0567)	2	1	12/21/11 23:57		CL12019
Aroclor 1242	ND (0.0567)	2	1	12/21/11 23:57		CL12019
Aroclor 1248	ND (0.0567)	2	1	12/21/11 23:57		CL12019
Aroclor 1254	ND (0.0567)	2	1	12/21/11 23:57		CL12019
Aroclor 1260	ND (0.0567)	2	1	12/21/11 23:57		CL12019
Aroclor 1262	ND (0.0567)	2	1	12/21/11 23:57		CL12019
Aroclor 1268	ND (0.0567)	2	1	12/21/11 23:57		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-276
Date Sampled: 12/15/11 11:46
Percent Solids: 82
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0595)	2	1	12/22/11 0:16		CL12019
Aroclor 1221	ND (0.0595)	2	1	12/22/11 0:16		CL12019
Aroclor 1232	ND (0.0595)	2	1	12/22/11 0:16		CL12019
Aroclor 1242	ND (0.0595)	2	1	12/22/11 0:16		CL12019
Aroclor 1248	ND (0.0595)	2	1	12/22/11 0:16		CL12019
Aroclor 1254	ND (0.0595)	2	1	12/22/11 0:16		CL12019
Aroclor 1260	ND (0.0595)	2	1	12/22/11 0:16		CL12019
Aroclor 1262	ND (0.0595)	2	1	12/22/11 0:16		CL12019
Aroclor 1268	ND (0.0595)	2	1	12/22/11 0:16		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-277
Date Sampled: 12/15/11 11:48
Percent Solids: 81
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0620)	2	1	12/22/11 0:35		CL12019
Aroclor 1221	ND (0.0620)	2	1	12/22/11 0:35		CL12019
Aroclor 1232	ND (0.0620)	2	1	12/22/11 0:35		CL12019
Aroclor 1242	ND (0.0620)	2	1	12/22/11 0:35		CL12019
Aroclor 1248	ND (0.0620)	2	1	12/22/11 0:35		CL12019
Aroclor 1254	**0.136** (0.0620)	2	1	12/22/11 0:35		CL12019
Aroclor 1260	**0.138** (0.0620)	2	1	12/22/11 0:35		CL12019
Aroclor 1262	ND (0.0620)	2	1	12/22/11 0:35		CL12019
Aroclor 1268	ND (0.0620)	2	1	12/22/11 0:35		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-278
Date Sampled: 12/15/11 11:50
Percent Solids: 80
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0625)	2	1	12/22/11 0:54		CL12019
Aroclor 1221	ND (0.0625)	2	1	12/22/11 0:54		CL12019
Aroclor 1232	ND (0.0625)	2	1	12/22/11 0:54		CL12019
Aroclor 1242	ND (0.0625)	2	1	12/22/11 0:54		CL12019
Aroclor 1248	ND (0.0625)	2	1	12/22/11 0:54		CL12019
Aroclor 1254	ND (0.0625)	2	1	12/22/11 0:54		CL12019
Aroclor 1260	ND (0.0625)	2	1	12/22/11 0:54		CL12019
Aroclor 1262	ND (0.0625)	2	1	12/22/11 0:54		CL12019
Aroclor 1268	ND (0.0625)	2	1	12/22/11 0:54		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-279
Date Sampled: 12/15/11 11:52
Percent Solids: 84
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0604)	2	1	12/22/11 1:13		CL12019
Aroclor 1221	ND (0.0604)	2	1	12/22/11 1:13		CL12019
Aroclor 1232	ND (0.0604)	2	1	12/22/11 1:13		CL12019
Aroclor 1242	ND (0.0604)	2	1	12/22/11 1:13		CL12019
Aroclor 1248	ND (0.0604)	2	1	12/22/11 1:13		CL12019
Aroclor 1254	ND (0.0604)	2	1	12/22/11 1:13		CL12019
Aroclor 1260	**0.785** (0.0604)	2	1	12/22/11 1:13		CL12019
Aroclor 1262	ND (0.0604)	2	1	12/22/11 1:13		CL12019
Aroclor 1268	ND (0.0604)	2	1	12/22/11 1:13		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-280
Date Sampled: 12/15/11 11:54
Percent Solids: 87
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0555)	2	1	12/22/11 1:31		CL12019
Aroclor 1221	ND (0.0555)	2	1	12/22/11 1:31		CL12019
Aroclor 1232	ND (0.0555)	2	1	12/22/11 1:31		CL12019
Aroclor 1242	ND (0.0555)	2	1	12/22/11 1:31		CL12019
Aroclor 1248	ND (0.0555)	2	1	12/22/11 1:31		CL12019
Aroclor 1254	ND (0.0555)	2	1	12/22/11 1:31		CL12019
Aroclor 1260	ND (0.0555)	2	1	12/22/11 1:31		CL12019
Aroclor 1262	ND (0.0555)	2	1	12/22/11 1:31		CL12019
Aroclor 1268	ND (0.0555)	2	1	12/22/11 1:31		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-281
Date Sampled: 12/15/11 11:56
Percent Solids: 86
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)	2	1	12/22/11 1:50		CL12019
Aroclor 1221	ND (0.0584)	2	1	12/22/11 1:50		CL12019
Aroclor 1232	ND (0.0584)	2	1	12/22/11 1:50		CL12019
Aroclor 1242	ND (0.0584)	2	1	12/22/11 1:50		CL12019
Aroclor 1248	ND (0.0584)	2	1	12/22/11 1:50		CL12019
Aroclor 1254	ND (0.0584)	2	1	12/22/11 1:50		CL12019
Aroclor 1260	ND (0.0584)	2	1	12/22/11 1:50		CL12019
Aroclor 1262	ND (0.0584)	2	1	12/22/11 1:50		CL12019
Aroclor 1268	ND (0.0584)	2	1	12/22/11 1:50		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-282
Date Sampled: 12/15/11 11:58
Percent Solids: 86
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0559)	2	1	12/22/11 4:02		CL12019
Aroclor 1221	ND (0.0559)	2	1	12/22/11 4:02		CL12019
Aroclor 1232	ND (0.0559)	2	1	12/22/11 4:02		CL12019
Aroclor 1242	ND (0.0559)	2	1	12/22/11 4:02		CL12019
Aroclor 1248	ND (0.0559)	2	1	12/22/11 4:02		CL12019
Aroclor 1254	ND (0.0559)	2	1	12/22/11 4:02		CL12019
Aroclor 1260	**0.603** (0.0559)	2	1	12/22/11 4:02		CL12019
Aroclor 1262	ND (0.0559)	2	1	12/22/11 4:02		CL12019
Aroclor 1268	ND (0.0559)	2	1	12/22/11 4:02		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-283
Date Sampled: 12/15/11 12:00
Percent Solids: 88
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-21
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)	2	1	12/22/11 4:21		CL12019
Aroclor 1221	ND (0.0554)	2	1	12/22/11 4:21		CL12019
Aroclor 1232	ND (0.0554)	2	1	12/22/11 4:21		CL12019
Aroclor 1242	ND (0.0554)	2	1	12/22/11 4:21		CL12019
Aroclor 1248	ND (0.0554)	2	1	12/22/11 4:21		CL12019
Aroclor 1254	ND (0.0554)	2	1	12/22/11 4:21		CL12019
Aroclor 1260	**2.04** (0.277)	2	5	12/23/11 10:33		CL12019
Aroclor 1262	ND (0.0554)	2	1	12/22/11 4:21		CL12019
Aroclor 1268	ND (0.0554)	2	1	12/22/11 4:21		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-284
Date Sampled: 12/15/11 12:02
Percent Solids: 89
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-22
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0548)	2	1	12/22/11 4:40		CL12019
Aroclor 1221	ND (0.0548)	2	1	12/22/11 4:40		CL12019
Aroclor 1232	ND (0.0548)	2	1	12/22/11 4:40		CL12019
Aroclor 1242	ND (0.0548)	2	1	12/22/11 4:40		CL12019
Aroclor 1248	ND (0.0548)	2	1	12/22/11 4:40		CL12019
Aroclor 1254	ND (0.0548)	2	1	12/22/11 4:40		CL12019
Aroclor 1260	**0.716** (0.0548)	2	1	12/22/11 4:40		CL12019
Aroclor 1262	ND (0.0548)	2	1	12/22/11 4:40		CL12019
Aroclor 1268	ND (0.0548)	2	1	12/22/11 4:40		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-285
Date Sampled: 12/15/11 12:04
Percent Solids: 89
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-23
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0545)	2	1	12/22/11 4:59		CL12019
Aroclor 1221	ND (0.0545)	2	1	12/22/11 4:59		CL12019
Aroclor 1232	ND (0.0545)	2	1	12/22/11 4:59		CL12019
Aroclor 1242	ND (0.0545)	2	1	12/22/11 4:59		CL12019
Aroclor 1248	ND (0.0545)	2	1	12/22/11 4:59		CL12019
Aroclor 1254	ND (0.0545)	2	1	12/22/11 4:59		CL12019
Aroclor 1260	**0.192** (0.0545)	2	1	12/22/11 4:59		CL12019
Aroclor 1262	ND (0.0545)	2	1	12/22/11 4:59		CL12019
Aroclor 1268	ND (0.0545)	2	1	12/22/11 4:59		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-286
Date Sampled: 12/15/11 12:06
Percent Solids: 85
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-24
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0582)	2	1	12/22/11 5:17		CL12019
Aroclor 1221	ND (0.0582)	2	1	12/22/11 5:17		CL12019
Aroclor 1232	ND (0.0582)	2	1	12/22/11 5:17		CL12019
Aroclor 1242	ND (0.0582)	2	1	12/22/11 5:17		CL12019
Aroclor 1248	ND (0.0582)	2	1	12/22/11 5:17		CL12019
Aroclor 1254	ND (0.0582)	2	1	12/22/11 5:17		CL12019
Aroclor 1260	**0.131** (0.0582)	2	1	12/22/11 5:17		CL12019
Aroclor 1262	ND (0.0582)	2	1	12/22/11 5:17		CL12019
Aroclor 1268	ND (0.0582)	2	1	12/22/11 5:17		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-287
Date Sampled: 12/15/11 12:08
Percent Solids: 85
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-25
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0566)	2	1	12/22/11 5:36		CL12019
Aroclor 1221	ND (0.0566)	2	1	12/22/11 5:36		CL12019
Aroclor 1232	ND (0.0566)	2	1	12/22/11 5:36		CL12019
Aroclor 1242	ND (0.0566)	2	1	12/22/11 5:36		CL12019
Aroclor 1248	ND (0.0566)	2	1	12/22/11 5:36		CL12019
Aroclor 1254	ND (0.0566)	2	1	12/22/11 5:36		CL12019
Aroclor 1260	**0.505** (0.0566)	2	1	12/22/11 5:36		CL12019
Aroclor 1262	ND (0.0566)	2	1	12/22/11 5:36		CL12019
Aroclor 1268	ND (0.0566)	2	1	12/22/11 5:36		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-288
Date Sampled: 12/15/11 12:10
Percent Solids: 85
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112312
ESS Laboratory Sample ID: 1112312-26
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MA - RCS1 Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0591)	2	1	12/22/11 5:55		CL12019
Aroclor 1221	ND (0.0591)	2	1	12/22/11 5:55		CL12019
Aroclor 1232	ND (0.0591)	2	1	12/22/11 5:55		CL12019
Aroclor 1242	ND (0.0591)	2	1	12/22/11 5:55		CL12019
Aroclor 1248	ND (0.0591)	2	1	12/22/11 5:55		CL12019
Aroclor 1254	ND (0.0591)	2	1	12/22/11 5:55		CL12019
Aroclor 1260	**0.431** (0.0591)	2	1	12/22/11 5:55		CL12019
Aroclor 1262	ND (0.0591)	2	1	12/22/11 5:55		CL12019
Aroclor 1268	ND (0.0591)	2	1	12/22/11 5:55		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL11918 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0248*		mg/kg wet	*0.02500*		*99*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0188*		mg/kg wet	*0.02500*		*75*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
LCS										
Aroclor 1016	0.492	0.0500	mg/kg wet	0.5000		98	40-140			
Aroclor 1260	0.481	0.0500	mg/kg wet	0.5000		96	40-140			
Surrogate: Decachlorobiphenyl	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0242*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0206*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0223*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS Dup										
Aroclor 1016	0.526	0.0500	mg/kg wet	0.5000		105	40-140	7	30	
Aroclor 1260	0.514	0.0500	mg/kg wet	0.5000		103	40-140	7	30	
Surrogate: Decachlorobiphenyl	*0.0247*		mg/kg wet	*0.02500*		*99*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0258*		mg/kg wet	*0.02500*		*103*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			
Batch CL12019 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12019 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12019 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12019 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
LCS										
Aroclor 1016	0.501	0.0500	mg/kg wet	0.5000		100	40-140			
Aroclor 1260	0.481	0.0500	mg/kg wet	0.5000		96	40-140			
Surrogate: Decachlorobiphenyl	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0234*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS Dup										
Aroclor 1016	0.514	0.0500	mg/kg wet	0.5000		103	40-140	3	30	
Aroclor 1260	0.500	0.0500	mg/kg wet	0.5000		100	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0242*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0202*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112312

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Diluted.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112312

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120312
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **5.3**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**
    ESS Sample IDs: _____
    Sub Lab: _____
    Analysis: _____
    TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP
21	Yes	4 oz Soil Jar	1	NP
22	Yes	4 oz Soil Jar	1	NP
23	Yes	4 oz Soil Jar	1	NP
24	Yes	4 oz Soil Jar	1	NP
25	Yes	4 oz Soil Jar	1	NP

Sample and Cooler Receipt Checklist

Client: Tighe & Bond ESS Project ID: 11120312

26	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/16/11

Reviewed By: MK Date/Time: 12/16/11

ESS Laboratory

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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page 3 of 3

Turn Time: (X) Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from: (MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following: (MA-MCP*) Navy USACE Other _____

Reporting Limits: RCS-1 1112312

ESS LAB PROJECT ID: ~~111231~~ ~~11122~~ MK 12/16/11

Electronic Deliverable: X Yes ___ No Format excel/pdf

Co. Name: Tighe + Bond	Project #: W-1510	Project Name (20 Char. or less): North High	
Contact Person: Marc Richards	Address: 446 Main St		
City: Worcester	State: MA	Zip: 01610	PO#: W-1510
Telephone #	Fax #	Email Address	

Circle and/or Write Required Analysis

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	8260	624	524.2	8021 MTBE/BTEX	8015 GRO	VPH	8100 TPH	8015 DRO	EPH	No Targets	8081 Pesticides	8082 PCB	608 Pesticides	608 PCB	8270	625	PAH only	RCRA5	RCRA8	PP13	TAL23	TCLP8	MCP	MCPw/Hg	NBC7	PCB
01	12-15-11	1120		X	S	PX-263	(1)	G																										X
02	↓	1122		↓	↓	PX-264	↓	↓																										X
03	↓	1124		↓	↓	PX-265	↓	↓																										X
04	↓	1126		↓	↓	PX-266	↓	↓																										X
05	↓	1128		↓	↓	PX-267	↓	↓																										X
06	↓	1130		↓	↓	PX-268	↓	↓																										X
07	↓	1132		↓	↓	PX-269	↓	↓																										X
08	↓	1134		↓	↓	PX-270	↓	↓																										X
09	↓	1136		↓	↓	PX-271	↓	↓																										X
10	↓	1138		↓	↓	PX-272	↓	↓																										X

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ✓ Yes ___ No
Seals Intact: ___ Yes ___ No NA: ✓
Cooler Temp: [illegible]

Internal Use Only: [✓] Pickup [ ] Technicians _____

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-15-11 12:15	[signature]	12/15/11 12:15	[signature]	12/15/11	[signature]	12/15/11 115p
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

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www.esslaboratory.com

CHAIN OF CUSTODY

BC 12/16/11 Page 2 of 3

Turn Time X Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
MA RI CT NH NJ NY ME Other _____

Is this project for any of the following:
MA-MCP* Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: 1112311

Electronic Deliverable: X Yes ___ No Format PDF/excel

Co. Name: Tighe + Bond
Project #: W-1510
Project Name (20 Char. or less): North High
Contact Person: Marc Richards
Address: 446 Main St
City: Worcester State: MA Zip: 01610
PO#: W-1510
Telephone #:
Fax #:
Email Address:

Circle and/or Write Required Analysis

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	8260 / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH	8100 TPH / 8015 DRO / EPH	8081 Pesticides / 8082 PCB / No Targets	8270 / 625 / PAH only	RCRA5 / RCRA8 / PP13 / TAL23	TCLP8 / MCP / MCPw/Hg / NBC7	PCB						
11	12-15-11	1140		X	S	PX-273	1	6								X						
12	↓	1142		↓	↓	PX-274	↓	↓								X						
13		1144				PX-275										X						
14		1146				PX-276										X						
15		1148				PX-277										X						
16		1150				PX-278										X						
17		1152				PX-279										X						
18		1154				PX-280										X						
19		1156				PX-281										X						
20		1158				PX-282										X						

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ✓ Yes ___ No
Seals Intact: ___ Yes ___ No NA: ✓
Cooler Temp: 5.2°C

Internal Use Only
[✓] Pickup
[ ] Technicians _____

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-15-11 12:15	[signature]	12/15/11 12:15	[signature]	12/15/11 1:15	[signature]	12/16/11 2:15P
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

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CHAIN OF CUSTODY

Page 3 of 3

Turn Time (X) Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
(MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following:
(MA-MCP*) Navy USACE Other _____

Reporting Limits: RCS-1

ESS LAB PROJECT ID: 1112311

Electronic Deliverable: X Yes ___ No Format: PDF/excel

Co. Name	Project #	Project Name (20 Char. or less)
Tighe + Bond	W-1510	North High

Contact Person	Address
Marc Richards	446 Main St

City	State	Zip	PO#
Worcester	MA	01610	W-1510

Telephone #	Fax #	Email Address

Circle and/or Write Required Analysis

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	8260 / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH	8100 TPH / 8015 DRO / EPH	8081 Pesticides / 8082 PCB / 608 Pesticides	8270 / 625 / PAH only	RCRA5 / RCRA8 / PP13 / TAL23	TCLP8 / MCP / MCPw/Hg / NBC7	PCB						
21	12-15-11	1200		X	S	PX-283	1	G								X						
22		1202				PX-284										X						
23		1204				PX-285										X						
24		1206				PX-286										X						
25		1208				PX-287										X						
26		1210				PX-288										X						
						END																

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ✓
Cooler Temp: 5.3 °C

Internal Use Only
[✓] Pickup
[ ] Technicians _____

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	12-15-11 12:15	[signature]	12/15/11 12:15	[signature]	12/15/11 1:2	[signature]	12/16/11 1:15
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112317

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 4:22 pm, Dec 27, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

SAMPLE RECEIPT

The following samples were received on December 16, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112317-01	PX-289	Soil	8082A
1112317-02	PX-290	Soil	8082A
1112317-03	PX-291	Soil	8082A
1112317-04	PX-292	Soil	8082A
1112317-05	PX-293	Soil	8082A
1112317-06	PX-294	Soil	8082A
1112317-07	PX-295	Soil	8082A
1112317-08	PX-296	Soil	8082A
1112317-09	PX-297	Soil	8082A
1112317-10	PX-298	Soil	8082A
1112317-11	PX-299	Soil	8082A
1112317-12	PX-300	Soil	8082A
1112317-13	PX-301	Soil	8082A
1112317-14	PX-302	Soil	8082A
1112317-15	PX-303	Soil	8082A
1112317-16	PX-304	Soil	8082A
1112317-17	PX-305	Soil	8082A
1112317-18	PX-306	Soil	8082A
1112317-19	PX-307	Soil	8082A
1112317-20	PX-308	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112317

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112317-01 through 1112317-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 27, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-289
Date Sampled: 12/15/11 12:10
Percent Solids: 80
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0622)		1	12/21/11 14:32		CL12019
Aroclor 1221	ND (0.0622)		1	12/21/11 14:32		CL12019
Aroclor 1232	ND (0.0622)		1	12/21/11 14:32		CL12019
Aroclor 1242	ND (0.0622)		1	12/21/11 14:32		CL12019
Aroclor 1248	ND (0.0622)		1	12/21/11 14:32		CL12019
Aroclor 1254	**0.110** (0.0622)		1	12/21/11 14:32		CL12019
Aroclor 1260	**0.113** (0.0622)		1	12/21/11 14:32		CL12019
Aroclor 1262	ND (0.0622)		1	12/21/11 14:32		CL12019
Aroclor 1268	ND (0.0622)		1	12/21/11 14:32		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*74 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-290
Date Sampled: 12/15/11 12:12
Percent Solids: 86
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0590)		1	12/21/11 14:51		CL12019
Aroclor 1221	ND (0.0590)		1	12/21/11 14:51		CL12019
Aroclor 1232	ND (0.0590)		1	12/21/11 14:51		CL12019
Aroclor 1242	ND (0.0590)		1	12/21/11 14:51		CL12019
Aroclor 1248	ND (0.0590)		1	12/21/11 14:51		CL12019
Aroclor 1254	ND (0.0590)		1	12/21/11 14:51		CL12019
Aroclor 1260	**0.179** (0.0590)		1	12/21/11 14:51		CL12019
Aroclor 1262	ND (0.0590)		1	12/21/11 14:51		CL12019
Aroclor 1268	ND (0.0590)		1	12/21/11 14:51		CL12019

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-291
Date Sampled: 12/15/11 12:14
Percent Solids: 86
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0576)		1	12/21/11 15:10		CL12019
Aroclor 1221	ND (0.0576)		1	12/21/11 15:10		CL12019
Aroclor 1232	ND (0.0576)		1	12/21/11 15:10		CL12019
Aroclor 1242	ND (0.0576)		1	12/21/11 15:10		CL12019
Aroclor 1248	ND (0.0576)		1	12/21/11 15:10		CL12019
Aroclor 1254	ND (0.0576)		1	12/21/11 15:10		CL12019
Aroclor 1260	**0.155** (0.0576)		1	12/21/11 15:10		CL12019
Aroclor 1262	ND (0.0576)		1	12/21/11 15:10		CL12019
Aroclor 1268	ND (0.0576)		1	12/21/11 15:10		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-292
Date Sampled: 12/15/11 12:16
Percent Solids: 87
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0555)		1	12/21/11 15:29		CL12019
Aroclor 1221	ND (0.0555)		1	12/21/11 15:29		CL12019
Aroclor 1232	ND (0.0555)		1	12/21/11 15:29		CL12019
Aroclor 1242	ND (0.0555)		1	12/21/11 15:29		CL12019
Aroclor 1248	ND (0.0555)		1	12/21/11 15:29		CL12019
Aroclor 1254	**0.220** (0.0555)		1	12/21/11 15:29		CL12019
Aroclor 1260	**0.192** (0.0555)		1	12/21/11 15:29		CL12019
Aroclor 1262	ND (0.0555)		1	12/21/11 15:29		CL12019
Aroclor 1268	ND (0.0555)		1	12/21/11 15:29		CL12019

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-293
Date Sampled: 12/15/11 12:18
Percent Solids: 90
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0545)		1	12/21/11 15:48		CL12019
Aroclor 1221	ND (0.0545)		1	12/21/11 15:48		CL12019
Aroclor 1232	ND (0.0545)		1	12/21/11 15:48		CL12019
Aroclor 1242	ND (0.0545)		1	12/21/11 15:48		CL12019
Aroclor 1248	ND (0.0545)		1	12/21/11 15:48		CL12019
Aroclor 1254	ND (0.0545)		1	12/21/11 15:48		CL12019
Aroclor 1260	**0.259** (0.0545)		1	12/21/11 15:48		CL12019
Aroclor 1262	ND (0.0545)		1	12/21/11 15:48		CL12019
Aroclor 1268	ND (0.0545)		1	12/21/11 15:48		CL12019

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-294
Date Sampled: 12/15/11 12:20
Percent Solids: 89
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0582)		1	12/21/11 13:36		CL12020
Aroclor 1221	ND (0.0582)		1	12/21/11 13:36		CL12020
Aroclor 1232	ND (0.0582)		1	12/21/11 13:36		CL12020
Aroclor 1242	ND (0.0582)		1	12/21/11 13:36		CL12020
Aroclor 1248	ND (0.0582)		1	12/21/11 13:36		CL12020
Aroclor 1254	ND (0.0582)		1	12/21/11 13:36		CL12020
Aroclor 1260	**0.274** (0.0582)		1	12/21/11 13:36		CL12020
Aroclor 1262	ND (0.0582)		1	12/21/11 13:36		CL12020
Aroclor 1268	ND (0.0582)		1	12/21/11 13:36		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-295
Date Sampled: 12/15/11 12:22
Percent Solids: 87
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	12/21/11 13:56		CL12020
Aroclor 1221	ND (0.0581)		1	12/21/11 13:56		CL12020
Aroclor 1232	ND (0.0581)		1	12/21/11 13:56		CL12020
Aroclor 1242	ND (0.0581)		1	12/21/11 13:56		CL12020
Aroclor 1248	ND (0.0581)		1	12/21/11 13:56		CL12020
Aroclor 1254	ND (0.0581)		1	12/21/11 13:56		CL12020
Aroclor 1260	**0.261** (0.0581)		1	12/21/11 13:56		CL12020
Aroclor 1262	ND (0.0581)		1	12/21/11 13:56		CL12020
Aroclor 1268	ND (0.0581)		1	12/21/11 13:56		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-296
Date Sampled: 12/15/11 12:24
Percent Solids: 88
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)		1	12/21/11 16:06		CL12020
Aroclor 1221	ND (0.0589)		1	12/21/11 16:06		CL12020
Aroclor 1232	ND (0.0589)		1	12/21/11 16:06		CL12020
Aroclor 1242	ND (0.0589)		1	12/21/11 16:06		CL12020
Aroclor 1248	ND (0.0589)		1	12/21/11 16:06		CL12020
Aroclor 1254	ND (0.0589)		1	12/21/11 16:06		CL12020
Aroclor 1260	ND (0.0589)		1	12/21/11 16:06		CL12020
Aroclor 1262	ND (0.0589)		1	12/21/11 16:06		CL12020
Aroclor 1268	ND (0.0589)		1	12/21/11 16:06		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-297
Date Sampled: 12/15/11 12:26
Percent Solids: 85
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0594)		1	12/21/11 16:25		CL12020
Aroclor 1221	ND (0.0594)		1	12/21/11 16:25		CL12020
Aroclor 1232	ND (0.0594)		1	12/21/11 16:25		CL12020
Aroclor 1242	ND (0.0594)		1	12/21/11 16:25		CL12020
Aroclor 1248	ND (0.0594)		1	12/21/11 16:25		CL12020
Aroclor 1254	ND (0.0594)		1	12/21/11 16:25		CL12020
Aroclor 1260	**0.168** (0.0594)		1	12/21/11 16:25		CL12020
Aroclor 1262	ND (0.0594)		1	12/21/11 16:25		CL12020
Aroclor 1268	ND (0.0594)		1	12/21/11 16:25		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-298
Date Sampled: 12/15/11 12:28
Percent Solids: 88
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0571)		1	12/21/11 16:44		CL12020
Aroclor 1221	ND (0.0571)		1	12/21/11 16:44		CL12020
Aroclor 1232	ND (0.0571)		1	12/21/11 16:44		CL12020
Aroclor 1242	ND (0.0571)		1	12/21/11 16:44		CL12020
Aroclor 1248	ND (0.0571)		1	12/21/11 16:44		CL12020
Aroclor 1254	ND (0.0571)		1	12/21/11 16:44		CL12020
Aroclor 1260	**0.136** (0.0571)		1	12/21/11 16:44		CL12020
Aroclor 1262	ND (0.0571)		1	12/21/11 16:44		CL12020
Aroclor 1268	ND (0.0571)		1	12/21/11 16:44		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-299
Date Sampled: 12/15/11 12:30
Percent Solids: 90
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0550)		1	12/21/11 17:03		CL12020
Aroclor 1221	ND (0.0550)		1	12/21/11 17:03		CL12020
Aroclor 1232	ND (0.0550)		1	12/21/11 17:03		CL12020
Aroclor 1242	ND (0.0550)		1	12/21/11 17:03		CL12020
Aroclor 1248	ND (0.0550)		1	12/21/11 17:03		CL12020
Aroclor 1254	**0.112** (0.0550)		1	12/21/11 17:03		CL12020
Aroclor 1260	**0.134** (0.0550)		1	12/21/11 17:03		CL12020
Aroclor 1262	ND (0.0550)		1	12/21/11 17:03		CL12020
Aroclor 1268	ND (0.0550)		1	12/21/11 17:03		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-300
Date Sampled: 12/15/11 12:32
Percent Solids: 87
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0583)		1	12/21/11 17:22		CL12020
Aroclor 1221	ND (0.0583)		1	12/21/11 17:22		CL12020
Aroclor 1232	ND (0.0583)		1	12/21/11 17:22		CL12020
Aroclor 1242	ND (0.0583)		1	12/21/11 17:22		CL12020
Aroclor 1248	ND (0.0583)		1	12/21/11 17:22		CL12020
Aroclor 1254	ND (0.0583)		1	12/21/11 17:22		CL12020
Aroclor 1260	**0.147** (0.0583)		1	12/21/11 17:22		CL12020
Aroclor 1262	ND (0.0583)		1	12/21/11 17:22		CL12020
Aroclor 1268	ND (0.0583)		1	12/21/11 17:22		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-301
Date Sampled: 12/15/11 12:34
Percent Solids: 92
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/20/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0530)		1	12/22/11 16:59		CL12020
Aroclor 1221	ND (0.0530)		1	12/22/11 16:59		CL12020
Aroclor 1232	ND (0.0530)		1	12/22/11 16:59		CL12020
Aroclor 1242	ND (0.0530)		1	12/22/11 16:59		CL12020
Aroclor 1248	ND (0.0530)		1	12/22/11 16:59		CL12020
Aroclor 1254	ND (0.0530)		1	12/22/11 16:59		CL12020
Aroclor 1260	**0.132** (0.0530)		1	12/22/11 16:59		CL12020
Aroclor 1262	ND (0.0530)		1	12/22/11 16:59		CL12020
Aroclor 1268	ND (0.0530)		1	12/22/11 16:59		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-302
Date Sampled: 12/15/11 12:36
Percent Solids: 89
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0538)		1	12/22/11 17:18		CL12020
Aroclor 1221	ND (0.0538)		1	12/22/11 17:18		CL12020
Aroclor 1232	ND (0.0538)		1	12/22/11 17:18		CL12020
Aroclor 1242	ND (0.0538)		1	12/22/11 17:18		CL12020
Aroclor 1248	ND (0.0538)		1	12/22/11 17:18		CL12020
Aroclor 1254	ND (0.0538)		1	12/22/11 17:18		CL12020
Aroclor 1260	**0.159** (0.0538)		1	12/22/11 17:18		CL12020
Aroclor 1262	ND (0.0538)		1	12/22/11 17:18		CL12020
Aroclor 1268	ND (0.0538)		1	12/22/11 17:18		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*104 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-303
Date Sampled: 12/15/11 12:38
Percent Solids: 87
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)		1	12/22/11 17:37		CL12020
Aroclor 1221	ND (0.0572)		1	12/22/11 17:37		CL12020
Aroclor 1232	ND (0.0572)		1	12/22/11 17:37		CL12020
Aroclor 1242	ND (0.0572)		1	12/22/11 17:37		CL12020
Aroclor 1248	ND (0.0572)		1	12/22/11 17:37		CL12020
Aroclor 1254	ND (0.0572)		1	12/22/11 17:37		CL12020
Aroclor 1260	**0.0812** (0.0572)		1	12/22/11 17:37		CL12020
Aroclor 1262	ND (0.0572)		1	12/22/11 17:37		CL12020
Aroclor 1268	ND (0.0572)		1	12/22/11 17:37		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*100 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*100 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*104 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-304
Date Sampled: 12/15/11 12:40
Percent Solids: 82
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0586)		1	12/22/11 17:56		CL12020
Aroclor 1221	ND (0.0586)		1	12/22/11 17:56		CL12020
Aroclor 1232	ND (0.0586)		1	12/22/11 17:56		CL12020
Aroclor 1242	ND (0.0586)		1	12/22/11 17:56		CL12020
Aroclor 1248	ND (0.0586)		1	12/22/11 17:56		CL12020
Aroclor 1254	ND (0.0586)		1	12/22/11 17:56		CL12020
Aroclor 1260	**0.0920** (0.0586)		1	12/22/11 17:56		CL12020
Aroclor 1262	ND (0.0586)		1	12/22/11 17:56		CL12020
Aroclor 1268	ND (0.0586)		1	12/22/11 17:56		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-305
Date Sampled: 12/15/11 12:42
Percent Solids: 88
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0568)		1	12/22/11 18:14		CL12020
Aroclor 1221	ND (0.0568)		1	12/22/11 18:14		CL12020
Aroclor 1232	ND (0.0568)		1	12/22/11 18:14		CL12020
Aroclor 1242	ND (0.0568)		1	12/22/11 18:14		CL12020
Aroclor 1248	ND (0.0568)		1	12/22/11 18:14		CL12020
Aroclor 1254	ND (0.0568)		1	12/22/11 18:14		CL12020
Aroclor 1260	**0.260** (0.0568)		1	12/22/11 18:14		CL12020
Aroclor 1262	ND (0.0568)		1	12/22/11 18:14		CL12020
Aroclor 1268	ND (0.0568)		1	12/22/11 18:14		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*100 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-306
Date Sampled: 12/15/11 12:44
Percent Solids: 87
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0566)		1	12/22/11 18:33		CL12020
Aroclor 1221	ND (0.0566)		1	12/22/11 18:33		CL12020
Aroclor 1232	ND (0.0566)		1	12/22/11 18:33		CL12020
Aroclor 1242	ND (0.0566)		1	12/22/11 18:33		CL12020
Aroclor 1248	ND (0.0566)		1	12/22/11 18:33		CL12020
Aroclor 1254	ND (0.0566)		1	12/22/11 18:33		CL12020
Aroclor 1260	**0.578** (0.0566)		1	12/22/11 18:33		CL12020
Aroclor 1262	ND (0.0566)		1	12/22/11 18:33		CL12020
Aroclor 1268	ND (0.0566)		1	12/22/11 18:33		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*99 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-307
Date Sampled: 12/15/11 12:46
Percent Solids: 87
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)		1	12/22/11 18:52		CL12020
Aroclor 1221	ND (0.0575)		1	12/22/11 18:52		CL12020
Aroclor 1232	ND (0.0575)		1	12/22/11 18:52		CL12020
Aroclor 1242	ND (0.0575)		1	12/22/11 18:52		CL12020
Aroclor 1248	ND (0.0575)		1	12/22/11 18:52		CL12020
Aroclor 1254	ND (0.0575)		1	12/22/11 18:52		CL12020
Aroclor 1260	**0.364** (0.0575)		1	12/22/11 18:52		CL12020
Aroclor 1262	ND (0.0575)		1	12/22/11 18:52		CL12020
Aroclor 1268	ND (0.0575)		1	12/22/11 18:52		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*99 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-308
Date Sampled: 12/15/11 12:48
Percent Solids: 86
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112317
ESS Laboratory Sample ID: 1112317-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)		1	12/22/11 19:11		CL12020
Aroclor 1221	ND (0.0584)		1	12/22/11 19:11		CL12020
Aroclor 1232	ND (0.0584)		1	12/22/11 19:11		CL12020
Aroclor 1242	ND (0.0584)		1	12/22/11 19:11		CL12020
Aroclor 1248	ND (0.0584)		1	12/22/11 19:11		CL12020
Aroclor 1254	ND (0.0584)		1	12/22/11 19:11		CL12020
Aroclor 1260	**0.133** (0.0584)		1	12/22/11 19:11		CL12020
Aroclor 1262	ND (0.0584)		1	12/22/11 19:11		CL12020
Aroclor 1268	ND (0.0584)		1	12/22/11 19:11		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12019 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12019 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12019 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
LCS										
Aroclor 1016	0.501	0.0500	mg/kg wet	0.5000		100	40-140			
Aroclor 1260	0.481	0.0500	mg/kg wet	0.5000		96	40-140			
Surrogate: Decachlorobiphenyl	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0234*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS Dup										
Aroclor 1016	0.514	0.0500	mg/kg wet	0.5000		103	40-140	3	30	
Aroclor 1260	0.500	0.0500	mg/kg wet	0.5000		100	40-140	4	30	
Surrogate: Decachlorobiphenyl	*0.0242*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0202*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Batch CL12020 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12020 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12020 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0221*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0198*		mg/kg wet	*0.02500*		*79*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12020 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS										
Aroclor 1016	0.531	0.0500	mg/kg wet	0.5000		106	40-140			
Aroclor 1260	0.486	0.0500	mg/kg wet	0.5000		97	40-140			
Surrogate: Decachlorobiphenyl	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0230*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0224*		mg/kg wet	*0.02500*		*90*	*30-150*			
LCS Dup										
Aroclor 1016	0.518	0.0500	mg/kg wet	0.5000		104	40-140	2	30	
Aroclor 1260	0.489	0.0500	mg/kg wet	0.5000		98	40-140	0.5	30	
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0230*		mg/kg wet	*0.02500*		*92*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112317

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112317

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120317
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **2.7**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes** / **No**
17. Were samples received intact? **Yes** / **No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/16/11
Reviewed By: _____ Date/Time: 12/16/11

1 of 2 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112317

Turn Time ___X___ Standard Other_____

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - ___RCS-1 < 1ppm

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO # W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
01	12/15/11	1210	G	S	PX - 289	1	1	G	4 oz	X
02	12/15/11	1212	G	S	PX - 290	1	1	G	4 oz	X
03	12/15/11	1214	G	S	PX - 291	1	1	G	4 oz	X
04	12/15/11	1216	G	S	PX - 292	1	1	G	4 oz	X
05	12/15/11	1218	G	S	PX - 293	1	1	G	4 oz	X
06	12/15/11	1220	G	S	PX - 294	1	1	G	4 oz	X
07	12/15/11	1222	G	S	PX - 295	1	1	G	4 oz	X
08	12/15/11	1224	G	S	PX - 296	1	1	G	4 oz	X
09	12/15/11	1226	G	S	PX - 297	1	1	G	4 oz	X
10	12/15/11	1228	G	S	PX - 298	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ___Yes ___No

Seals Intact ___Yes ___No NA: ___

Cooler Temperature: 2.7°

Internal Use Only

[ ] Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

2 of 2 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112317

Turn Time ____X___Standard Other_____

Reporting Limits - ___RCS-1 <1 ppm

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO # W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
11	12/15/11	1230	G	S	PX - 299	1	1	G	4 oz	X
12	12/15/11	1232	G	S	PX - 300	1	1	G	4 oz	X
13	12/15/11	1234	G	S	PX - 301	1	1	G	4 oz	X
14	12/15/11	1236	G	S	PX - 302	1	1	G	4 oz	X
15	12/15/11	1238	G	S	PX - 303	1	1	G	4 oz	X
16	12/15/11	1240	G	S	PX - 304	1	1	G	4 oz	X
17	12/15/11	1242	G	S	PX - 305	1	1	G	4 oz	X
18	12/15/11	1244	G	S	PX - 306	1	1	G	4 oz	X
19	12/15/11	1246	G	S	PX - 307	1	1	G	4 oz	X
20	12/15/11	1248	G	S	PX - 308	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ____Yes ____No

Seals Intact ____ Yes ____No NA: ___

Cooler Temperature: 2.7°

Internal Use Only
[ ] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112318

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 4:24 pm, Dec 27, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112318

SAMPLE RECEIPT

The following samples were received on December 16, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112318-01	PX-309	Soil	8082A
1112318-02	PX-310	Soil	8082A
1112318-03	PX-311	Soil	8082A
1112318-04	PX-312	Soil	8082A
1112318-05	PX-313	Soil	8082A
1112318-06	PX-314	Soil	8082A
1112318-07	PX-315	Soil	8082A
1112318-08	PX-316	Soil	8082A
1112318-09	PX-317	Soil	8082A
1112318-10	PX-318	Soil	8082A
1112318-11	PX-319	Soil	8082A
1112318-12	PX-320	Soil	8082A
1112318-13	PX-321	Soil	8082A
1112318-14	PX-322	Soil	8082A
1112318-15	PX-323	Soil	8082A
1112318-16	PX-324	Soil	8082A
1112318-17	PX-325	Soil	8082A
1112318-18	PX-326	Soil	8082A
1112318-19	PX-327	Soil	8082A
1112318-20	PX-328	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112318

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112318

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112318-01 through 1112318-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 27, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-309
Date Sampled: 12/15/11 12:50
Percent Solids: 84
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0578)		1	12/22/11 19:30		CL12020
Aroclor 1221	ND (0.0578)		1	12/22/11 19:30		CL12020
Aroclor 1232	ND (0.0578)		1	12/22/11 19:30		CL12020
Aroclor 1242	ND (0.0578)		1	12/22/11 19:30		CL12020
Aroclor 1248	ND (0.0578)		1	12/22/11 19:30		CL12020
Aroclor 1254	ND (0.0578)		1	12/22/11 19:30		CL12020
Aroclor 1260	**0.121** (0.0578)		1	12/22/11 19:30		CL12020
Aroclor 1262	ND (0.0578)		1	12/22/11 19:30		CL12020
Aroclor 1268	ND (0.0578)		1	12/22/11 19:30		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-310
Date Sampled: 12/15/11 12:52
Percent Solids: 85
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0582)		1	12/22/11 19:49		CL12020
Aroclor 1221	ND (0.0582)		1	12/22/11 19:49		CL12020
Aroclor 1232	ND (0.0582)		1	12/22/11 19:49		CL12020
Aroclor 1242	ND (0.0582)		1	12/22/11 19:49		CL12020
Aroclor 1248	ND (0.0582)		1	12/22/11 19:49		CL12020
Aroclor 1254	ND (0.0582)		1	12/22/11 19:49		CL12020
Aroclor 1260	ND (0.0582)		1	12/22/11 19:49		CL12020
Aroclor 1262	ND (0.0582)		1	12/22/11 19:49		CL12020
Aroclor 1268	ND (0.0582)		1	12/22/11 19:49		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*81 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-311
Date Sampled: 12/15/11 12:54
Percent Solids: 85
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0580)		1	12/22/11 20:07		CL12020
Aroclor 1221	ND (0.0580)		1	12/22/11 20:07		CL12020
Aroclor 1232	ND (0.0580)		1	12/22/11 20:07		CL12020
Aroclor 1242	ND (0.0580)		1	12/22/11 20:07		CL12020
Aroclor 1248	ND (0.0580)		1	12/22/11 20:07		CL12020
Aroclor 1254	ND (0.0580)		1	12/22/11 20:07		CL12020
Aroclor 1260	**0.0810** (0.0580)		1	12/22/11 20:07		CL12020
Aroclor 1262	ND (0.0580)		1	12/22/11 20:07		CL12020
Aroclor 1268	ND (0.0580)		1	12/22/11 20:07		CL12020

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-312
Date Sampled: 12/15/11 12:56
Percent Solids: 86
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0564)		1	12/22/11 20:26		CL12020
Aroclor 1221	ND (0.0564)		1	12/22/11 20:26		CL12020
Aroclor 1232	ND (0.0564)		1	12/22/11 20:26		CL12020
Aroclor 1242	ND (0.0564)		1	12/22/11 20:26		CL12020
Aroclor 1248	ND (0.0564)		1	12/22/11 20:26		CL12020
Aroclor 1254	ND (0.0564)		1	12/22/11 20:26		CL12020
Aroclor 1260	**0.0630** (0.0564)		1	12/22/11 20:26		CL12020
Aroclor 1262	ND (0.0564)		1	12/22/11 20:26		CL12020
Aroclor 1268	ND (0.0564)		1	12/22/11 20:26		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*84 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-313
Date Sampled: 12/15/11 12:58
Percent Solids: 96
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 14:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0521)		1	12/22/11 20:45		CL12020
Aroclor 1221	ND (0.0521)		1	12/22/11 20:45		CL12020
Aroclor 1232	ND (0.0521)		1	12/22/11 20:45		CL12020
Aroclor 1242	ND (0.0521)		1	12/22/11 20:45		CL12020
Aroclor 1248	ND (0.0521)		1	12/22/11 20:45		CL12020
Aroclor 1254	**0.0820** (0.0521)		1	12/22/11 20:45		CL12020
Aroclor 1260	ND (0.0521)		1	12/22/11 20:45		CL12020
Aroclor 1262	ND (0.0521)		1	12/22/11 20:45		CL12020
Aroclor 1268	ND (0.0521)		1	12/22/11 20:45		CL12020

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-314
Date Sampled: 12/15/11 13:00
Percent Solids: 85
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0563)		1	12/22/11 22:00		CL12110
Aroclor 1221	ND (0.0563)		1	12/22/11 22:00		CL12110
Aroclor 1232	ND (0.0563)		1	12/22/11 22:00		CL12110
Aroclor 1242	ND (0.0563)		1	12/22/11 22:00		CL12110
Aroclor 1248	ND (0.0563)		1	12/22/11 22:00		CL12110
Aroclor 1254	ND (0.0563)		1	12/22/11 22:00		CL12110
Aroclor 1260	**0.204** (0.0563)		1	12/22/11 22:00		CL12110
Aroclor 1262	ND (0.0563)		1	12/22/11 22:00		CL12110
Aroclor 1268	ND (0.0563)		1	12/22/11 22:00		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*84 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-315
Date Sampled: 12/15/11 13:02
Percent Solids: 85
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0577)		1	12/22/11 22:19		CL12110
Aroclor 1221	ND (0.0577)		1	12/22/11 22:19		CL12110
Aroclor 1232	ND (0.0577)		1	12/22/11 22:19		CL12110
Aroclor 1242	ND (0.0577)		1	12/22/11 22:19		CL12110
Aroclor 1248	ND (0.0577)		1	12/22/11 22:19		CL12110
Aroclor 1254	ND (0.0577)		1	12/22/11 22:19		CL12110
Aroclor 1260	ND (0.0577)		1	12/22/11 22:19		CL12110
Aroclor 1262	ND (0.0577)		1	12/22/11 22:19		CL12110
Aroclor 1268	ND (0.0577)		1	12/22/11 22:19		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-316
Date Sampled: 12/15/11 13:04
Percent Solids: 86
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0579)		1	12/22/11 22:38		CL12110
Aroclor 1221	ND (0.0579)		1	12/22/11 22:38		CL12110
Aroclor 1232	ND (0.0579)		1	12/22/11 22:38		CL12110
Aroclor 1242	ND (0.0579)		1	12/22/11 22:38		CL12110
Aroclor 1248	ND (0.0579)		1	12/22/11 22:38		CL12110
Aroclor 1254	ND (0.0579)		1	12/22/11 22:38		CL12110
Aroclor 1260	**0.157** (0.0579)		1	12/22/11 22:38		CL12110
Aroclor 1262	ND (0.0579)		1	12/22/11 22:38		CL12110
Aroclor 1268	ND (0.0579)		1	12/22/11 22:38		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-317
Date Sampled: 12/15/11 13:06
Percent Solids: 94
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0516)		1	12/23/11 0:50		CL12110
Aroclor 1221	ND (0.0516)		1	12/23/11 0:50		CL12110
Aroclor 1232	ND (0.0516)		1	12/23/11 0:50		CL12110
Aroclor 1242	ND (0.0516)		1	12/23/11 0:50		CL12110
Aroclor 1248	ND (0.0516)		1	12/23/11 0:50		CL12110
Aroclor 1254	ND (0.0516)		1	12/23/11 0:50		CL12110
Aroclor 1260	ND (0.0516)		1	12/23/11 0:50		CL12110
Aroclor 1262	ND (0.0516)		1	12/23/11 0:50		CL12110
Aroclor 1268	ND (0.0516)		1	12/23/11 0:50		CL12110

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-318
Date Sampled: 12/15/11 13:08
Percent Solids: 95
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0526)		1	12/23/11 1:08		CL12110
Aroclor 1221	ND (0.0526)		1	12/23/11 1:08		CL12110
Aroclor 1232	ND (0.0526)		1	12/23/11 1:08		CL12110
Aroclor 1242	ND (0.0526)		1	12/23/11 1:08		CL12110
Aroclor 1248	ND (0.0526)		1	12/23/11 1:08		CL12110
Aroclor 1254	ND (0.0526)		1	12/23/11 1:08		CL12110
Aroclor 1260	ND (0.0526)		1	12/23/11 1:08		CL12110
Aroclor 1262	ND (0.0526)		1	12/23/11 1:08		CL12110
Aroclor 1268	ND (0.0526)		1	12/23/11 1:08		CL12110

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-319
Date Sampled: 12/15/11 13:10
Percent Solids: 85
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0580)		1	12/23/11 1:27		CL12110
Aroclor 1221	ND (0.0580)		1	12/23/11 1:27		CL12110
Aroclor 1232	ND (0.0580)		1	12/23/11 1:27		CL12110
Aroclor 1242	ND (0.0580)		1	12/23/11 1:27		CL12110
Aroclor 1248	ND (0.0580)		1	12/23/11 1:27		CL12110
Aroclor 1254	ND (0.0580)		1	12/23/11 1:27		CL12110
Aroclor 1260	**0.0898** (0.0580)		1	12/23/11 1:27		CL12110
Aroclor 1262	ND (0.0580)		1	12/23/11 1:27		CL12110
Aroclor 1268	ND (0.0580)		1	12/23/11 1:27		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-320
Date Sampled: 12/15/11 13:12
Percent Solids: 85
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0574)		1	12/23/11 14:00		CL12111
Aroclor 1221	ND (0.0574)		1	12/23/11 14:00		CL12111
Aroclor 1232	ND (0.0574)		1	12/23/11 14:00		CL12111
Aroclor 1242	ND (0.0574)		1	12/23/11 14:00		CL12111
Aroclor 1248	ND (0.0574)		1	12/23/11 14:00		CL12111
Aroclor 1254	ND (0.0574)		1	12/23/11 14:00		CL12111
Aroclor 1260	ND (0.0574)		1	12/23/11 14:00		CL12111
Aroclor 1262	ND (0.0574)		1	12/23/11 14:00		CL12111
Aroclor 1268	ND (0.0574)		1	12/23/11 14:00		CL12111

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-321
Date Sampled: 12/15/11 13:14
Percent Solids: 84
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0592)		1	12/23/11 1:46		CL12110
Aroclor 1221	ND (0.0592)		1	12/23/11 1:46		CL12110
Aroclor 1232	ND (0.0592)		1	12/23/11 1:46		CL12110
Aroclor 1242	ND (0.0592)		1	12/23/11 1:46		CL12110
Aroclor 1248	ND (0.0592)		1	12/23/11 1:46		CL12110
Aroclor 1254	ND (0.0592)		1	12/23/11 1:46		CL12110
Aroclor 1260	ND (0.0592)		1	12/23/11 1:46		CL12110
Aroclor 1262	ND (0.0592)		1	12/23/11 1:46		CL12110
Aroclor 1268	ND (0.0592)		1	12/23/11 1:46		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-322
Date Sampled: 12/15/11 13:16
Percent Solids: 90
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)		1	12/23/11 2:05		CL12110
Aroclor 1221	ND (0.0567)		1	12/23/11 2:05		CL12110
Aroclor 1232	ND (0.0567)		1	12/23/11 2:05		CL12110
Aroclor 1242	ND (0.0567)		1	12/23/11 2:05		CL12110
Aroclor 1248	ND (0.0567)		1	12/23/11 2:05		CL12110
Aroclor 1254	ND (0.0567)		1	12/23/11 2:05		CL12110
Aroclor 1260	**0.182** (0.0567)		1	12/23/11 2:05		CL12110
Aroclor 1262	ND (0.0567)		1	12/23/11 2:05		CL12110
Aroclor 1268	ND (0.0567)		1	12/23/11 2:05		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-323
Date Sampled: 12/15/11 13:18
Percent Solids: 86
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)		1	12/23/11 2:24		CL12110
Aroclor 1221	ND (0.0567)		1	12/23/11 2:24		CL12110
Aroclor 1232	ND (0.0567)		1	12/23/11 2:24		CL12110
Aroclor 1242	ND (0.0567)		1	12/23/11 2:24		CL12110
Aroclor 1248	ND (0.0567)		1	12/23/11 2:24		CL12110
Aroclor 1254	ND (0.0567)		1	12/23/11 2:24		CL12110
Aroclor 1260	ND (0.0567)		1	12/23/11 2:24		CL12110
Aroclor 1262	ND (0.0567)		1	12/23/11 2:24		CL12110
Aroclor 1268	ND (0.0567)		1	12/23/11 2:24		CL12110

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-324
Date Sampled: 12/15/11 13:20
Percent Solids: 86
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0570)		1	12/23/11 2:42		CL12110
Aroclor 1221	ND (0.0570)		1	12/23/11 2:42		CL12110
Aroclor 1232	ND (0.0570)		1	12/23/11 2:42		CL12110
Aroclor 1242	ND (0.0570)		1	12/23/11 2:42		CL12110
Aroclor 1248	ND (0.0570)		1	12/23/11 2:42		CL12110
Aroclor 1254	ND (0.0570)		1	12/23/11 2:42		CL12110
Aroclor 1260	**0.175** (0.0570)		1	12/23/11 2:42		CL12110
Aroclor 1262	ND (0.0570)		1	12/23/11 2:42		CL12110
Aroclor 1268	ND (0.0570)		1	12/23/11 2:42		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-325
Date Sampled: 12/15/11 13:22
Percent Solids: 87
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0572)		1	12/23/11 3:01		CL12110
Aroclor 1221	ND (0.0572)		1	12/23/11 3:01		CL12110
Aroclor 1232	ND (0.0572)		1	12/23/11 3:01		CL12110
Aroclor 1242	ND (0.0572)		1	12/23/11 3:01		CL12110
Aroclor 1248	ND (0.0572)		1	12/23/11 3:01		CL12110
Aroclor 1254	ND (0.0572)		1	12/23/11 3:01		CL12110
Aroclor 1260	**0.168** (0.0572)		1	12/23/11 3:01		CL12110
Aroclor 1262	ND (0.0572)		1	12/23/11 3:01		CL12110
Aroclor 1268	ND (0.0572)		1	12/23/11 3:01		CL12110

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-326
Date Sampled: 12/15/11 13:24
Percent Solids: 88
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0544)		1	12/23/11 3:20		CL12110
Aroclor 1221	ND (0.0544)		1	12/23/11 3:20		CL12110
Aroclor 1232	ND (0.0544)		1	12/23/11 3:20		CL12110
Aroclor 1242	ND (0.0544)		1	12/23/11 3:20		CL12110
Aroclor 1248	ND (0.0544)		1	12/23/11 3:20		CL12110
Aroclor 1254	ND (0.0544)		1	12/23/11 3:20		CL12110
Aroclor 1260	**0.284** (0.0544)		1	12/23/11 3:20		CL12110
Aroclor 1262	ND (0.0544)		1	12/23/11 3:20		CL12110
Aroclor 1268	ND (0.0544)		1	12/23/11 3:20		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-327
Date Sampled: 12/15/11 13:26
Percent Solids: 87
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0569)		1	12/23/11 3:39		CL12110
Aroclor 1221	ND (0.0569)		1	12/23/11 3:39		CL12110
Aroclor 1232	ND (0.0569)		1	12/23/11 3:39		CL12110
Aroclor 1242	ND (0.0569)		1	12/23/11 3:39		CL12110
Aroclor 1248	ND (0.0569)		1	12/23/11 3:39		CL12110
Aroclor 1254	ND (0.0569)		1	12/23/11 3:39		CL12110
Aroclor 1260	ND (0.0569)		1	12/23/11 3:39		CL12110
Aroclor 1262	ND (0.0569)		1	12/23/11 3:39		CL12110
Aroclor 1268	ND (0.0569)		1	12/23/11 3:39		CL12110

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-328
Date Sampled: 12/15/11 13:28
Percent Solids: 77
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112318
ESS Laboratory Sample ID: 1112318-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0649)		1	12/23/11 3:58		CL12110
Aroclor 1221	ND (0.0649)		1	12/23/11 3:58		CL12110
Aroclor 1232	ND (0.0649)		1	12/23/11 3:58		CL12110
Aroclor 1242	ND (0.0649)		1	12/23/11 3:58		CL12110
Aroclor 1248	ND (0.0649)		1	12/23/11 3:58		CL12110
Aroclor 1254	ND (0.0649)		1	12/23/11 3:58		CL12110
Aroclor 1260	ND (0.0649)		1	12/23/11 3:58		CL12110
Aroclor 1262	ND (0.0649)		1	12/23/11 3:58		CL12110
Aroclor 1268	ND (0.0649)		1	12/23/11 3:58		CL12110

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*70 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*60 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*64 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112318

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12020 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112318

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12020 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12020 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0221*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0198*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS										
Aroclor 1016	0.531	0.0500	mg/kg wet	0.5000		106	40-140			
Aroclor 1260	0.486	0.0500	mg/kg wet	0.5000		97	40-140			
Surrogate: Decachlorobiphenyl	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0230*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0224*		mg/kg wet	*0.02500*		*90*	*30-150*			
LCS Dup										
Aroclor 1016	0.518	0.0500	mg/kg wet	0.5000		104	40-140	2	30	
Aroclor 1260	0.489	0.0500	mg/kg wet	0.5000		98	40-140	0.5	30	
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0230*		mg/kg wet	*0.02500*		*92*	*30-150*			
Batch CL12110 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112318

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12110 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12110 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0228*		mg/kg wet	*0.02500*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0191*		mg/kg wet	*0.02500*		*76*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12110 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
LCS										
Aroclor 1016	0.498	0.0500	mg/kg wet	0.5000		100	40-140			
Aroclor 1260	0.493	0.0500	mg/kg wet	0.5000		99	40-140			
Surrogate: Decachlorobiphenyl	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0234*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0203*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
LCS Dup										
Aroclor 1016	0.516	0.0500	mg/kg wet	0.5000		103	40-140	4	30	
Aroclor 1260	0.510	0.0500	mg/kg wet	0.5000		102	40-140	3	30	
Surrogate: Decachlorobiphenyl	*0.0242*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Batch CL12111 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							

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Client Name: Tighe & Bond
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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0193*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
LCS										
Aroclor 1016	0.511	0.0500	mg/kg wet	0.5000		102	40-140			
Aroclor 1260	0.502	0.0500	mg/kg wet	0.5000		100	40-140			
Surrogate: Decachlorobiphenyl	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS Dup										
Aroclor 1016	0.515	0.0500	mg/kg wet	0.5000		103	40-140	0.9	30	
Aroclor 1260	0.505	0.0500	mg/kg wet	0.5000		101	40-140	0.6	30	

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112318

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Surrogate: Decachlorobiphenyl	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112318

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112318

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120318
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **2.7**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes/No**
17. Were samples received intact? **Yes/No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: RC Date/Time: 12/16/11
Reviewed By: [illegible] Date/Time: 12/16/11

1 of 2 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112318

Turn Time ___X___Standard Other_____

Reporting Limits - ___RCS-1___<1ppm

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO # W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
01	12/15/11	1250	G	S	PX - 309	1	1	G	4 oz	X
02	12/15/11	1252	G	S	PX - 310	1	1	G	4 oz	X
03	12/15/11	1254	G	S	PX - 311	1	1	G	4 oz	X
04	12/15/11	1256	G	S	PX - 312	1	1	G	4 oz	X
05	12/15/11	1258	G	S	PX - 313	1	1	G	4 oz	X
06	12/15/11	1300	G	S	PX - 314	1	1	G	4 oz	X
07	12/15/11	1302	G	S	PX - 315	1	1	G	4 oz	X
08	12/15/11	1304	G	S	PX - 316	1	1	G	4 oz	X
09	12/15/11	1306	G	S	PX - 317	1	1	G	4 oz	X
10	12/15/11	1308	G	S	PX - 318	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ___✓___Yes ____No

Seals Intact ____ Yes ____No NA: ✓

Cooler Temperature: 2.70

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	BC 12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

2 of 2 ESS QUOTE # 1106117

ESS Laboratory

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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112318

Turn Time ____X___Standard Other_____

Reporting Limits - ___RCS-1___ < 1 ppm

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO # W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
11	12/15/11	1310	G	S	PX - 319	1	1	G	4 oz	X
12	12/15/11	1312	G	S	PX - 320	1	1	G	4 oz	X
13	12/15/11	1314	G	S	PX - 321	1	1	G	4 oz	X
14	12/15/11	1316	G	S	PX - 322	1	1	G	4 oz	X
15	12/15/11	1318	G	S	PX - 323	1	1	G	4 oz	X
16	12/15/11	1320	G	S	PX - 324	1	1	G	4 oz	X
17	12/15/11	1322	G	S	PX - 325	1	1	G	4 oz	X
18	12/15/11	1324	G	S	PX - 326	1	1	G	4 oz	X
19	12/15/11	1326	G	S	PX - 327	1	1	G	4 oz	X
20	12/15/11	1328	G	S	PX - 328	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ____Yes ____No

Seals Intact ____ Yes ____No NA: ___

Cooler Temperature: 2.7°

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112319

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:27 pm, Dec 27, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

SAMPLE RECEIPT

The following samples were received on December 16, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112319-01	PX-329	Soil	8082A
1112319-02	PX-330	Soil	8082A
1112319-03	PX-331	Soil	8082A
1112319-04	PX-332	Soil	8082A
1112319-05	PX-333	Soil	8082A
1112319-06	PX-334	Soil	8082A
1112319-07	PX-335	Soil	8082A
1112319-08	PX-336	Soil	8082A
1112319-09	PX-337	Soil	8082A
1112319-10	PX-338	Soil	8082A
1112319-11	PX-339	Soil	8082A
1112319-12	PX-340	Soil	8082A
1112319-13	PX-341	Soil	8082A
1112319-14	PX-342	Soil	8082A
1112319-15	PX-343	Soil	8082A
1112319-16	PX-344	Soil	8082A
1112319-17	PX-345	Soil	8082A
1112319-18	PX-346	Soil	8082A
1112319-19	PX-347	Soil	8082A
1112319-20	PX-348	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112319

PROJECT NARRATIVE

8082A Polychlorinated Biphenyls (PCB)

CL12110-MSD1 **Relative percent difference for duplicate is outside of criteria (D+).**
Aroclor 1016 (54%), Aroclor 1260 (76%)

CL12111-MSD1 **Relative percent difference for duplicate is outside of criteria (D+).**
Aroclor 1016 (53%)

CL12111-MSD1 **Surrogate recovery(ies) below lower control limit (S-).**
Tetrachloro-m-xylene (9% @ 30-150%), Tetrachloro-m-xylene [2C] (10% @ 30-150%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112319-01 through 1112319-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	<u>Data User Note:</u> 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 performance standards specified in the CAM protocol(s) achieved?	Yes ( ) No (X)*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: _____ Date: December 27, 2011
Printed Name: Laurel Stoddard Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-329
Date Sampled: 12/15/11 13:30
Percent Solids: 79
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0630)		1	12/23/11 4:17		CL12110
Aroclor 1221	ND (0.0630)		1	12/23/11 4:17		CL12110
Aroclor 1232	ND (0.0630)		1	12/23/11 4:17		CL12110
Aroclor 1242	ND (0.0630)		1	12/23/11 4:17		CL12110
Aroclor 1248	ND (0.0630)		1	12/23/11 4:17		CL12110
Aroclor 1254	ND (0.0630)		1	12/23/11 4:17		CL12110
Aroclor 1260	ND (0.0630)		1	12/23/11 4:17		CL12110
Aroclor 1262	ND (0.0630)		1	12/23/11 4:17		CL12110
Aroclor 1268	ND (0.0630)		1	12/23/11 4:17		CL12110

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*64 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*71 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-330
Date Sampled: 12/15/11 13:32
Percent Solids: 86
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0556)		1	12/23/11 4:35		CL12110
Aroclor 1221	ND (0.0556)		1	12/23/11 4:35		CL12110
Aroclor 1232	ND (0.0556)		1	12/23/11 4:35		CL12110
Aroclor 1242	ND (0.0556)		1	12/23/11 4:35		CL12110
Aroclor 1248	ND (0.0556)		1	12/23/11 4:35		CL12110
Aroclor 1254	ND (0.0556)		1	12/23/11 4:35		CL12110
Aroclor 1260	**0.257** (0.0556)		1	12/23/11 4:35		CL12110
Aroclor 1262	ND (0.0556)		1	12/23/11 4:35		CL12110
Aroclor 1268	ND (0.0556)		1	12/23/11 4:35		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-331
Date Sampled: 12/15/11 13:34
Percent Solids: 88
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)		1	12/23/11 4:54		CL12110
Aroclor 1221	ND (0.0554)		1	12/23/11 4:54		CL12110
Aroclor 1232	ND (0.0554)		1	12/23/11 4:54		CL12110
Aroclor 1242	ND (0.0554)		1	12/23/11 4:54		CL12110
Aroclor 1248	ND (0.0554)		1	12/23/11 4:54		CL12110
Aroclor 1254	ND (0.0554)		1	12/23/11 4:54		CL12110
Aroclor 1260	**0.146** (0.0554)		1	12/23/11 4:54		CL12110
Aroclor 1262	ND (0.0554)		1	12/23/11 4:54		CL12110
Aroclor 1268	ND (0.0554)		1	12/23/11 4:54		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-332
Date Sampled: 12/15/11 13:36
Percent Solids: 86
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)		1	12/23/11 5:13		CL12110
Aroclor 1221	ND (0.0567)		1	12/23/11 5:13		CL12110
Aroclor 1232	ND (0.0567)		1	12/23/11 5:13		CL12110
Aroclor 1242	ND (0.0567)		1	12/23/11 5:13		CL12110
Aroclor 1248	ND (0.0567)		1	12/23/11 5:13		CL12110
Aroclor 1254	ND (0.0567)		1	12/23/11 5:13		CL12110
Aroclor 1260	**0.454** (0.0567)		1	12/23/11 5:13		CL12110
Aroclor 1262	ND (0.0567)		1	12/23/11 5:13		CL12110
Aroclor 1268	ND (0.0567)		1	12/23/11 5:13		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-333
Date Sampled: 12/15/11 13:38
Percent Solids: 86
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0570)		1	12/23/11 5:32		CL12110
Aroclor 1221	ND (0.0570)		1	12/23/11 5:32		CL12110
Aroclor 1232	ND (0.0570)		1	12/23/11 5:32		CL12110
Aroclor 1242	ND (0.0570)		1	12/23/11 5:32		CL12110
Aroclor 1248	ND (0.0570)		1	12/23/11 5:32		CL12110
Aroclor 1254	ND (0.0570)		1	12/23/11 5:32		CL12110
Aroclor 1260	**0.161** (0.0570)		1	12/23/11 5:32		CL12110
Aroclor 1262	ND (0.0570)		1	12/23/11 5:32		CL12110
Aroclor 1268	ND (0.0570)		1	12/23/11 5:32		CL12110

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*109 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*101 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*103 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-334
Date Sampled: 12/15/11 13:40
Percent Solids: 84
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0592)		1	12/23/11 9:18		CL12111
Aroclor 1221	ND (0.0592)		1	12/23/11 9:18		CL12111
Aroclor 1232	ND (0.0592)		1	12/23/11 9:18		CL12111
Aroclor 1242	ND (0.0592)		1	12/23/11 9:18		CL12111
Aroclor 1248	ND (0.0592)		1	12/23/11 9:18		CL12111
Aroclor 1254	ND (0.0592)		1	12/23/11 9:18		CL12111
Aroclor 1260	ND (0.0592)		1	12/23/11 9:18		CL12111
Aroclor 1262	ND (0.0592)		1	12/23/11 9:18		CL12111
Aroclor 1268	ND (0.0592)		1	12/23/11 9:18		CL12111

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*92 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-335
Date Sampled: 12/15/11 13:42
Percent Solids: 88
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/21/11 16:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0554)		1	12/23/11 10:14		CL12111
Aroclor 1221	ND (0.0554)		1	12/23/11 10:14		CL12111
Aroclor 1232	ND (0.0554)		1	12/23/11 10:14		CL12111
Aroclor 1242	ND (0.0554)		1	12/23/11 10:14		CL12111
Aroclor 1248	ND (0.0554)		1	12/23/11 10:14		CL12111
Aroclor 1254	ND (0.0554)		1	12/23/11 10:14		CL12111
Aroclor 1260	ND (0.0554)		1	12/23/11 10:14		CL12111
Aroclor 1262	ND (0.0554)		1	12/23/11 10:14		CL12111
Aroclor 1268	ND (0.0554)		1	12/23/11 10:14		CL12111

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*66 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*74 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-336
Date Sampled: 12/15/11 13:44
Percent Solids: 83
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0605)		1	12/23/11 15:53		CL12111
Aroclor 1221	ND (0.0605)		1	12/23/11 15:53		CL12111
Aroclor 1232	ND (0.0605)		1	12/23/11 15:53		CL12111
Aroclor 1242	ND (0.0605)		1	12/23/11 15:53		CL12111
Aroclor 1248	ND (0.0605)		1	12/23/11 15:53		CL12111
Aroclor 1254	ND (0.0605)		1	12/23/11 15:53		CL12111
Aroclor 1260	**0.260** (0.0605)		1	12/23/11 15:53		CL12111
Aroclor 1262	ND (0.0605)		1	12/23/11 15:53		CL12111
Aroclor 1268	ND (0.0605)		1	12/23/11 15:53		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*100 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-337
Date Sampled: 12/15/11 13:46
Percent Solids: 79
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0633)		1	12/23/11 16:12		CL12111
Aroclor 1221	ND (0.0633)		1	12/23/11 16:12		CL12111
Aroclor 1232	ND (0.0633)		1	12/23/11 16:12		CL12111
Aroclor 1242	ND (0.0633)		1	12/23/11 16:12		CL12111
Aroclor 1248	ND (0.0633)		1	12/23/11 16:12		CL12111
Aroclor 1254	ND (0.0633)		1	12/23/11 16:12		CL12111
Aroclor 1260	**0.0679** (0.0633)		1	12/23/11 16:12		CL12111
Aroclor 1262	ND (0.0633)		1	12/23/11 16:12		CL12111
Aroclor 1268	ND (0.0633)		1	12/23/11 16:12		CL12111

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*99 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-338
Date Sampled: 12/15/11 13:48
Percent Solids: 83
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0624)		1	12/23/11 16:31		CL12111
Aroclor 1221	ND (0.0624)		1	12/23/11 16:31		CL12111
Aroclor 1232	ND (0.0624)		1	12/23/11 16:31		CL12111
Aroclor 1242	ND (0.0624)		1	12/23/11 16:31		CL12111
Aroclor 1248	ND (0.0624)		1	12/23/11 16:31		CL12111
Aroclor 1254	ND (0.0624)		1	12/23/11 16:31		CL12111
Aroclor 1260	**0.0981** (0.0624)		1	12/23/11 16:31		CL12111
Aroclor 1262	ND (0.0624)		1	12/23/11 16:31		CL12111
Aroclor 1268	ND (0.0624)		1	12/23/11 16:31		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*101 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-339
Date Sampled: 12/15/11 13:50
Percent Solids: 81
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0617)		1	12/23/11 16:50		CL12111
Aroclor 1221	ND (0.0617)		1	12/23/11 16:50		CL12111
Aroclor 1232	ND (0.0617)		1	12/23/11 16:50		CL12111
Aroclor 1242	ND (0.0617)		1	12/23/11 16:50		CL12111
Aroclor 1248	ND (0.0617)		1	12/23/11 16:50		CL12111
Aroclor 1254	ND (0.0617)		1	12/23/11 16:50		CL12111
Aroclor 1260	**0.0953** (0.0617)		1	12/23/11 16:50		CL12111
Aroclor 1262	ND (0.0617)		1	12/23/11 16:50		CL12111
Aroclor 1268	ND (0.0617)		1	12/23/11 16:50		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-340
Date Sampled: 12/15/11 13:52
Percent Solids: 83
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0612)		1	12/23/11 17:08		CL12111
Aroclor 1221	ND (0.0612)		1	12/23/11 17:08		CL12111
Aroclor 1232	ND (0.0612)		1	12/23/11 17:08		CL12111
Aroclor 1242	ND (0.0612)		1	12/23/11 17:08		CL12111
Aroclor 1248	ND (0.0612)		1	12/23/11 17:08		CL12111
Aroclor 1254	ND (0.0612)		1	12/23/11 17:08		CL12111
Aroclor 1260	**0.103** (0.0612)		1	12/23/11 17:08		CL12111
Aroclor 1262	ND (0.0612)		1	12/23/11 17:08		CL12111
Aroclor 1268	ND (0.0612)		1	12/23/11 17:08		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*99 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-341
Date Sampled: 12/15/11 13:54
Percent Solids: 80
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0638)		1	12/23/11 17:27		CL12111
Aroclor 1221	ND (0.0638)		1	12/23/11 17:27		CL12111
Aroclor 1232	ND (0.0638)		1	12/23/11 17:27		CL12111
Aroclor 1242	ND (0.0638)		1	12/23/11 17:27		CL12111
Aroclor 1248	ND (0.0638)		1	12/23/11 17:27		CL12111
Aroclor 1254	ND (0.0638)		1	12/23/11 17:27		CL12111
Aroclor 1260	**0.0690** (0.0638)		1	12/23/11 17:27		CL12111
Aroclor 1262	ND (0.0638)		1	12/23/11 17:27		CL12111
Aroclor 1268	ND (0.0638)		1	12/23/11 17:27		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*102 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-342
Date Sampled: 12/15/11 13:56
Percent Solids: 87
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0569)		1	12/23/11 17:46		CL12111
Aroclor 1221	ND (0.0569)		1	12/23/11 17:46		CL12111
Aroclor 1232	ND (0.0569)		1	12/23/11 17:46		CL12111
Aroclor 1242	ND (0.0569)		1	12/23/11 17:46		CL12111
Aroclor 1248	ND (0.0569)		1	12/23/11 17:46		CL12111
Aroclor 1254	ND (0.0569)		1	12/23/11 17:46		CL12111
Aroclor 1260	**0.190** (0.0569)		1	12/23/11 17:46		CL12111
Aroclor 1262	ND (0.0569)		1	12/23/11 17:46		CL12111
Aroclor 1268	ND (0.0569)		1	12/23/11 17:46		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-343
Date Sampled: 12/15/11 13:58
Percent Solids: 86
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0579)		1	12/23/11 18:05		CL12111
Aroclor 1221	ND (0.0579)		1	12/23/11 18:05		CL12111
Aroclor 1232	ND (0.0579)		1	12/23/11 18:05		CL12111
Aroclor 1242	ND (0.0579)		1	12/23/11 18:05		CL12111
Aroclor 1248	ND (0.0579)		1	12/23/11 18:05		CL12111
Aroclor 1254	ND (0.0579)		1	12/23/11 18:05		CL12111
Aroclor 1260	ND (0.0579)		1	12/23/11 18:05		CL12111
Aroclor 1262	ND (0.0579)		1	12/23/11 18:05		CL12111
Aroclor 1268	ND (0.0579)		1	12/23/11 18:05		CL12111

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*97 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-344
Date Sampled: 12/15/11 14:00
Percent Solids: 86
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0587)		1	12/23/11 18:24		CL12111
Aroclor 1221	ND (0.0587)		1	12/23/11 18:24		CL12111
Aroclor 1232	ND (0.0587)		1	12/23/11 18:24		CL12111
Aroclor 1242	ND (0.0587)		1	12/23/11 18:24		CL12111
Aroclor 1248	ND (0.0587)		1	12/23/11 18:24		CL12111
Aroclor 1254	ND (0.0587)		1	12/23/11 18:24		CL12111
Aroclor 1260	**0.0785** (0.0587)		1	12/23/11 18:24		CL12111
Aroclor 1262	ND (0.0587)		1	12/23/11 18:24		CL12111
Aroclor 1268	ND (0.0587)		1	12/23/11 18:24		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-345
Date Sampled: 12/15/11 14:02
Percent Solids: 83
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0621)		1	12/23/11 18:42		CL12111
Aroclor 1221	ND (0.0621)		1	12/23/11 18:42		CL12111
Aroclor 1232	ND (0.0621)		1	12/23/11 18:42		CL12111
Aroclor 1242	ND (0.0621)		1	12/23/11 18:42		CL12111
Aroclor 1248	ND (0.0621)		1	12/23/11 18:42		CL12111
Aroclor 1254	ND (0.0621)		1	12/23/11 18:42		CL12111
Aroclor 1260	ND (0.0621)		1	12/23/11 18:42		CL12111
Aroclor 1262	ND (0.0621)		1	12/23/11 18:42		CL12111
Aroclor 1268	ND (0.0621)		1	12/23/11 18:42		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*106 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-346
Date Sampled: 12/15/11 14:04
Percent Solids: 88
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0571)		1	12/23/11 19:01		CL12111
Aroclor 1221	ND (0.0571)		1	12/23/11 19:01		CL12111
Aroclor 1232	ND (0.0571)		1	12/23/11 19:01		CL12111
Aroclor 1242	ND (0.0571)		1	12/23/11 19:01		CL12111
Aroclor 1248	ND (0.0571)		1	12/23/11 19:01		CL12111
Aroclor 1254	ND (0.0571)		1	12/23/11 19:01		CL12111
Aroclor 1260	ND (0.0571)		1	12/23/11 19:01		CL12111
Aroclor 1262	ND (0.0571)		1	12/23/11 19:01		CL12111
Aroclor 1268	ND (0.0571)		1	12/23/11 19:01		CL12111

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-347
Date Sampled: 12/15/11 14:06
Percent Solids: 89
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0562)		1	12/23/11 19:20		CL12111
Aroclor 1221	ND (0.0562)		1	12/23/11 19:20		CL12111
Aroclor 1232	ND (0.0562)		1	12/23/11 19:20		CL12111
Aroclor 1242	ND (0.0562)		1	12/23/11 19:20		CL12111
Aroclor 1248	ND (0.0562)		1	12/23/11 19:20		CL12111
Aroclor 1254	ND (0.0562)		1	12/23/11 19:20		CL12111
Aroclor 1260	ND (0.0562)		1	12/23/11 19:20		CL12111
Aroclor 1262	ND (0.0562)		1	12/23/11 19:20		CL12111
Aroclor 1268	ND (0.0562)		1	12/23/11 19:20		CL12111

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*99 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-348
Date Sampled: 12/15/11 14:08
Percent Solids: 85
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112319
ESS Laboratory Sample ID: 1112319-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0603)		1	12/23/11 19:39		CL12111
Aroclor 1221	ND (0.0603)		1	12/23/11 19:39		CL12111
Aroclor 1232	ND (0.0603)		1	12/23/11 19:39		CL12111
Aroclor 1242	ND (0.0603)		1	12/23/11 19:39		CL12111
Aroclor 1248	ND (0.0603)		1	12/23/11 19:39		CL12111
Aroclor 1254	ND (0.0603)		1	12/23/11 19:39		CL12111
Aroclor 1260	**0.0724** (0.0603)		1	12/23/11 19:39		CL12111
Aroclor 1262	ND (0.0603)		1	12/23/11 19:39		CL12111
Aroclor 1268	ND (0.0603)		1	12/23/11 19:39		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*99 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12110 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12110 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

Quality Control Data

8082A Polychlorinated Biphenyls (PCB)

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch CL12110 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0228*		mg/kg wet	*0.02500*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0191*		mg/kg wet	*0.02500*		*76*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
LCS										
Aroclor 1016	0.498	0.0500	mg/kg wet	0.5000		100	40-140			
Aroclor 1260	0.493	0.0500	mg/kg wet	0.5000		99	40-140			
Surrogate: Decachlorobiphenyl	*0.0234*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0234*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0203*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
LCS Dup										
Aroclor 1016	0.516	0.0500	mg/kg wet	0.5000		103	40-140	4	30	
Aroclor 1260	0.510	0.0500	mg/kg wet	0.5000		102	40-140	3	30	
Surrogate: Decachlorobiphenyl	*0.0242*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0211*		mg/kg wet	*0.02500*		*84*	*30-150*			
Matrix Spike Source: 1112319-05										
Aroclor 1016	0.363	0.0567	mg/kg dry	0.5672	ND	64	40-140			
Aroclor 1260	0.416	0.0567	mg/kg dry	0.5672	0.161	45	40-140			
Surrogate: Decachlorobiphenyl	*0.0173*		mg/kg dry	*0.02836*		*61*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0158*		mg/kg dry	*0.02836*		*56*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0127*		mg/kg dry	*0.02836*		*45*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0132*		mg/kg dry	*0.02836*		*47*	*30-150*			
Matrix Spike Dup Source: 1112319-05										
Aroclor 1016	0.647	0.0581	mg/kg dry	0.5814	ND	111	40-140	54	30	D+
Aroclor 1260	0.742	0.0581	mg/kg dry	0.5814	0.161	100	40-140	76	30	D+
Surrogate: Decachlorobiphenyl	*0.0301*		mg/kg dry	*0.02907*		*103*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0291*		mg/kg dry	*0.02907*		*100*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0272*		mg/kg dry	*0.02907*		*94*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12110 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0276*		mg/kg dry	*0.02907*		*95*	*30-150*			
Batch CL12111 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0193*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
LCS										
Aroclor 1016	0.511	0.0500	mg/kg wet	0.5000		102	40-140			
Aroclor 1260	0.502	0.0500	mg/kg wet	0.5000		100	40-140			
Surrogate: Decachlorobiphenyl	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS Dup										
Aroclor 1016	0.515	0.0500	mg/kg wet	0.5000		103	40-140	0.9	30	
Aroclor 1260	0.505	0.0500	mg/kg wet	0.5000		101	40-140	0.6	30	
Surrogate: Decachlorobiphenyl	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Matrix Spike Source: 1112319-06										
Aroclor 1016	0.623	0.0586	mg/kg dry	0.5864	ND	106	40-140			
Aroclor 1260	0.656	0.0586	mg/kg dry	0.5864	0.0314	107	40-140			
Surrogate: Decachlorobiphenyl	*0.0280*		mg/kg dry	*0.02932*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0281*		mg/kg dry	*0.02932*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0255*		mg/kg dry	*0.02932*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0279*		mg/kg dry	*0.02932*		*95*	*30-150*			
Matrix Spike Dup Source: 1112319-06										
Aroclor 1016	0.358	0.0581	mg/kg dry	0.5807	ND	62	40-140	53	30	D+
Aroclor 1260	0.509	0.0581	mg/kg dry	0.5807	0.0314	82	40-140	26	30	

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Surrogate: Decachlorobiphenyl	*0.0217*		mg/kg dry	*0.02904*		*75*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0219*		mg/kg dry	*0.02904*		*75*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.00262*		mg/kg dry	*0.02904*		*9*	*30-150*			*S-*
Surrogate: Tetrachloro-m-xylene [2C]	*0.00278*		mg/kg dry	*0.02904*		*10*	*30-150*			*S-*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112319

Notes and Definitions

U	Analyte included in the analysis, but not detected
S-	Surrogate recovery(ies) below lower control limit (S-).
D+	Relative percent difference for duplicate is outside of criteria (D+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112319

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120319
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **2.7**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/16/11
Reviewed By: [illegible] Date/Time: [illegible]

1 of 2

ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112319

Turn Time ____X___Standard Other_____

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - ____RCS-1 <1 ppm

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO # W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
01	12/15/11	1330	G	S	PX - 329	1	1	G	4 oz	X
02	12/15/11	1332	G	S	PX - 330	1	1	G	4 oz	X
03	12/15/11	1334	G	S	PX - 331	1	1	G	4 oz	X
04	12/15/11	1336	G	S	PX - 332	1	1	G	4 oz	X
05	12/15/11	1338	G	S	PX - 333	1	1	G	4 oz	X
06	12/15/11	1340	G	S	PX - 334	1	1	G	4 oz	X
07	12/15/11	1342	G	S	PX - 335	1	1	G	4 oz	X
08	12/15/11	1344	G	S	PX - 336	1	1	G	4 oz	X
09	12/15/11	1346	G	S	PX - 337	1	1	G	4 oz	X
10	12/15/11	1348	G	S	PX - 338	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ____✓Yes ____No

Seals Intact ____ Yes ____No NA: ✓

Cooler Temperature: 2.70

Internal Use Only

[✓] Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

2 of 2 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 112319

Turn Time ___X___ Standard Other_____

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - ___RCS-1___ < 1 ppm

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond		Project # W-1510	Project Name: North High
Contact Person: Marc Richards		Address: 446 Main Street	
City: Worcester	State: MA	Zip: 01610	PO # W-1510
Tel. 508-754-2201	Fax.	email:	

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis: PCBs									
11	12/15/11	1350	G	S	PX - 339	1	1	G	4 oz	X									
12	12/15/11	1352	G	S	PX - 340	1	1	G	4 oz	X									
13	12/15/11	1354	G	S	PX - 341	1	1	G	4 oz	X									
14	12/15/11	1356	G	S	PX - 342	1	1	G	4 oz	X									
15	12/15/11	1358	G	S	PX - 343	1	1	G	4 oz	X									
16	12/15/11	1400	G	S	PX - 344	1	1	G	4 oz	X									
17	12/15/11	1402	G	S	PX - 345	1	1	G	4 oz	X									
18	12/15/11	1404	G	S	PX - 346	1	1	G	4 oz	X									
19	12/15/11	1406	G	S	PX - 347	1	1	G	4 oz	X									
20	12/15/11	1408	G	S	PX - 348	1	1	G	4 oz	X									

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ___✓___Yes ____No

Seals Intact ____ Yes ____No NA: ✓

Cooler Temperature: 2.7°

Internal Use Only

[✓] Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	BC 12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112320

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 5:30 pm, Dec 28, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

SAMPLE RECEIPT

The following samples were received on December 16, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112320-01	PX-349	Soil	8082A
1112320-02	PX-350	Soil	8082A
1112320-03	PX-351	Soil	8082A
1112320-04	PX-352	Soil	8082A
1112320-05	PX-353	Soil	8082A
1112320-06	PX-354	Soil	8082A
1112320-07	PX-355	Soil	8082A
1112320-08	PX-356	Soil	8082A
1112320-09	PX-357	Soil	8082A
1112320-10	PX-358	Soil	8082A
1112320-11	PX-359	Soil	8082A
1112320-12	PX-360	Soil	8082A
1112320-13	PX-361	Soil	8082A
1112320-14	PX-362	Soil	8082A
1112320-15	PX-363	Soil	8082A
1112320-16	PX-364	Soil	8082A
1112320-17	PX-365	Soil	8082A
1112320-18	PX-366	Soil	8082A
1112320-19	PX-367	Soil	8082A
1112320-20	PX-368	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112320

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112320-01 through 1112320-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 28, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-349
Date Sampled: 12/15/11 14:10
Percent Solids: 87
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0563)		1	12/23/11 22:47		CL12111
Aroclor 1221	ND (0.0563)		1	12/23/11 22:47		CL12111
Aroclor 1232	ND (0.0563)		1	12/23/11 22:47		CL12111
Aroclor 1242	ND (0.0563)		1	12/23/11 22:47		CL12111
Aroclor 1248	ND (0.0563)		1	12/23/11 22:47		CL12111
Aroclor 1254	ND (0.0563)		1	12/23/11 22:47		CL12111
Aroclor 1260	**0.139** (0.0563)		1	12/23/11 22:47		CL12111
Aroclor 1262	ND (0.0563)		1	12/23/11 22:47		CL12111
Aroclor 1268	ND (0.0563)		1	12/23/11 22:47		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-350
Date Sampled: 12/15/11 14:12
Percent Solids: 87
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0583)		1	12/23/11 23:06		CL12111
Aroclor 1221	ND (0.0583)		1	12/23/11 23:06		CL12111
Aroclor 1232	ND (0.0583)		1	12/23/11 23:06		CL12111
Aroclor 1242	ND (0.0583)		1	12/23/11 23:06		CL12111
Aroclor 1248	ND (0.0583)		1	12/23/11 23:06		CL12111
Aroclor 1254	ND (0.0583)		1	12/23/11 23:06		CL12111
Aroclor 1260	**0.269** (0.0583)		1	12/23/11 23:06		CL12111
Aroclor 1262	ND (0.0583)		1	12/23/11 23:06		CL12111
Aroclor 1268	ND (0.0583)		1	12/23/11 23:06		CL12111

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*80 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-351
Date Sampled: 12/15/11 14:14
Percent Solids: 90
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0547)		1	12/23/11 23:24		CL12227
Aroclor 1221	ND (0.0547)		1	12/23/11 23:24		CL12227
Aroclor 1232	ND (0.0547)		1	12/23/11 23:24		CL12227
Aroclor 1242	ND (0.0547)		1	12/23/11 23:24		CL12227
Aroclor 1248	ND (0.0547)		1	12/23/11 23:24		CL12227
Aroclor 1254	ND (0.0547)		1	12/23/11 23:24		CL12227
Aroclor 1260	ND (0.0547)		1	12/23/11 23:24		CL12227
Aroclor 1262	ND (0.0547)		1	12/23/11 23:24		CL12227
Aroclor 1268	ND (0.0547)		1	12/23/11 23:24		CL12227

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*100 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*95 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-352
Date Sampled: 12/15/11 14:16
Percent Solids: 87
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/22/11 13:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)		1	12/23/11 23:43		CL12227
Aroclor 1221	ND (0.0575)		1	12/23/11 23:43		CL12227
Aroclor 1232	ND (0.0575)		1	12/23/11 23:43		CL12227
Aroclor 1242	ND (0.0575)		1	12/23/11 23:43		CL12227
Aroclor 1248	ND (0.0575)		1	12/23/11 23:43		CL12227
Aroclor 1254	ND (0.0575)		1	12/23/11 23:43		CL12227
Aroclor 1260	**0.0608** (0.0575)		1	12/23/11 23:43		CL12227
Aroclor 1262	ND (0.0575)		1	12/23/11 23:43		CL12227
Aroclor 1268	ND (0.0575)		1	12/23/11 23:43		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*103 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-353
Date Sampled: 12/15/11 14:18
Percent Solids: 87
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0561)		1	12/27/11 12:04		CL12227
Aroclor 1221	ND (0.0561)		1	12/27/11 12:04		CL12227
Aroclor 1232	ND (0.0561)		1	12/27/11 12:04		CL12227
Aroclor 1242	ND (0.0561)		1	12/27/11 12:04		CL12227
Aroclor 1248	ND (0.0561)		1	12/27/11 12:04		CL12227
Aroclor 1254	ND (0.0561)		1	12/27/11 12:04		CL12227
Aroclor 1260	**0.141** (0.0561)		1	12/27/11 12:04		CL12227
Aroclor 1262	ND (0.0561)		1	12/27/11 12:04		CL12227
Aroclor 1268	ND (0.0561)		1	12/27/11 12:04		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*102 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-354
Date Sampled: 12/15/11 14:20
Percent Solids: 86
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	12/27/11 12:21		CL12227
Aroclor 1221	ND (0.0581)		1	12/27/11 12:21		CL12227
Aroclor 1232	ND (0.0581)		1	12/27/11 12:21		CL12227
Aroclor 1242	ND (0.0581)		1	12/27/11 12:21		CL12227
Aroclor 1248	ND (0.0581)		1	12/27/11 12:21		CL12227
Aroclor 1254	ND (0.0581)		1	12/27/11 12:21		CL12227
Aroclor 1260	**0.217** (0.0581)		1	12/27/11 12:21		CL12227
Aroclor 1262	ND (0.0581)		1	12/27/11 12:21		CL12227
Aroclor 1268	ND (0.0581)		1	12/27/11 12:21		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*58 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*91 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-355
Date Sampled: 12/15/11 14:22
Percent Solids: 87
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0578)		1	12/27/11 12:40		CL12227
Aroclor 1221	ND (0.0578)		1	12/27/11 12:40		CL12227
Aroclor 1232	ND (0.0578)		1	12/27/11 12:40		CL12227
Aroclor 1242	ND (0.0578)		1	12/27/11 12:40		CL12227
Aroclor 1248	ND (0.0578)		1	12/27/11 12:40		CL12227
Aroclor 1254	ND (0.0578)		1	12/27/11 12:40		CL12227
Aroclor 1260	**0.0729** (0.0578)		1	12/27/11 12:40		CL12227
Aroclor 1262	ND (0.0578)		1	12/27/11 12:40		CL12227
Aroclor 1268	ND (0.0578)		1	12/27/11 12:40		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*70 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-356
Date Sampled: 12/15/11 14:24
Percent Solids: 81
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0636)		1	12/27/11 12:59		CL12227
Aroclor 1221	ND (0.0636)		1	12/27/11 12:59		CL12227
Aroclor 1232	ND (0.0636)		1	12/27/11 12:59		CL12227
Aroclor 1242	ND (0.0636)		1	12/27/11 12:59		CL12227
Aroclor 1248	ND (0.0636)		1	12/27/11 12:59		CL12227
Aroclor 1254	ND (0.0636)		1	12/27/11 12:59		CL12227
Aroclor 1260	ND (0.0636)		1	12/27/11 12:59		CL12227
Aroclor 1262	ND (0.0636)		1	12/27/11 12:59		CL12227
Aroclor 1268	ND (0.0636)		1	12/27/11 12:59		CL12227

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*73 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-357
Date Sampled: 12/15/11 14:26
Percent Solids: 86
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)		1	12/27/11 13:17		CL12227
Aroclor 1221	ND (0.0567)		1	12/27/11 13:17		CL12227
Aroclor 1232	ND (0.0567)		1	12/27/11 13:17		CL12227
Aroclor 1242	ND (0.0567)		1	12/27/11 13:17		CL12227
Aroclor 1248	ND (0.0567)		1	12/27/11 13:17		CL12227
Aroclor 1254	**0.0663** (0.0567)		1	12/27/11 13:17		CL12227
Aroclor 1260	ND (0.0567)		1	12/27/11 13:17		CL12227
Aroclor 1262	ND (0.0567)		1	12/27/11 13:17		CL12227
Aroclor 1268	ND (0.0567)		1	12/27/11 13:17		CL12227

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*67 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*87 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-358
Date Sampled: 12/15/11 14:28
Percent Solids: 83
Initial Volume: 19.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0628)		1	12/27/11 13:37		CL12227
Aroclor 1221	ND (0.0628)		1	12/27/11 13:37		CL12227
Aroclor 1232	ND (0.0628)		1	12/27/11 13:37		CL12227
Aroclor 1242	ND (0.0628)		1	12/27/11 13:37		CL12227
Aroclor 1248	ND (0.0628)		1	12/27/11 13:37		CL12227
Aroclor 1254	ND (0.0628)		1	12/27/11 13:37		CL12227
Aroclor 1260	ND (0.0628)		1	12/27/11 13:37		CL12227
Aroclor 1262	ND (0.0628)		1	12/27/11 13:37		CL12227
Aroclor 1268	ND (0.0628)		1	12/27/11 13:37		CL12227

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*70 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*71 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-359
Date Sampled: 12/15/11 14:30
Percent Solids: 82
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0625)		1	12/27/11 13:55		CL12227
Aroclor 1221	ND (0.0625)		1	12/27/11 13:55		CL12227
Aroclor 1232	ND (0.0625)		1	12/27/11 13:55		CL12227
Aroclor 1242	ND (0.0625)		1	12/27/11 13:55		CL12227
Aroclor 1248	ND (0.0625)		1	12/27/11 13:55		CL12227
Aroclor 1254	ND (0.0625)		1	12/27/11 13:55		CL12227
Aroclor 1260	ND (0.0625)		1	12/27/11 13:55		CL12227
Aroclor 1262	ND (0.0625)		1	12/27/11 13:55		CL12227
Aroclor 1268	ND (0.0625)		1	12/27/11 13:55		CL12227

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*75 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-360
Date Sampled: 12/15/11 14:32
Percent Solids: 88
Initial Volume: 19.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0595)		1	12/27/11 14:14		CL12227
Aroclor 1221	ND (0.0595)		1	12/27/11 14:14		CL12227
Aroclor 1232	ND (0.0595)		1	12/27/11 14:14		CL12227
Aroclor 1242	ND (0.0595)		1	12/27/11 14:14		CL12227
Aroclor 1248	ND (0.0595)		1	12/27/11 14:14		CL12227
Aroclor 1254	ND (0.0595)		1	12/27/11 14:14		CL12227
Aroclor 1260	**0.127** (0.0595)		1	12/27/11 14:14		CL12227
Aroclor 1262	ND (0.0595)		1	12/27/11 14:14		CL12227
Aroclor 1268	ND (0.0595)		1	12/27/11 14:14		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-361
Date Sampled: 12/15/11 14:34
Percent Solids: 80
Initial Volume: 19.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0654)		1	12/27/11 14:33		CL12227
Aroclor 1221	ND (0.0654)		1	12/27/11 14:33		CL12227
Aroclor 1232	ND (0.0654)		1	12/27/11 14:33		CL12227
Aroclor 1242	ND (0.0654)		1	12/27/11 14:33		CL12227
Aroclor 1248	ND (0.0654)		1	12/27/11 14:33		CL12227
Aroclor 1254	**0.127** (0.0654)		1	12/27/11 14:33		CL12227
Aroclor 1260	ND (0.0654)		1	12/27/11 14:33		CL12227
Aroclor 1262	ND (0.0654)		1	12/27/11 14:33		CL12227
Aroclor 1268	ND (0.0654)		1	12/27/11 14:33		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*61 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*71 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*64 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-362
Date Sampled: 12/15/11 14:36
Percent Solids: 87
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0578)		1	12/27/11 14:52		CL12227
Aroclor 1221	ND (0.0578)		1	12/27/11 14:52		CL12227
Aroclor 1232	ND (0.0578)		1	12/27/11 14:52		CL12227
Aroclor 1242	ND (0.0578)		1	12/27/11 14:52		CL12227
Aroclor 1248	ND (0.0578)		1	12/27/11 14:52		CL12227
Aroclor 1254	ND (0.0578)		1	12/27/11 14:52		CL12227
Aroclor 1260	ND (0.0578)		1	12/27/11 14:52		CL12227
Aroclor 1262	ND (0.0578)		1	12/27/11 14:52		CL12227
Aroclor 1268	ND (0.0578)		1	12/27/11 14:52		CL12227

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*73 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-363
Date Sampled: 12/15/11 14:38
Percent Solids: 89
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0567)		1	12/27/11 15:10		CL12227
Aroclor 1221	ND (0.0567)		1	12/27/11 15:10		CL12227
Aroclor 1232	ND (0.0567)		1	12/27/11 15:10		CL12227
Aroclor 1242	ND (0.0567)		1	12/27/11 15:10		CL12227
Aroclor 1248	ND (0.0567)		1	12/27/11 15:10		CL12227
Aroclor 1254	ND (0.0567)		1	12/27/11 15:10		CL12227
Aroclor 1260	**0.156** (0.0567)		1	12/27/11 15:10		CL12227
Aroclor 1262	ND (0.0567)		1	12/27/11 15:10		CL12227
Aroclor 1268	ND (0.0567)		1	12/27/11 15:10		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*68 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-364
Date Sampled: 12/15/11 14:40
Percent Solids: 89
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0582)		1	12/27/11 15:29		CL12227
Aroclor 1221	ND (0.0582)		1	12/27/11 15:29		CL12227
Aroclor 1232	ND (0.0582)		1	12/27/11 15:29		CL12227
Aroclor 1242	ND (0.0582)		1	12/27/11 15:29		CL12227
Aroclor 1248	ND (0.0582)		1	12/27/11 15:29		CL12227
Aroclor 1254	ND (0.0582)		1	12/27/11 15:29		CL12227
Aroclor 1260	ND (0.0582)		1	12/27/11 15:29		CL12227
Aroclor 1262	ND (0.0582)		1	12/27/11 15:29		CL12227
Aroclor 1268	ND (0.0582)		1	12/27/11 15:29		CL12227

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*76 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-365
Date Sampled: 12/15/11 14:42
Percent Solids: 86
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0564)		1	12/27/11 15:48		CL12227
Aroclor 1221	ND (0.0564)		1	12/27/11 15:48		CL12227
Aroclor 1232	ND (0.0564)		1	12/27/11 15:48		CL12227
Aroclor 1242	ND (0.0564)		1	12/27/11 15:48		CL12227
Aroclor 1248	ND (0.0564)		1	12/27/11 15:48		CL12227
Aroclor 1254	ND (0.0564)		1	12/27/11 15:48		CL12227
Aroclor 1260	**0.0613** (0.0564)		1	12/27/11 15:48		CL12227
Aroclor 1262	ND (0.0564)		1	12/27/11 15:48		CL12227
Aroclor 1268	ND (0.0564)		1	12/27/11 15:48		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-366
Date Sampled: 12/15/11 14:44
Percent Solids: 86
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)		1	12/27/11 16:07		CL12227
Aroclor 1221	ND (0.0573)		1	12/27/11 16:07		CL12227
Aroclor 1232	ND (0.0573)		1	12/27/11 16:07		CL12227
Aroclor 1242	ND (0.0573)		1	12/27/11 16:07		CL12227
Aroclor 1248	ND (0.0573)		1	12/27/11 16:07		CL12227
Aroclor 1254	**0.192** (0.0573)		1	12/27/11 16:07		CL12227
Aroclor 1260	**0.0932** (0.0573)		1	12/27/11 16:07		CL12227
Aroclor 1262	ND (0.0573)		1	12/27/11 16:07		CL12227
Aroclor 1268	ND (0.0573)		1	12/27/11 16:07		CL12227

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*67 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-367
Date Sampled: 12/15/11 14:46
Percent Solids: 85
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0603)		1	12/27/11 16:26		CL12227
Aroclor 1221	ND (0.0603)		1	12/27/11 16:26		CL12227
Aroclor 1232	ND (0.0603)		1	12/27/11 16:26		CL12227
Aroclor 1242	ND (0.0603)		1	12/27/11 16:26		CL12227
Aroclor 1248	ND (0.0603)		1	12/27/11 16:26		CL12227
Aroclor 1254	ND (0.0603)		1	12/27/11 16:26		CL12227
Aroclor 1260	**0.100** (0.0603)		1	12/27/11 16:26		CL12227
Aroclor 1262	ND (0.0603)		1	12/27/11 16:26		CL12227
Aroclor 1268	ND (0.0603)		1	12/27/11 16:26		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*73 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-368
Date Sampled: 12/15/11 14:48
Percent Solids: 84
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112320
ESS Laboratory Sample ID: 1112320-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0570)		1	12/27/11 16:44		CL12227
Aroclor 1221	ND (0.0570)		1	12/27/11 16:44		CL12227
Aroclor 1232	ND (0.0570)		1	12/27/11 16:44		CL12227
Aroclor 1242	ND (0.0570)		1	12/27/11 16:44		CL12227
Aroclor 1248	ND (0.0570)		1	12/27/11 16:44		CL12227
Aroclor 1254	ND (0.0570)		1	12/27/11 16:44		CL12227
Aroclor 1260	ND (0.0570)		1	12/27/11 16:44		CL12227
Aroclor 1262	ND (0.0570)		1	12/27/11 16:44		CL12227
Aroclor 1268	ND (0.0570)		1	12/27/11 16:44		CL12227

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*102 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12111 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0193*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
LCS										
Aroclor 1016	0.511	0.0500	mg/kg wet	0.5000		102	40-140			
Aroclor 1260	0.502	0.0500	mg/kg wet	0.5000		100	40-140			
Surrogate: Decachlorobiphenyl	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0237*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0222*		mg/kg wet	*0.02500*		*89*	*30-150*			
LCS Dup										
Aroclor 1016	0.515	0.0500	mg/kg wet	0.5000		103	40-140	0.9	30	
Aroclor 1260	0.505	0.0500	mg/kg wet	0.5000		101	40-140	0.6	30	
Surrogate: Decachlorobiphenyl	*0.0240*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0241*		mg/kg wet	*0.02500*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Batch CL12227 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12227 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12227 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0206*		mg/kg wet	*0.02500*		*82*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12227 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0229*		mg/kg wet	*0.02500*		*92*	*30-150*			
LCS										
Aroclor 1016	0.568	0.0500	mg/kg wet	0.5000		114	40-140			
Aroclor 1260	0.567	0.0500	mg/kg wet	0.5000		113	40-140			
Surrogate: Decachlorobiphenyl	*0.0253*		mg/kg wet	*0.02500*		*101*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0252*		mg/kg wet	*0.02500*		*101*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0236*		mg/kg wet	*0.02500*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0246*		mg/kg wet	*0.02500*		*98*	*30-150*			
LCS Dup										
Aroclor 1016	0.587	0.0500	mg/kg wet	0.5000		117	40-140	3	30	
Aroclor 1260	0.572	0.0500	mg/kg wet	0.5000		114	40-140	0.9	30	
Surrogate: Decachlorobiphenyl	*0.0255*		mg/kg wet	*0.02500*		*102*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0255*		mg/kg wet	*0.02500*		*102*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0232*		mg/kg wet	*0.02500*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0245*		mg/kg wet	*0.02500*		*98*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112320

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112320

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120320
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **2.7**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes** / **No**
17. Were samples received intact? **Yes** / **No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/16/11
Reviewed By: _____ Date/Time: _____

1 of 2 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112320

Turn Time ____X___Standard Other_____

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - ____RCS-1 <1ppm

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO #: W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
01	12/15/11	1410	G	S	PX - 349	1	1	G	4 oz	X
02	12/15/11	1412	G	S	PX - 350	1	1	G	4 oz	X
03	12/15/11	1414	G	S	PX - 351	1	1	G	4 oz	X
04	12/15/11	1416	G	S	PX - 352	1	1	G	4 oz	X
05	12/15/11	1418	G	S	PX - 353	1	1	G	4 oz	X
06	12/15/11	1420	G	S	PX - 354	1	1	G	4 oz	X
07	12/15/11	1422	G	S	PX - 355	1	1	G	4 oz	X
08	12/15/11	1424	G	S	PX - 356	1	1	G	4 oz	X
09	12/15/11	1426	G	S	PX - 357	1	1	G	4 oz	X
10	12/15/11	1425	G	S	PX - 358	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ____✓Yes ____No

Seals Intact ____ Yes ____No NA: ✓

Cooler Temperature: 2.7°

Internal Use Only

[✓] ~~Pickup~~

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

2 of 2 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112320

Turn Time ____X___Standard Other_____

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - ____RCS-1 <1ppm

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO #: W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
11	12/15/11	1430	G	S	PX - 359	1	1	G	4 oz	X
12	12/15/11	1432	G	S	PX - 360	1	1	G	4 oz	X
13	12/15/11	1434	G	S	PX - 361	1	1	G	4 oz	X
14	12/15/11	1436	G	S	PX - 362	1	1	G	4 oz	X
15	12/15/11	1438	G	S	PX - 363	1	1	G	4 oz	X
16	12/15/11	1440	G	S	PX - 364	1	1	G	4 oz	X
17	12/15/11	1442	G	S	PX - 365	1	1	G	4 oz	X
18	12/15/11	1444	G	S	PX - 366	1	1	G	4 oz	X
19	12/15/11	1446	G	S	PX - 367	1	1	G	4 oz	X
20	12/15/11	1448	G	S	PX - 368	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____No

Seals Intact ____ Yes ____No NA: ✓

Cooler Temperature: 2.7°

Internal Use Only
[ ] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1435	12-16-11 1135	12/16/11 1245	BC 12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP,CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112321

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 6:17 pm, Dec 30, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112321

SAMPLE RECEIPT

The following samples were received on December 16, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112321-01	PX-369	Soil	8082A
1112321-02	PX-370	Soil	8082A
1112321-03	PX-371	Soil	8082A
1112321-04	PX-372	Soil	8082A
1112321-05	PX-373	Soil	8082A
1112321-06	PX-374	Soil	8082A
1112321-07	PX-375	Soil	8082A
1112321-08	PX-376	Soil	8082A
1112321-09	PX-377	Soil	8082A
1112321-10	PX-378	Soil	8082A
1112321-11	PX-379	Soil	8082A
1112321-12	PX-380	Soil	8082A
1112321-13	PX-381	Soil	8082A
1112321-14	PX-382	Soil	8082A
1112321-15	PX-383	Soil	8082A
1112321-16	PX-384	Soil	8082A
1112321-17	PX-385	Soil	8082A
1112321-18	PX-386	Soil	8082A
1112321-19	PX-387	Soil	8082A
1112321-20	PX-388	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112321

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112321

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112321-01 through 1112321-20**

Matrices: ( ) Ground Water/Surface Water ( ) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes ( ) No ( )
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 ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes ( ) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes ( ) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes ( ) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes ( ) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes ( ) No ( )*

****All negative responses must be addressed in an attached laboratory 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: _____ Date: December 30, 2011

Printed Name: Laurel Stoddard Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-369
Date Sampled: 12/15/11 14:50
Percent Solids: 89
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: ML
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0553)		1	12/27/11 18:00		CL12310
Aroclor 1221	ND (0.0553)		1	12/27/11 18:00		CL12310
Aroclor 1232	ND (0.0553)		1	12/27/11 18:00		CL12310
Aroclor 1242	ND (0.0553)		1	12/27/11 18:00		CL12310
Aroclor 1248	ND (0.0553)		1	12/27/11 18:00		CL12310
Aroclor 1254	ND (0.0553)		1	12/27/11 18:00		CL12310
Aroclor 1260	**0.197** (0.0553)		1	12/27/11 18:00		CL12310
Aroclor 1262	ND (0.0553)		1	12/27/11 18:00		CL12310
Aroclor 1268	ND (0.0553)		1	12/27/11 18:00		CL12310

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*80 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-370
Date Sampled: 12/15/11 14:52
Percent Solids: 88
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0577)		1	12/28/11 10:15		CL12310
Aroclor 1221	ND (0.0577)		1	12/28/11 10:15		CL12310
Aroclor 1232	ND (0.0577)		1	12/28/11 10:15		CL12310
Aroclor 1242	ND (0.0577)		1	12/28/11 10:15		CL12310
Aroclor 1248	ND (0.0577)		1	12/28/11 10:15		CL12310
Aroclor 1254	ND (0.0577)		1	12/28/11 10:15		CL12310
Aroclor 1260	**0.0732** (0.0577)		1	12/28/11 10:15		CL12310
Aroclor 1262	ND (0.0577)		1	12/28/11 10:15		CL12310
Aroclor 1268	ND (0.0577)		1	12/28/11 10:15		CL12310

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-371
Date Sampled: 12/15/11 14:54
Percent Solids: 90
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0547)		1	12/28/11 10:34		CL12310
Aroclor 1221	ND (0.0547)		1	12/28/11 10:34		CL12310
Aroclor 1232	ND (0.0547)		1	12/28/11 10:34		CL12310
Aroclor 1242	ND (0.0547)		1	12/28/11 10:34		CL12310
Aroclor 1248	ND (0.0547)		1	12/28/11 10:34		CL12310
Aroclor 1254	ND (0.0547)		1	12/28/11 10:34		CL12310
Aroclor 1260	ND (0.0547)		1	12/28/11 10:34		CL12310
Aroclor 1262	ND (0.0547)		1	12/28/11 10:34		CL12310
Aroclor 1268	ND (0.0547)		1	12/28/11 10:34		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-372
Date Sampled: 12/15/11 14:56
Percent Solids: 85
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0600)		1	12/28/11 10:53		CL12310
Aroclor 1221	ND (0.0600)		1	12/28/11 10:53		CL12310
Aroclor 1232	ND (0.0600)		1	12/28/11 10:53		CL12310
Aroclor 1242	ND (0.0600)		1	12/28/11 10:53		CL12310
Aroclor 1248	ND (0.0600)		1	12/28/11 10:53		CL12310
Aroclor 1254	ND (0.0600)		1	12/28/11 10:53		CL12310
Aroclor 1260	ND (0.0600)		1	12/28/11 10:53		CL12310
Aroclor 1262	ND (0.0600)		1	12/28/11 10:53		CL12310
Aroclor 1268	ND (0.0600)		1	12/28/11 10:53		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*104 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-373
Date Sampled: 12/15/11 14:58
Percent Solids: 88
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0568)		1	12/28/11 11:11		CL12310
Aroclor 1221	ND (0.0568)		1	12/28/11 11:11		CL12310
Aroclor 1232	ND (0.0568)		1	12/28/11 11:11		CL12310
Aroclor 1242	ND (0.0568)		1	12/28/11 11:11		CL12310
Aroclor 1248	ND (0.0568)		1	12/28/11 11:11		CL12310
Aroclor 1254	ND (0.0568)		1	12/28/11 11:11		CL12310
Aroclor 1260	ND (0.0568)		1	12/28/11 11:11		CL12310
Aroclor 1262	ND (0.0568)		1	12/28/11 11:11		CL12310
Aroclor 1268	ND (0.0568)		1	12/28/11 11:11		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-374
Date Sampled: 12/15/11 15:00
Percent Solids: 88
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0583)		1	12/28/11 11:30		CL12310
Aroclor 1221	ND (0.0583)		1	12/28/11 11:30		CL12310
Aroclor 1232	ND (0.0583)		1	12/28/11 11:30		CL12310
Aroclor 1242	ND (0.0583)		1	12/28/11 11:30		CL12310
Aroclor 1248	ND (0.0583)		1	12/28/11 11:30		CL12310
Aroclor 1254	ND (0.0583)		1	12/28/11 11:30		CL12310
Aroclor 1260	ND (0.0583)		1	12/28/11 11:30		CL12310
Aroclor 1262	ND (0.0583)		1	12/28/11 11:30		CL12310
Aroclor 1268	ND (0.0583)		1	12/28/11 11:30		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-375
Date Sampled: 12/15/11 15:02
Percent Solids: 86
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0596)		1	12/28/11 12:27		CL12310
Aroclor 1221	ND (0.0596)		1	12/28/11 12:27		CL12310
Aroclor 1232	ND (0.0596)		1	12/28/11 12:27		CL12310
Aroclor 1242	ND (0.0596)		1	12/28/11 12:27		CL12310
Aroclor 1248	ND (0.0596)		1	12/28/11 12:27		CL12310
Aroclor 1254	ND (0.0596)		1	12/28/11 12:27		CL12310
Aroclor 1260	ND (0.0596)		1	12/28/11 12:27		CL12310
Aroclor 1262	ND (0.0596)		1	12/28/11 12:27		CL12310
Aroclor 1268	ND (0.0596)		1	12/28/11 12:27		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-376
Date Sampled: 12/15/11 15:04
Percent Solids: 88
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0574)		1	12/28/11 12:46		CL12310
Aroclor 1221	ND (0.0574)		1	12/28/11 12:46		CL12310
Aroclor 1232	ND (0.0574)		1	12/28/11 12:46		CL12310
Aroclor 1242	ND (0.0574)		1	12/28/11 12:46		CL12310
Aroclor 1248	ND (0.0574)		1	12/28/11 12:46		CL12310
Aroclor 1254	ND (0.0574)		1	12/28/11 12:46		CL12310
Aroclor 1260	**0.126** (0.0574)		1	12/28/11 12:46		CL12310
Aroclor 1262	ND (0.0574)		1	12/28/11 12:46		CL12310
Aroclor 1268	ND (0.0574)		1	12/28/11 12:46		CL12310

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-377
Date Sampled: 12/15/11 15:06
Percent Solids: 90
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0547)		1	12/28/11 13:05		CL12310
Aroclor 1221	ND (0.0547)		1	12/28/11 13:05		CL12310
Aroclor 1232	ND (0.0547)		1	12/28/11 13:05		CL12310
Aroclor 1242	ND (0.0547)		1	12/28/11 13:05		CL12310
Aroclor 1248	ND (0.0547)		1	12/28/11 13:05		CL12310
Aroclor 1254	ND (0.0547)		1	12/28/11 13:05		CL12310
Aroclor 1260	ND (0.0547)		1	12/28/11 13:05		CL12310
Aroclor 1262	ND (0.0547)		1	12/28/11 13:05		CL12310
Aroclor 1268	ND (0.0547)		1	12/28/11 13:05		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-378
Date Sampled: 12/15/11 15:08
Percent Solids: 87
Initial Volume: 19.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0581)		1	12/28/11 13:24		CL12310
Aroclor 1221	ND (0.0581)		1	12/28/11 13:24		CL12310
Aroclor 1232	ND (0.0581)		1	12/28/11 13:24		CL12310
Aroclor 1242	ND (0.0581)		1	12/28/11 13:24		CL12310
Aroclor 1248	ND (0.0581)		1	12/28/11 13:24		CL12310
Aroclor 1254	ND (0.0581)		1	12/28/11 13:24		CL12310
Aroclor 1260	ND (0.0581)		1	12/28/11 13:24		CL12310
Aroclor 1262	ND (0.0581)		1	12/28/11 13:24		CL12310
Aroclor 1268	ND (0.0581)		1	12/28/11 13:24		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-379
Date Sampled: 12/15/11 15:10
Percent Solids: 87
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0592)		1	12/28/11 13:43		CL12310
Aroclor 1221	ND (0.0592)		1	12/28/11 13:43		CL12310
Aroclor 1232	ND (0.0592)		1	12/28/11 13:43		CL12310
Aroclor 1242	ND (0.0592)		1	12/28/11 13:43		CL12310
Aroclor 1248	ND (0.0592)		1	12/28/11 13:43		CL12310
Aroclor 1254	ND (0.0592)		1	12/28/11 13:43		CL12310
Aroclor 1260	ND (0.0592)		1	12/28/11 13:43		CL12310
Aroclor 1262	ND (0.0592)		1	12/28/11 13:43		CL12310
Aroclor 1268	ND (0.0592)		1	12/28/11 13:43		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-380
Date Sampled: 12/15/11 15:12
Percent Solids: 87
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0575)		1	12/28/11 14:02		CL12310
Aroclor 1221	ND (0.0575)		1	12/28/11 14:02		CL12310
Aroclor 1232	ND (0.0575)		1	12/28/11 14:02		CL12310
Aroclor 1242	ND (0.0575)		1	12/28/11 14:02		CL12310
Aroclor 1248	ND (0.0575)		1	12/28/11 14:02		CL12310
Aroclor 1254	ND (0.0575)		1	12/28/11 14:02		CL12310
Aroclor 1260	ND (0.0575)		1	12/28/11 14:02		CL12310
Aroclor 1262	ND (0.0575)		1	12/28/11 14:02		CL12310
Aroclor 1268	ND (0.0575)		1	12/28/11 14:02		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-381
Date Sampled: 12/15/11 15:14
Percent Solids: 87
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)		1	12/28/11 14:20		CL12310
Aroclor 1221	ND (0.0589)		1	12/28/11 14:20		CL12310
Aroclor 1232	ND (0.0589)		1	12/28/11 14:20		CL12310
Aroclor 1242	ND (0.0589)		1	12/28/11 14:20		CL12310
Aroclor 1248	ND (0.0589)		1	12/28/11 14:20		CL12310
Aroclor 1254	ND (0.0589)		1	12/28/11 14:20		CL12310
Aroclor 1260	**0.0658** (0.0589)		1	12/28/11 14:20		CL12310
Aroclor 1262	ND (0.0589)		1	12/28/11 14:20		CL12310
Aroclor 1268	ND (0.0589)		1	12/28/11 14:20		CL12310

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-382
Date Sampled: 12/15/11 15:16
Percent Solids: 92
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0530)		1	12/28/11 14:39		CL12310
Aroclor 1221	ND (0.0530)		1	12/28/11 14:39		CL12310
Aroclor 1232	ND (0.0530)		1	12/28/11 14:39		CL12310
Aroclor 1242	ND (0.0530)		1	12/28/11 14:39		CL12310
Aroclor 1248	ND (0.0530)		1	12/28/11 14:39		CL12310
Aroclor 1254	ND (0.0530)		1	12/28/11 14:39		CL12310
Aroclor 1260	**0.334** (0.0530)		1	12/28/11 14:39		CL12310
Aroclor 1262	ND (0.0530)		1	12/28/11 14:39		CL12310
Aroclor 1268	ND (0.0530)		1	12/28/11 14:39		CL12310

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-383
Date Sampled: 12/15/11 15:18
Percent Solids: 87
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0578)		1	12/28/11 14:58		CL12310
Aroclor 1221	ND (0.0578)		1	12/28/11 14:58		CL12310
Aroclor 1232	ND (0.0578)		1	12/28/11 14:58		CL12310
Aroclor 1242	ND (0.0578)		1	12/28/11 14:58		CL12310
Aroclor 1248	ND (0.0578)		1	12/28/11 14:58		CL12310
Aroclor 1254	ND (0.0578)		1	12/28/11 14:58		CL12310
Aroclor 1260	ND (0.0578)		1	12/28/11 14:58		CL12310
Aroclor 1262	ND (0.0578)		1	12/28/11 14:58		CL12310
Aroclor 1268	ND (0.0578)		1	12/28/11 14:58		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-384
Date Sampled: 12/15/11 15:20
Percent Solids: 92
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0552)		1	12/28/11 15:17		CL12310
Aroclor 1221	ND (0.0552)		1	12/28/11 15:17		CL12310
Aroclor 1232	ND (0.0552)		1	12/28/11 15:17		CL12310
Aroclor 1242	ND (0.0552)		1	12/28/11 15:17		CL12310
Aroclor 1248	ND (0.0552)		1	12/28/11 15:17		CL12310
Aroclor 1254	ND (0.0552)		1	12/28/11 15:17		CL12310
Aroclor 1260	**0.204** (0.0552)		1	12/28/11 15:17		CL12310
Aroclor 1262	ND (0.0552)		1	12/28/11 15:17		CL12310
Aroclor 1268	ND (0.0552)		1	12/28/11 15:17		CL12310

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-385
Date Sampled: 12/15/11 15:22
Percent Solids: 92
Initial Volume: 20.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0520)		1	12/28/11 15:36		CL12310
Aroclor 1221	ND (0.0520)		1	12/28/11 15:36		CL12310
Aroclor 1232	ND (0.0520)		1	12/28/11 15:36		CL12310
Aroclor 1242	ND (0.0520)		1	12/28/11 15:36		CL12310
Aroclor 1248	ND (0.0520)		1	12/28/11 15:36		CL12310
Aroclor 1254	ND (0.0520)		1	12/28/11 15:36		CL12310
Aroclor 1260	ND (0.0520)		1	12/28/11 15:36		CL12310
Aroclor 1262	ND (0.0520)		1	12/28/11 15:36		CL12310
Aroclor 1268	ND (0.0520)		1	12/28/11 15:36		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-386
Date Sampled: 12/15/11 15:24
Percent Solids: 97
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0508)		1	12/28/11 15:55		CL12310
Aroclor 1221	ND (0.0508)		1	12/28/11 15:55		CL12310
Aroclor 1232	ND (0.0508)		1	12/28/11 15:55		CL12310
Aroclor 1242	ND (0.0508)		1	12/28/11 15:55		CL12310
Aroclor 1248	ND (0.0508)		1	12/28/11 15:55		CL12310
Aroclor 1254	ND (0.0508)		1	12/28/11 15:55		CL12310
Aroclor 1260	ND (0.0508)		1	12/28/11 15:55		CL12310
Aroclor 1262	ND (0.0508)		1	12/28/11 15:55		CL12310
Aroclor 1268	ND (0.0508)		1	12/28/11 15:55		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-387
Date Sampled: 12/15/11 15:26
Percent Solids: 91
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/23/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0544)		1	12/28/11 16:13		CL12310
Aroclor 1221	ND (0.0544)		1	12/28/11 16:13		CL12310
Aroclor 1232	ND (0.0544)		1	12/28/11 16:13		CL12310
Aroclor 1242	ND (0.0544)		1	12/28/11 16:13		CL12310
Aroclor 1248	ND (0.0544)		1	12/28/11 16:13		CL12310
Aroclor 1254	ND (0.0544)		1	12/28/11 16:13		CL12310
Aroclor 1260	ND (0.0544)		1	12/28/11 16:13		CL12310
Aroclor 1262	ND (0.0544)		1	12/28/11 16:13		CL12310
Aroclor 1268	ND (0.0544)		1	12/28/11 16:13		CL12310

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-388
Date Sampled: 12/15/11 15:28
Percent Solids: 87
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112321
ESS Laboratory Sample ID: 1112321-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0558)		1	12/28/11 19:22		CL12712
Aroclor 1221	ND (0.0558)		1	12/28/11 19:22		CL12712
Aroclor 1232	ND (0.0558)		1	12/28/11 19:22		CL12712
Aroclor 1242	ND (0.0558)		1	12/28/11 19:22		CL12712
Aroclor 1248	**0.0691** (0.0558)		1	12/28/11 19:22		CL12712
Aroclor 1254	ND (0.0558)		1	12/28/11 19:22		CL12712
Aroclor 1260	ND (0.0558)		1	12/28/11 19:22		CL12712
Aroclor 1262	ND (0.0558)		1	12/28/11 19:22		CL12712
Aroclor 1268	ND (0.0558)		1	12/28/11 19:22		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*89 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112321

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12310 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112321

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12310 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112321

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12310 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0192*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0192*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
LCS										
Aroclor 1016	0.502	0.0500	mg/kg wet	0.5000		100	40-140			
Aroclor 1260	0.440	0.0500	mg/kg wet	0.5000		88	40-140			
Surrogate: Decachlorobiphenyl	*0.0206*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0247*		mg/kg wet	*0.02500*		*99*	*30-150*			
LCS Dup										
Aroclor 1016	0.486	0.0500	mg/kg wet	0.5000		97	40-140	3	30	
Aroclor 1260	0.435	0.0500	mg/kg wet	0.5000		87	40-140	1	30	
Surrogate: Decachlorobiphenyl	*0.0197*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0219*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0192*		mg/kg wet	*0.02500*		*77*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
Batch CL12712 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112321

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12712 - 3540										
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112321

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12712 - 3540										
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0196*		mg/kg wet	*0.02500*		*79*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112321

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12712 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
LCS										
Aroclor 1016	0.490	0.0500	mg/kg wet	0.5000		98	40-140			
Aroclor 1260	0.446	0.0500	mg/kg wet	0.5000		89	40-140			
Surrogate: Decachlorobiphenyl	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0239*		mg/kg wet	*0.02500*		*96*	*30-150*			
LCS Dup										
Aroclor 1016	0.600	0.0500	mg/kg wet	0.5000		120	40-140	20	30	
Aroclor 1260	0.560	0.0500	mg/kg wet	0.5000		112	40-140	23	30	
Surrogate: Decachlorobiphenyl	*0.0267*		mg/kg wet	*0.02500*		*107*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0281*		mg/kg wet	*0.02500*		*112*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0274*		mg/kg wet	*0.02500*		*110*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0306*		mg/kg wet	*0.02500*		*123*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112321

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112321

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120321
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **2.7**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes | No**
17. Were samples received intact? **Yes | No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/16/11
Reviewed By: _____ Date/Time: _____

1 of 2 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112321

Turn Time ____X___Standard Other_____

Reporting Limits - ____RCS-1 <1ppm

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO #: W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
01	12/15/11	1450	G	S	PX - 369	1	1	G	4 oz	X
02	12/15/11	1452	G	S	PX - 370	1	1	G	4 oz	X
03	12/15/11	1454	G	S	PX - 371	1	1	G	4 oz	X
04	12/15/11	1456	G	S	PX - 372	1	1	G	4 oz	X
05	12/15/11	1458	G	S	PX - 373	1	1	G	4 oz	X
06	12/15/11	1500	G	S	PX - 374	1	1	G	4 oz	X
07	12/15/11	1502	G	S	PX - 375	1	1	G	4 oz	X
08	12/15/11	1504	G	S	PX - 376	1	1	G	4 oz	X
09	12/15/11	1506	G	S	PX - 377	1	1	G	4 oz	X
10	12/15/11	1508	G	S	PX - 378	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ___✓___Yes _____No

Seals Intact ____ Yes _____No NA: ✓

Cooler Temperature: 2.7°

Internal Use Only
[✓] Pickup
[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

Gee 2 BC 12/16/11 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112321

Turn Time ___X___ Standard Other_____

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - ___RCS-1___ < 1ppm

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project #: W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO #: W-1510
Tel.: 508-754-2201	Fax.	email:	

Analysis

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
11	12/15/11	1510	G	S	PX - 379	1	1	G	4 oz	X
12	12/15/11	1512	G	S	PX - 380	1	1	G	4 oz	X
13	12/15/11	1514	G	S	PX - 381	1	1	G	4 oz	X
14	12/15/11	1516	G	S	PX - 382	1	1	G	4 oz	X
15	12/15/11	1518	G	S	PX - 383	1	1	G	4 oz	X
16	12/15/11	1520	G	S	PX - 384	1	1	G	4 oz	X
17	12/15/11	1522	G	S	PX - 385	1	1	G	4 oz	X
18	12/15/11	1524	G	S	PX - 386	1	1	G	4 oz	X
19	12/15/11	1526	G	S	PX - 387	1	1	G	4 oz	X
20	12/15/11	1528	G	S	PX - 388	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ___~~Yes~~___ ___No

Seals Intact ___ Yes ___No NA: —

Cooler Temperature: 2.7°

Internal Use Only

[✓] Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
[signature] 12-16-11 1135	[signature] 12-16-11 1135	[signature] 12/16/11 1245	BC 12/16/11 1245

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112322

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 6:20 pm, Dec 30, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

SAMPLE RECEIPT

The following samples were received on December 16, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112322-01	PX-389	Soil	8082A
1112322-02	PX-390	Soil	8082A
1112322-03	PX-391	Soil	8082A
1112322-04	PX-392	Soil	8082A
1112322-05	PX-393	Soil	8082A
1112322-06	PX-394	Soil	8082A
1112322-07	PX-395	Soil	8082A
1112322-08	PX-396	Soil	8082A
1112322-09	PX-397	Soil	8082A
1112322-10	PX-398	Soil	8082A
1112322-11	PX-399	Soil	8082A
1112322-12	PX-400	Soil	8082A
1112322-13	PX-401	Soil	8082A
1112322-14	PX-402	Soil	8082A
1112322-15	PX-403	Soil	8082A
1112322-16	PX-404	Soil	8082A
1112322-17	PX-405	Soil	8082A
1112322-18	PX-406	Soil	8082A
1112322-19	PX-407	Soil	8082A
1112322-20	PX-408	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112322

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112322-01 through 1112322-20**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: December 30, 2011
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-389
Date Sampled: 12/15/11 15:30
Percent Solids: 89
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0551)		1	12/28/11 19:41		CL12712
Aroclor 1221	ND (0.0551)		1	12/28/11 19:41		CL12712
Aroclor 1232	ND (0.0551)		1	12/28/11 19:41		CL12712
Aroclor 1242	ND (0.0551)		1	12/28/11 19:41		CL12712
Aroclor 1248	ND (0.0551)		1	12/28/11 19:41		CL12712
Aroclor 1254	ND (0.0551)		1	12/28/11 19:41		CL12712
Aroclor 1260	**0.128** (0.0551)		1	12/28/11 19:41		CL12712
Aroclor 1262	ND (0.0551)		1	12/28/11 19:41		CL12712
Aroclor 1268	ND (0.0551)		1	12/28/11 19:41		CL12712

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-390
Date Sampled: 12/15/11 15:32
Percent Solids: 89
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0573)		1	12/28/11 19:59		CL12712
Aroclor 1221	ND (0.0573)		1	12/28/11 19:59		CL12712
Aroclor 1232	ND (0.0573)		1	12/28/11 19:59		CL12712
Aroclor 1242	ND (0.0573)		1	12/28/11 19:59		CL12712
Aroclor 1248	ND (0.0573)		1	12/28/11 19:59		CL12712
Aroclor 1254	ND (0.0573)		1	12/28/11 19:59		CL12712
Aroclor 1260	**0.114** (0.0573)		1	12/28/11 19:59		CL12712
Aroclor 1262	ND (0.0573)		1	12/28/11 19:59		CL12712
Aroclor 1268	ND (0.0573)		1	12/28/11 19:59		CL12712

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-391
Date Sampled: 12/15/11 15:34
Percent Solids: 86
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)		1	12/28/11 20:18		CL12712
Aroclor 1221	ND (0.0584)		1	12/28/11 20:18		CL12712
Aroclor 1232	ND (0.0584)		1	12/28/11 20:18		CL12712
Aroclor 1242	ND (0.0584)		1	12/28/11 20:18		CL12712
Aroclor 1248	ND (0.0584)		1	12/28/11 20:18		CL12712
Aroclor 1254	ND (0.0584)		1	12/28/11 20:18		CL12712
Aroclor 1260	ND (0.0584)		1	12/28/11 20:18		CL12712
Aroclor 1262	ND (0.0584)		1	12/28/11 20:18		CL12712
Aroclor 1268	ND (0.0584)		1	12/28/11 20:18		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-392
Date Sampled: 12/15/11 15:36
Percent Solids: 87
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0589)		1	12/28/11 20:37		CL12712
Aroclor 1221	ND (0.0589)		1	12/28/11 20:37		CL12712
Aroclor 1232	ND (0.0589)		1	12/28/11 20:37		CL12712
Aroclor 1242	ND (0.0589)		1	12/28/11 20:37		CL12712
Aroclor 1248	ND (0.0589)		1	12/28/11 20:37		CL12712
Aroclor 1254	ND (0.0589)		1	12/28/11 20:37		CL12712
Aroclor 1260	ND (0.0589)		1	12/28/11 20:37		CL12712
Aroclor 1262	ND (0.0589)		1	12/28/11 20:37		CL12712
Aroclor 1268	ND (0.0589)		1	12/28/11 20:37		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-393
Date Sampled: 12/15/11 15:38
Percent Solids: 87
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0555)		1	12/28/11 20:56		CL12712
Aroclor 1221	ND (0.0555)		1	12/28/11 20:56		CL12712
Aroclor 1232	ND (0.0555)		1	12/28/11 20:56		CL12712
Aroclor 1242	ND (0.0555)		1	12/28/11 20:56		CL12712
Aroclor 1248	ND (0.0555)		1	12/28/11 20:56		CL12712
Aroclor 1254	ND (0.0555)		1	12/28/11 20:56		CL12712
Aroclor 1260	ND (0.0555)		1	12/28/11 20:56		CL12712
Aroclor 1262	ND (0.0555)		1	12/28/11 20:56		CL12712
Aroclor 1268	ND (0.0555)		1	12/28/11 20:56		CL12712

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-394
Date Sampled: 12/15/11 15:40
Percent Solids: 87
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0553)		1	12/28/11 21:15		CL12712
Aroclor 1221	ND (0.0553)		1	12/28/11 21:15		CL12712
Aroclor 1232	ND (0.0553)		1	12/28/11 21:15		CL12712
Aroclor 1242	ND (0.0553)		1	12/28/11 21:15		CL12712
Aroclor 1248	ND (0.0553)		1	12/28/11 21:15		CL12712
Aroclor 1254	ND (0.0553)		1	12/28/11 21:15		CL12712
Aroclor 1260	ND (0.0553)		1	12/28/11 21:15		CL12712
Aroclor 1262	ND (0.0553)		1	12/28/11 21:15		CL12712
Aroclor 1268	ND (0.0553)		1	12/28/11 21:15		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-395
Date Sampled: 12/15/11 15:42
Percent Solids: 86
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0596)		1	12/28/11 21:34		CL12712
Aroclor 1221	ND (0.0596)		1	12/28/11 21:34		CL12712
Aroclor 1232	ND (0.0596)		1	12/28/11 21:34		CL12712
Aroclor 1242	ND (0.0596)		1	12/28/11 21:34		CL12712
Aroclor 1248	ND (0.0596)		1	12/28/11 21:34		CL12712
Aroclor 1254	ND (0.0596)		1	12/28/11 21:34		CL12712
Aroclor 1260	ND (0.0596)		1	12/28/11 21:34		CL12712
Aroclor 1262	ND (0.0596)		1	12/28/11 21:34		CL12712
Aroclor 1268	ND (0.0596)		1	12/28/11 21:34		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-396
Date Sampled: 12/15/11 15:44
Percent Solids: 86
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0584)		1	12/28/11 21:52		CL12712
Aroclor 1221	ND (0.0584)		1	12/28/11 21:52		CL12712
Aroclor 1232	ND (0.0584)		1	12/28/11 21:52		CL12712
Aroclor 1242	ND (0.0584)		1	12/28/11 21:52		CL12712
Aroclor 1248	ND (0.0584)		1	12/28/11 21:52		CL12712
Aroclor 1254	ND (0.0584)		1	12/28/11 21:52		CL12712
Aroclor 1260	ND (0.0584)		1	12/28/11 21:52		CL12712
Aroclor 1262	ND (0.0584)		1	12/28/11 21:52		CL12712
Aroclor 1268	ND (0.0584)		1	12/28/11 21:52		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-397
Date Sampled: 12/15/11 15:46
Percent Solids: 88
Initial Volume: 19.9
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0571)		1	12/28/11 22:11		CL12712
Aroclor 1221	ND (0.0571)		1	12/28/11 22:11		CL12712
Aroclor 1232	ND (0.0571)		1	12/28/11 22:11		CL12712
Aroclor 1242	ND (0.0571)		1	12/28/11 22:11		CL12712
Aroclor 1248	ND (0.0571)		1	12/28/11 22:11		CL12712
Aroclor 1254	ND (0.0571)		1	12/28/11 22:11		CL12712
Aroclor 1260	ND (0.0571)		1	12/28/11 22:11		CL12712
Aroclor 1262	ND (0.0571)		1	12/28/11 22:11		CL12712
Aroclor 1268	ND (0.0571)		1	12/28/11 22:11		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-398
Date Sampled: 12/15/11 15:48
Percent Solids: 85
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0597)		1	12/28/11 22:30		CL12712
Aroclor 1221	ND (0.0597)		1	12/28/11 22:30		CL12712
Aroclor 1232	ND (0.0597)		1	12/28/11 22:30		CL12712
Aroclor 1242	ND (0.0597)		1	12/28/11 22:30		CL12712
Aroclor 1248	ND (0.0597)		1	12/28/11 22:30		CL12712
Aroclor 1254	ND (0.0597)		1	12/28/11 22:30		CL12712
Aroclor 1260	ND (0.0597)		1	12/28/11 22:30		CL12712
Aroclor 1262	ND (0.0597)		1	12/28/11 22:30		CL12712
Aroclor 1268	ND (0.0597)		1	12/28/11 22:30		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-399
Date Sampled: 12/15/11 15:50
Percent Solids: 86
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-11
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0590)		1	12/28/11 22:49		CL12712
Aroclor 1221	ND (0.0590)		1	12/28/11 22:49		CL12712
Aroclor 1232	ND (0.0590)		1	12/28/11 22:49		CL12712
Aroclor 1242	ND (0.0590)		1	12/28/11 22:49		CL12712
Aroclor 1248	ND (0.0590)		1	12/28/11 22:49		CL12712
Aroclor 1254	ND (0.0590)		1	12/28/11 22:49		CL12712
Aroclor 1260	ND (0.0590)		1	12/28/11 22:49		CL12712
Aroclor 1262	ND (0.0590)		1	12/28/11 22:49		CL12712
Aroclor 1268	ND (0.0590)		1	12/28/11 22:49		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-400
Date Sampled: 12/15/11 15:52
Percent Solids: 83
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-12
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0621)		1	12/28/11 23:08		CL12712
Aroclor 1221	ND (0.0621)		1	12/28/11 23:08		CL12712
Aroclor 1232	ND (0.0621)		1	12/28/11 23:08		CL12712
Aroclor 1242	ND (0.0621)		1	12/28/11 23:08		CL12712
Aroclor 1248	ND (0.0621)		1	12/28/11 23:08		CL12712
Aroclor 1254	ND (0.0621)		1	12/28/11 23:08		CL12712
Aroclor 1260	ND (0.0621)		1	12/28/11 23:08		CL12712
Aroclor 1262	ND (0.0621)		1	12/28/11 23:08		CL12712
Aroclor 1268	ND (0.0621)		1	12/28/11 23:08		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*93 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*74 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-401
Date Sampled: 12/15/11 15:54
Percent Solids: 83
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-13
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0615)		1	12/28/11 23:27		CL12712
Aroclor 1221	ND (0.0615)		1	12/28/11 23:27		CL12712
Aroclor 1232	ND (0.0615)		1	12/28/11 23:27		CL12712
Aroclor 1242	ND (0.0615)		1	12/28/11 23:27		CL12712
Aroclor 1248	ND (0.0615)		1	12/28/11 23:27		CL12712
Aroclor 1254	ND (0.0615)		1	12/28/11 23:27		CL12712
Aroclor 1260	ND (0.0615)		1	12/28/11 23:27		CL12712
Aroclor 1262	ND (0.0615)		1	12/28/11 23:27		CL12712
Aroclor 1268	ND (0.0615)		1	12/28/11 23:27		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*91 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*94 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*78 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-402
Date Sampled: 12/15/11 15:56
Percent Solids: 83
Initial Volume: 19.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-14
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0615)		1	12/28/11 23:45		CL12712
Aroclor 1221	ND (0.0615)		1	12/28/11 23:45		CL12712
Aroclor 1232	ND (0.0615)		1	12/28/11 23:45		CL12712
Aroclor 1242	ND (0.0615)		1	12/28/11 23:45		CL12712
Aroclor 1248	ND (0.0615)		1	12/28/11 23:45		CL12712
Aroclor 1254	ND (0.0615)		1	12/28/11 23:45		CL12712
Aroclor 1260	ND (0.0615)		1	12/28/11 23:45		CL12712
Aroclor 1262	ND (0.0615)		1	12/28/11 23:45		CL12712
Aroclor 1268	ND (0.0615)		1	12/28/11 23:45		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*101 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*102 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*99 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*115 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-403
Date Sampled: 12/15/11 15:58
Percent Solids: 83
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-15
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0618)		1	12/29/11 0:04		CL12712
Aroclor 1221	ND (0.0618)		1	12/29/11 0:04		CL12712
Aroclor 1232	ND (0.0618)		1	12/29/11 0:04		CL12712
Aroclor 1242	ND (0.0618)		1	12/29/11 0:04		CL12712
Aroclor 1248	ND (0.0618)		1	12/29/11 0:04		CL12712
Aroclor 1254	ND (0.0618)		1	12/29/11 0:04		CL12712
Aroclor 1260	ND (0.0618)		1	12/29/11 0:04		CL12712
Aroclor 1262	ND (0.0618)		1	12/29/11 0:04		CL12712
Aroclor 1268	ND (0.0618)		1	12/29/11 0:04		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-404
Date Sampled: 12/15/11 16:00
Percent Solids: 83
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-16
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0618)		1	12/29/11 0:23		CL12712
Aroclor 1221	ND (0.0618)		1	12/29/11 0:23		CL12712
Aroclor 1232	ND (0.0618)		1	12/29/11 0:23		CL12712
Aroclor 1242	ND (0.0618)		1	12/29/11 0:23		CL12712
Aroclor 1248	ND (0.0618)		1	12/29/11 0:23		CL12712
Aroclor 1254	ND (0.0618)		1	12/29/11 0:23		CL12712
Aroclor 1260	ND (0.0618)		1	12/29/11 0:23		CL12712
Aroclor 1262	ND (0.0618)		1	12/29/11 0:23		CL12712
Aroclor 1268	ND (0.0618)		1	12/29/11 0:23		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-405
Date Sampled: 12/15/11 16:02
Percent Solids: 86
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-17
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0599)		1	12/29/11 2:35		CL12712
Aroclor 1221	ND (0.0599)		1	12/29/11 2:35		CL12712
Aroclor 1232	ND (0.0599)		1	12/29/11 2:35		CL12712
Aroclor 1242	ND (0.0599)		1	12/29/11 2:35		CL12712
Aroclor 1248	ND (0.0599)		1	12/29/11 2:35		CL12712
Aroclor 1254	ND (0.0599)		1	12/29/11 2:35		CL12712
Aroclor 1260	**0.135** (0.0599)		1	12/29/11 2:35		CL12712
Aroclor 1262	ND (0.0599)		1	12/29/11 2:35		CL12712
Aroclor 1268	ND (0.0599)		1	12/29/11 2:35		CL12712

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*103 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-406
Date Sampled: 12/15/11 16:04
Percent Solids: 96
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-18
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0518)		1	12/29/11 2:54		CL12712
Aroclor 1221	ND (0.0518)		1	12/29/11 2:54		CL12712
Aroclor 1232	ND (0.0518)		1	12/29/11 2:54		CL12712
Aroclor 1242	ND (0.0518)		1	12/29/11 2:54		CL12712
Aroclor 1248	ND (0.0518)		1	12/29/11 2:54		CL12712
Aroclor 1254	ND (0.0518)		1	12/29/11 2:54		CL12712
Aroclor 1260	ND (0.0518)		1	12/29/11 2:54		CL12712
Aroclor 1262	ND (0.0518)		1	12/29/11 2:54		CL12712
Aroclor 1268	ND (0.0518)		1	12/29/11 2:54		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-407
Date Sampled: 12/15/11 16:06
Percent Solids: 96
Initial Volume: 19.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-19
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0534)		1	12/29/11 3:50		CL12712
Aroclor 1221	ND (0.0534)		1	12/29/11 3:50		CL12712
Aroclor 1232	ND (0.0534)		1	12/29/11 3:50		CL12712
Aroclor 1242	ND (0.0534)		1	12/29/11 3:50		CL12712
Aroclor 1248	ND (0.0534)		1	12/29/11 3:50		CL12712
Aroclor 1254	ND (0.0534)		1	12/29/11 3:50		CL12712
Aroclor 1260	ND (0.0534)		1	12/29/11 3:50		CL12712
Aroclor 1262	ND (0.0534)		1	12/29/11 3:50		CL12712
Aroclor 1268	ND (0.0534)		1	12/29/11 3:50		CL12712

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-408
Date Sampled: 12/15/11 16:08
Percent Solids: 96
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112322
ESS Laboratory Sample ID: 1112322-20
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0540)		1	12/29/11 5:06		CL12713
Aroclor 1221	ND (0.0540)		1	12/29/11 5:06		CL12713
Aroclor 1232	ND (0.0540)		1	12/29/11 5:06		CL12713
Aroclor 1242	ND (0.0540)		1	12/29/11 5:06		CL12713
Aroclor 1248	ND (0.0540)		1	12/29/11 5:06		CL12713
Aroclor 1254	ND (0.0540)		1	12/29/11 5:06		CL12713
Aroclor 1260	ND (0.0540)		1	12/29/11 5:06		CL12713
Aroclor 1262	ND (0.0540)		1	12/29/11 5:06		CL12713
Aroclor 1268	ND (0.0540)		1	12/29/11 5:06		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12712 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12712 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12712 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0216*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0196*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0231*		mg/kg wet	*0.02500*		*92*	*30-150*			
LCS										
Aroclor 1016	0.490	0.0500	mg/kg wet	0.5000		98	40-140			
Aroclor 1260	0.446	0.0500	mg/kg wet	0.5000		89	40-140			
Surrogate: Decachlorobiphenyl	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0215*		mg/kg wet	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0239*		mg/kg wet	*0.02500*		*96*	*30-150*			
LCS Dup										
Aroclor 1016	0.600	0.0500	mg/kg wet	0.5000		120	40-140	20	30	
Aroclor 1260	0.560	0.0500	mg/kg wet	0.5000		112	40-140	23	30	
Surrogate: Decachlorobiphenyl	*0.0267*		mg/kg wet	*0.02500*		*107*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0281*		mg/kg wet	*0.02500*		*112*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0274*		mg/kg wet	*0.02500*		*110*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0306*		mg/kg wet	*0.02500*		*123*	*30-150*			
Matrix Spike Source: 1112322-18										
Aroclor 1016	0.522	0.0511	mg/kg dry	0.5106	ND	102	40-140			
Aroclor 1260	0.474	0.0511	mg/kg dry	0.5106	ND	93	40-140			
Surrogate: Decachlorobiphenyl	*0.0233*		mg/kg dry	*0.02553*		*91*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0231*		mg/kg dry	*0.02553*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0243*		mg/kg dry	*0.02553*		*95*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0264*		mg/kg dry	*0.02553*		*104*	*30-150*			
Matrix Spike Dup Source: 1112322-18										
Aroclor 1016	0.518	0.0526	mg/kg dry	0.5261	ND	99	40-140	4	30	
Aroclor 1260	0.481	0.0526	mg/kg dry	0.5261	ND	91	40-140	2	30	
Surrogate: Decachlorobiphenyl	*0.0234*		mg/kg dry	*0.02630*		*89*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0239*		mg/kg dry	*0.02630*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0232*		mg/kg dry	*0.02630*		*88*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12712 - 3540										
Surrogate: Tetrachloro-m-xylene [2C]	*0.0255*		mg/kg dry	*0.02630*		*97*	*30-150*			
Batch CL12713 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12713 - 3540										
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12713 - 3540										
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0221*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
LCS										
Aroclor 1016	0.521	0.0500	mg/kg wet	0.5000		104	40-140			
Aroclor 1260	0.485	0.0500	mg/kg wet	0.5000		97	40-140			
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0227*		mg/kg wet	*0.02500*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0251*		mg/kg wet	*0.02500*		*100*	*30-150*			
LCS Dup										
Aroclor 1016	0.478	0.0500	mg/kg wet	0.5000		96	40-140	9	30	
Aroclor 1260	0.440	0.0500	mg/kg wet	0.5000		88	40-140	10	30	
Surrogate: Decachlorobiphenyl	*0.0218*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0221*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			
Matrix Spike Source: 1112322-20										
Aroclor 1016	0.531	0.0540	mg/kg dry	0.5397	ND	98	40-140			
Aroclor 1260	0.497	0.0540	mg/kg dry	0.5397	ND	92	40-140			
Surrogate: Decachlorobiphenyl	*0.0239*		mg/kg dry	*0.02699*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0244*		mg/kg dry	*0.02699*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0234*		mg/kg dry	*0.02699*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0258*		mg/kg dry	*0.02699*		*96*	*30-150*			
Matrix Spike Dup Source: 1112322-20										
Aroclor 1016	0.504	0.0526	mg/kg dry	0.5261	ND	96	40-140	3	30	
Aroclor 1260	0.476	0.0526	mg/kg dry	0.5261	ND	91	40-140	2	30	

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112322

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12713 - 3540										
Surrogate: Decachlorobiphenyl	*0.0230*		mg/kg dry	*0.02630*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0234*		mg/kg dry	*0.02630*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0227*		mg/kg dry	*0.02630*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0248*		mg/kg dry	*0.02630*		*94*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112322

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112322

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120322
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **2.7**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes|No**
17. Were samples received intact? **Yes|No**
    ESS Sample IDs: _____
    Sub Lab: _____
    Analysis: _____
    TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/16/11
Reviewed By: _____ Date/Time: 12/16/11

1 of 2 ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

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Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112322

Turn Time ____X___Standard Other_____

Reporting Limits - ____RCS-1 <1ppm

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO # W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
01	12/15/11	1530	G	S	PX - 389	1	1	G	4 oz	X
02	12/15/11	1532	G	S	PX - 390	1	1	G	4 oz	X
03	12/15/11	1534	G	S	PX - 391	1	1	G	4 oz	X
04	12/15/11	1536	G	S	PX - 392	1	1	G	4 oz	X
05	12/15/11	1538	G	S	PX - 393	1	1	G	4 oz	X
06	12/15/11	1540	G	S	PX - 394	1	1	G	4 oz	X
07	12/15/11	1542	G	S	PX - 395	1	1	G	4 oz	X
08	12/15/11	1544	G	S	PX - 396	1	1	G	4 oz	X
09	12/15/11	1546	G	S	PX - 397	1	1	G	4 oz	X
10	12/15/11	1548	G	S	PX - 398	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____No

Seals Intact ____ Yes ____No NA: ✓

Cooler Temperature: 2.70

Internal Use Only

[✓] Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

2 of 2

ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112322

Turn Time ____X___Standard Other_____

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Reporting Limits - ____RCS-1 <1ppm

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project # W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO # W-1510
Tel. 508-754-2201	Fax.	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
11	12/15/11	1550	G	S	PX - 399	1	1	G	4 oz	X
12	12/15/11	1552	G	S	PX - 400	1	1	G	4 oz	X
13	12/15/11	1554	G	S	PX - 401	1	1	G	4 oz	X
14	12/15/11	1556	G	S	PX - 402	1	1	G	4 oz	X
15	12/15/11	1558	G	S	PX - 403	1	1	G	4 oz	X
16	12/15/11	1600	G	S	PX - 404	1	1	G	4 oz	X
17	12/15/11	1602	G	S	PX - 405	1	1	G	4 oz	X
18	12/15/11	1604	G	S	PX - 406	1	1	G	4 oz	X
19	12/15/11	1606	G	S	PX - 407	1	1	G	4 oz	X
20	12/15/11	1608	G	S	PX - 408	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ____Yes ____No

Seals Intact ____ Yes ____No NA: ___

Cooler Temperature: 2.7°

Internal Use Only

[ ] Pickup

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc Richards
Tighe & Bond
4 Barlows Landing Road, Unit 15
Pocasset, MA 02559

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1112323

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By SMorrell at 6:22 pm, Dec 30, 2011

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112323

SAMPLE RECEIPT

The following samples were received on December 16, 2011 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1112323-01	PX-409	Soil	8082A
1112323-02	PX-410	Soil	8082A
1112323-03	PX-411	Soil	8082A
1112323-04	PX-412	Soil	8082A
1112323-05	PX-413	Soil	8082A
1112323-06	PX-414	Soil	8082A
1112323-07	PX-415	Soil	8082A
1112323-08	PX-416	Soil	8082A
1112323-09	PX-417	Soil	8082A
1112323-10	PX-418	Soil	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112323

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112323

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1112323-01 through 1112323-10**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: _____ Date: December 30, 2011

Printed Name: Laurel Stoddard Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-409
Date Sampled: 12/15/11 16:10
Percent Solids: 84
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/27/11 13:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0614)		1	12/29/11 6:02		CL12713
Aroclor 1221	ND (0.0614)		1	12/29/11 6:02		CL12713
Aroclor 1232	ND (0.0614)		1	12/29/11 6:02		CL12713
Aroclor 1242	ND (0.0614)		1	12/29/11 6:02		CL12713
Aroclor 1248	ND (0.0614)		1	12/29/11 6:02		CL12713
Aroclor 1254	ND (0.0614)		1	12/29/11 6:02		CL12713
Aroclor 1260	ND (0.0614)		1	12/29/11 6:02		CL12713
Aroclor 1262	ND (0.0614)		1	12/29/11 6:02		CL12713
Aroclor 1268	ND (0.0614)		1	12/29/11 6:02		CL12713

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*94 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-410
Date Sampled: 12/15/11 16:12
Percent Solids: 79
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0612)		1	12/29/11 15:19		CL12713
Aroclor 1221	ND (0.0612)		1	12/29/11 15:19		CL12713
Aroclor 1232	ND (0.0612)		1	12/29/11 15:19		CL12713
Aroclor 1242	ND (0.0612)		1	12/29/11 15:19		CL12713
Aroclor 1248	ND (0.0612)		1	12/29/11 15:19		CL12713
Aroclor 1254	ND (0.0612)		1	12/29/11 15:19		CL12713
Aroclor 1260	ND (0.0612)		1	12/29/11 15:19		CL12713
Aroclor 1262	ND (0.0612)		1	12/29/11 15:19		CL12713
Aroclor 1268	ND (0.0612)		1	12/29/11 15:19		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*68 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*69 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*75 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-411
Date Sampled: 12/15/11 16:14
Percent Solids: 85
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0571)		1	12/29/11 15:38		CL12713
Aroclor 1221	ND (0.0571)		1	12/29/11 15:38		CL12713
Aroclor 1232	ND (0.0571)		1	12/29/11 15:38		CL12713
Aroclor 1242	ND (0.0571)		1	12/29/11 15:38		CL12713
Aroclor 1248	ND (0.0571)		1	12/29/11 15:38		CL12713
Aroclor 1254	ND (0.0571)		1	12/29/11 15:38		CL12713
Aroclor 1260	ND (0.0571)		1	12/29/11 15:38		CL12713
Aroclor 1262	ND (0.0571)		1	12/29/11 15:38		CL12713
Aroclor 1268	ND (0.0571)		1	12/29/11 15:38		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*58 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*67 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-412
Date Sampled: 12/15/11 16:16
Percent Solids: 85
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0574)		1	12/29/11 15:56		CL12713
Aroclor 1221	ND (0.0574)		1	12/29/11 15:56		CL12713
Aroclor 1232	ND (0.0574)		1	12/29/11 15:56		CL12713
Aroclor 1242	ND (0.0574)		1	12/29/11 15:56		CL12713
Aroclor 1248	ND (0.0574)		1	12/29/11 15:56		CL12713
Aroclor 1254	ND (0.0574)		1	12/29/11 15:56		CL12713
Aroclor 1260	ND (0.0574)		1	12/29/11 15:56		CL12713
Aroclor 1262	ND (0.0574)		1	12/29/11 15:56		CL12713
Aroclor 1268	ND (0.0574)		1	12/29/11 15:56		CL12713

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*90 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-413
Date Sampled: 12/15/11 16:18
Percent Solids: 84
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0578)		1	12/29/11 16:15		CL12713
Aroclor 1221	ND (0.0578)		1	12/29/11 16:15		CL12713
Aroclor 1232	ND (0.0578)		1	12/29/11 16:15		CL12713
Aroclor 1242	ND (0.0578)		1	12/29/11 16:15		CL12713
Aroclor 1248	ND (0.0578)		1	12/29/11 16:15		CL12713
Aroclor 1254	ND (0.0578)		1	12/29/11 16:15		CL12713
Aroclor 1260	ND (0.0578)		1	12/29/11 16:15		CL12713
Aroclor 1262	ND (0.0578)		1	12/29/11 16:15		CL12713
Aroclor 1268	ND (0.0578)		1	12/29/11 16:15		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-414
Date Sampled: 12/15/11 16:20
Percent Solids: 83
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0612)		1	12/29/11 16:34		CL12713
Aroclor 1221	ND (0.0612)		1	12/29/11 16:34		CL12713
Aroclor 1232	ND (0.0612)		1	12/29/11 16:34		CL12713
Aroclor 1242	ND (0.0612)		1	12/29/11 16:34		CL12713
Aroclor 1248	ND (0.0612)		1	12/29/11 16:34		CL12713
Aroclor 1254	ND (0.0612)		1	12/29/11 16:34		CL12713
Aroclor 1260	ND (0.0612)		1	12/29/11 16:34		CL12713
Aroclor 1262	ND (0.0612)		1	12/29/11 16:34		CL12713
Aroclor 1268	ND (0.0612)		1	12/29/11 16:34		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*89 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-415
Date Sampled: 12/15/11 16:22
Percent Solids: 85
Initial Volume: 19.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0606)		1	12/29/11 16:53		CL12713
Aroclor 1221	ND (0.0606)		1	12/29/11 16:53		CL12713
Aroclor 1232	ND (0.0606)		1	12/29/11 16:53		CL12713
Aroclor 1242	ND (0.0606)		1	12/29/11 16:53		CL12713
Aroclor 1248	ND (0.0606)		1	12/29/11 16:53		CL12713
Aroclor 1254	ND (0.0606)		1	12/29/11 16:53		CL12713
Aroclor 1260	ND (0.0606)		1	12/29/11 16:53		CL12713
Aroclor 1262	ND (0.0606)		1	12/29/11 16:53		CL12713
Aroclor 1268	ND (0.0606)		1	12/29/11 16:53		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*85 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-416
Date Sampled: 12/15/11 16:24
Percent Solids: 84
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0604)		1	12/29/11 17:12		CL12713
Aroclor 1221	ND (0.0604)		1	12/29/11 17:12		CL12713
Aroclor 1232	ND (0.0604)		1	12/29/11 17:12		CL12713
Aroclor 1242	ND (0.0604)		1	12/29/11 17:12		CL12713
Aroclor 1248	ND (0.0604)		1	12/29/11 17:12		CL12713
Aroclor 1254	ND (0.0604)		1	12/29/11 17:12		CL12713
Aroclor 1260	ND (0.0604)		1	12/29/11 17:12		CL12713
Aroclor 1262	ND (0.0604)		1	12/29/11 17:12		CL12713
Aroclor 1268	ND (0.0604)		1	12/29/11 17:12		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-417
Date Sampled: 12/15/11 16:26
Percent Solids: 85
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0566)		1	12/29/11 17:31		CL12713
Aroclor 1221	ND (0.0566)		1	12/29/11 17:31		CL12713
Aroclor 1232	ND (0.0566)		1	12/29/11 17:31		CL12713
Aroclor 1242	ND (0.0566)		1	12/29/11 17:31		CL12713
Aroclor 1248	ND (0.0566)		1	12/29/11 17:31		CL12713
Aroclor 1254	ND (0.0566)		1	12/29/11 17:31		CL12713
Aroclor 1260	ND (0.0566)		1	12/29/11 17:31		CL12713
Aroclor 1262	ND (0.0566)		1	12/29/11 17:31		CL12713
Aroclor 1268	ND (0.0566)		1	12/29/11 17:31		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*95 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: PX-418
Date Sampled: 12/15/11 16:28
Percent Solids: 95
Initial Volume: 20.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1112323
ESS Laboratory Sample ID: 1112323-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: SEP
Prepared: 12/28/11 12:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0524)		1	12/29/11 19:42		CL12713
Aroclor 1221	ND (0.0524)		1	12/29/11 19:42		CL12713
Aroclor 1232	ND (0.0524)		1	12/29/11 19:42		CL12713
Aroclor 1242	ND (0.0524)		1	12/29/11 19:42		CL12713
Aroclor 1248	ND (0.0524)		1	12/29/11 19:42		CL12713
Aroclor 1254	ND (0.0524)		1	12/29/11 19:42		CL12713
Aroclor 1260	ND (0.0524)		1	12/29/11 19:42		CL12713
Aroclor 1262	ND (0.0524)		1	12/29/11 19:42		CL12713
Aroclor 1268	ND (0.0524)		1	12/29/11 19:42		CL12713

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*86 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112323

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12713 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112323

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12713 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112323

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CL12713 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0219*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0221*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0205*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
LCS										
Aroclor 1016	0.521	0.0500	mg/kg wet	0.5000		104	40-140			
Aroclor 1260	0.485	0.0500	mg/kg wet	0.5000		97	40-140			
Surrogate: Decachlorobiphenyl	*0.0238*		mg/kg wet	*0.02500*		*95*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0243*		mg/kg wet	*0.02500*		*97*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0227*		mg/kg wet	*0.02500*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0251*		mg/kg wet	*0.02500*		*100*	*30-150*			
LCS Dup										
Aroclor 1016	0.478	0.0500	mg/kg wet	0.5000		96	40-140	9	30	
Aroclor 1260	0.440	0.0500	mg/kg wet	0.5000		88	40-140	10	30	
Surrogate: Decachlorobiphenyl	*0.0218*		mg/kg wet	*0.02500*		*87*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0221*		mg/kg wet	*0.02500*		*88*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0213*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0235*		mg/kg wet	*0.02500*		*94*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1112323

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1112323

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/out_state.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 11120323
Date Project Due: 12/23/11
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **2.7**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes | No**
17. Were samples received intact? **Yes | No**
    ESS Sample IDs: _____
    Sub Lab: _____
    Analysis: _____
    TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP

Completed By: BC Date/Time: 12/16/11
Reviewed By: _____ Date/Time: 12/16/11

ESS QUOTE # 1106117

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1112323

Turn Time ___X___Standard Other_____

Regulatory State: **MA** RI CT NH NJ NY ME Other_____

Reporting Limits - ___RCS-1 <1ppm

Is this project for any of the following:(please circle)
MA-MCP Navy USACE CT DEP Other_____

Electonic Deliverables Excel Access PDF

Co. Name: Tighe & Bond	Project #: W-1510	Project Name: North High	
Contact Person: Marc Richards	Address: 446 Main Street		
City: Worcester	State: MA	Zip: 01610	PO #: W-1510
Tel.: 508-754-2201	Fax:	email:	

Analysis: PCBs

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	PCBs
1	12/15/11	1610	G	S	PX - 409	1	1	G	4 oz	X
2	12/15/11	1612	G	S	PX - 410	1	1	G	4 oz	X
3	12/15/11	1614	G	S	PX - 411	1	1	G	4 oz	X
4	12/15/11	1616	G	S	PX - 412	1	1	G	4 oz	X
5	12/15/11	1618	G	S	PX - 413	1	1	G	4 oz	X
6	12/15/11	1620	G	S	PX - 414	1	1	G	4 oz	X
7	12/15/11	1622	G	S	PX - 415	1	1	G	4 oz	X
8	12/15/11	1624	G	S	PX - 416	1	1	G	4 oz	X
9	12/15/11	1626	G	S	PX - 417	1	1	G	4 oz	X
10	12/15/11	1628	G	S	PX - 418	1	1	G	4 oz	X

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ___✓___Yes ____No

Seals Intact ____ Yes ____No NA: ✓

Cooler Temperature: 2.7°

Internal Use Only

[ ] ~~Pickup~~

[ ] Technician___

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Sampled by :

Comments:

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
12-16-11 1135	12-16-11 1135	12/16/11 1245	12/16/11 1245
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

1 (White) Lab Copy
2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Jon VanHazinga
Tighe & Bond
446 Main Street
Worcester, MA 01608

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1204263

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 12:07 pm, Apr 20, 2012

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1204263

SAMPLE RECEIPT

The following samples were received on April 18, 2012 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

Lab Number	SampleName	Matrix	Analysis
1204263-01	Brick-01	Solid	8082A
1204263-02	Brick-02	Solid	8082A
1204263-03	Brick-03	Solid	8082A
1204263-04	Brick-04	Solid	8082A
1204263-05	Brick-05	Solid	8082A
1204263-06	Brick-06	Solid	8082A
1204263-07	Brick-07	Solid	8082A
1204263-08	Brick-08	Solid	8082A
1204263-09	Brick-09	Solid	8082A
1204263-10	Brick-10	Solid	8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1204263

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1204263

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1204263-01 through 1204263-10**

Matrices: ( ) Ground Water/Surface Water ( ) Soil/Sediment ( ) Drinking Water ( ) Air (X) Other: Solid

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes (X) No ( )*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: April 20, 2012
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-01
Date Sampled: 04/17/12 11:55
Percent Solids: N/A
Initial Volume: 10.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-01
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0962)		1	04/19/12 12:33		CD21822
Aroclor 1221	ND (0.0962)		1	04/19/12 12:33		CD21822
Aroclor 1232	ND (0.0962)		1	04/19/12 12:33		CD21822
Aroclor 1242	ND (0.0962)		1	04/19/12 12:33		CD21822
Aroclor 1248	ND (0.0962)		1	04/19/12 12:33		CD21822
Aroclor 1254	ND (0.0962)		1	04/19/12 12:33		CD21822
Aroclor 1260	ND (0.0962)		1	04/19/12 12:33		CD21822
Aroclor 1262	ND (0.0962)		1	04/19/12 12:33		CD21822
Aroclor 1268	ND (0.0962)		1	04/19/12 12:33		CD21822

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*79 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*98 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-02
Date Sampled: 04/17/12 12:10
Percent Solids: N/A
Initial Volume: 10.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-02
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0935)		1	04/19/12 12:52		CD21822
Aroclor 1221	ND (0.0935)		1	04/19/12 12:52		CD21822
Aroclor 1232	ND (0.0935)		1	04/19/12 12:52		CD21822
Aroclor 1242	ND (0.0935)		1	04/19/12 12:52		CD21822
Aroclor 1248	ND (0.0935)		1	04/19/12 12:52		CD21822
Aroclor 1254	ND (0.0935)		1	04/19/12 12:52		CD21822
Aroclor 1260	ND (0.0935)		1	04/19/12 12:52		CD21822
Aroclor 1262	ND (0.0935)		1	04/19/12 12:52		CD21822
Aroclor 1268	ND (0.0935)		1	04/19/12 12:52		CD21822

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*99 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-03
Date Sampled: 04/17/12 12:20
Percent Solids: N/A
Initial Volume: 10.1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-03
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0990)		1	04/19/12 13:11		CD21822
Aroclor 1221	ND (0.0990)		1	04/19/12 13:11		CD21822
Aroclor 1232	ND (0.0990)		1	04/19/12 13:11		CD21822
Aroclor 1242	ND (0.0990)		1	04/19/12 13:11		CD21822
Aroclor 1248	ND (0.0990)		1	04/19/12 13:11		CD21822
Aroclor 1254	ND (0.0990)		1	04/19/12 13:11		CD21822
Aroclor 1260	ND (0.0990)		1	04/19/12 13:11		CD21822
Aroclor 1262	ND (0.0990)		1	04/19/12 13:11		CD21822
Aroclor 1268	ND (0.0990)		1	04/19/12 13:11		CD21822

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-04
Date Sampled: 04/17/12 12:35
Percent Solids: N/A
Initial Volume: 10.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-04
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0971)		1	04/19/12 13:30		CD21822
Aroclor 1221	ND (0.0971)		1	04/19/12 13:30		CD21822
Aroclor 1232	ND (0.0971)		1	04/19/12 13:30		CD21822
Aroclor 1242	ND (0.0971)		1	04/19/12 13:30		CD21822
Aroclor 1248	ND (0.0971)		1	04/19/12 13:30		CD21822
Aroclor 1254	ND (0.0971)		1	04/19/12 13:30		CD21822
Aroclor 1260	ND (0.0971)		1	04/19/12 13:30		CD21822
Aroclor 1262	ND (0.0971)		1	04/19/12 13:30		CD21822
Aroclor 1268	ND (0.0971)		1	04/19/12 13:30		CD21822

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-05
Date Sampled: 04/17/12 12:45
Percent Solids: N/A
Initial Volume: 10.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-05
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0980)		1	04/19/12 13:49		CD21822
Aroclor 1221	ND (0.0980)		1	04/19/12 13:49		CD21822
Aroclor 1232	ND (0.0980)		1	04/19/12 13:49		CD21822
Aroclor 1242	ND (0.0980)		1	04/19/12 13:49		CD21822
Aroclor 1248	ND (0.0980)		1	04/19/12 13:49		CD21822
Aroclor 1254	ND (0.0980)		1	04/19/12 13:49		CD21822
Aroclor 1260	ND (0.0980)		1	04/19/12 13:49		CD21822
Aroclor 1262	ND (0.0980)		1	04/19/12 13:49		CD21822
Aroclor 1268	ND (0.0980)		1	04/19/12 13:49		CD21822

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*78 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*92 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-06
Date Sampled: 04/17/12 13:00
Percent Solids: N/A
Initial Volume: 10.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-06
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0980)		1	04/19/12 14:07		CD21822
Aroclor 1221	ND (0.0980)		1	04/19/12 14:07		CD21822
Aroclor 1232	ND (0.0980)		1	04/19/12 14:07		CD21822
Aroclor 1242	ND (0.0980)		1	04/19/12 14:07		CD21822
Aroclor 1248	ND (0.0980)		1	04/19/12 14:07		CD21822
Aroclor 1254	ND (0.0980)		1	04/19/12 14:07		CD21822
Aroclor 1260	ND (0.0980)		1	04/19/12 14:07		CD21822
Aroclor 1262	ND (0.0980)		1	04/19/12 14:07		CD21822
Aroclor 1268	ND (0.0980)		1	04/19/12 14:07		CD21822

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*81 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*79 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*93 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-07
Date Sampled: 04/17/12 13:20
Percent Solids: N/A
Initial Volume: 10.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-07
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0980)		1	04/19/12 14:26		CD21822
Aroclor 1221	ND (0.0980)		1	04/19/12 14:26		CD21822
Aroclor 1232	ND (0.0980)		1	04/19/12 14:26		CD21822
Aroclor 1242	ND (0.0980)		1	04/19/12 14:26		CD21822
Aroclor 1248	ND (0.0980)		1	04/19/12 14:26		CD21822
Aroclor 1254	ND (0.0980)		1	04/19/12 14:26		CD21822
Aroclor 1260	ND (0.0980)		1	04/19/12 14:26		CD21822
Aroclor 1262	ND (0.0980)		1	04/19/12 14:26		CD21822
Aroclor 1268	ND (0.0980)		1	04/19/12 14:26		CD21822

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*83 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*91 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*97 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-08
Date Sampled: 04/17/12 13:45
Percent Solids: N/A
Initial Volume: 10.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-08
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0971)		1	04/19/12 14:45		CD21822
Aroclor 1221	ND (0.0971)		1	04/19/12 14:45		CD21822
Aroclor 1232	ND (0.0971)		1	04/19/12 14:45		CD21822
Aroclor 1242	ND (0.0971)		1	04/19/12 14:45		CD21822
Aroclor 1248	ND (0.0971)		1	04/19/12 14:45		CD21822
Aroclor 1254	ND (0.0971)		1	04/19/12 14:45		CD21822
Aroclor 1260	ND (0.0971)		1	04/19/12 14:45		CD21822
Aroclor 1262	ND (0.0971)		1	04/19/12 14:45		CD21822
Aroclor 1268	ND (0.0971)		1	04/19/12 14:45		CD21822

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-09
Date Sampled: 04/17/12 13:55
Percent Solids: N/A
Initial Volume: 10.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-09
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0980)		1	04/19/12 15:04		CD21822
Aroclor 1221	ND (0.0980)		1	04/19/12 15:04		CD21822
Aroclor 1232	ND (0.0980)		1	04/19/12 15:04		CD21822
Aroclor 1242	ND (0.0980)		1	04/19/12 15:04		CD21822
Aroclor 1248	ND (0.0980)		1	04/19/12 15:04		CD21822
Aroclor 1254	ND (0.0980)		1	04/19/12 15:04		CD21822
Aroclor 1260	ND (0.0980)		1	04/19/12 15:04		CD21822
Aroclor 1262	ND (0.0980)		1	04/19/12 15:04		CD21822
Aroclor 1268	ND (0.0980)		1	04/19/12 15:04		CD21822

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*82 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*89 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*96 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick-10
Date Sampled: 04/17/12 14:10
Percent Solids: N/A
Initial Volume: 10.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1204263
ESS Laboratory Sample ID: 1204263-10
Sample Matrix: Solid
Units: mg/kg wet
Analyst: SEP
Prepared: 4/18/12 17:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0971)		1	04/19/12 15:23		CD21822
Aroclor 1221	ND (0.0971)		1	04/19/12 15:23		CD21822
Aroclor 1232	ND (0.0971)		1	04/19/12 15:23		CD21822
Aroclor 1242	ND (0.0971)		1	04/19/12 15:23		CD21822
Aroclor 1248	ND (0.0971)		1	04/19/12 15:23		CD21822
Aroclor 1254	ND (0.0971)		1	04/19/12 15:23		CD21822
Aroclor 1260	ND (0.0971)		1	04/19/12 15:23		CD21822
Aroclor 1262	ND (0.0971)		1	04/19/12 15:23		CD21822
Aroclor 1268	ND (0.0971)		1	04/19/12 15:23		CD21822

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*77 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*85 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1204263

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CD21822 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1204263

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CD21822 - 3540										
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1204263

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CD21822 - 3540										
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0201*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0203*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0245*		mg/kg wet	*0.02500*		*98*	*30-150*			
LCS										
Aroclor 1016	0.465	0.0500	mg/kg wet	0.5000		93	40-140			
Aroclor 1260	0.403	0.0500	mg/kg wet	0.5000		81	40-140			
Surrogate: Decachlorobiphenyl	*0.0202*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0226*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0210*		mg/kg wet	*0.02500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0236*		mg/kg wet	*0.02500*		*95*	*30-150*			
LCS Dup										
Aroclor 1016	0.470	0.0500	mg/kg wet	0.5000		94	40-140	1	30	
Aroclor 1260	0.408	0.0500	mg/kg wet	0.5000		82	40-140	1	30	
Surrogate: Decachlorobiphenyl	*0.0203*		mg/kg wet	*0.02500*		*81*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0227*		mg/kg wet	*0.02500*		*91*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0208*		mg/kg wet	*0.02500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0233*		mg/kg wet	*0.02500*		*93*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1204263

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1204263

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

ple and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 12040263
Date Project Due: 4/20/12
Days For Project: 2 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? **N/A**
   Air No.:
2. Were Custody Seals Present? **N/A**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **4.0**
   Iced With: **Icepacks**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes/No**
17. Were samples received intact? **Yes/No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	8 oz Soil Jar	1	NP
2	Yes	8 oz Soil Jar	1	NP
3	Yes	8 oz Soil Jar	1	NP
4	Yes	8 oz Soil Jar	1	NP
5	Yes	8 oz Soil Jar	1	NP
6	Yes	8 oz Soil Jar	1	NP
7	Yes	8 oz Soil Jar	1	NP
8	Yes	8 oz Soil Jar	1	NP
9	Yes	8 oz Soil Jar	1	NP
10	Yes	8 oz Soil Jar	1	NP

Completed By: JK Date/Time: 4/18/12 1637
Reviewed By: CD Date/Time: 4/18/12 1645

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.ess-laboratory.com

CHAIN OF CUSTODY

Page 1 of 1

Turn Time ___ Standard Other 2 DAY
If faster than 5 days, prior approval by laboratory is required # ___

State where samples were collected from: (MA) RI CT NH NJ NY ME Other ___

Is this project for any of the following: MA-MCP* Navy USACE Other TSCA

Reporting Limits: <1 ppm

ESS LAB PROJECT ID: 1204263

Electronic Deliverable: ✓ Yes ___ No Format pdf

Co. Name: TIGHE & BOND
Project #: W-1510
Project Name (25 Char or less): NORTH HIGH
Contact Person: JON VANHAZINGA
Address: 446 MAIN ST.
City: WORCESTER State: MA Zip: 01608 PO#:
Telephone #: 508-754-2201 Fax #: Email Address: jvanhazinga@tighebond.com

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (25 Char or less)	Number of Containers	Type of Containers	8260 / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH	8100 TPH / 8015 DRO / EPH / No Targets	8081 Pesticides / 8082 PCB / 608 Pesticides / 608 PCB	8270 / 625 / PAH only	RCRA5 / RCRA8 / PP13 / TAL23	TCLP8 / MCP / MCPw/Hg / NBC7							
1	4-17-2012	1155	X		SD	BRICK-01						X										
2		1210	X		SD	BRICK-02						X										
3		1220	X		SD	BRICK-03						X										
4		1235	X		SD	BRICK-04						X										
5		1245	X		SD	BRICK-05						X										
6		1300	X		SD	BRICK-06						X										
7		1320	X		SD	BRICK-07						X										
8		1345	X		SD	BRICK-08						X										
9		1355	X		SD	BRICK-09						X										
10		1410	X		SD	BRICK-10						X										

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: ✓ Yes ___ No
Seals Intact: ___ Yes ___ No NA: ✓
Cooler Temp: 4.0°

Internal Use Only: [ ] Pickup [ ] Technicians ___

Comments: TSCA SITE : SOXHLET EXTRACTION

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	4-18-2012 / 1045	[signature]	4/18/12 / 1045	[signature]	4/18/12 / 1630	[signature]	4/18/12 / 1630
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*MADEP requires that all additional calibrated analytes found during analysis be reported.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
446 Main Street
Worcester, MA 01608

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1207202

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 2:52 pm, Jul 25, 2012

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207202

SAMPLE RECEIPT

The following samples were received on July 17, 2012 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

For EPH soil samples, the aromatic range results have been corrected for identified cartridge contaminant in accordance with the CAM protocol.

Question I: All samples for Metals were analyzed for a subset of the required MCP list per the client's request.

Lab Number	SampleName	Matrix	Analysis
1207202-01	Brick Stock 1	Soil	6010B, 7471B, 8082A
1207202-02	Brick Stock 2	Soil	6010B, 7471B, 8082A
1207202-03	CMU Stock 1	Soil	6010B, 7471B, 8082A
1207202-04	CMU Stock 2	Soil	6010B, 7471B, 8082A
1207202-05	CMU Stock 3	Soil	6010B, 7471B, 8082A
1207202-06	CMU Stock 4	Soil	6010B, 7471B, 8082A
1207202-07	CMU Stock 5	Soil	6010B, 7471B, 8082A
1207202-08	CMU Stock 6	Soil	6010B, 7471B, 8082A
1207202-09	CMU Stock 7	Soil	6010B, 7471B, 8082A
1207202-10	CMU Stock 8	Soil	6010B, 7471B, 8082A

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207202

PROJECT NARRATIVE

8082A Polychlorinated Biphenyls (PCB)

1207202-09 **Percent difference between primary and confirmation results exceeds 40% (P).**
Aroclor 1242

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207202

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1207202-01 through 1207202-10**

Matrices: ( ) Ground Water/Surface Water (X) Soil/Sediment ( ) Drinking Water ( ) Air ( ) Other:_____

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	(X) 7470/7471 Hg CAM III B	( ) 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 B	( ) 8151 Herbicides CAM V C	( ) 8330 Explosives CAM VIII A	( ) TO-15 VOC CAM IX B
(X) 6010 Metals CAM III A	( ) 6020 Metals CAM III D	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes ( ) No (X)*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes ( ) No (X)*

****All negative responses must be addressed in an attached laboratory 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: _____ Date: July 25, 2012
Printed Name: Laurel Stoddard Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick Stock 1
Date Sampled: 07/17/12 08:00
Percent Solids: 97

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-01
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**8.0** (2.5)	6010B	20	1	SVD	07/19/12 21:06	2.02	100	CG21819
Barium	**38.4** (2.5)	6010B	1000	1	SVD	07/19/12 21:06	2.02	100	CG21819
Cadmium	ND (0.51)	6010B	2	1	SVD	07/19/12 21:06	2.02	100	CG21819
Chromium	**11.9** (1.0)	6010B	30	1	SVD	07/19/12 21:06	2.02	100	CG21819
Lead	**9.4** (5.1)	6010B	300	1	SVD	07/19/12 21:06	2.02	100	CG21819
Mercury	**0.038** (0.033)	7471B	20	1	JP	07/19/12 20:21	0.62	40	CG21821
Selenium	ND (5.1)	6010B	400	1	SVD	07/19/12 21:06	2.02	100	CG21819
Silver	ND (0.51)	6010B	100	1	SVD	07/19/12 21:06	2.02	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick Stock 1
Date Sampled: 07/17/12 08:00
Percent Solids: 97
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-01
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0503)	2	1	07/23/12 15:21		CG22101
Aroclor 1221	ND (0.0503)	2	1	07/23/12 15:21		CG22101
Aroclor 1232	ND (0.0503)	2	1	07/23/12 15:21		CG22101
Aroclor 1242	ND (0.0503)	2	1	07/23/12 15:21		CG22101
Aroclor 1248	ND (0.0503)	2	1	07/23/12 15:21		CG22101
Aroclor 1254	**0.542** (0.0503)	2	1	07/23/12 15:21		CG22101
Aroclor 1260	ND (0.0503)	2	1	07/23/12 15:21		CG22101
Aroclor 1262	ND (0.0503)	2	1	07/23/12 15:21		CG22101
Aroclor 1268	ND (0.0503)	2	1	07/23/12 15:21		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*65 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*81 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*80 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick Stock 2
Date Sampled: 07/17/12 08:00
Percent Solids: 96

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-02
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**11.6** (2.6)	6010B	20	1	SVD	07/19/12 21:11	2.04	100	CG21819
Barium	**46.2** (2.6)	6010B	1000	1	SVD	07/19/12 21:11	2.04	100	CG21819
Cadmium	ND (0.51)	6010B	2	1	SVD	07/19/12 21:11	2.04	100	CG21819
Chromium	**15.0** (1.0)	6010B	30	1	SVD	07/19/12 21:11	2.04	100	CG21819
Lead	**19.5** (5.1)	6010B	300	1	SVD	07/19/12 21:11	2.04	100	CG21819
Mercury	**0.073** (0.030)	7471B	20	1	JP	07/19/12 20:24	0.69	40	CG21821
Selenium	ND (5.1)	6010B	400	1	SVD	07/19/12 21:11	2.04	100	CG21819
Silver	ND (0.51)	6010B	100	1	SVD	07/19/12 21:11	2.04	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: Brick Stock 2
Date Sampled: 07/17/12 08:00
Percent Solids: 96
Initial Volume: 20.6
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-02
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0506)	2	1	07/23/12 15:40		CG22101
Aroclor 1221	ND (0.0506)	2	1	07/23/12 15:40		CG22101
Aroclor 1232	ND (0.0506)	2	1	07/23/12 15:40		CG22101
Aroclor 1242	ND (0.0506)	2	1	07/23/12 15:40		CG22101
Aroclor 1248	ND (0.0506)	2	1	07/23/12 15:40		CG22101
Aroclor 1254	**0.570** (0.0506)	2	1	07/23/12 15:40		CG22101
Aroclor 1260	ND (0.0506)	2	1	07/23/12 15:40		CG22101
Aroclor 1262	ND (0.0506)	2	1	07/23/12 15:40		CG22101
Aroclor 1268	ND (0.0506)	2	1	07/23/12 15:40		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*99 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*418 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 1
Date Sampled: 07/17/12 08:00
Percent Solids: 93

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-03
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**9.3** (2.5)	6010B	20	1	SVD	07/19/12 21:17	2.15	100	CG21819
Barium	**49.2** (2.5)	6010B	1000	1	SVD	07/19/12 21:17	2.15	100	CG21819
Cadmium	ND (0.50)	6010B	2	1	SVD	07/19/12 21:17	2.15	100	CG21819
Chromium	**16.0** (1.0)	6010B	30	1	SVD	07/19/12 21:17	2.15	100	CG21819
Lead	**18.3** (5.0)	6010B	300	1	SVD	07/19/12 21:17	2.15	100	CG21819
Mercury	**0.394** (0.034)	7471B	20	1	JP	07/19/12 20:27	0.63	40	CG21821
Selenium	ND (5.0)	6010B	400	1	SVD	07/19/12 21:17	2.15	100	CG21819
Silver	ND (0.50)	6010B	100	1	SVD	07/19/12 21:17	2.15	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 1
Date Sampled: 07/17/12 08:00
Percent Solids: 93
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-03
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

MA - S1GW1

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0538)	2	1	07/23/12 15:58		CG22101
Aroclor 1221	ND (0.0538)	2	1	07/23/12 15:58		CG22101
Aroclor 1232	ND (0.0538)	2	1	07/23/12 15:58		CG22101
Aroclor 1242	ND (0.0538)	2	1	07/23/12 15:58		CG22101
Aroclor 1248	ND (0.0538)	2	1	07/23/12 15:58		CG22101
Aroclor 1254	**0.366** (0.0538)	2	1	07/23/12 15:58		CG22101
Aroclor 1260	ND (0.0538)	2	1	07/23/12 15:58		CG22101
Aroclor 1262	ND (0.0538)	2	1	07/23/12 15:58		CG22101
Aroclor 1268	ND (0.0538)	2	1	07/23/12 15:58		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*65 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*109 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*59 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*68 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 2
Date Sampled: 07/17/12 08:00
Percent Solids: 89

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-04
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**11.1** (2.5)	6010B	20	1	SVD	07/19/12 21:31	2.21	100	CG21819
Barium	**55.7** (2.5)	6010B	1000	1	SVD	07/19/12 21:31	2.21	100	CG21819
Cadmium	ND (0.51)	6010B	2	1	SVD	07/19/12 21:31	2.21	100	CG21819
Chromium	**12.5** (1.0)	6010B	30	1	SVD	07/19/12 21:31	2.21	100	CG21819
Lead	**12.1** (5.1)	6010B	300	1	SVD	07/19/12 21:31	2.21	100	CG21819
Mercury	**0.108** (0.035)	7471B	20	1	JP	07/19/12 20:29	0.64	40	CG21821
Selenium	ND (5.1)	6010B	400	1	SVD	07/19/12 21:31	2.21	100	CG21819
Silver	ND (0.51)	6010B	100	1	SVD	07/19/12 21:31	2.21	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 2
Date Sampled: 07/17/12 08:00
Percent Solids: 89
Initial Volume: 20
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-04
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0562)	2	1	07/23/12 16:17		CG22101
Aroclor 1221	ND (0.0562)	2	1	07/23/12 16:17		CG22101
Aroclor 1232	ND (0.0562)	2	1	07/23/12 16:17		CG22101
Aroclor 1242	ND (0.0562)	2	1	07/23/12 16:17		CG22101
Aroclor 1248	ND (0.0562)	2	1	07/23/12 16:17		CG22101
Aroclor 1254	**0.426** (0.0562)	2	1	07/23/12 16:17		CG22101
Aroclor 1260	ND (0.0562)	2	1	07/23/12 16:17		CG22101
Aroclor 1262	ND (0.0562)	2	1	07/23/12 16:17		CG22101
Aroclor 1268	ND (0.0562)	2	1	07/23/12 16:17		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*46 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*58 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*56 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*61 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 3
Date Sampled: 07/17/12 08:00
Percent Solids: 91

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-05
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**9.9** (2.2)	6010B	20	1	SVD	07/19/12 21:37	2.46	100	CG21819
Barium	**55.9** (2.2)	6010B	1000	1	SVD	07/19/12 21:37	2.46	100	CG21819
Cadmium	**0.61** (0.45)	6010B	2	1	SVD	07/19/12 21:37	2.46	100	CG21819
Chromium	**14.2** (0.9)	6010B	30	1	SVD	07/19/12 21:37	2.46	100	CG21819
Lead	**22.1** (4.5)	6010B	300	1	SVD	07/19/12 21:37	2.46	100	CG21819
Mercury	**0.456** (0.033)	7471B	20	1	JP	07/19/12 20:32	0.65	40	CG21821
Selenium	ND (4.5)	6010B	400	1	SVD	07/19/12 21:37	2.46	100	CG21819
Silver	ND (0.45)	6010B	100	1	SVD	07/19/12 21:37	2.46	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 3
Date Sampled: 07/17/12 08:00
Percent Solids: 91
Initial Volume: 20.7
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-05
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0531)	2	1	07/23/12 16:36		CG22101
Aroclor 1221	ND (0.0531)	2	1	07/23/12 16:36		CG22101
Aroclor 1232	ND (0.0531)	2	1	07/23/12 16:36		CG22101
Aroclor 1242	ND (0.0531)	2	1	07/23/12 16:36		CG22101
Aroclor 1248	ND (0.0531)	2	1	07/23/12 16:36		CG22101
Aroclor 1254	**0.257** (0.0531)	2	1	07/23/12 16:36		CG22101
Aroclor 1260	ND (0.0531)	2	1	07/23/12 16:36		CG22101
Aroclor 1262	ND (0.0531)	2	1	07/23/12 16:36		CG22101
Aroclor 1268	ND (0.0531)	2	1	07/23/12 16:36		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*44 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*80 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*59 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*66 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 4
Date Sampled: 07/17/12 08:00
Percent Solids: 90

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-06
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**9.8** (2.5)	6010B	20	1	SVD	07/19/12 21:42	2.25	100	CG21819
Barium	**48.3** (2.5)	6010B	1000	1	SVD	07/19/12 21:42	2.25	100	CG21819
Cadmium	ND (0.50)	6010B	2	1	SVD	07/19/12 21:42	2.25	100	CG21819
Chromium	**14.0** (1.0)	6010B	30	1	SVD	07/19/12 21:42	2.25	100	CG21819
Lead	**16.5** (4.9)	6010B	300	1	SVD	07/19/12 21:42	2.25	100	CG21819
Mercury	**0.325** (0.037)	7471B	20	1	JP	07/19/12 20:35	0.6	40	CG21821
Selenium	ND (4.9)	6010B	400	1	SVD	07/19/12 21:42	2.25	100	CG21819
Silver	ND (0.50)	6010B	100	1	SVD	07/19/12 21:42	2.25	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 4
Date Sampled: 07/17/12 08:00
Percent Solids: 90
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-06
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0550)	2	1	07/23/12 16:55		CG22101
Aroclor 1221	ND (0.0550)	2	1	07/23/12 16:55		CG22101
Aroclor 1232	ND (0.0550)	2	1	07/23/12 16:55		CG22101
Aroclor 1242	ND (0.0550)	2	1	07/23/12 16:55		CG22101
Aroclor 1248	ND (0.0550)	2	1	07/23/12 16:55		CG22101
Aroclor 1254	**0.409** (0.0550)	2	1	07/23/12 16:55		CG22101
Aroclor 1260	ND (0.0550)	2	1	07/23/12 16:55		CG22101
Aroclor 1262	ND (0.0550)	2	1	07/23/12 16:55		CG22101
Aroclor 1268	ND (0.0550)	2	1	07/23/12 16:55		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*54 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*72 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*67 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*76 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 5
Date Sampled: 07/17/12 08:00
Percent Solids: 83

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-07
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**12.1** (2.6)	6010B	20	1	SVD	07/19/12 21:48	2.3	100	CG21819
Barium	**41.7** (2.6)	6010B	1000	1	SVD	07/19/12 21:48	2.3	100	CG21819
Cadmium	ND (0.53)	6010B	2	1	SVD	07/19/12 21:48	2.3	100	CG21819
Chromium	**12.2** (1.0)	6010B	30	1	SVD	07/19/12 21:48	2.3	100	CG21819
Lead	**13.1** (5.2)	6010B	300	1	SVD	07/19/12 21:48	2.3	100	CG21819
Mercury	**0.118** (0.038)	7471B	20	1	JP	07/19/12 20:38	0.62	40	CG21821
Selenium	ND (5.2)	6010B	400	1	SVD	07/19/12 21:48	2.3	100	CG21819
Silver	ND (0.53)	6010B	100	1	SVD	07/19/12 21:48	2.3	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 5
Date Sampled: 07/17/12 08:00
Percent Solids: 83
Initial Volume: 20.2
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-07
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0596)	2	1	07/23/12 17:14		CG22101
Aroclor 1221	ND (0.0596)	2	1	07/23/12 17:14		CG22101
Aroclor 1232	ND (0.0596)	2	1	07/23/12 17:14		CG22101
Aroclor 1242	ND (0.0596)	2	1	07/23/12 17:14		CG22101
Aroclor 1248	**0.304** (0.0596)	2	1	07/23/12 17:14		CG22101
Aroclor 1254	**0.301** (0.0596)	2	1	07/23/12 17:14		CG22101
Aroclor 1260	ND (0.0596)	2	1	07/23/12 17:14		CG22101
Aroclor 1262	ND (0.0596)	2	1	07/23/12 17:14		CG22101
Aroclor 1268	ND (0.0596)	2	1	07/23/12 17:14		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*62 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*90 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*73 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*101 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 6
Date Sampled: 07/17/12 08:00
Percent Solids: 87

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-08
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**11.1** (2.7)	6010B	20	1	SVD	07/19/12 21:53	2.11	100	CG21819
Barium	**55.6** (2.7)	6010B	1000	1	SVD	07/19/12 21:53	2.11	100	CG21819
Cadmium	**0.80** (0.55)	6010B	2	1	SVD	07/19/12 21:53	2.11	100	CG21819
Chromium	**15.8** (1.1)	6010B	30	1	SVD	07/19/12 21:53	2.11	100	CG21819
Lead	**23.5** (5.5)	6010B	300	1	SVD	07/19/12 21:53	2.11	100	CG21819
Mercury	**0.260** (0.037)	7471B	20	1	JP	07/19/12 20:40	0.62	40	CG21821
Selenium	ND (5.5)	6010B	400	1	SVD	07/19/12 21:53	2.11	100	CG21819
Silver	ND (0.55)	6010B	100	1	SVD	07/19/12 21:53	2.11	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 6
Date Sampled: 07/17/12 08:00
Percent Solids: 87
Initial Volume: 20.3
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-08
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0566)	2	1	07/23/12 17:33		CG22101
Aroclor 1221	ND (0.0566)	2	1	07/23/12 17:33		CG22101
Aroclor 1232	ND (0.0566)	2	1	07/23/12 17:33		CG22101
Aroclor 1242	ND (0.0566)	2	1	07/23/12 17:33		CG22101
Aroclor 1248	ND (0.0566)	2	1	07/23/12 17:33		CG22101
Aroclor 1254	**0.956** (0.0566)	2	1	07/23/12 17:33		CG22101
Aroclor 1260	**0.852** (0.0566)	2	1	07/23/12 17:33		CG22101
Aroclor 1262	ND (0.0566)	2	1	07/23/12 17:33		CG22101
Aroclor 1268	ND (0.0566)	2	1	07/23/12 17:33		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*70 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*92 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*100 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 7
Date Sampled: 07/17/12 08:00
Percent Solids: 82

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-09
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**12.6** (2.9)	6010B	20	1	SVD	07/19/12 21:59	2.11	100	CG21819
Barium	**51.1** (2.9)	6010B	1000	1	SVD	07/19/12 21:59	2.11	100	CG21819
Cadmium	ND (0.58)	6010B	2	1	SVD	07/19/12 21:59	2.11	100	CG21819
Chromium	**14.9** (1.2)	6010B	30	1	SVD	07/19/12 21:59	2.11	100	CG21819
Lead	**17.3** (5.8)	6010B	300	1	SVD	07/19/12 21:59	2.11	100	CG21819
Mercury	**0.106** (0.034)	7471B	20	1	JP	07/19/12 20:43	0.7	40	CG21821
Selenium	ND (5.8)	6010B	400	1	SVD	07/19/12 21:59	2.11	100	CG21819
Silver	ND (0.58)	6010B	100	1	SVD	07/19/12 21:59	2.11	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 7
Date Sampled: 07/17/12 08:00
Percent Solids: 82
Initial Volume: 20.4
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-09
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0598)	2	1	07/23/12 19:45		CG22101
Aroclor 1221	ND (0.0598)	2	1	07/23/12 19:45		CG22101
Aroclor 1232	ND (0.0598)	2	1	07/23/12 19:45		CG22101
Aroclor 1242	**P 0.220** (0.0598)	2	1	07/23/12 19:45		CG22101
Aroclor 1248	ND (0.0598)	2	1	07/23/12 19:45		CG22101
Aroclor 1254	**0.381** (0.0598)	2	1	07/23/12 19:45		CG22101
Aroclor 1260	ND (0.0598)	2	1	07/23/12 19:45		CG22101
Aroclor 1262	ND (0.0598)	2	1	07/23/12 19:45		CG22101
Aroclor 1268	ND (0.0598)	2	1	07/23/12 19:45		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*50 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*65 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*55 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*59 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 8
Date Sampled: 07/17/12 08:00
Percent Solids: 85

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-10
Sample Matrix: Soil
Units: mg/kg dry

3050B/6000/7000 Total Metals

MA - S1GW1

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**10.1** (2.5)	6010B	20	1	SVD	07/19/12 22:05	2.39	100	CG21819
Barium	**58.1** (2.5)	6010B	1000	1	SVD	07/19/12 22:05	2.39	100	CG21819
Cadmium	ND (0.49)	6010B	2	1	SVD	07/19/12 22:05	2.39	100	CG21819
Chromium	**13.4** (1.0)	6010B	30	1	SVD	07/19/12 22:05	2.39	100	CG21819
Lead	**16.8** (4.9)	6010B	300	1	SVD	07/19/12 22:05	2.39	100	CG21819
Mercury	**0.170** (0.036)	7471B	20	1	JP	07/19/12 20:46	0.65	40	CG21821
Selenium	ND (4.9)	6010B	400	1	SVD	07/19/12 22:05	2.39	100	CG21819
Silver	ND (0.49)	6010B	100	1	SVD	07/19/12 22:05	2.39	100	CG21819

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: CMU Stock 8
Date Sampled: 07/17/12 08:00
Percent Solids: 85
Initial Volume: 20.5
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207202
ESS Laboratory Sample ID: 1207202-10
Sample Matrix: Soil
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

		MA - S1GW1				
Analyte	**Results (MRL)**	**Limit**	**DF**	**Analyzed**	**Sequence**	**Batch**
Aroclor 1016	ND (0.0574)	2	1	07/24/12 1:24		CG22101
Aroclor 1221	ND (0.0574)	2	1	07/24/12 1:24		CG22101
Aroclor 1232	ND (0.0574)	2	1	07/24/12 1:24		CG22101
Aroclor 1242	ND (0.0574)	2	1	07/24/12 1:24		CG22101
Aroclor 1248	**0.548** (0.0574)	2	1	07/24/12 1:24		CG22101
Aroclor 1254	**0.801** (0.0574)	2	1	07/24/12 1:24		CG22101
Aroclor 1260	ND (0.0574)	2	1	07/24/12 1:24		CG22101
Aroclor 1262	ND (0.0574)	2	1	07/24/12 1:24		CG22101
Aroclor 1268	ND (0.0574)	2	1	07/24/12 1:24		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*58 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*82 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*64 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*70 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207202

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3050B/6000/7000 Total Metals										
Batch CG21819 - 3050B										
Blank										
Arsenic	ND	2.5	mg/kg wet							
Barium	ND	2.5	mg/kg wet							
Cadmium	ND	0.50	mg/kg wet							
Chromium	ND	1.0	mg/kg wet							
Lead	ND	5.0	mg/kg wet							
Selenium	ND	5.0	mg/kg wet							
Silver	ND	0.50	mg/kg wet							
LCS										
Arsenic	83.7	8.8	mg/kg wet	94.50		89	80-120			
Barium	160	8.8	mg/kg wet	167.0		96	80-120			
Cadmium	53.5	1.76	mg/kg wet	60.50		88	80-120			
Chromium	66.9	3.5	mg/kg wet	70.40		95	80-120			
Lead	83.1	17.6	mg/kg wet	91.80		91	80-120			
Selenium	80.7	17.6	mg/kg wet	86.40		93	80-120			
Silver	33.2	1.76	mg/kg wet	34.40		97	80-120			
LCS Dup										
Arsenic	82.9	9.2	mg/kg wet	94.50		88	80-120	1	20	
Barium	152	9.2	mg/kg wet	167.0		91	80-120	5	20	
Cadmium	51.2	1.86	mg/kg wet	60.50		85	80-120	5	20	
Chromium	64.8	3.7	mg/kg wet	70.40		92	80-120	3	20	
Lead	78.4	18.5	mg/kg wet	91.80		85	80-120	6	20	
Selenium	78.7	18.5	mg/kg wet	86.40		91	80-120	3	20	
Silver	32.5	1.86	mg/kg wet	34.40		94	80-120	2	20	
Batch CG21821 - 7471A										
Blank										
Mercury	ND	0.033	mg/kg wet							
LCS										
Mercury	4.17	0.825	mg/kg wet	3.730		112	80-120			
LCS Dup										
Mercury	3.80	0.773	mg/kg wet	3.730		102	80-120	9	20	
8082A Polychlorinated Biphenyls (PCB)										
Batch CG22101 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207202

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CG22101 - 3540										
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207202

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CG22101 - 3540										
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207202

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CG22101 - 3540										
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0198*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0199*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0198*		mg/kg wet	*0.02500*		*79*	*30-150*			
LCS										
Aroclor 1016	0.405	0.0500	mg/kg wet	0.5000		81	40-140			
Aroclor 1260	0.484	0.0500	mg/kg wet	0.5000		97	40-140			
Surrogate: Decachlorobiphenyl	*0.0188*		mg/kg wet	*0.02500*		*75*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0204*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0134*		mg/kg wet	*0.02500*		*54*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0107*		mg/kg wet	*0.02500*		*43*	*30-150*			
LCS Dup										
Aroclor 1016	0.411	0.0500	mg/kg wet	0.5000		82	40-140	1	30	
Aroclor 1260	0.429	0.0500	mg/kg wet	0.5000		86	40-140	12	30	
Surrogate: Decachlorobiphenyl	*0.0199*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0152*		mg/kg wet	*0.02500*		*61*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0124*		mg/kg wet	*0.02500*		*49*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1207202

Notes and Definitions

U	Analyte included in the analysis, but not detected
P	Percent difference between primary and confirmation results exceeds 40% (P).
D	Diluted.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207202

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 12070202
Date Project Due: 7/24/12
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? * No
   Air No.:
2. Were Custody Seals Present? No
3. Were Custody Seals Intact? N/A
4. Is Radiation count < 100 CPM? Yes
5. Is a cooler present? Yes
   Cooler Temp: **2.3**
   Iced With: **Icepacks**
6. Was COC included with samples? Yes
7. Was COC signed and dated by client? Yes
8. Does the COC match the sample Yes
9. Is COC complete and correct? Yes
10. Are the samples properly preserved? Yes
11. Proper sample containers used? Yes
12. Any air bubbles in the VOA vials? N/A
13. Holding times exceeded? No
14. Sufficient sample volumes? Yes
15. Any Subcontracting needed? No
16. Are ESS labels on correct containers? Yes No
17. Were samples received intact? Yes No

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	8 oz Soil Jar	1	NP
2	Yes	8 oz Soil Jar	1	NP
3	Yes	8 oz Soil Jar	1	NP
4	Yes	8 oz Soil Jar	1	NP
5	Yes	8 oz Soil Jar	1	NP
6	Yes	8 oz Soil Jar	1	NP
7	Yes	8 oz Soil Jar	1	NP
8	Yes	8 oz Soil Jar	1	NP
9	Yes	8 oz Soil Jar	1	NP
10	Yes	8 oz Soil Jar	1	NP

Completed By: JK Date/Time: 7/17/12 1615
Reviewed By: CLD Date/Time: 7/17/12 1705

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time ✓ Standard Other _____
If faster than 5 days, prior approval by laboratory is required # _____

Reporting Limits: MCP S-1, PCB <1ppm

ESS LAB PROJECT ID: 1207202

State where samples were collected from: (MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following: (MA-MCP*) Navy USACE Other _____

Electronic Deliverable: 1 Yes ___ No Format _____

Co. Name: Tighe & Bond
Project #: W-1510
Project Name (20 Char. or less): North High
Contact Person: Marc Richards
Address: 446 Main Street
City: Worcester State: MA Zip: 01608
PO#: W-1510
Telephone #: 508-471-9621
Fax #:
Email Address: mjrichards@tighebond.com

Circle and/or Write Required Analysis

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Number of Containers	Type of Containers	8260	624	524.2	8021 MTBE/BTEX	8015 GRO	VPH	8100 TPH	8015 DRO	EPH	No Targets	8081 Pesticides	8082 PCB	608 Pesticides	608 PCB	8270	625	PAH only	RCRA8	RCRAS	PP13	TAL23	TCLP8	MCP	MCPw/Hg	NBC7
1	7/17/2012	8:00AM	X		S	Brick Stack-1	1	G												X							X						
2	↓	↓	X		↓	Brick Stack-2	1	G												X							X						
3			X			CMU Stack-1	1	G												X							X						
4			X			CMU Stack 2	1	G												X							X						
5			X			CMU Stack 3	1	G												X							X						
6			X			CMU Stack 4	1	G												X							X						
7			X			CMU Stack 5	1	G												X							X						
8			X			CMU Stack 6	1	G												X							X						
9			X		↓	CMU Stack 7	1	G												X							X						
10	↓	↓	X		S	CMU Stack 8	1	G												X							X						

Container Type: P-Poly G-Glass S-Sterile V-VOA
Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ✓
Cooler Temp: 2.3°

Internal Use Only
[✓] Pickup
[ ] Technicians _____

Comments: DL for PCBs < 1ppm
5-Day turn around time

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	7/17/12 11:25	[signature]	7/17/12 11:25	[signature]	7/17/12 1610	[signature]	7/17/12 1610
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*MADEP requires that all additional calibrated analytes found during analysis be disclosed.

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

CERTIFICATE OF ANALYSIS

Dana Zewinski
J.R. Vinagro Corporation
2208 Plainfield Pike
Johnston, RI 02919

RE: North High Worcester (N/A)
ESS Laboratory Work Order Number: 1207265

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 4:26 pm, Jul 24, 2012

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207265

SAMPLE RECEIPT

The following samples were received on July 20, 2012 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	SampleName	Matrix	Analysis
1207265-01	Concrete REM	Solid	6010B, 7471B, 8082A

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207265

PROJECT NARRATIVE

3050B/6000/7000 Total Metals

1207265-01	**Elevated Method Reporting Limits due to sample matrix (EL).**
	Silver
CG22019-BS1	**Blank Spike recovery is above upper control limit (B+).**
	Mercury (137% @ 72-128%)

8082A Polychlorinated Biphenyls (PCB)

1207265-01	**Percent difference between primary and confirmation results exceeds 40% (P).**
	Aroclor 1242

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: Concrete REM
Date Sampled: 07/20/12 12:30
Percent Solids: 93

ESS Laboratory Work Order: 1207265
ESS Laboratory Sample ID: 1207265-01
Sample Matrix: Solid
Units: mg/kg dry

3050B/6000/7000 Total Metals

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Arsenic	**13.8** (2.5)	6010B		1	SVD	07/20/12 21:16	2.19	100	CG22017
Barium	**51.3** (2.5)	6010B		1	SVD	07/20/12 21:16	2.19	100	CG22017
Cadmium	ND (0.49)	6010B		1	SVD	07/20/12 21:16	2.19	100	CG22017
Chromium	**16.8** (1.0)	6010B		1	SVD	07/20/12 21:16	2.19	100	CG22017
Lead	**9.3** (4.9)	6010B		1	SVD	07/20/12 21:16	2.19	100	CG22017
Mercury	**0.045** (0.034)	7471B		1	KJK	07/20/12 19:57	0.63	40	CG22019
Selenium	ND (4.9)	6010B		1	SVD	07/20/12 21:16	2.19	100	CG22017
Silver	**EL** ND (2.47)	6010B		5	SVD	07/21/12 18:48	2.19	100	CG22017

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: Concrete REM
Date Sampled: 07/20/12 12:30
Percent Solids: 93
Initial Volume: 20.8
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207265
ESS Laboratory Sample ID: 1207265-01
Sample Matrix: Solid
Units: mg/kg dry
Analyst: TAJ
Prepared: 7/21/12 11:30
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.0517)		1	07/23/12 14:43		CG22101
Aroclor 1221	ND (0.0517)		1	07/23/12 14:43		CG22101
Aroclor 1232	ND (0.0517)		1	07/23/12 14:43		CG22101
Aroclor 1242	**P 0.0577** (0.0517)		1	07/23/12 14:43		CG22101
Aroclor 1248	ND (0.0517)		1	07/23/12 14:43		CG22101
Aroclor 1254	ND (0.0517)		1	07/23/12 14:43		CG22101
Aroclor 1260	ND (0.0517)		1	07/23/12 14:43		CG22101
Aroclor 1262	ND (0.0517)		1	07/23/12 14:43		CG22101
Aroclor 1268	ND (0.0517)		1	07/23/12 14:43		CG22101

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*54 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*66 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*62 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*64 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207265

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3050B/6000/7000 Total Metals										
Batch CG22017 - 3050B										
Blank										
Arsenic	ND	2.5	mg/kg wet							
Barium	ND	2.5	mg/kg wet							
Cadmium	ND	0.50	mg/kg wet							
Chromium	ND	1.0	mg/kg wet							
Lead	ND	5.0	mg/kg wet							
Selenium	ND	5.0	mg/kg wet							
Silver	ND	0.50	mg/kg wet							
LCS										
Arsenic	85.6	8.6	mg/kg wet	94.50		91	80-120			
Barium	156	8.6	mg/kg wet	167.0		94	80-120			
Cadmium	54.2	1.73	mg/kg wet	60.50		90	80-120			
Chromium	68.1	3.4	mg/kg wet	70.40		97	80-120			
Lead	83.4	17.2	mg/kg wet	91.80		91	80-120			
Selenium	85.4	17.2	mg/kg wet	86.40		99	80-120			
Silver	30.8	1.73	mg/kg wet	34.40		90	80-120			
LCS Dup										
Arsenic	84.3	9.4	mg/kg wet	94.50		89	80-120	2	20	
Barium	156	9.4	mg/kg wet	167.0		94	80-120	0.08	20	
Cadmium	52.9	1.90	mg/kg wet	60.50		87	80-120	2	20	
Chromium	66.6	3.8	mg/kg wet	70.40		95	80-120	2	20	
Lead	82.7	18.9	mg/kg wet	91.80		90	80-120	0.9	20	
Selenium	85.5	18.9	mg/kg wet	86.40		99	80-120	0.09	20	
Silver	31.4	1.90	mg/kg wet	34.40		91	80-120	2	20	
Batch CG22019 - 7471A										
Blank										
Mercury	ND	0.033	mg/kg wet							
LCS										
Mercury	5.12	0.773	mg/kg wet	3.730		137	72-128			B+
LCS Dup										
Mercury	4.76	0.786	mg/kg wet	3.730		128	72-128	7	20	
8082A Polychlorinated Biphenyls (PCB)										
Batch CG22101 - 3540										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1016 (1)	ND	0.0500	mg/kg wet							
Aroclor 1016 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (2)	ND	0.0500	mg/kg wet							
Aroclor 1016 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (3)	ND	0.0500	mg/kg wet							
Aroclor 1016 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (4)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207265

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CG22101 - 3540										
Aroclor 1016 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1016 (5)	ND	0.0500	mg/kg wet							
Aroclor 1016 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1221 (1)	ND	0.0500	mg/kg wet							
Aroclor 1221 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (2)	ND	0.0500	mg/kg wet							
Aroclor 1221 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (3)	ND	0.0500	mg/kg wet							
Aroclor 1221 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (4)	ND	0.0500	mg/kg wet							
Aroclor 1221 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1221 (5)	ND	0.0500	mg/kg wet							
Aroclor 1221 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1232 (1)	ND	0.0500	mg/kg wet							
Aroclor 1232 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (2)	ND	0.0500	mg/kg wet							
Aroclor 1232 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (3)	ND	0.0500	mg/kg wet							
Aroclor 1232 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (4)	ND	0.0500	mg/kg wet							
Aroclor 1232 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1232 (5)	ND	0.0500	mg/kg wet							
Aroclor 1232 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1242 (1)	ND	0.0500	mg/kg wet							
Aroclor 1242 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (2)	ND	0.0500	mg/kg wet							
Aroclor 1242 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (3)	ND	0.0500	mg/kg wet							
Aroclor 1242 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (4)	ND	0.0500	mg/kg wet							
Aroclor 1242 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1242 (5)	ND	0.0500	mg/kg wet							
Aroclor 1242 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1248 (1)	ND	0.0500	mg/kg wet							
Aroclor 1248 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (2)	ND	0.0500	mg/kg wet							
Aroclor 1248 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (3)	ND	0.0500	mg/kg wet							
Aroclor 1248 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1248 (4)	ND	0.0500	mg/kg wet							
Aroclor 1248 (4) [2C]	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207265

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CG22101 - 3540										
Aroclor 1248 (5)	ND	0.0500	mg/kg wet							
Aroclor 1248 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1254 (1)	ND	0.0500	mg/kg wet							
Aroclor 1254 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (2)	ND	0.0500	mg/kg wet							
Aroclor 1254 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (3)	ND	0.0500	mg/kg wet							
Aroclor 1254 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (4)	ND	0.0500	mg/kg wet							
Aroclor 1254 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1254 (5)	ND	0.0500	mg/kg wet							
Aroclor 1254 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1260 (1)	ND	0.0500	mg/kg wet							
Aroclor 1260 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (2)	ND	0.0500	mg/kg wet							
Aroclor 1260 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (3)	ND	0.0500	mg/kg wet							
Aroclor 1260 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (4)	ND	0.0500	mg/kg wet							
Aroclor 1260 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1260 (5)	ND	0.0500	mg/kg wet							
Aroclor 1260 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1262 (1)	ND	0.0500	mg/kg wet							
Aroclor 1262 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (2)	ND	0.0500	mg/kg wet							
Aroclor 1262 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (3)	ND	0.0500	mg/kg wet							
Aroclor 1262 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (4)	ND	0.0500	mg/kg wet							
Aroclor 1262 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1262 (5)	ND	0.0500	mg/kg wet							
Aroclor 1262 (5) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Aroclor 1268 (1)	ND	0.0500	mg/kg wet							
Aroclor 1268 (1) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (2)	ND	0.0500	mg/kg wet							
Aroclor 1268 (2) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (3)	ND	0.0500	mg/kg wet							
Aroclor 1268 (3) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (4)	ND	0.0500	mg/kg wet							
Aroclor 1268 (4) [2C]	ND	0.0500	mg/kg wet							
Aroclor 1268 (5)	ND	0.0500	mg/kg wet							

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207265

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CG22101 - 3540										
Aroclor 1268 (5) [2C]	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.0198*		mg/kg wet	*0.02500*		*79*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0199*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0225*		mg/kg wet	*0.02500*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0198*		mg/kg wet	*0.02500*		*79*	*30-150*			
LCS										
Aroclor 1016	0.405	0.0500	mg/kg wet	0.5000		81	40-140			
Aroclor 1260	0.484	0.0500	mg/kg wet	0.5000		97	40-140			
Surrogate: Decachlorobiphenyl	*0.0188*		mg/kg wet	*0.02500*		*75*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0204*		mg/kg wet	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0134*		mg/kg wet	*0.02500*		*54*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0107*		mg/kg wet	*0.02500*		*43*	*30-150*			
LCS Dup										
Aroclor 1016	0.411	0.0500	mg/kg wet	0.5000		82	40-140	1	30	
Aroclor 1260	0.429	0.0500	mg/kg wet	0.5000		86	40-140	12	30	
Surrogate: Decachlorobiphenyl	*0.0199*		mg/kg wet	*0.02500*		*80*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0212*		mg/kg wet	*0.02500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0152*		mg/kg wet	*0.02500*		*61*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0124*		mg/kg wet	*0.02500*		*49*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1207265

Notes and Definitions

U	Analyte included in the analysis, but not detected
P	Percent difference between primary and confirmation results exceeds 40% (P).
EL	Elevated Method Reporting Limits due to sample matrix (EL).
D	Diluted.
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207265

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: JR Vinagro
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 12070265
Date Project Due: 7/24/12
Days For Project: 2 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **5.1**
   Iced With: **Ice**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes** **No**
17. Were samples received intact? **Yes** **No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	8 oz Soil Jar	2	NP

Completed By: [signature] Date/Time: 7/20/12 1508
Reviewed By: [signature] Date/Time: 7/20/12 1600

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page____ of____

Turn Time ___ Standard Other 48 hr
If faster than 5 days, prior approval by laboratory is required # ____

State where samples were collected from:
(MA) RI CT NH NJ NY ME Other ____

Is this project for any of the following:
MA-MCP Navy USACE Other ____

Reporting Limits: Disposal

ESS LAB PROJECT ID: 1207265

Electronic Deliverable Yes ___ No ___
Format: Excel __ Access __ PDF __ Other ____

Co. Name	Project #	Project Name (20 Char. or less)
JRU		North High School

Contact Person	Address
Dan	

City	State	Zip	PO#
Johnston	RI		

Telephone #	Fax #	Email Address

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA 624 524.2	8021 MTBE/BTEX 8015 GRO VPH w/targets	8100 TPH 8015 DRO	EPH w/o PAHs EPH w/PAHs EPH 4 Diesel	8081 Pesticides 8082 PCB 608 Pesticides 608 PCB	8270 SVOA 625 PAH 8270	RCRA5 (RCRA8) PP13 TAL23	TCLP-RCRA8 NBC7	MCP-METALS (13) MCP-METALS (13) w/Hg	3540/8 of 2				
01	7/24/12	12:30	X		SD	CONCRETE REM	1	1	G							X			X				

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes __ No Internal Use Only
Seals Intact __ Yes __ No NA: ✓ [ ] Pickup
Cooler Temp: 5H 10 F [ ] Technicians ____

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- ____
Sampled by:
Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
		[signature]	7/24/12 14:45	[signature]	7/24/12 10:50	[signature]	7/20/12 1507
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

CERTIFICATE OF ANALYSIS

Marc J. Richards, P.E., LSP
Tighe & Bond
446 Main Street
Worcester, MA 01608

RE: North High Worcester (W-1510)
ESS Laboratory Work Order Number: 1208261

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 11:38 am, Aug 17, 2012

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1208261

SAMPLE RECEIPT

The following samples were received on August 15, 2012 for the analyses specified on the enclosed Chain of Custody Record.

To achieve CAM compliance for MCP data, ESS Laboratory has performed and reviewed all QA/QC Requirements and Performance Standards listed in each method. Holding times and preservation have also been reviewed. All CAM requirements have been achieved unless noted in the project narrative.

Each method has been set-up in the laboratory to reach required MCP standards. The methods for aqueous VOA and Soil Methanol VOA have known limitations for certain analytes. The regulatory standards may not be achieved due to these limitations. In addition, for all methods, matrix interferences, dilutions, and %Solids may elevate method reporting limits above regulatory standards. ESS Laboratory can provide, upon request, a Data Checker (regulatory standard comparison spreadsheet) electronic deliverable which will highlight these exceedances.

For EPH soil samples, the aromatic range results have been corrected for identified cartridge contaminant in accordance with the CAM protocol.

Lab Number	SampleName	Matrix	Analysis
1208261-01	B-Slab-1	Wipe	8082
1208261-02	B-Slab-2	Wipe	8082
1208261-03	B-Slab-3	Wipe	8082
1208261-04	B-Slab-4	Wipe	8082

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1208261

PROJECT NARRATIVE

8082 Polychlorinated Biphenyls (PCB)

CH21536-BS1 **Blank Spike recovery is above upper control limit (B+).**
Aroclor 1260 (216% @ 40-140%)

CH21536-BSD1 **Relative percent difference for duplicate is outside of criteria (D+).**
Aroclor 1260 (73%)

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1208261

MassDEP Analytical Protocol Certification Form

MADEP RTN: _____

This form provides certification for the following data set: **1208261-01 through 1208261-04**

Matrices: ( ) Ground Water/Surface Water ( ) Soil/Sediment ( ) Drinking Water ( ) Air (X) Other: Wipe

CAM Protocol (check all that apply below):

( ) 8260 VOC CAM II A	( ) 7470/7471 Hg CAM III B	( ) 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 B	( ) 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	(X) 8082 PCB CAM V A	( ) 6860 Perchlorate CAM VIII B	( ) 9014 Total Cyanide/PAC CAM VI A	

Affirmative responses to questions A through F are 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 (X) No ( )
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	Yes (X) No ( )
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 (X) No ( )
D	Does the laboratory report comply with all the reporting requirements specified in the CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes (X) No ( )
E	a. VPH, EPH, APH and TO-15 only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	Yes ( ) No ( )
	b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes ( ) No ( )
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	Yes (X) No ( )

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols(s)?	Yes (X) No ( )*
	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 performance standards specified in the CAM protocol(s) achieved?	Yes ( ) No (X)*
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (X) No ( )*

****All negative responses must be addressed in an attached laboratory 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: Laurel Stoddard
Date: August 17, 2012
Printed Name: Laurel Stoddard
Position: Laboratory Director

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: B-Slab-1
Date Sampled: 08/15/12 12:05
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1208261
ESS Laboratory Sample ID: 1208261-01
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TAJ
Prepared: 8/15/12 17:00

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	08/16/12 20:08		CH21536
Aroclor 1221	ND (1.0)		1	08/16/12 20:08		CH21536
Aroclor 1232	ND (1.0)		1	08/16/12 20:08		CH21536
Aroclor 1242	ND (1.0)		1	08/16/12 20:08		CH21536
Aroclor 1248	ND (1.0)		1	08/16/12 20:08		CH21536
Aroclor 1254	ND (1.0)		1	08/16/12 20:08		CH21536
Aroclor 1260	ND (1.0)		1	08/16/12 20:08		CH21536
Aroclor 1262	ND (1.0)		1	08/16/12 20:08		CH21536
Aroclor 1268	ND (1.0)		1	08/16/12 20:08		CH21536

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*87 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*88 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: B-Slab-2
Date Sampled: 08/15/12 12:07
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1208261
ESS Laboratory Sample ID: 1208261-02
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TAJ
Prepared: 8/15/12 17:00

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	08/16/12 20:27		CH21536
Aroclor 1221	ND (1.0)		1	08/16/12 20:27		CH21536
Aroclor 1232	ND (1.0)		1	08/16/12 20:27		CH21536
Aroclor 1242	ND (1.0)		1	08/16/12 20:27		CH21536
Aroclor 1248	ND (1.0)		1	08/16/12 20:27		CH21536
Aroclor 1254	ND (1.0)		1	08/16/12 20:27		CH21536
Aroclor 1260	ND (1.0)		1	08/16/12 20:27		CH21536
Aroclor 1262	ND (1.0)		1	08/16/12 20:27		CH21536
Aroclor 1268	ND (1.0)		1	08/16/12 20:27		CH21536

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*94 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*84 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*85 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*81 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: B-Slab-3
Date Sampled: 08/15/12 12:09
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1208261
ESS Laboratory Sample ID: 1208261-03
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TAJ
Prepared: 8/15/12 17:00

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	08/16/12 20:46		CH21536
Aroclor 1221	ND (1.0)		1	08/16/12 20:46		CH21536
Aroclor 1232	ND (1.0)		1	08/16/12 20:46		CH21536
Aroclor 1242	ND (1.0)		1	08/16/12 20:46		CH21536
Aroclor 1248	ND (1.0)		1	08/16/12 20:46		CH21536
Aroclor 1254	ND (1.0)		1	08/16/12 20:46		CH21536
Aroclor 1260	ND (1.0)		1	08/16/12 20:46		CH21536
Aroclor 1262	ND (1.0)		1	08/16/12 20:46		CH21536
Aroclor 1268	ND (1.0)		1	08/16/12 20:46		CH21536

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*93 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*78 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
Client Sample ID: B-Slab-4
Date Sampled: 08/15/12 12:11
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1208261
ESS Laboratory Sample ID: 1208261-04
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TAJ
Prepared: 8/15/12 17:00

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	08/16/12 21:04		CH21536
Aroclor 1221	ND (1.0)		1	08/16/12 21:04		CH21536
Aroclor 1232	ND (1.0)		1	08/16/12 21:04		CH21536
Aroclor 1242	ND (1.0)		1	08/16/12 21:04		CH21536
Aroclor 1248	ND (1.0)		1	08/16/12 21:04		CH21536
Aroclor 1254	ND (1.0)		1	08/16/12 21:04		CH21536
Aroclor 1260	ND (1.0)		1	08/16/12 21:04		CH21536
Aroclor 1262	ND (1.0)		1	08/16/12 21:04		CH21536
Aroclor 1268	ND (1.0)		1	08/16/12 21:04		CH21536

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*88 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*77 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*76 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1208261

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082 Polychlorinated Biphenyls (PCB)										
Batch CH21536 - 3540										
Blank										
Aroclor 1016	ND	0.05	ug/Wipe							
Aroclor 1221	ND	0.05	ug/Wipe							
Aroclor 1232	ND	0.05	ug/Wipe							
Aroclor 1242	ND	0.05	ug/Wipe							
Aroclor 1248	ND	0.05	ug/Wipe							
Aroclor 1254	ND	0.05	ug/Wipe							
Aroclor 1260	ND	0.05	ug/Wipe							
Aroclor 1262	ND	0.05	ug/Wipe							
Aroclor 1268	ND	0.05	ug/Wipe							
Surrogate: Decachlorobiphenyl	*0.0242*		ug/Wipe	*0.02500*		*97*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0214*		ug/Wipe	*0.02500*		*86*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		ug/Wipe	*0.02500*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0217*		ug/Wipe	*0.02500*		*87*	*30-150*			
LCS										
Aroclor 1016	0.5	0.05	ug/Wipe	0.5000		94	40-140			
Aroclor 1260	1.1	0.05	ug/Wipe	0.5000		216	40-140			B+
Surrogate: Decachlorobiphenyl	*0.0229*		ug/Wipe	*0.02500*		*92*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0206*		ug/Wipe	*0.02500*		*82*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0216*		ug/Wipe	*0.02500*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0203*		ug/Wipe	*0.02500*		*81*	*30-150*			
LCS Dup										
Aroclor 1016	0.5	0.05	ug/Wipe	0.5000		101	40-140	7	50	
Aroclor 1260	0.5	0.05	ug/Wipe	0.5000		100	40-140	73	50	D+
Surrogate: Decachlorobiphenyl	*0.0240*		ug/Wipe	*0.02500*		*96*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0218*		ug/Wipe	*0.02500*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0217*		ug/Wipe	*0.02500*		*87*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0214*		ug/Wipe	*0.02500*		*86*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester
ESS Laboratory Work Order: 1208261

Notes and Definitions

U	Analyte included in the analysis, but not detected
D+	Relative percent difference for duplicate is outside of criteria (D+).
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: Tighe & Bond
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1208261

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: Tighe & Bond
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 12080261
Date Project Due: 8/16/12
Days For Project: 1 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **3.7**
   Iced With: **Ice**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes** / **No**
17. Were samples received intact? **Yes** / **No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	Hexane
2	Yes	4 oz Soil Jar	1	Hexane
3	Yes	4 oz Soil Jar	1	Hexane
4	Yes	4 oz Soil Jar	1	Hexane

Completed By: SJK Date/Time: 8/15/12 1633
Reviewed By: KDS Date/Time: 8/15/12

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page_____ of_____

Turn Time ___ Standard Other 24 HR
If faster than 5 days, prior approval by laboratory is required # _____
State where samples were collected from: MA RI CT NH NJ NY ME Other _____
Is this project for any of the following: MA-MCP Navy USACE Other EPA

Reporting Limits

ESS LAB PROJECT ID 1208261

Electronic Deliverable Yes ✓ No ___
Format: Excel ✓ Access ___ PDF ✓ Other _____

Co. Name: Tighe + Bond
Project #: W-1510
Project Name (20 Char. or less): North High
Contact Person: MARC RICHARDS
Address: 446 Main St
City: Worcester State: MA Zip:
PO#: W-1510
Telephone #: 508 754 2201
Fax #:
Email Address:

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA / 624 / 524.2	8021 MTBE/BTEX / 8015 GRO / VPH w/targets	8100 TPH / 8015 DRO	EPH w/o PAHs / EPH w/PAHs / EPH 4 Diesel	8081 Pesticides / 8082 PCB	8270 SVOA / 625 / PAH 8270	RCRA5 / RCRA8 / PP13 / TAL23	TCLP-RCRA8 / NBC7	MCP-METALS (13) / MCP-METALS (13) w/Hg				
1	8/15/12	1205			W	B-Slab-1	9	1	G					X								
2	8/15/12	1207			W	B-Slab-2	9	1	G					X								
3	8/15/12	1209			W	B-Slab-3	9	1	G					X								
4	8/15/12	1211			W	B-Slab-4	9	1	G					X								
						END																

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes ___ No
Seals Intact ___ Yes ___ No NA: ___
Cooler Temp: 3.7 ice

Internal Use Only
[✓] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- HEXANE

Sampled by: Matt Abraham

Comments: PCBs via SOXHLET (24 HR TAT)

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Matt Abraham	8/15/12 1224	Bill Buccan	8/15/12 1225	Bill Buccan	8/15/12 1624	[illegible]	8/15/12 1630
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

CERTIFICATE OF ANALYSIS

Dana Zewinski
J.R. Vinagro Corporation
2208 Plainfield Pike
Johnston, RI 02919

RE: North High Worcester (N/A)
ESS Laboratory Work Order Number: 1207263

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 11:39 am, Jul 24, 2012

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

ESS Laboratory certifies that the test results meet the requirements of NELAC and A2LA, except where noted within this project narrative.

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207263

SAMPLE RECEIPT

The following samples were received on July 20, 2012 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	SampleName	Matrix	Analysis
1207263-01	Pegson xA400S Hopper	Wipe	8082
1207263-02	Pegson xA400S Discharge	Wipe	8082
1207263-03	C-Slab Near School	Wipe	8082
1207263-04	C-Slab Middle	Wipe	8082
1207263-05	C-Slab Far	Wipe	8082
1207263-06	1300 Max Track Discharge	Wipe	8082
1207263-07	1300 Max Track Hopper	Wipe	8082
1207263-08	Equip 345 Bucket	Wipe	8082

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207263

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: Pegson xA400S Hopper
Date Sampled: 07/20/12 11:50
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207263
ESS Laboratory Sample ID: 1207263-01
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: ML
Prepared: 7/21/12 11:30

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	07/23/12 14:58		CG22102
Aroclor 1221	ND (1.0)		1	07/23/12 14:58		CG22102
Aroclor 1232	ND (1.0)		1	07/23/12 14:58		CG22102
Aroclor 1242	ND (1.0)		1	07/23/12 14:58		CG22102
Aroclor 1248	ND (1.0)		1	07/23/12 14:58		CG22102
Aroclor 1254	ND (1.0)		1	07/23/12 14:58		CG22102
Aroclor 1260	ND (1.0)		1	07/23/12 14:58		CG22102
Aroclor 1262	ND (1.0)		1	07/23/12 14:58		CG22102
Aroclor 1268	ND (1.0)		1	07/23/12 14:58		CG22102

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*107 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*96 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*90 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: Pegson xA400S Discharge
Date Sampled: 07/20/12 11:55
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207263
ESS Laboratory Sample ID: 1207263-02
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: ML
Prepared: 7/21/12 11:30

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	07/23/12 15:27		CG22102
Aroclor 1221	ND (1.0)		1	07/23/12 15:27		CG22102
Aroclor 1232	ND (1.0)		1	07/23/12 15:27		CG22102
Aroclor 1242	ND (1.0)		1	07/23/12 15:27		CG22102
Aroclor 1248	ND (1.0)		1	07/23/12 15:27		CG22102
Aroclor 1254	ND (1.0)		1	07/23/12 15:27		CG22102
Aroclor 1260	ND (1.0)		1	07/23/12 15:27		CG22102
Aroclor 1262	ND (1.0)		1	07/23/12 15:27		CG22102
Aroclor 1268	ND (1.0)		1	07/23/12 15:27		CG22102

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*97 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*45 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*42 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: C-Slab Near School
Date Sampled: 07/20/12 12:00
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207263
ESS Laboratory Sample ID: 1207263-03
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: ML
Prepared: 7/21/12 11:30

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	07/23/12 18:50		CG22102
Aroclor 1221	ND (1.0)		1	07/23/12 18:50		CG22102
Aroclor 1232	ND (1.0)		1	07/23/12 18:50		CG22102
Aroclor 1242	ND (1.0)		1	07/23/12 18:50		CG22102
Aroclor 1248	ND (1.0)		1	07/23/12 18:50		CG22102
Aroclor 1254	ND (1.0)		1	07/23/12 18:50		CG22102
Aroclor 1260	ND (1.0)		1	07/23/12 18:50		CG22102
Aroclor 1262	ND (1.0)		1	07/23/12 18:50		CG22102
Aroclor 1268	ND (1.0)		1	07/23/12 18:50		CG22102

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*95 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*74 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*68 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: C-Slab Middle
Date Sampled: 07/20/12 12:02
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207263
ESS Laboratory Sample ID: 1207263-04
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: ML
Prepared: 7/21/12 11:30

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	07/23/12 16:25		CG22102
Aroclor 1221	ND (1.0)		1	07/23/12 16:25		CG22102
Aroclor 1232	ND (1.0)		1	07/23/12 16:25		CG22102
Aroclor 1242	ND (1.0)		1	07/23/12 16:25		CG22102
Aroclor 1248	ND (1.0)		1	07/23/12 16:25		CG22102
Aroclor 1254	ND (1.0)		1	07/23/12 16:25		CG22102
Aroclor 1260	ND (1.0)		1	07/23/12 16:25		CG22102
Aroclor 1262	ND (1.0)		1	07/23/12 16:25		CG22102
Aroclor 1268	ND (1.0)		1	07/23/12 16:25		CG22102

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*84 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*75 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*50 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*47 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: C-Slab Far
Date Sampled: 07/20/12 12:05
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207263
ESS Laboratory Sample ID: 1207263-05
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: ML
Prepared: 7/21/12 11:30

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	07/23/12 19:19		CG22102
Aroclor 1221	ND (1.0)		1	07/23/12 19:19		CG22102
Aroclor 1232	ND (1.0)		1	07/23/12 19:19		CG22102
Aroclor 1242	ND (1.0)		1	07/23/12 19:19		CG22102
Aroclor 1248	ND (1.0)		1	07/23/12 19:19		CG22102
Aroclor 1254	ND (1.0)		1	07/23/12 19:19		CG22102
Aroclor 1260	ND (1.0)		1	07/23/12 19:19		CG22102
Aroclor 1262	ND (1.0)		1	07/23/12 19:19		CG22102
Aroclor 1268	ND (1.0)		1	07/23/12 19:19		CG22102

	%Recovery	*Qualifier*	*Limits*
Surrogate: Decachlorobiphenyl	*100 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*80 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: 1300 Max Track Discharge
Date Sampled: 07/20/12 12:10
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207263
ESS Laboratory Sample ID: 1207263-06
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: ML
Prepared: 7/21/12 11:30

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	07/23/12 17:23		CG22102
Aroclor 1221	ND (1.0)		1	07/23/12 17:23		CG22102
Aroclor 1232	ND (1.0)		1	07/23/12 17:23		CG22102
Aroclor 1242	ND (1.0)		1	07/23/12 17:23		CG22102
Aroclor 1248	ND (1.0)		1	07/23/12 17:23		CG22102
Aroclor 1254	ND (1.0)		1	07/23/12 17:23		CG22102
Aroclor 1260	ND (1.0)		1	07/23/12 17:23		CG22102
Aroclor 1262	ND (1.0)		1	07/23/12 17:23		CG22102
Aroclor 1268	ND (1.0)		1	07/23/12 17:23		CG22102

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*98 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*86 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*88 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*82 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: 1300 Max Track Hopper
Date Sampled: 07/20/12 12:13
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207263
ESS Laboratory Sample ID: 1207263-07
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: ML
Prepared: 7/21/12 11:30

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	07/23/12 17:52		CG22102
Aroclor 1221	ND (1.0)		1	07/23/12 17:52		CG22102
Aroclor 1232	ND (1.0)		1	07/23/12 17:52		CG22102
Aroclor 1242	ND (1.0)		1	07/23/12 17:52		CG22102
Aroclor 1248	ND (1.0)		1	07/23/12 17:52		CG22102
Aroclor 1254	ND (1.0)		1	07/23/12 17:52		CG22102
Aroclor 1260	ND (1.0)		1	07/23/12 17:52		CG22102
Aroclor 1262	ND (1.0)		1	07/23/12 17:52		CG22102
Aroclor 1268	ND (1.0)		1	07/23/12 17:52		CG22102

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*96 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*83 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*78 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*73 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester
Client Sample ID: Equip 345 Bucket
Date Sampled: 07/20/12 12:15
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1207263
ESS Laboratory Sample ID: 1207263-08
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: ML
Prepared: 7/21/12 11:30

8082 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		1	07/23/12 18:21		CG22102
Aroclor 1221	ND (1.0)		1	07/23/12 18:21		CG22102
Aroclor 1232	ND (1.0)		1	07/23/12 18:21		CG22102
Aroclor 1242	ND (1.0)		1	07/23/12 18:21		CG22102
Aroclor 1248	ND (1.0)		1	07/23/12 18:21		CG22102
Aroclor 1254	ND (1.0)		1	07/23/12 18:21		CG22102
Aroclor 1260	ND (1.0)		1	07/23/12 18:21		CG22102
Aroclor 1262	ND (1.0)		1	07/23/12 18:21		CG22102
Aroclor 1268	ND (1.0)		1	07/23/12 18:21		CG22102

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*87 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*76 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*70 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207263

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082 Polychlorinated Biphenyls (PCB)										
Batch CG22102 - 3540										
Blank										
Aroclor 1016	ND	1.0	ug/Wipe							
Aroclor 1221	ND	1.0	ug/Wipe							
Aroclor 1232	ND	1.0	ug/Wipe							
Aroclor 1242	ND	1.0	ug/Wipe							
Aroclor 1248	ND	1.0	ug/Wipe							
Aroclor 1254	ND	1.0	ug/Wipe							
Aroclor 1260	ND	1.0	ug/Wipe							
Aroclor 1262	ND	1.0	ug/Wipe							
Aroclor 1268	ND	1.0	ug/Wipe							
Surrogate: Decachlorobiphenyl	*0.555*		ug/Wipe	*0.5000*		*111*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.501*		ug/Wipe	*0.5000*		*100*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.516*		ug/Wipe	*0.5000*		*103*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.474*		ug/Wipe	*0.5000*		*95*	*30-150*			
LCS										
Aroclor 1016	11.0	1.0	ug/Wipe	10.00		110	40-140			
Aroclor 1260	10.4	1.0	ug/Wipe	10.00		104	40-140			
Surrogate: Decachlorobiphenyl	*0.536*		ug/Wipe	*0.5000*		*107*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.480*		ug/Wipe	*0.5000*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.471*		ug/Wipe	*0.5000*		*94*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.423*		ug/Wipe	*0.5000*		*85*	*30-150*			
LCS Dup										
Aroclor 1016	10.8	1.0	ug/Wipe	10.00		108	40-140	1	50	
Aroclor 1260	10.4	1.0	ug/Wipe	10.00		104	40-140	0.2	50	
Surrogate: Decachlorobiphenyl	*0.537*		ug/Wipe	*0.5000*		*107*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.482*		ug/Wipe	*0.5000*		*96*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.467*		ug/Wipe	*0.5000*		*93*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.430*		ug/Wipe	*0.5000*		*86*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207263

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: J.R. Vinagro Corporation
Client Project ID: North High Worcester

ESS Laboratory Work Order: 1207263

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: JR Vinagro
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 12070263
Date Project Due: 7/24/12
Days For Project: 2 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present? *** No**
   Air No.:
2. Were Custody Seals Present? **No**
3. Were Custody Seals Intact? **N/A**
4. Is Radiation count < 100 CPM? **Yes**
5. Is a cooler present? **Yes**
   Cooler Temp: **5.1**
   Iced With: **Ice**
6. Was COC included with samples? **Yes**
7. Was COC signed and dated by client? **Yes**
8. Does the COC match the sample **Yes**
9. Is COC complete and correct? **Yes**
10. Are the samples properly preserved? **Yes**
11. Proper sample containers used? **Yes**
12. Any air bubbles in the VOA vials? **N/A**
13. Holding times exceeded? **No**
14. Sufficient sample volumes? **Yes**
15. Any Subcontracting needed? **No**
16. Are ESS labels on correct containers? **Yes | No**
17. Were samples received intact? **Yes | No**

ESS Sample IDs: _____
Sub Lab: _____
Analysis: _____
TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

Who was called?: _____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	Hexane
2	Yes	4 oz Soil Jar	1	Hexane
3	Yes	4 oz Soil Jar	1	Hexane
4	Yes	4 oz Soil Jar	1	Hexane
5	Yes	4 oz Soil Jar	1	Hexane
6	Yes	4 oz Soil Jar	1	Hexane
7	Yes	4 oz Soil Jar	1	Hexane
8	Yes	4 oz Soil Jar	1	Hexane

Completed By: JK Date/Time: 7/20/12 1350
Reviewed By: CLD Date/Time: 7/20/12 1350

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Page____ of____

Turn Time ___ Standard Other 48 hr
If faster than 5 days, prior approval by laboratory is required # ____

State where samples were collected from:
MA RI CT NH NJ NY ME Other ____

Is this project for any of the following:
MA-MCP Navy USACE Other ____

Reporting Limits

ESS LAB PROJECT ID 1207263

Electronic Deliverable Yes ___ No ___
Format: Excel __ Access __ PDF __ Other ____

Co. Name	Project #	Project Name (20 Char. or less)
JRU		North High School

Contact Person	Address
Dana Z	

City	State	Zip	PO#

Telephone #	Fax #	Email Address

Circle and/or Write Required Analysis

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	8260 VOA 624 524.2	8021 MTBE/BTEX 8015 GRO VPH w/targets	8100 TPH 8015 DRO	EPH w/o PAHs EPH w/PAHs EPH 4 Diesel	8081 Pesticides 8082 PCB 608 Pesticides 608 PCB	8270 SVOA 625 PAH 8270	RCRA5 RCRA8 PP13 TAL23	TCLP-RCRA8 NBC7	MCP-METALS (13) MCP-METALS (13) w/Hg	3540/FoF2				
1	7/20/12	11:50	X		Wipe	Pegson XA400S Hopper	9	1	G										X				
2	↓	11:55	X		↓	Pegson XA400S Discharge	↓	↓	↓										X				
3	↓	12:00	X		↓	C-Slab Near School	↓	↓	↓										X				
4	↓	12:02	X		↓	C-Slab Middle	↓	↓	↓										X				
5	↓	12:05	X		↓	C-Slab Far	↓	↓	↓										X				
6	↓	12:10	X		↓	1300 MAX TRACK Discharge	↓	↓	↓										X				
7	↓	12:13	X		↓	1300 MAX TRACK Hopper	↓	↓	↓										X				
8	↓	12:15	X		↓	Equip 345 Bucket	↓	↓	↓										X				
9																							
10																							

Container Type: P-Poly G-Glass S-Sterile V-VOA | Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ✓ Yes __ No Internal Use Only

Seals Intact __ Yes __ No NA: ✓ [ ] Pickup

Cooler Temp: 5.1°C [X] Technicians 2

Preservation Code 1- NP, 2- HC1, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- Hexan

Sampled by: ~~Dan~~ KP BRAGA - ESS Lab

Comments: Wipe area 100 cm² for all samples

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
		[signature]		[signature]	7/20/12 PA	[signature]	7/20/12 1340
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 B

Tighe&Bond

APPENDIX G

Tighe&Bond

North High School, 140 Harrington Way, Worcester, MA
Air Quality Monitoring Report
Date: 04/10/2012

Weather Conditions:

Wind Direction: West
Temperature: 49* F
Average Humidity: 37%

Speed: 18 MPH
Precipitation: None
Notes: Partially Cloudy

DS-1	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1122	1134	0.094	0.075	0.0814	**0.150**
DS-2			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1138	1150	0.218	0.067	0.111	**0.150**
DS-3			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1157	1209	0.553	0.075	0.180	**0.150**
DS-4			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1213	1225	0.133	0.089	0.116	**0.150**
DS-5			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1230	1242	0.125	0.069	0.0946	**0.150**

Notes and Observations

Notable Contractor Activities

No machinery was running outside at the time of the survey. All work was being performed inside the school under containment. Contractor was working in B wing under containment. For a brief amount of time, contractor was working outside of containment in the eastern side of C wing packaging building material; however disruption to the work area from activities was negligible.

Notable Visual Observations

Wind gusts were frequent and powerful. Occasional dust from on-site and off-site was noted blowing. There was a strong wind gusts during one of the DS-3 sampling events that skewd the results to show an average respirable dust reading above the action level. All other DS-3 samples read below 0.100 mg/m3 and are considered respresentative.

Corrective Actions

None

Other Notes

If there are any questions regarding the content of this report, please contact Cheryl Kocsis at 508-471-9642.

Notifications:

None

Unit: DustTrak Model 8520 Aerosol Monitor Calibrated July 2011, Serial # 85201463

DS-1	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.078	0.075	0.094	0.079	0.081	0.094	0.075	0.0814
Time	1122	1125	1128	1131	1134			
Description	Upwind of site; between gymnasium and ballfield							
Activities	Intermittent traffic traveling on roadway between old gymnasium and ballfield							
Notes								

DS-2	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.124	0.218	0.072	0.067	0.073	0.218	0.067	0.111
Time	1138	1141	1144	1147	1150			
Description	Upwind of site; between gymnasium and new school entrance							
Activities	Intermittent traffic traveling on roadway between old gymnasium and new school entrance							
Notes	Intermittent car activity from adjacent new school likely triggering fluctuating higher readings that are observed.							

DS-3	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.075	0.099	0.553	0.088	0.085	0.553	0.075	0.180
Time	1157	1200	1203	1206	1209			
Description	Downwind; north-east corner of C Wing							
Activities	Light construction activity - packing building materials							
Notes	Strong gust of wind observed at sampling event #3, triggering the high reading.							

DS-4	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.089	0.127	0.133	0.13	0.099	0.133	0.089	0.116
Time	1213	1216	1219	1222	1225			
Description	Downwind; south-east corner of C Wing; Upwind of DS-3							
Activities	Containment area located to the west in B Wing where abatement is taking place							
Notes								

DS-5	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.081	0.096	0.102	0.125	0.069	0.125	0.069	0.0946
Time	1230	1233	1236	1239	1242			
Description	Downwind; East of A Wing, south-west of B wing; Between B wing and the New school. Upwind of DS-4 and DS-3							
Activities	None							
Notes								

Tighe&Bond

North High School, 140 Harrington Way, Worcester, MA
Air Quality Monitoring Report
Date: 04/19/2012

Weather Conditions:

Wind Direction: West
Temperature: 60*F
Average Humidity: 31%

Speed: 5 MPH
Precipitation: None
Notes: Sunny, Clear Sky

DS-1	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1219	1231	0.097	0.062	0.084	**0.150**

DS-2	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1234	1246	0.132	0.063	0.094	**0.150**

DS-5	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1257	1309	0.185	0.097	0.132	**0.150**

DS-6	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1316	1328	0.200	0.109	0.151	**0.150**

Notes and Observations

Notable Contractor Activities

SMI was loading/unloading pallets and building materials from a truck in front of the main entrance/traffic circle; however disruption to the work area from activities was negligible. All other work was being performed inside the school under containment.

Notable Visual Observations

A strong gust of wind at the end of the sampling event at DS-6 swept dirt into the air. There is a considerable amount of dirt staged in this area (traffic circle) and may require dust control under high wind conditions. High readings leveling around 0.272 mg/m3 were observed at sampling point DS-2 for approximately 2 minutes, with no activities or high wind gusts noted.

Corrective Actions

None

Other Notes

If there are any questions regarding the content of this report, please contact Cheryl Kocsis at 508-471-9642.

Notifications:

None

Unit: DustTrak Model 8520 Aerosol Monitor Calibrated July 2011, Serial # 85201463

DS-1	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.062	0.083	0.089	0.097	0.088	0.097	0.062	0.0838
Time	1219	1222	1225	1228	1231			
Description	Between gym and practice fields							
Activities	None							
Notes	2 cars drove by that caused intermittent spikes >0.100							

DS-2	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.063	0.067	0.078	0.132	0.128	0.132	0.063	0.094
Time	1234	1237	1240	1243	1246			
Description	Between gym and entrance to new school							
Activities	None							
Notes	Unusually high spike of 0.272 maintained for approx 2 minutes with no observed activity and only mild winds							

DS-5	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.097	0.109	0.122	0.185	0.147	0.185	0.097	0.132
Time	1257	1300	1303	1306	1309			
Description	Between new school and A/B wing							
Activities	None							
Notes								

DS-6	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.124	0.109	0.147	0.176	0.200	0.2	0.109	0.151
Time	1316	1319	1322	1325	1328			
Description	North-eastern portion of traffic circle adjacent to hydrant, downgradient of work occurring							
Activities	SMI loading pallets into truck in front of NHS main entrance							
Notes	Strong gust of wind swept dirt into air during samping event #5 at 1328							

Tighe&Bond

North High School, 140 Harrington Way, Worcester, MA
Air Quality Monitoring Report
Date: 05/11/2012

Weather Conditions:

Wind Direction: North-West
Speed: 22 MPH
Temperature: 53*F
Precipitation: Occassional Sprinkles
Average Humidity: 52%
Notes: Sunny, Partly Cloudy

DS-1	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1103	1115	0.074	0.045	0.059	**0.150**

DS-2	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1118	1130	0.039	0.023	0.029	**0.150**

DS-3	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1210	1224	0.128	0.030	0.068	**0.150**

Notes and Observations

Notable Contractor Activities

SMI was working inside the gymnasium removing asbstos from the interior wall. Vinagro was demolishing parts of the C Wing connector and segregating CMU and painted metals and stockpiling on slab.

Notable Visual Observations

Vinagro was actively using a fire hose to wet down demolition debris during demolition activities. No demolition dust was observed because of their preventative actions

Corrective Actions

Other Notes

T&B personnel attempted to find the SMH for cut and cap, and was unsuccessful. SMI was shipping some PCB containers off site today. Bill (SMI Foreman) pulled wood and foam from the roof joints and says it's not hot. I indicated BFD would be on site next week and would send him a picture of the material.

Notifications:

Unit: DustTrak Model 8520 Aerosol Monitor Calibrated July 2011, Serial # 85201463

DS-1	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.045	0.065	0.062	0.074	0.05	0.074	0.045	0.0592
Time	1103	1106	1109	1112	1115			
Description	Between gym and practice fields							
Activities	None							
Notes	Cars were parked up against the metal construction fence.							

DS-2	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.023	0.039	0.028	0.028	0.029	0.039	0.023	0.029
Time	1118	1121	1124	1127	1130			
Description	Between gym and entrance to new school							
Activities	None; A couple cars drove by with no noticible impact on readings							
Notes								

DS-3	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.071	0.128	0.045	0.066	0.03	0.128	0.03	0.068
Time	1210	1216	1219	1221	1224			
Description	Downwind; north-east corner of C Wing							
Activities	Vinagro was performing demolition of C Wing connector and stockpiling/segragating CMU and painted metal							
Notes	Reading of 0.856 at 1213 ommited from analysis. Extremely powerful wind gust was noted at this time and was not related to occurring demolition activities.							

DS-7	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.065	0.071	0.029	0.033	0.034	0.071	0.029	0.046
Time	1144	1147	1150	1153	1156			
Description	Between C & B Wings; Upwind of Vinagro Stockpiling work							
Activities								
Notes								

Tighe&Bond

North High School, 140 Harrington Way, Worcester, MA
Air Quality Monitoring Report
Date: 05/17/2012

Weather Conditions:

Wind Direction: West	Speed: 9 MPH
Temperature: 64* F	Precipitation: None
Average Humidity: 52%	Notes: Partially Cloudy

DS-1	**Start**	**Stop**	**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1128	1140	0.114	0.073	0.0932	**0.150**
DS-2			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1112	1124	0.173	0.072	0.130	**0.150**
DS-3			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1203	1215	0.351	0.077	0.146	**0.150**
DS-4			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1248	1300	0.123	0.073	0.101	**0.150**
DS-6			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1147	1159	0.107	0.076	0.0924	**0.150**

Notes and Observations

Notable Contractor Activities

No active demolition at the time of the survey, material handling equipment moving about site. Work performed includes removal of caulking materials from B wing. Building materials consolidated on eastern side of C wing slab.

Notable Visual Observations

Wind gusts were low to moderate. Occasional dust from on-site and off-site was noted blowing. Minimal inpact from abatement and material handling observed. Most siginificant impacts were from equipment/vehicles.

Corrective Actions

None

Other Notes

None

Notifications:

None

Unit: DustTrak Model 8520 Aerosol Monitor Calibrated July 2011, Serial # 85201463

DS-1	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.094	0.073	0.088	0.114	0.097	0.114	0.073	0.0932
Time	1128	1131	1134	1137	1140			
Description	Upwind of site; between gymnasium and ballfield							
Activities	Intermittent traffic traveling on roadway between old gymnasium and ballfield							
Notes								

DS-2	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.077	0.158	0.072	0.173	0.169	0.173	0.072	0.130
Time	1112	1115	1118	1121	1124			
Description	Upwind of site; between gymnasium and new school entrance							
Activities	Intermittent traffic traveling on roadway between old gymnasium and new school entrance							
Notes	Vehicle activity from adjacent new school likely triggering fluctuating higher readings that are observed.							

DS-3	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.095	0.351	0.122	0.084	0.077	0.351	0.077	0.146
Time	1203	1206	1209	1212	1215			
Description	Downwind; north-east corner of C Wing							
Activities	Light construction activity - moving building materials							
Notes	Construction equipment passes at sampling event #2, triggering the high reading.							

DS-4	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.104	0.117	0.073	0.123	0.089	0.123	0.073	0.101
Time	1248	1251	1254	1257	1300			
Description	Downwind; south-east corner of C Wing; Upwind of DS-3							
Activities	Crews loading materials on C Wing slab							
Notes								

DS-6	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.087	0.076	0.107	0.095	0.097	0.107	0.076	0.0924
Time	1147	1150	1153	1156	1159			
Description	Downwind; East of A Wing, south-west of B wing; Between B wing and the New school. Upwind of DS-4 and DS-3							
Activities	Crews completing material removal directly east of sampling location.							
Notes								

Tighe&Bond

North High School, 140 Harrington Way, Worcester, MA
Air Quality Monitoring Report
Date: 06/19/2012

Weather Conditions:

Wind Direction: Southwest	Speed: 8 MPH
Temperature: 66* F	Precipitation: None
Average Humidity: 71%	Notes: Cloudy

DS-1	Start	Stop	Maximum	Minimum	Average	Action Level
Respirable Dust (mg/m3)	1321	1333	0.283	0.108	0.206	**0.150**
DS-2			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1339	1351	0.202	0.102	0.138	**0.150**
DS-3			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1418	1430	0.213	0.095	0.167	**0.150**
DS-4			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1357	1409	0.244	0.132	0.189	**0.150**
DS-6			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1435	1447	0.248	0.112	0.198	**0.150**

Notes and Observations

Notable Contractor Activities

Crews beginning demolition of A wing and segregating materials on B wing slab. Good water useage observed during demolition activities, power mister operational at B wing area. Various equipment moving about site. Work includes loading out metal from B wing. Building materials consolidated on southern portion of B wing.

Notable Visual Observations

Wind gusts were moderate. Occasional dust from on-site and off-site was noted blowing. Most siginificant impacts were from trucks/vehicles both on-site and at the adjacent parking area/access road.

Corrective Actions

None

Other Notes

None

Notifications:

None

Unit: DustTrak Model 8520 Aerosol Monitor Calibrated July 2011, Serial # 85201463

DS-1	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.108	0.283	0.238	0.157	0.244	0.283	0.108	0.206
Time	1321	1324	1327	1330	1333			
Description	Upwind of site; between gymnasium and ballfield							
Activities	Frequent traffic traveling on roadway between old gymnasium and ballfield							
Notes								

DS-2	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.108	0.102	0.202	0.118	0.159	0.202	0.102	0.138
Time	1339	1342	1345	1348	1351			
Description	Upwind of site; between gymnasium and new school entrance							
Activities	Intermittent traffic traveling on roadway between old gymnasium and new school entrance							
Notes								

DS-3	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.191	0.142	0.095	0.213	0.193	0.213	0.095	0.167
Time	1418	1421	1424	1427	1430			
Description	Downwind; north-east corner of C Wing							
Activities	Light construction activity - moving/loading building materials at B Wing							
Notes	Wind gusts contributing to elevated readings.							

DS-4	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.205	0.159	0.132	0.205	0.244	0.244	0.132	0.189
Time	1357	1400	1403	1406	1409			
Description	Downwind; east of A Wing							
Activities	Construction activity - moving building materials							
Notes	Siginificant wind gusts.							

DS-6	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.248	0.223	0.186	0.22	0.112	0.248	0.112	0.1978
Time	1435	1438	1441	1444	1447			
Description	Upwind; north of A Wing, north-west of B wing							
Activities	Truck traffic during sampling.							
Notes								

Tighe&Bond

North High School, 140 Harrington Way, Worcester, MA
Air Quality Monitoring Report
Date: 06/28/2012

Weather Conditions:

Wind Direction: Northwest	Speed: 11 MPH
Temperature: 80* F	Precipitation: None
Average Humidity: 38%	Notes: Clear, sunny

DS-1	**Start**	**Stop**	**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1321	1333	0.273	0.098	0.179	**0.150**
DS-2			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1339	1351	0.369	0.073	0.175	**0.150**
DS-3			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1418	1430	0.371	0.107	0.198	**0.150**
DS-5			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1357	1409	0.223	0.083	0.147	**0.150**
DS-6			**Maximum**	**Minimum**	**Average**	**Action Level**
Respirable Dust (mg/m3)	1435	1447	0.147	0.077	0.109	**0.150**

Notes and Observations

Notable Contractor Activities

Crews completing demolition of the remainder of A wing and segregating materials on B wing slab. Good water useage observed during demolition activities, power mister operational at B wing area. Various equipment moving about site. Work includes loading out metal from B wing. Building materials consolidated on northern portion of A wing.

Notable Visual Observations

Wind gusts were moderate. Occasional dust from on-site and off-site was noted blowing. Wetting with fire hose in demolition area of A Wing resulted in minimal impact from site activities. Most siginificant impacts were from trucks/vehicles both on-site and at the adjacent parking area/access road.

Corrective Actions

None

Other Notes

None

Notifications:

None

Unit: DustTrak Model 8520 Aerosol Monitor Calibrated July 2011, Serial # 85201463

DS-1	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.184	0.273	0.098	0.144	0.197	0.273	0.098	0.179
Time	1321	1324	1327	1330	1333			
Description	Upwind of site; between gymnasium and ballfield							
Activities	Frequent traffic traveling on roadway between old gymnasium and ballfield							
Notes								

DS-2	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.084	0.178	0.172	0.073	0.369	0.369	0.073	0.175
Time	1339	1342	1345	1348	1351			
Description	Upwind of site; between gymnasium and new school entrance							
Activities	Intermittent traffic traveling on roadway between old gymnasium and new school entrance							
Notes	Vehicle activity from adjacent new school contributing to elevated levels.							

DS-3	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.187	0.371	0.172	0.154	0.107	0.371	0.107	0.198
Time	1418	1421	1424	1427	1430			
Description	Downwind; north-east corner of C Wing							
Activities	Light construction activity - moving/loading building materials at B Wing							
Notes	Siginificant dust generated by arriving semi-trailer during second reading.							

DS-5	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.124	0.177	0.083	0.223	0.129	0.223	0.083	0.147
Time	1357	1400	1403	1406	1409			
Description	Downwind; east of A Wing							
Activities	Construction activity - moving building materials							
Notes								

DS-6	1	2	3	4	5	**Max**	**Min**	**AVG**
Respirable Dust (mg/m3)	0.097	0.077	0.147	0.085	0.137	0.147	0.077	0.109
Time	1435	1438	1441	1444	1447			
Description	Upwind; north of A Wing, north-west of B wing							
Activities	Crews completing material removal directly east of sampling location.							
Notes								

Tighe&Bond

APPENDIX H

Appendix H-1

PCB Bulk Product Waste – Painted Metal Items

MINERVA ENTERPRISES, IN
9000 Minerva Rd. P.O. Box 709
Waynesburg, OH 44688
Ph: 330-868-3435
Fax: 330-866-3488

Customer Name
JR Vinagro

Ticket # 260074
Date 06/15/2012
Time: 8:01:41 AM

Customer #	903	Gross Weight	47660
Transporter:	Brown Transport	Tare Weight	33460
Truck Type	Trailer dump	Net Weight(tons)	7.05
Truck License #	12	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type	Non Friable Asbestos
Generator:	North High School	Minerva Job #:	ma*nf-acm/pcbblk
ME REP/P.O.#:	srd		

Accepted: Yes If No, this material was rejected for the following reasons: _____

Driver: Delmas Brown

I certify that all materials meet Stark County/ohio EPA specifications

Minerva Enterprises Representative: A Dunne

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

DOCUMENT NUMBER B 10575

Louis Roy

1. FACILITY NAME NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip

OWNER's NAME CITY OF WORCESTER
Address 20 E. WORCESTER DPW
City WORCESTER State 508-799-8588 Zip

Owner's Phone: 6-14-
Owner's Fax: Clerk of W

GENERATOR

2. CONTRACTOR or OPERATOR's NAME J. Ruinagro corp
Address 2208 PLAIN Field Pike ~~20~~
City Johnston RI State RI Zip 02919

Operator's Phone: 401-943-7100
OPERATOR's Fax: 401-946-7666

3. Waste disposal Site (WDS): Name, Mailing Address, and physical location
Minerva Enterprises, LLC P.O. Box 709 Phone: 330-866-3435
8955 Minerva Road SE Waynesburg, Ohio 44688-0709 Fax:330-866-3488

Onsite Disposal Yes or List:

4. Responsible Agency (Local, District, State, or EPA Office where notification was sent)
Agency: Department OF Environmental Protection
X mass 627 MAIN ST
City: worcester State mass Zip 01608 508-792-7650

5. Description of Materials	6. Containers NO:	TYPE:	7. Total Quantity (Cubic Yards or Tons)
PCB-Bulk Product (lockers Doors Heaters)	01	DT	75 yd³

8. Special Handling Instructions & Additional Information:

9. Generator -Authorized Agent Certification: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway to acceptable international and governmental regulations.

Printed/typed name & title: Frank Riccio Supervisor
Signature: Frank Riccio
Month/ Day / Year: 6/14/12

TRANSPORTER

10.A Name of Transporter-1 (Verifies Receipt of above described materials)
X Brown Transport
Address P.O. Box 141 Acme, Pa, 15610
Phone 412-916-9206 Fax

Printed or Typed Name & Title: Delmas Brown
Date: 6-14-12
Signature: Delmas Brown

10.B Name of Transporter-2 (Verifies Receipt of above described materials)
Address Phone Fax

Printed or Typed Name & Title Date:
Signature

11. ALL TRANSPORTERS: ANY REJECTED OR NON-Listed materials *ADDED or REMOVED* during transit? (EXCEPT Correcting Material Weight at loading location.)
If NO SKIP If Yes (LIST & Identify Transporter -10.A : Trans-1 or 10.B: Trans-2) Destination Facility for Rejected Materials: Driver *Name*

13. Waste Disposal Site Owner or Auth. Agent:

DISPOSAL FACILITY

Certification of Receipt of Asbestos Materials except item 12 notes.

TICKET # 260074

12. Waste Facility Discrepancy Indication Space

Certification of Receipt of asbestos materials covered by this manifest except as noted in Item 12.

Printed/typed name - WDS Facility: Sharon Dunne
Signature: SDunne
Month/ Day / Year: 6/15/12

WHITE SIGNATURE Page MUST STAY ATTACHED! Until Delivery to MINERVA Facility (White,Yellow,Pink Gold)
White: Generator - Yellow: WDS - Pink: Transporter 1 - Gold: Transporter 2 - Blue: Contractor - [Green: Gen. REMAINS at Shipment]

MINERVA ENTERPRISES, IN 9000 Minerva Rd. P.O. Box 709 Waynesburg, OH 44688 Ph: 330-866-3435 Fax: 330-866-3488	Customer Name **JR Vinagro**	Ticket # Date: Time:	260272 06/19/2012 7:31:03 AM

Customer #:	903	Gross Weight:	47000
Transporter:	Brown Transport	Tare Weight:	33460
Truck Type:	Trailer dump	Net Weight(tons):	6.77
Truck License #:	12/114	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North High School	Minerva Job #:	ma*nf-acm/pcbblk
ME REP/P.O.#:	kll		

Accepted: Yes If No, this material was rejected for the following reasons.

Driver: Delmas Brown Minerva Enterprises Representative: K Lofus

I certify that all materials meet Stark County/ohio EPA specifications.

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

DOCUMENT NUMBER B 10576

1. FACILITY NAME North High school
Address 150 Harrington way
City worcester State mass Zip

OWNER's NAME CITY OF WORCESTER
Address 20 E. WORCESTER ST
City WORC. MA State Zip
Owner's Phone:
Owner's Fax: 6-19-12

GENERATOR

2. CONTRACTOR or OPERATOR's NAME J.R Vinagro corp
Address 2208 Plain Field Pike
City Johnston State RI Zip 02919
Operator's Phone: 401-943-2100
OPERATOR's Fax: 401-946-2666

3. Waste disposal Site (WDS): Name, Mailing Address, and physical location
Minerva Enterprises, LLC P.O. Box 709 Phone: 330-866-3435
8955 Minerva Road SE Waynesburg, Ohio 44688-0709 Fax:330-866-3488
Onsite Disposal Yes or List:

4. Responsible Agency (Local, District, State, or EPA Office where notification was sent)
Agency: mass DEP Address 627 MAIN ST
City: worcester State mass Zip 01608 508-792-7630

5. Description of Materials	6. Containers NO: TYPE:	7. Total Quantity (Cubic Yards or Tons)
PCB Bulk Product metal Doors + Frames Lockers Heaters		75

8. Special Handling Instructions & Additional Information:

9. Generator -Authorized Agent Certification: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway to acceptable international and governmental regulations.

Printedtyped name & title: FRANK Riccia Supervisor Signature: Frank Riccia Month/ Day / Year

TRANSPORTER

10.A Name of Transporter-1 (Verifies Receipt of above described materials)
BROWN TRANSPORT
Address PO BOX 141 ACME, PA 15610 Phone (412)-916-9206 Fax
Printed or Typed Name & Title: DELMAS BROWN Date: 6/18/12
Signature Delmas Brown

10.B Name of Transporter-2 (Verifies Receipt of above described materials)
Address Phone Fax
Printed or Typed Name & Title Date:
Signature

11.ALL TRANSPORTERS: ANY REJECTED OR NON-Listed materials *ADDED or REMOVED* during transit? (EXCEPT Correcting Material Weight at loading location.)
If NO SKIP — If Yes (LIST & Identify Transporter -10.A : Trans-1 or 10.B: Trans-2) Destination Facility for Rejected Materials: Driver *Name*

13. Waste Disposal Site Owner or Auth. Agent:
Certification of Receipt of Asbestos Materials except item 12 notes.
TICKET # 260272
Certification of Receipt of asbestos materials covered by this manifest except as noted in Item 12.
Printedtyped name - WDS Facility: Kristina Loftis Signature: K Loftis Month/ Day / Year: 6-19-12

12. Waste Facility Discrepancy Indication Space

DISPOSAL FACILITY

WHITE SIGNATURE Page MUST STAY ATTACHED! Until Delivery to MINERVA Facility (White,Yellow,Pink Gold)
White: Generator - Yellow: WDS - Pink: Transporter 1 - Gold: Transporter 2 - Blue: Contractor - [Green: Gen. REMAINS at Shipment]

MINERVA ENTERPRISES, IN
9000 Minerva Rd. P.O. Box 709
Waynesburg, OH 44688
Ph: 330-868-3435
Fax: 330-868-3488

Customer Name
JR Vinagro

Ticket #: **260293**
Date: **06/19/2012**
Time: 9:16:30 AM

Customer #:	**903**	Gross Weight:	82200
Transporter:	TMH/wgt	Tare Weight:	29900
Truck Type:	Trailer dump	Net Weight(tons):	**26.15**
Truck License #:	**20**	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North High School	Minerva Job #:	ma*nf-acm/pcbblk
ME REP/P.O.#:	srd		

Accepted: Yes If No, this material was rejected for the following reasons: _____

Driver: _____ Minerva Enterprises Representative: _____

I certify that all materials meet Stark County/ohio EPA specifications.

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

DOCUMENT NUMBER B 10577

1. FACILITY NAME NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip 01604

OWNER's NAME
Address CITY OF WORCESTER 20 E. WORCESTER ST
City WORC State MA Zip
Owner's Phone:
Owner's Fax:

GENERATOR

2. CONTRACTOR or OPERATOR's NAME J.R. VINAGRO CORP.
Address 2208 PLAINFIELD PIKE
City JOHNSTON State RI Zip 02919
Operator's Phone: (401) 943-7100
OPERATOR's Fax: (401) 946-7666

3. Waste disposal Site (WDS): Name, Mailing Address, and physical location
Minerva Enterprises, LLC P.O. Box 709 Phone: 330-866-3435
8955 Minerva Road SE Waynesburg, Ohio 44688-0709 Fax:330-866-3488
Onsite Disposal Yes or List:

4. Responsible Agency (Local, District, State, or EPA Office where notification was sent)
Agency: MASS DEPARTMENT OF ENVIRONMENTAL PROTECTION
Address 627 MAIN ST
City: WORCESTER State MA Zip 01608 (508) 792-7630

5. Description of Materials	6. Containers NO:	TYPE:	7. Total Quantity (Cubic Yards or Tons)
PCB BULK PRODUCT + (LOUVERS DOORS)	01	OT	75 3X10

8. Special Handling Instructions & Additional Information:

9. Generator -Authorized Agent Certification: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway to acceptable international and governmental regulations.

Printed/typed name & title: FRANK RICCIO SUPERVISOR
Signature: Frank Riccio
Month/ Day / Year: 6/18/12

TRANSPORTER

10.A Name of Transporter-1 (Verifies Receipt of above described materials) Weigle Trucking (TMN)
Address 274 Reynolds Rd Linden PA
Phone Fax
Printed or Typed Name & Title: Scott Weibler
Date: 6-18-12
Signature

10.B Name of Transporter-2 (Verifies Receipt of above described materials)
Address Phone Fax
Printed or Typed Name & Title
Date:
Signature

11. ALL TRANSPORTERS: ANY REJECTED OR NON-Listed materials *ADDED or REMOVED* during transit? (EXCEPT Correcting Material Weight at loading location.)
If NO SKIP — If Yes (LIST & Identify Transporter -10.A : Trans-1 or 10.B: Trans-2) Destination Facility for Rejected Materials: Driver *Name*

13. Waste Disposal Site Owner or Auth. Agent:

DISPOSAL FACILITY

Certification of Receipt of Asbestos Materials except item 12 notes.

TICKET # 260293

Certification of Receipt of asbestos materials covered by this manifest except as noted in Item 12.

Printed/typed name - WDS Facility: Sharon Dunne
Signature: S Dunne
Month/ Day / Year: 6-19-12

12. Waste Facility Discrepancy Indication Space

WHITE SIGNATURE Page MUST STAY ATTACHED! Until Delivery to MINERVA Facility (White,Yellow,Pink Gold)
White: Generator - Yellow: WDS - Pink: Transporter 1 - Gold: Transporter 2 - Blue: Contractor - [Green: Gen. REMAINS at Shipment]

MINERVA ENTERPRISES, IN 9000 Minerva Rd. P.O. Box 709 Waynesburg, OH 44688 Ph: 330-866-3435 Fax: 330-866-3488	Customer Name JR Vinagro	Ticket #: 260389 Date: 06/21/2012 Time: 7:15:06 AM

Customer #:	903	Gross Weight:	83860
Transporter:	SW Trucking/wgt	Tare Weight:	30700
Truck Type:	Trailer dump	Net Weight(tons):	26.59
Truck License #:	1144	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North High School	Minerva Job #:	ma"nf-acm/pcbblk
ME REP/P.O.#:	srd		

Accepted: Yes If No, this material was rejected for the following reasons. _____

Driver: _____

I certify that all materials meet Stark County/ohio EPA specifications.

Minerva Enterprises Representative: _____

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

DOCUMENT NUMBER B 10579

1. FACILITY NAME North High School
Address 150 Harrington way
City Worcester State ~~RI~~ Ma Zip

OWNER's NAME City of Worcester
Address 20 East Worcester ST
City Worcester State mass Zip
Owner's Phone: 6-19-12
Owner's Fax:

GENERATOR

2. CONTRACTOR or OPERATOR's NAME J.R Vinagro Corp
Address 2208 Plain Field Pike
City Johnston State RI Zip 02919
Operator's Phone: 401-942-7100
OPERATOR's Fax: 401-946-7666

3. Waste disposal Site (WDS): Name, Mailing Address, and physical location
Minerva Enterprises, LLC P.O. Box 709 Phone: 330-866-3435
8955 Minerva Road SE Waynesburg, Ohio 44688-0709 Fax:330-866-3488
Onsite Disposal Yes or List:

4. Responsible Agency (Local, District, State, or EPA Office where notification was sent)
Agency: mass DEP Address 627 Main ST
City: Worcester State mass Zip 01608 508-792-7630

5. Description of Materials	6. Containers NO: TYPE:	7. Total Quantity (Cubic Yards or Tons)
P.C.B Bulk Product metal Doors + Frames Lockers Heaters	75 yrd	75 yrd

8. Special Handling Instructions & Additional Information:

9. Generator -Authorized Agent Certification: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway to acceptable international and governmental regulations.

Printed/typed name & title: Frank Riccio Signature: Frank Riccio Month/ Day / Year: 6/19/12

TRANSPORTER

10.A Name of Transporter-1 (Verifies Receipt of above described materials)
SW Trucking/Weigle Trucking
Address Reynolds Rd Phone Fax
Linden Pa
Printed or Typed Name & Title: Steve Weinberg Date: 6-20-12
Signature

10.B Name of Transporter-2 (Verifies Receipt of above described materials)
Address Phone Fax
Printed or Typed Name & Title Date:
Signature

11.ALL TRANSPORTERS: ANY REJECTED OR NON-Listed materials *ADDED or REMOVED* during transit? (EXCEPT Correcting Material Weight at loading location.)
If NO SKIP — If Yes (LIST & Identify Transporter -10.A : Trans-1 or 10.B: Trans-2) Destination Facility for Rejected Materials: Driver *Name*

DISPOSAL FACILITY

13. Waste Disposal Site Owner or Auth. Agent:
Certification of Receipt of Asbestos Materials except item 12 notes.
TICKET # 260389
Certification of Receipt of asbestos materials covered by this manifest except as noted in Item 12.
Printed/typed name - WDS Facility: Sharon Dunne Signature: S Dunne Month/ Day / Year: 6-21-12

12. Waste Facility Discrepancy Indication Space

WHITE SIGNATURE Page MUST STAY ATTACHED! Until Delivery to MINERVA Facility (White,Yellow,Pink Gold)
White: Generator - Yellow: WDS - Pink: Transporter 1 - Gold: Transporter 2 - Blue: Contractor - [Green: Gen. REMAINS at Shipment]

MINERVA ENTERPRISES, IN 9000 Minerva Rd. P.O. Box 709 Waynesburg, OH 44688 Ph: 330-868-3435 Fax: 330-868-3488	Customer Name **JR Vinagro**	Ticket #: **260391** Date: **06/21/2012** Time: 7:20:57 AM

Customer #	**903**	Gross Weight:	83740
Transporterr:	Weisel Trucking/w	Tare Weight:	29940
Truck Type:	Trailer dump	Net Weight(tons):	**26.9**
Truck License #:	**409**	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North High School	Minerva Job #:	ma*nf-acm/pcbblk
ME REP/P.O.#:	srd		

Accepted: Yes If No, this material was rejected for the following reasons. _____

Driver: _____

I certify that all materials meet Stark County/ohio EPA specifications.

Minerva Enterprises Representative: _____

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

DOCUMENT NUMBER B 10578 Louis Boy

1. FACILITY NAME North High school
Address 150 Harrington way
City worcester State mass Zip

OWNER's NAME City of worcester
Address 20 East worcester ST
City worcester State mass Zip

Owner's Phone: 6-19-12
Owner's Fax: Clerk of works

GENERATOR

2. CONTRACTOR or OPERATOR's NAME J.R Vinagro corp
Address 2208 Plain Field Pike
City Johnston State RI Zip 02919

Operator's Phone: 401-943-7100
OPERATOR's Fax: 401-946-7666

3. Waste disposal Site (WDS): Name, Mailing Address, and physical location
Minerva Enterprises, LLC
8955 Minerva Road SE
P.O. Box 709
Waynesburg, Ohio 44688-0709
Phone: 330-866-3435
Fax:330-866-3488

Onsite Disposal
Yes or List:

4. Responsible Agency (Local, District, State, or EPA Office where notification was sent)
Agency: MASS DEP
Address 627 MAIN ST
City: worcester State mass Zip 01608
508-792-7630

5. Description of Materials	6. Containers NO: TYPE:	7. Total Quantity (Cubic Yards or Tons)
P.C.B Bulk Product metal Doors + Frame Lockers Heaters	75 yrd's	75 yrds

8. Special Handling Instructions & Additional Information:

9. Generator -Authorized Agent Certification: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway to acceptable international and governmental regulations.

Printed/typed name & title	Signature	Month/ Day / Year
Frank Riccio	Frank Riccio	6/19/12

TRANSPORTER

10.A Name of Transporter-1 (Verifies Receipt of above described materials)
WEIGLE/WEISEL
Address LINDEN PA 570326 Phone 2841 Fax
274 REDWOODS

Printed or Typed Name & Title JACK WEISEL Date:
Signature [signature] 6 20 12

10.B Name of Transporter-2 (Verifies Receipt of above described materials)
Address Phone Fax

Printed or Typed Name & Title Date:
Signature

11. ALL TRANSPORTERS: ANY REJECTED OR NON-Listed materials *ADDED or REMOVED* during transit? (EXCEPT Correcting Material Weight at loading location.)
If NO SKIP If Yes (LIST & Identify Transporter -10.A : Trans-1 or 10.B: Trans-2) Destination Facility for Rejected Materials: Driver *Name*

13. Waste Disposal Site Owner or Auth. Agent:

DISPOSAL FACILITY

Certification of Receipt of Asbestos Materials except item 12 notes.

TICKET # 260391

12. Waste Facility Discrepancy Indication Space

Certification of Receipt of asbestos materials covered by this manifest except as noted in Item 12.

Printed/typed name - WDS Facility	Signature	Month/ Day / Year
Sharon Dunne	S Dunne	6-21-12

WHITE SIGNATURE Page MUST STAY ATTACHED! Until Delivery to MINERVA Facility (White,Yellow,Pink Gold)
White: Generator - Yellow: WDS - Pink: Transporter 1 - Gold: Transporter 2 - Blue: Contractor - [Green: Gen. REMAINS at Shipment]

MINERVA ENTERPRISES, IN
9000 Minerva Rd. P.O. Box 709
Waynesburg, OH 44688
Ph: 330-866-3435
Fax: 330-866-3488

Customer Name
JR Vinagre

Ticket #: 260663
Date: 06/27/2012
Time: 9:37:21 AM

Customer #:	903	Gross Weight:	45580
Transporterr:	Coordinators/Wgt	Tare Weight:	33640
Truck Type:	Trailer dump	Net Weight(tons):	5.97
Truck License #:	564	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North High School	Minerva Job #:	ma*nf-acm/pcbblk
ME REP/P.O.#:	kll		

Accepted: Yes If No, this material was rejected for the following reasons. _____

Driver: Sheldon Morris

Minerva Enterprises Representative: [signature]

I certify that all materials meet Stark County/ohio EPA specifications.

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

DOCUMENT NUMBER B 10580

1. FACILITY NAME North High School
Address: 150 Harrington way
City: worcester State: mass Zip:

OWNER's NAME CITY OF worcester
Address: 20 EAST worcester ST
City: worcester State: mass Zip:

Owner's Phone: 6-26-12
Owner's Fax:

GENERATOR

2. CONTRACTOR or OPERATOR's NAME J.R Vinagro corp
Address: 2208 PLAIN Field Pike
City: Johnstow State: RI Zip: 02919

Operator's Phone: 401-943-7100
OPERATOR's Fax: 401-946-7660

3. Waste disposal Site (WDS): Name, Mailing Address, and physical location
Minerva Enterprises, LLC P.O. Box 709 Phone: 330-866-3435
8955 Minerva Road SE Waynesburg, Ohio 44688-0709 Fax:330-866-3488

Onsite Disposal Yes or List:

4. Responsible Agency (Local, District, State, or EPA Office where notification was sent)
Agency: mass D.E.P Address: 627 main st
City: worcester State: mass Zip: 01608

5. Description of Materials	6. Containers NO: TYPE:	7. Total Quantity (Cubic Yards or Tons)
P.C.B. Bulk Product metal Doors + Frames locker Wastewaters	75 yrds	75 yrds

8. Special Handling Instructions & Additional Information:

9. Generator -Authorized Agent Certification: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway to acceptable international and governmental regulations.

Printedtyped name & title	Signature	Month/ Day / Year
Frank Riccio supervisor	Frank Riccio	6/26/12

TRANSPORTER

10.A Name of Transporter-1 (Verifies Receipt of above described materials)
Weigle Trucking
Address: Linden PA Phone: 1-570-326-5438 Fax:
Printed or Typed Name & Title: sheldon Morris Date: 6-26-12
Signature: Sheldon Morris

10.B Name of Transporter-2 (Verifies Receipt of above described materials)
Coordinators
Address: Frovo PA Phone: Fax:
Printed or Typed Name & Title: Date:
Signature:

11.ALL TRANSPORTERS: ANY REJECTED OR NON-Listed materials *ADDED or REMOVED* during transit? (EXCEPT Correcting Material Weight at loading location.)
If NO SKIP — If Yes (LIST & Identify Transporter -10.A : Trans-1 or 10.B: Trans-2) Destination Facility for Rejected Materials: Driver *Name*

13. Waste Disposal Site Owner or Auth. Agent:

DISPOSAL FACILITY

Certification of Receipt of Asbestos Materials except item 12 notes.

TICKET # 260683

Certification of Receipt of asbestos materials covered by this manifest except as noted in Item 12.

Printedtyped name - WDS Facility	Signature	Month/ Day / Year
Kristina Lofgis	Kristina Lofgis	6-27-12

12. Waste Facility Discrepancy Indication Space

WHITE SIGNATURE Page MUST STAY ATTACHED! Until Delivery to MINERVA Facility (White,Yellow,Pink Gold)
White: Generator - Yellow: WDS - Pink: Transporter 1 - Gold: Transporter 2 - Blue: Contractor - [Green: Gen. REMAINS at Shipment]

MINERVA ENTERPRISES, IN
9000 Minerva Rd P.O. Box 709
Waynesburg, OH 44688
Ph: 330-868-3435
Fax: 330-868-3488

Customer Name
JR Vinagro

Ticket #: **260789**
Date: **06/28/2012**
Time: 10:36:47 AM

Customer #:	903	Gross Weight:	92860
Transporterr:	RB Farms/Wgt	Tare Weight:	30660
Truck Type:	Trailer dump	Net Weight(tons):	31.1
Truck License #:	113	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North HS	Minerva Job #:	ma*nf-acm/pcbblk
ME REP/P.O.#:	kll		

Accepted: Yes If No, this material was rejected for the following reasons. _____

Driver: _____

I certify that all materials meet Stark County/ohio EPA specifications.

Minerva Enterprises Representative: _____

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

DOCUMENT NUMBER B 10581

1. FACILITY NAME North High school
Address: 150 Harrington way
City: Worcester State: mass Zip:

OWNER's NAME CITY OF worcester
Address: 20 EAST worcester ST
City: worcester State: mass Zip:
Owner's Phone: 6-27-12
Owner's Fax:

GENERATOR

2. CONTRACTOR or OPERATOR's NAME J. R Vinagrd Corp
Address: 2208 PIAINField PIKP
City: JOhnston State: RI Zip: 02919
Operator's Phone: 401-943-7100
OPERATOR's Fax: 401-946-7666

3. Waste disposal Site (WDS): Name, Mailing Address, and physical location
Minerva Enterprises, LLC — P.O. Box 709 — Phone: 330-866-3435
8955 Minerva Road SE — Waynesburg, Ohio 44688-0709 — Fax:330-866-3488
Onsite Disposal Yes or List:

4. Responsible Agency (Local, District, State, or EPA Office where notification was sent)
Agency: MASS D.E.P
Address: 627 MAIN ST
City: worcestr State: mass Zip: 01608

5. Description of Materials	6. Containers NO: TYPE:	7. Total Quantity (Cubic Yards or Tons)
P.C.B Bulk Product Waste metal Doors + Frames lockers Heaters	75 yrds	75 yrds

8. Special Handling Instructions & Additional Information:

9. Generator -Authorized Agent Certification: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway to acceptable international and governmental regulations.

Printedityped name & title	Signature	Month/ Day / Year
Franic Riccio Supervisor	Frank Riccio	6/27/12

TRANSPORTER

10.A Name of Transporter-1 (Verifies Receipt of above described materials)
Weigle Trucking (RBFarms)
Address: 74 Reynolds Rd Linden Pa
Phone: 5703265438 Fax:
Printed or Typed Name & Title: Fred Richards
Date: 6-27-12
Signature:

10.B Name of Transporter-2 (Verifies Receipt of above described materials)
Address: Phone: Fax:
Printed or Typed Name & Title: Date:
Signature:

11.ALL TRANSPORTERS: ANY REJECTED OR NON-Listed materials *ADDED or REMOVED* during transit? (EXCEPT Correcting Material Weight at loading location.)
If NO SKIP If Yes (LIST & Identify Transporter -10.A : Trans-1 or 10.B: Trans-2) Destination Facility for Rejected Materials: Driver *Name*

13. Waste Disposal Site Owner or Auth. Agent:
Certification of Receipt of Asbestos Materials except item 12 notes.
TICKET # 260789
Certification of Receipt of asbestos materials covered by this manifest except as noted in Item 12.
Printedityped name - WDS Facility: Kristina Lotts
Signature:
Month/ Day / Year: 6-28-12

12. Waste Facility Discrepancy Indication Space

DISPOSAL FACILITY

WHITE SIGNATURE Page MUST STAY ATTACHED! Until Delivery to MINERVA Facility (White,Yellow,Pink Gold)
White: Generator - Yellow: WDS - Pink: Transporter 1 - Gold: Transporter 2 - Blue: Contractor - [Green: Gen. REMAINS at Shipment]

MINERVA ENTERPRISES, IN
9000 Minerva Rd. P.O. Box 709
Waynesburg, OH 44688
Ph: 330-868-3435
Fax: 330-868-3486

Customer Name
JR Vinagro

Ticket # 260823
Date 08/29/2012
Time 7:12:24 AM

Customer #	903	Gross Weight	87640
Transporter:	Weisel Trucking /	Tare Weight	29940
Truck Type:	Trailer dump	Net Weight(tons):	28.85
Truck License #	408	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North High School	Minerva Job #	ma*nf-acm/pcbblk
ME REP/P.O.#:	srd		

Accepted: Yes If No, this material was rejected for the following reasons:

Driver: _____ Minerva Enterprises Representative: _____

I certify that all materials meet Stark County/ohio EPA specifications.

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

DOCUMENT NUMBER B 10582

1. FACILITY NAME North High school
Address: 150 Harrington way
City: worcester State: mass Zip:

OWNER's NAME City of worcester
Address: 20 EAST worcester ST
City: Worcester State: mass Zip:
Owner's Phone:
Owner's Fax:
6-28-12

GENERATOR

2. CONTRACTOR or OPERATOR's NAME J.R Vinagrd corp
Address: 2208 PlainField Pike
City: Johnston State: RI Zip: 02919
Operator's Phone: 401-943-7100
OPERATOR's Fax: 401-946-7666

3. Waste disposal Site (WDS): Name, Mailing Address, and physical location
Minerva Enterprises, LLC — P.O. Box 709 — Phone: 330-866-3435
8955 Minerva Road SE — Waynesburg, Ohio 44688-0709 — Fax:330-866-3488
Onsite Disposal Yes or List:

4. Responsible Agency (Local, District, State, or EPA Office where notification was sent)
Agency: MASS D.E.P
Address: 627 MAIN ST
City: worcester State: mass Zip: 01608

5. Description of Materials	6. Containers NO:	TYPE:	7. Total Quantity (Cubic Yards or Tons)
P.C.B Bulk Product waste metal Doors + Frames Lockers + Heaters	75	yrd	75 yrd

8. Special Handling Instructions & Additional Information:

9. Generator -Authorized Agent Certification: I hereby declare that the contents of this consignment are fully and accurately described by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transportation by highway to acceptable international and governmental regulations.

Printed/typed name & title	Signature	Month/ Day / Year
Frank Riccio Supervisor	Frank Riccio	6/28/12

TRANSPORTER

10.A Name of Transporter-1 (Verifies Receipt of above described materials)
WEIGLE / WEISEL
Address: LINDEN PA Phone: 1570 326 8544 Fax:
274 REXNOLDS RD
Printed or Typed Name & Title: JACH WEISEL Date: 6 28 12
Signature:

10.B Name of Transporter-2 (Verifies Receipt of above described materials)
Address: Phone: Fax:
Printed or Typed Name & Title: Date:
Signature:

11.ALL TRANSPORTERS: ANY REJECTED OR NON-Listed materials *ADDED or REMOVED* during transit? (EXCEPT Correcting Material Weight at loading location.)
If NO SKIP If Yes (LIST & Identify Transporter -10.A : Trans-1 or 10.B: Trans-2) Destination Facility for Rejected Materials: Driver *Name*

DISPOSAL FACILITY

13. Waste Disposal Site Owner or Auth. Agent:
Certification of Receipt of Asbestos Materials except item 12 notes.
TICKET # 260823
Certification of Receipt of asbestos materials covered by this manifest except as noted in Item 12.

12. Waste Facility Discrepancy Indication Space

Printed/typed name - WDS Facility	Signature	Month/ Day / Year
Sharon Dunne	S Dunne	6/29/12

WHITE SIGNATURE Page MUST STAY ATTACHED! Until Delivery to MINERVA Facility (White,Yellow,Pink Gold)
White: Generator - Yellow: WDS - Pink: Transporter 1 - Gold: Transporter 2 - Blue: Contractor - [Green: Gen. REMAINS at Shipment]

Appendix H-2

PCB Bulk Product Waste – Caulking & Glazing Materials

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(8 42-1022
Fa 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

47714

253376

TK#47714 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor: SOUTHERN MIDDLESEX INSULATION

Address: 823 PLEASANT ST.

City: NORWOOD State: MA Zip: 02062

Telephone Number: 781-769-9310

Date Container Del. 1/20/12 Date of Pickup 1/25/12

Type of Container: 100 YD

VOLUME 90 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address: 20 East Worcester ST

City: Worcester, MA State Zip

Phone Number

GENERATING LOCATION

North High School

Address: 150 HARRINGTON WAY

City: ~~Fitchburg~~ Worcester State: MA Zip: 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____
Name Address Telephone #

Driver: N/A Registration #: _____ Date: _____
Signature State / #

Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

Driver: J Bitsood Registration #: 47891-A Date: 1-25-12
Signature State / # CT.

Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

By: Lindsay Kelly **Transfer Date:** 1/27/12 **Permit #** 1130836 PO

Discrepancy: _____

Certification of transfer of materials covered by this manifest

Transporter 3: West
Name Address Telephone #

Driver: _____ Registration #: _____ Date: 1-30-12
Signature State / #

Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises

9000 Minerva Rd. Waynesburg, OH 44688

66-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Volume of Asbestos Received: _____

_____ Date: 1/31/12

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(8(342-1022
Fa 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

42931

252284

TK#42931

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation

Address 823 Pleasant St

City Norwood State MA Zip 02062

Telephone Number (781) 769-9310

Date Container Del. 12/15/11 Date of Pickup 12/27/11

Type of Container 100 yd

VOLUME 90 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address 20 East Worcester St.

City Worcester State MA Zip 01604

Phone Number

GENERATING LOCATION

North High School

Address 150 Harrington Way

City Worcester State MA Zip 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are lassified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William McElroy

ra orter 1: _____
Name Address Telephone #

river: N/A Registration #: _____ Date: _____
Signature State / #

Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

iver: _____ Registration #: CT-42504-A Date: 12/27/11
Signature State / #

Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

r: Lindsay Ikly **Transfer Date:** 12/27/11 **Permit #** 1130836 PO

screpancy: _____

Certification of transfer of materials covered by this manifest

ansporter 3: Swift
Name Address Telephone #

ver: William Blackman Registration #: B5015 785 03542 Date: 01-04-2012
Signature State / # New Jersey 1/3/2012

Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises

cation: 9000 Minerva Rd. Waynesburg, OH 44688

J-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

ximate Volume of Asbestos Received: _____

crepancy If Any: _____

eived by Sharon Dunne _____ Date: 1-4-12

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

42932

173 Pickering Street
Portland, CT 06480
(86 42-1022
Fax 60) 342-1042

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK#42932 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor Southern Middlesex Insulation
Address 823 Pleasant St
City Norwood State MA Zip 02062
Telephone Number 1 781 769-9310
Date Container Del. 1/3/12 Date of Pickup 1/9/12
Type of Container 100 YD
VOLUME 90 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester, St
City Worcester State MA Zip 01604
Phone Number

GENERATING LOCATION
North High School
Address 150 Harrington Way
City Worcester State MA Zip 01604
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are assified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William McElroy

ransporter 1: _____ Name _____ Address _____ Telephone #
river: NA Signature _____ Registration #: _____ State / # _____ Date: _____
Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
river: Mark Andrade Signature Registration #: CT 43546-A State / # Date: 1-9-12
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
: Lindsay Kelly Transfer Date: 1/10/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: Garret Coper Swift 3720 W 8000 Salt Lack City UT 80195 17
Name Address Telephone #
ver: [signature] Signature Registration #: 310431 State / # Date: 1/11/12
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
cati : 9000 Minerva Rd. Waynesburg, OH 44688
0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____
crepancy If Any: _____
ceived by: _____ Date: _____

MINERVA ENTERPRISES
2012 JAN 12 A 10:42

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(8[illegible]42-1022
Fa[illegible]0) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

42933

253109

TK#42933 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation

Address 823 Pleasant St.

City Norwood State MA. Zip 02002

Telephone Number 1(781) 769-9310

Date Container Del. 1/9/12 Date of Pickup 1/18/12

Type of Container 100 yd

VOLUME 95 CY Friable ☑ Non-Friable ☐
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address 20 East Worcester St

City Worcester State MA Zip 01604

Phone Number

GENERATING LOCATION

North High School

Address 150 Harrington Way

City Worcester State MA. Zip 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to IESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are lassified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William McElroy

ra orter 1: _____
Name Address Telephone #

river: N/A Signature Registration #: _____ State / # Date: _____

Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

river: [signature] Signature Registration #: CT-42504-A State / # Date: 1/18/12

Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

y: Lindsay Kelly **Transfer Date:** 1/23/12 **Permit #** 1130836 PO

iscrepancy: _____

Certification of transfer of materials covered by this manifest

ansporter 3: James M Glass Swift
Name Address Telephone #

iver: [signature] Signature Registration #: _____ State / # Date: 1-24-12

Acknowledgement of receipt of materials

'l Name: Minerva Enterprises
9000 Minerva Rd. Waynesburg, OH 44688
'6-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

'me of Asbestos Received: _____

Aaron Dunne [signature] Date: 1-25-12

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fa 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

42934

253139

TK#42934 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation

Address 823 pleasant st.

City Norwood State MA Zip 02062

Telephone Number 1 (781) 769-9310

Date Container Del. 1/18/12 Date of Pickup 1/20/12

Type of Container 100 yd

VOLUME 95 CY Friable ☑ Non-Friable ☐
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address 20 East Worcester st.

City Worcester State MA. Zip 01604

Phone Number

GENERATING LOCATION

North High School

Address 150 Harrington Way

City Worcester State MA Zip 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are assified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

UTHORIZED SIGNATURE William McElroy

ran orter 1: _____ Name _____ Address _____ Telephone #

river: N/A _____ Signature Registration #: _____ State / # Date: _____

Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

iver: _____ Signature Registration #: CT-42504-A State / # Date: 1/20/12

Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

r: _____ **Transfer Date:** 1/24/12 **Permit #** 1130836 PO

screpancy: _____

Certification of transfer of materials covered by this manifest

insporter 3: West Motor Freight 5219 330 783 1230
Name Address Telephone #

ver: Deborah Williams _____ Signature Registration #: 446013 TEMP PA State / # Date: 01/24/12

Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises

cation: 9000 Minerva Rd. Waynesburg, OH 44688

-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

imate Volume of Asbestos Received: _____

crepancy If Any: _____

eived by: Sharon Dunne _____ Date: 1-25-12

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

42935

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fax (860) 342-1042

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

252688

TK# 42935 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor Southern Middlesex Insulation
Address 823 Pleasant St.
City Norwood State MA Zip 02062
Telephone Number 1(781) 769-9310
Date Container Del. 12/27/11 Date of Pickup 1/3/12
Type of Container 100 YD
VOLUME 90 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☑

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester St
City Worcester State MA Zip 01604
Phone Number

GENERATING LOCATION
North Hig School
Address 150 Harrington Way
City Worcester, State MA Zip 01604
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to OSHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____
Name Address Telephone #
Driver: N/A Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: [signature] Registration #: CT-42504-A Date: 1/3/12
Signature State / #
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
Driver: Lindsay Kelly Transfer Date: 1/5/12 Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: West
Name Address Telephone #
Driver: [signature] Registration #: _____ Date: 1-10-12
Signature State / #
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
Ph: 800-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: Kristina Lofris [signature] Date: 1-13-12
Certification of transfer of materials covered by this manifest

Appendix H-3

PCB Bulk Product Waste – Backboard & Gym Floor

NORTH HIGH SCHOOL
Worcester, MA
D1011-37

Date	Operator	Waste Site	Additional Info	Responsible Agency	Description	Container-Total cuyd	Transporter*	Tonnage	Ticket #	Originals to:	Mailed (via fedex/receipt)
5/18/2012	JRVinagro	Minerva Enterprises	Gym	US EPA	PCB Bulk Product Waste	75	Weigle Trucking	11.06	258680	Tighe & Bond	
5/18/2012	JRVinagro	Minerva Enterprises	Gym	US EPA	PCB Bulk Product Waste	75	Rohrer Trucking	18.73	258725	Tighe & Bond	
							TOTAL TONS	29.79			

MINERVA ENTERPRISES, IN
9000 Minerva Rd. P.O. Box 709
Waynesburg, OH 44688
Ph: 330-866-3435
Fax: 330-866-3488

Customer Name
JR Vinagro

Ticket # 258680
Date: 05/18/2012
Time: 12:30:39 PM

Customer #	903	Gross Weight:	55260
Transporterr:	Earhart	Tare Weight:	33140
Truck Type:	Trailer dump	Net Weight(tons):	11.06
Truck License #	220	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North High School	Minerva Job #	~~2000~~ Northfield Isolation Way & Worcester MA
ME REP/P.O.#	srd		

Accepted: Yes If No, this material was rejected for the following reasons: _____

Driver: [signature]

Minerva Enterprises Representative: [signature]

I certify that all materials meet Stark County/ohio EPA specifications.

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations.

WASTE SHIPMENT RECORD

REPORT DATE
5/17/12

258680A

GENERATOR

1. Work site name and mailing address North High School 150 Harrington way Worcester mass 01604	Owners Name [illegible] Clerk of works	Owner's Phone No. 508 799 0588
2. Operator's name and address Vinagro Corp 2208 Plainfield Pike Johnston, RI, 02919		Operator's Phone No. 401-943-7100
3. Waste Disposal Site (WDS) Name Minerva Enterprize's Mailing Address 9000 Minerva RD Waynesburg, OH 44688 Physical Site Location Same	WDS Phone No. 330-866-3435 Additional Information Gym #401	
4. Name and address of responsible agency U.S E.P.A Region 2		

5. Description of materials	6. Containers No. Type	7. Total quantity m^3 (yd^3)
Construction + Demolition		
PCB Bulk Product waste	75 yrd	75 yrd

8. Special handling instructions and additional information
None

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Frank Riccio Supervisor	Frank Riccio	5/17/12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials

Printed/typed name & title	Signature	Month Day Year
C.C. Earhart / Weigle (Owner)	[signature]	5/17/12
Address & phone no. 457 Cold Spring Rd Elizabethtown PA 17022		

11. Transporter 2 (Acknowledgement of receipt of materials

Printed/typed name & title	Signature	Month Day Year
Address & phone no.		

DISPOSAL SITE

12. Discrepancy indication space

13. Waste disposal site owner or operator: certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Grid Coordinates
East _____ North _____ El _____

Printed/typed name & title	Signature	Month Day Year
Sharon Dunne	SDunne	5/18/12

WHITE SIGNATURE PAGE MUST STAY ATTACHED! Until Delivery to Minerva Facility (White, Yellow, Pink, Gold)
White - Generator; **Yellow** – WDS; **Pink** – Transporter; **Gold** – Transporter 2; **Blue** – Contractor; **Green** – Remains at Shipment

MINERVA ENTERPRISES, IN
9000 Minerva Rd P.O. Box 709
Waynesburg, OH 44688
Ph: 330-868-3435
Fax: 330-868-3488

Customer Name
JR Vinagro

Ticket # 258725
Date: 05/21/2012
Time: 7:58:39 AM

Customer #:	903	Gross Weight:	71180
Transporter:	Rohrer Trucking	Tare Weight:	33720
Truck Type:	Trailer dump	Net Weight(tons):	18.73
Truck License #:	R7	Volume Recieved(yards):	75
Location:	MA, Worcester	Waste Type:	Non Friable Asbestos
Generator:	North High School	Minerva Job #:	me*nf-acm/pcbblk
ME REP/P.O.#:	srd		

Accepted: Yes If No, this material was rejected for the following reasons: _____

Driver: _____

I certify that all materials meet Stark County/ohio EPA specifications.

Minerva Enterprises Representative: _____

This certifies that the waste specified on this ticket has been properly disposed of in accordance with all local, state and federal regulations

WASTE SHIPMENT RECORD

258725

REPORT DATE
5/18/2012

GENERATOR

1. Work site name and mailing address
North High School
150 Harrington Way
Worcester Ma 01604

Owners Name: Louis Rosi Clerk of Works

Owner's Phone No.: 5087998588

2. Operator's name and address
Vinagro Corp 2208 Plainfield Pike
Johnston R.I 02919

Operator's Phone No.: 401 943 7100

3. Waste Disposal Site (WDS)
Name: Minerva Enterprizes
Mailing Address: 9000 Minerva Road
Waynesburg, OH 44688
Physical Site Location: Same

WDS Phone No. 303-866-3435

Additional Information: Gxm #40

4. Name and address of responsible agency
U.S. EPA Region 2
290 Broadway New York, NY 10007

5. Description of materials	6. Containers No.	Type	7. Total quantity m^3 (yd^3)
Construction + Demolition PCB Bulk Product waste	75 yard		75 yard

8. Special handling instructions and additional information
None

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Printed/typed name & title	Signature	Month Day Year
Frank Riccio Supervisor	See Attached	5/18/2012

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials

Printed/typed name & title	Signature	Month Day Year
Rohrer Trucking		5/18/12

Address & phone no.
3180 Rt 6
Waterford PA

11. Transporter 2 (Acknowledgement of receipt of materials

Printed/typed name & title	Signature	Month Day Year

Address & phone no.

DISPOSAL SITE

12. Discrepancy indication space

13. Waste disposal site owner or operator: certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Grid Coordinates
East _____ North _____ El _____

Printed/typed name & title	Signature	Month Day Year
Sharon Dunne	S Dunne	5/21/12

WHITE SIGNATURE PAGE MUST STAY ATTACHED! Until Delivery to Minerva Facility (White, Yellow, Pink, Gold)
White - Generator; **Yellow** – WDS; **Pink** – Transporter; **Gold** – Transporter 2; **Blue** – Contractor; **Green** – Remains at Shipment

Appendix H-4

PCB Remediation Waste – Soil

Greenwood Street Landfill
NEWS of Worcester Landfill
30 NippNapp Trail
Worcester, MA 01607
508-775-4604

	230.51	4/3/2012
	212.16	4/6/2012
Totals:	**442.67**	

Job #12-028

Contaminated Soil; PCB

Date	Ticket #	Tonnage
4/3/2012	115082	36.26
4/3/2012	115086	42.28
4/3/2012	115096	29.01
4/3/2012	115108	33.09
4/3/2012	115117	16.7
4/3/2012	115120	29.99
4/3/2012	115138	23.9
4/3/2012	115139	19.28
		230.51

Contaminated Soil; PCB

Date	Ticket #	Tonnage
4/6/2012	115276	23.35
4/6/2012	115282	27.34
4/6/2012	115287	26.42
4/6/2012	115289	26.3
4/6/2012	115292	29.47
4/6/2012	115293	28.93
4/6/2012	115296	29.4
4/6/2012	115297	20.95
		212.16

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number
[ ] - LRA

A. LOCATION OF SITE OR DISPOSAL SITE WHERE REMEDIATION WASTE WAS GENERATED:

1. Release Name/Location Aid: **Former North High School**
2. Street Address: **140 Harrington Way**
3. City/Town: **Worcester** 4. Zip Code: **01068-0000**
5. [ ] Check her if a Tier Classification Submittal has been provided to DEP for this disposal site:
   [ ] a. Tier 1A [ ] b. Tier 1B [ ] b. Tier 1C [ ] d. Tier II
6. If applicable provide the Permit Number:

B. THIS FORM IS BEING USED TO: (check one: B1-B4):

[✓] 1. Submit a **Bill of Lading (BOL)** to transport Remediation Waste to Temporary Storage or a Receiving Facility. Response Actions associated with this BOL (check all that apply):

- [ ] a. Immediate Response Action (IRA)
- [ ] b. Release Abatement Measure (RAM)
- [ ] c. Downgradient Property Status (DPS)
- [ ] d. Utility Release Abatement Measure (URAM)
- [ ] e. Comprehensive Response Actions
- [✓] f.. Limited Removal Action (LRA): (must be retained pursuant to 310 CMR 40.0034(6); can't be submitted via eDEP)
- [✓] g. Other **LRA and EPA Soil Cleanup**

[ ] 2. Submit an Attestation of Completion of **Shipment to Temporary Storage** (Sections C, F and J are not required):

[ ] 3. Submit an Attestation of Completion of **Shipment to a Receiving Facility** (Sections C, F and J are not required):

[ ] 4. Certify that Remediation Waste Was **Not Shipped, and the Bill of Lading is Void.** (Sections C, D, E, and F are not required)

5. Date Bill of Lading submitted to the Department: [ ] (mm/dd/yyyy) b. eDEP Transaction ID: **N/A**

6. Period of Generation Associated with this Bill of Lading **11/09/2011** (mm/dd/yyyy) to **12/15/2015** (mm/dd/yyyy)

(All sections of this transmittal form must be filled out unless otherwise noted)
The Bill of Lading is not considered complete until the Attestation of Completion of Shipment is received by the Department.

C. DESCRIPTION OF WASTE AND WASTE SOURCE:

1. Contaminated Media /Debris (check all that apply):
   [✓] a. Soil [ ] b. Groundwater [ ] c. Surface Water [ ] d. Sediment [ ] e. Vegetation or Organic Debris
   [ ] f. Demolition/Construction Waste [ ] g. Inorganic Absorbent Materials [ ] h. Other:
2. Uncontainerized Waste (check all that apply):
   [ ] a. Inorganic Absorbent Materials [ ] b. Other:

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030)

BWSC112

Release Tracking Number
[ ] - LRA

C. DESCRIPTION OF WASTE AND WASTE SOURCE (cont.):

3. Containerized Waste (check all that apply):
   - [ ] a. Tank Bottoms/Sludges [ ] b. Containers [ ] c. Drums [ ] d. Engineered Impoundments
   - [ ] e. Other:
4. Estimated Quantity: 350.00 [✓] Tons [ ] Cu. Yds. [ ] Gallons
5. Contaminant Source (check one):
   - [ ] a. Transportation Accident [ ] b. Underground Storage Tank [ ] c. Brownfields Redevelopment
   - [✓] d. Other: Exterior PCB building caulking
6. Type of Contaminant (check all that apply):
   - [ ] a. Gasoline [ ] b. Diesel Fuel [ ] c. #2 Fuel Oil [ ] d. #4 Fuel Oil [ ] e. #6 Fuel Oil [ ] f. Jet Fuel
   - [ ] g. Waste Oil [ ] h. Kerosene [ ] i. Chlorinated Solvents [✓] j. Urban Fill [ ] k. Other:
7. Constituents of Concern (check all that apply):
   - [ ] a. As [ ] b. Cd [ ] c. Cr [ ] d. Pb [ ] e. Hg [ ] f. EPH/TPH [ ] g. VPH
   - [✓] h. PCBs [ ] i. VOCs [ ] j. SVOCs [ ] k. Other:
8. If applicable, check the box for the Reportable Concentration Category of the site:
   - [✓] a. RCS-1 [ ] b. RCS-2 [ ] c. RCGW-1 [ ] d. RCGW-2
9. Remediation Waste Characterization Documentation (check at least one):
   - [✓] a. Site History Information [✓] b. Sampling Analytical Methods and Procedures [✓] c. Laboratory Data
   - [ ] d. Field Screening Data [ ] e. Characterization Documentation previously submitted to the Department
   - i. Date submitted: (mm/dd/yyyy) ii. Type of Documentation:

D. TRANSPORTER OR COMMON CARRIER INFORMATION:

1. Transporter/Common Carrier Name: J.R. Vinagro Corp.
2. Contact First Name: Dana 3. Last Name: Zewinski
4. Street: 2208 Plainfield Pike 5. Title: Vice President, Environmental Engineer
6. City/Town: Johnston 7. State: RI 8. Zip Code: 02919-0000
9. Telephone: (401) 943-7100 10. Ext: 11. Fax: (401) 230-0566

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number
[ ] - LRA

E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION:

1. Operator/Facility Name: **NEWS of Worcester LLC - Greenwood Street Landfill**
2. Contact First Name: **Scott** 3. Last Name: **Sampson**
4. Street: **30 NippNapp Trail** 5. Title: **Operations Manager**
6. City/Town: **Worcester** 7. State: **MA** 8. Zip Code: **01607-0000**
9. Telephone: **(508) 755-4604** 10. Ext: 11. Fax:
12. Type of Facility: (Check one)
   a. Temporary Storage i. Period of Temporary Storage: (mm/dd/yyyy) to (mm/dd/yyyy)
   ii. Reason for Temporary Storage:

[ ] b. Asphalt Batch/Hot Mix [ ] c. Landfill/Disposal [✓] d. Landfill/Structural Fill [ ] e. Landfill/Daily Cover
[ ] f. Asphalt Batch/Cold Mix [ ] g. Thermal Processing [ ] h. Incinerator [ ] i. Other:

13. Division of Hazardous Waste/Class A Permit Number:
14. Division of Solid Waste Permit Number: **W056147**
15. EPA Identification Number:

F. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this submittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief, the assessment action(s) undertaken to characterize the Remediation Waste which is (are) the subject of this submittal for acceptance at the facility identified in this submittal comply with applicable provisions of 310 CMR 40.0000, and such facility is permitted to accept Remediation Waste having the characteristics described in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: **5211**
2. First Name: **Marc** 3. Last Name: **Richards**
4. Telephone: **(508) 471-9621** 5. Ext:
6. FAX: **(508) 795-1087**
7. Signature: Marc J. Richards
8. Date: 2/24/12 (mm/dd/yyyy)
9. LSP Stamp: COMMONWEALTH OF MASSACHUSETTS — MARC J. RICHARDS No. 5211 — REGISTERED LICENSED SITE PROFESSIONAL

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number
[ ] - [ ]

G. PERSON SUBMITTING BILL OF LADING:

1. Check all that apply: [ ] a. change in contact name [ ] b. Change of address [ ] c. change in person undertaking response actions
2. Name of Organization: City of Worcester
3. Contact First Name: Paul 4. Last Name: Moosey
5. Street: 20 East Worcester Street 6. Title: Assistant Commissioner-Director of Engineering & Architectural Services
7. City/Town: Worcester 8. State: MA 9. Zip Code: 01608-0000
10. Telephone: (508) 799-1454 11. Ext: 12. Fax: (508) 726-2936

H. RELATIONSHIP TO SITE OF PERSON SUBMITTING BILL OF LADING:

[ ] Check here to change relationship

[✓] 1. RP or PRP: [✓] a. Owner [ ] b. Operator [ ] c. Generator [ ] d. Transporter
[ ] e. Other RP or PRP Specify:

[ ] 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c.21E, s.2):

[ ] 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c.21E, s.5(j))

[ ] 4. Any Other person Undertaking Response Actions: Specify Relationship

I. REQUIRED ATTACHMENTS AND SUBMITTALS :

[ ] 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approvals issued by DEP or EPA. If the box is checked, you must attach a statement identifying the applicable provisions thereof.

[ ] 2. Check here if any non-updatable information provided on this form is incorrect, e. g. property address. Send corrections to BWSC.eDEP@state.ma.us

[ ] 3. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

J. CERTIFICATION OF PERSON SUBMITTING BILL OF LADING :

1. I, Louis E Roy Jr, attest under the pains and penalties or perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: Paul Moosey *Paul Moosey* 3. Title: Assistant Commissioner-Director of Engineering & Architectural Services

4. For: City of Worcester *Louis E Roy Jr* 5. Date: Feb 24 2012
(Name of person or entity recorded in Section H) (mm/dd/yyyy)

4-3-12

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number
[ ] - [L&A]

J. CERTIFICATION OF PERSON SUBMITTING BILL OF LADING (cont.) :

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section H.

7. Street:

8. City/Town: 9. State: 10. Zip Code:

11. Telephone: 12. Ext: 13. Fax:

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (MassDEP USE ONLY):

Job # 12-028

12.028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

Vinagro 64

BILL OF LADING Transport Log Sheet

Release Tracking Number

Page _____ OF _____

[ ] - LRA

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Mike MARTINELLI
Date of Shipment: 4-3-12
Time of Shipment: 8:00 [✓] AM [ ] PM
Truck/Tractor Registration: 23174
Trailer Registration (if any): 1172135
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4-3-12
Time of Receipt: 9:40 [X] AM [ ] PM
Load Size (cu. yds./tons): 36 26

Load 2:
Signature of Transporter Representative: MARTINELLI
Date of Shipment: 4-3-12
Time of Shipment: [✓] AM [ ] PM
Truck/Tractor Registration: 23174
Trailer Registration (if any): 1172135
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4-3-12
Time of Receipt: 1045 [X] AM [ ] PM
Load Size (cu. yds./tons): 29 01

Load 3:
Signature of Transporter Representative: MARTINELLI
Date of Shipment: 4-3-12
Time of Shipment: [✓] AM [ ] PM
Truck/Tractor Registration: 23174
Trailer Registration (if any): 1172135
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4-3-12
Time of Receipt: 105 [ ] AM [X] PM
Load Size (cu. yds./tons): 29 99

Load 4:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

1/13/11

Job # 13-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112A

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

SUMMARY OF SHIPMENT SHEET [ ] OF [ ]

[ ] - [LSA]

A. SUMMARY OF SHIPMENT (To be filled out by the receiving facility upon receipt of Remediation Waste):

1. Date of Shipment: (mm/dd/yyyy)	2. Date of Receipt: (mm/dd/yyyy)	3. Number of Loads Shipped:	4. Daily Volume Shipped: [ ] yds³ [ ] tons [ ] gals
4/3/12	4/3/12	1	36.26
4/3/12	4/3/12	1	29.01
4/3/12	4/3/12	1	29.99
5. Totals Recorded on this Summary of Shipment Sheet:			

B. [ ] Check here if additional BWSC112A BOL Summary Sheets are needed.

Revised: 03/10/2010

1

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115082
DATE: 04/03/2012
TIME: 09:39 - 09:39

CUSTOMER: LI01192 / C.O.W.(12028)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N. HIGH / NORTH HIGH
TRUCK: VINAGRO64 TRAILER:
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 110320 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 72520 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	36.2600	ST

I Hereby Declare That I Have NOT Disposed Of Any ~~Liquid Or Hazardous Waste~~

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

2

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115096
DATE: 04/03/2012
TIME: 10:45 - 10:45

CUSTOMER: LI01192 / C.O.W.(12028)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N. HIGH / NORTH HIGH
TRUCK: VINAGRO64 TRAILER:
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 95820 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 58020 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	29.0100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115120
DATE: 04/03/2012
TIME: 13:02 - 13:02

CUSTOMER: LI01192 / C.O.W.(12028)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 97780 LBS(-AutoWt
ORIGIN: N. HIGH / NORTH HIGH
TARE: 37800 LBS(-AutoWt
TRUCK: VINAGR064 TRAILER:
NET: 59980 LBS
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	29.9900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

12-028

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BILL OF LADING Transport Log Sheet

Page 1 OF 1

Release Tracking Number: Vinagro 70 - LRA

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative:
Date of Shipment: 4/3/12
Time of Shipment: 9:15 ☒ AM ☐ PM
Truck/Tractor Registration: 23730 RI
Trailer Registration (if any): 1465955 MAINE
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4.3.12
Time of Receipt: 9.45 ☒ AM ☐ PM
Load Size (cu. yds./tons): 42.28

Load 2:
Signature of Transporter Representative:
Date of Shipment: 4.3.12
Time of Shipment: ☒ AM ☐ PM
Truck/Tractor Registration: 23730 RI
Trailer Registration (if any): 1465955 ME
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4.3.12
Time of Receipt: 11 40 ☐ AM ☐ PM
Load Size (cu. yds./tons): 33 09

Load 3:
Signature of Transporter Representative:
Date of Shipment: 4.3.12
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration: 23730 RI
Trailer Registration (if any): 146599 ME
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4.3.12
Time of Receipt: 1 00 ☐ AM ☒ PM
Load Size (cu. yds./tons): 16.70

Load 4:
Signature of Transporter Representative:
Date of Shipment: 4.3.12
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration: 23730 RI
Trailer Registration (if any): 146599 ME
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4.3.12
Time of Receipt: 200 ☐ AM ☒ PM
Load Size (cu. yds./tons): 23.90

Load 5:
Signature of Transporter Representative:
Date of Shipment: 4.3.12
Time of Shipment: ☐ AM ☒ PM
Truck/Tractor Registration: 23730 RI
Trailer Registration (if any): 465995 ME
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4.3.12
Time of Receipt: 3.05 ☐ AM ☒ PM
Load Size (cu. yds./tons): 19.28

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: ☐ AM ☐ PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: ☐ AM ☐ PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

1/13/11

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112A

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number
[ ] - L2A

SUMMARY OF SHIPMENT SHEET [ ] **OF** [ ]

A. SUMMARY OF SHIPMENT (To be filled out by the receiving facility upon receipt of Remediation Waste):

1. Date of Shipment: (mm/dd/yyyy)	2. Date of Receipt: (mm/dd/yyyy)	3. Number of Loads Shipped:	4. Daily Volume Shipped: ☐ yds³ ☒ tons ☐ gals
4/3/12	4/3/12	1	42.2800
4/3/12	4/3/12	1	33.0900
4/3/12	4/3/12	1	16.7000
4/3/12	4/3/12	1	23.9000
4/3/12	4/3/12	1	19.280
5. Totals Recorded on this Summary of Shipment Sheet:			

B. ☐ Check here if additional BWSC112A BOL Summary Sheets are needed.

Revised: 03/10/2010

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115086
DATE: 04/03/2012
TIME: 09:43 - 09:58

CUSTOMER: LI01192 / C.O.W.(12028)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 120760 LBS(-AutoWt
ORIGIN: N. HIGH / NORTH HIGH
TARE: 36200 LBS(-ManlWt
TRUCK: VINAGRO70 TRAILER:
NET: 84560 LBS
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	42.2800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115108
DATE: 04/03/2012
TIME: 11:38 - 11:38

CUSTOMER: LI01192 / C.O.W.(12028)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 102380 LBS(-AutoWt
ORIGIN: N. HIGH / NORTH HIGH
TARE: 36200 LBS(-AutoWt
TRUCK: VINAGRO70 TRAILER:
NET: 66180 LBS
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	33.0900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115117
DATE: 04/03/2012
TIME: 12:56 - 12:56

CUSTOMER: LI01192 / C.O.W.(12028)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 69600 LBS(-AutoWt
ORIGIN: N. HIGH / NORTH HIGH
TARE: 36200 LBS(-AutoWt
TRUCK: VINAGRO70 TRAILER:
NET: 33400 LBS
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	16.7000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115138
DATE: 04/03/2012
TIME: 14:06 - 14:06

CUSTOMER: LI01192 / C.O.W.(12028)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 84000 LBS(-AutoWt
ORIGIN: N. HIGH / NORTH HIGH
TARE: 36200 LBS(-AutoWt
TRUCK: VINAGRO70 TRAILER:
NET: 47800 LBS
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	23.9000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115139
DATE: 04/03/2012
TIME: 15:00 - 15:00

CUSTOMER: LI01192 / C.O.W.(12028)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 74760 LBS(-AutoWt
ORIGIN: N. HIGH / NORTH HIGH
TARE: 36200 LBS(-AutoWt
TRUCK: VINAGRO70 TRAILER:
NET: 38560 LBS
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	19.2800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number
[ ] - LRA

A. LOCATION OF SITE OR DISPOSAL SITE WHERE REMEDIATION WASTE WAS GENERATED:

1. Release Name/Location Aid: **Former North High School**
2. Street Address: **140 Harrington Way**
3. City/Town: **Worcester** 4. Zip Code: **01068-0000**
5. [ ] Check her if a Tier Classification Submittal has been provided to DEP for this disposal site:
   [ ] a. Tier 1A [ ] b. Tier 1B [ ] b. Tier 1C [ ] d. Tier II
6. If applicable provide the Permit Number: [ ]

B. THIS FORM IS BEING USED TO: (check one: B1-B4):

[✓] 1. Submit a **Bill of Lading (BOL)** to transport Remediation Waste to Temporary Storage or a Receiving Facility. Response Actions associated with this BOL (check all that apply):

- [ ] a. Immediate Response Action (IRA)
- [ ] b. Release Abatement Measure (RAM)
- [ ] c. Downgradient Property Status (DPS)
- [ ] d. Utility Release Abatement Measure (URAM)
- [ ] e. Comprehensive Response Actions
- [✓] f.. Limited Removal Action (LRA): (must be retained pursuant to 310 CMR 40.0034(6); can't be submitted via eDEP)
- [✓] g. Other **LRA and EPA Soil Cleanup**

[ ] 2. Submit an Attestation of Completion of **Shipment to Temporary Storage** (Sections C, F and J are not required):

[ ] 3. Submit an Attestation of Completion of **Shipment to a Receiving Facility** (Sections C, F and J are not required):

[ ] 4. Certify that Remediation Waste Was **Not Shipped, and the Bill of Lading is Void.** (Sections C, D, E, and F are not required)

5. Date Bill of Lading submitted to the Department: [ ] (mm/dd/yyyy) b. eDEP Transaction ID: **N/A**

6. Period of Generation Associated with this Bill of Lading **11/09/2011** (mm/dd/yyyy) to **12/15/2015** (mm/dd/yyyy)

(All sections of this transmittal form must be filled out unless otherwise noted)
The Bill of Lading is not considered complete until the Attestation of Completion of Shipment is received by the Department.

C. DESCRIPTION OF WASTE AND WASTE SOURCE:

1. Contaminated Media /Debris (check all that apply):
   [✓] a. Soil [ ] b. Groundwater [ ] c. Surface Water [ ] d. Sediment [ ] e. Vegetation or Organic Debris
   [ ] f. Demolition/Construction Waste [ ] g. Inorganic Absorbent Materials [ ] h. Other: [ ]
2. Uncontainerized Waste (check all that apply):
   [ ] a. Inorganic Absorbent Materials [ ] b. Other: [ ]

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BILL OF LADING (pursuant to 310 CMR 40.0030)

BWSC112

Release Tracking Number
[ ] - LRA

C. DESCRIPTION OF WASTE AND WASTE SOURCE (cont.):

3. Containerized Waste (check all that apply):
   - [ ] a. Tank Bottoms/Sludges [ ] b. Containers [ ] c. Drums [ ] d. Engineered Impoundments
   - [ ] e. Other:
4. Estimated Quantity: 350.00 [✓] Tons [ ] Cu. Yds. [ ] Gallons
5. Contaminant Source (check one):
   - [ ] a. Transportation Accident [ ] b. Underground Storage Tank [ ] c. Brownfields Redevelopment
   - [✓] d. Other: Exterior PCB building caulking
6. Type of Contaminant (check all that apply):
   - [ ] a. Gasoline [ ] b. Diesel Fuel [ ] c. #2 Fuel Oil [ ] d. #4 Fuel Oil [ ] e. #6 Fuel Oil [ ] f. Jet Fuel
   - [ ] g. Waste Oil [ ] h. Kerosene [ ] i. Chlorinated Solvents [✓] j. Urban Fill [ ] k. Other:
7. Constituents of Concern (check all that apply):
   - [ ] a. As [ ] b. Cd [ ] c. Cr [ ] d. Pb [ ] e. Hg [ ] f. EPH/TPH [ ] g. VPH
   - [✓] h. PCBs [ ] i. VOCs [ ] j. SVOCs [ ] k. Other:
8. If applicable, check the box for the Reportable Concentration Category of the site:
   - [✓] a. RCS-1 [ ] b. RCS-2 [ ] c. RCGW-1 [ ] d. RCGW-2
9. Remediation Waste Characterization Documentation (check at least one):
   - [✓] a. Site History Information [✓] b. Sampling Analytical Methods and Procedures [✓] c. Laboratory Data
   - [ ] d. Field Screening Data [ ] e. Characterization Documentation previously submitted to the Department
   - i. Date submitted: (mm/dd/yyyy) ii. Type of Documentation:

D. TRANSPORTER OR COMMON CARRIER INFORMATION:

1. Transporter/Common Carrier Name: J.R. Vinagro Corp.
2. Contact First Name: Dana 3. Last Name: Zewinski
4. Street: 2208 Plainfield Pike 5. Title: Vice President, Environmental Engineer
6. City/Town: Johnston 7. State: RI 8. Zip Code: 02919-0000
9. Telephone: (401) 943-7100 10. Ext: 11. Fax: (401) 230-0566

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number
[ ] - LRA

E. RECEIVING FACILITY/TEMPORARY STORAGE LOCATION:

1. Operator/Facility Name: **NEWS of Worcester LLC - Greenwood Street Landfill**
2. Contact First Name: **Scott** 3. Last Name: **Sampson**
4. Street: **30 NippNapp Trail** 5. Title: **Operations Manager**
6. City/Town: **Worcester** 7. State: **MA** 8. Zip Code: **01607-0000**
9. Telephone: **(508) 755-4604** 10. Ext: 11. Fax:
12. Type of Facility: (Check one)
   a. Temporary Storage i. Period of Temporary Storage: (mm/dd/yyyy) to (mm/dd/yyyy)
   ii. Reason for Temporary Storage:

[ ] b. Asphalt Batch/Hot Mix [ ] c. Landfill/Disposal [✓] d. Landfill/Structural Fill [ ] e. Landfill/Daily Cover
[ ] f. Asphalt Batch/Cold Mix [ ] g. Thermal Processing [ ] h. Incinerator [ ] i. Other:

13. Division of Hazardous Waste/Class A Permit Number:
14. Division of Solid Waste Permit Number: **W056147**
15. EPA Identification Number:

F. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this submittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief, the assessment action(s) undertaken to characterize the Remediation Waste which is (are) the subject of this submittal for acceptance at the facility identified in this submittal comply with applicable provisions of 310 CMR 40.0000, and such facility is permitted to accept Remediation Waste having the characteristics described in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: **5211**
2. First Name: **Marc** 3. Last Name: **Richards**
4. Telephone: **(508) 471-9621** 5. Ext:
6. FAX: **(508) 795-1087**
7. Signature: Marc J. Richards
8. Date: 2/24/12 (mm/dd/yyyy)
9. LSP Stamp: COMMONWEALTH OF MASSACHUSETTS MARC J. RICHARDS No. 5211 REGISTERED LICENSED SITE PROFESSIONAL

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number
[ ] - [ ]

G. PERSON SUBMITTING BILL OF LADING:

1. Check all that apply: [ ] a. change in contact name [ ] b. Change of address [ ] c. change in person undertaking response actions
2. Name of Organization: City of Worcester
3. Contact First Name: Paul 4. Last Name: Moosey
5. Street: 20 East Worcester Street 6. Title: Assistant Commissioner-Director of Engineering & Architectural Services
7. City/Town: Worcester 8. State: MA 9. Zip Code: 01608-0000
10. Telephone: (508) 799-1454 11. Ext: 12. Fax: (508) 726-2936

H. RELATIONSHIP TO SITE OF PERSON SUBMITTING BILL OF LADING: [ ] Check here to change relationship

[✓] 1. RP or PRP: [✓] a. Owner [ ] b. Operator [ ] c. Generator [ ] d. Transporter
[ ] e. Other RP or PRP Specify:

[ ] 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c.21E, s.2):

[ ] 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c.21E, s.5(j))

[ ] 4. Any Other person Undertaking Response Actions: Specify Relationship:

I. REQUIRED ATTACHMENTS AND SUBMITTALS :

[ ] 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approvals issued by DEP or EPA. If the box is checked, you must attach a statement identifying the applicable provisions thereof.

[ ] 2. Check here if any non-updatable information provided on this form is incorrect, e. g. property address. Send corrections to BWSC.eDEP@state.ma.us

[ ] 3. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

J. CERTIFICATION OF PERSON SUBMITTING BILL OF LADING :

1. I, Louis E Roy JR, attest under the pains and penalties or perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: Paul Moosey Paul Moosey 3. Title: Assistant Commissioner-Director of Engineering & Architectural Services

4. For: City of Worcester Louis E Roy Jr 5. Date: Feb 24 2012
(Name of person or entity recorded in Section H) (mm/dd/yyyy)

4-3-12

8 LOADS OF CONTAMINATED SOILS
WORCESTER LANDFILL - 2%

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

Louis E Roy Jr COW, - L&A

J. CERTIFICATION OF PERSON SUBMITTING BILL OF LADING (cont.):

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section H.

7. Street: HARRINGTON WAY NORTH HIGH

8. City/Town: WORC MA 9. State: MA 10. Zip Code: 01605

11. Telephone: 508 799 8174 12. Ext: 13. Fax:

4-6-12

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (MassDEP USE ONLY):

Job # 12-028

Louis E Roy C.O.W.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

Vinagro 64

BILL OF LADING Transport Log Sheet

Release Tracking Number: [ ] - LRA

Page _____ OF _____

I. LOAD INFORMATION:

Load 1:
Signature of Transporter Representative: Mike Martinelli
Date of Shipment: 4-6-12
Time of Shipment: [x] AM [ ] PM
Truck/Tractor Registration: 23174
Trailer Registration (if any): 1655725
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4-6-12
Time of Receipt: 9:00 [x] AM [ ] PM
Load Size (cu. yds./tons): 27.34

Load 2:
Signature of Transporter Representative: Michael Martinelli
Date of Shipment: 4-6-12
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration: 23174
Trailer Registration (if any): 1655725
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4-6-12
Time of Receipt: 10:05 [x] AM [ ] PM
Load Size (cu. yds./tons): 26.30

Load 3:
Signature of Transporter Representative: Mike Martinelli
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration: 23174 RI
Trailer Registration (if any): 1655725
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4-6-12
Time of Receipt: 11:00 [x] AM [ ] PM
Load Size (cu. yds./tons): 28.93

Load 4:
Signature of Transporter Representative: Martinelli
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration: 23174 RI
Trailer Registration (if any): 1655725
Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill
Date of Receipt: 4-6-12
Time of Receipt: 12:15 [ ] AM [x] PM
Load Size (cu. yds./tons): 20.95

Load 5:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration: 23174 RI
Trailer Registration (if any): 1655725
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

Load 6:
Signature of Transporter Representative:
Date of Shipment:
Time of Shipment: [ ] AM [ ] PM
Truck/Tractor Registration:
Trailer Registration (if any):
Receiving Facility/Temporary Storage Representative:
Date of Receipt:
Time of Receipt: [ ] AM [ ] PM
Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:
Total Volume Recorded This Page (cu. yds./tons)
Total Carried Forward (cu. yds./tons):
Total Carried Forward and This Page (cu. yds./tons):

1/13/11

Job # 12-328

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112A

BILL OF LADING (pursuant to 310 CMR 40.0030)

SUMMARY OF SHIPMENT SHEET ____ OF ____

Release Tracking Number ____ - LBA

A. SUMMARY OF SHIPMENT (To be filled out by the receiving facility upon receipt of Remediation Waste):

1. Date of Shipment: (mm/dd/yyyy)	2. Date of Receipt: (mm/dd/yyyy)	3. Number of Loads Shipped:	4. Daily Volume Shipped: ☐ yds³ ☐ tons ☐ gals
4/6/12	4/6/12	1	27.34
4/6/12	4/6/12	1	26.30
4/6/12	4/6/12	1	28.93
4/6/12	4/6/12	1	20.95
5. Totals Recorded on this Summary of Shipment Sheet:			

B. ☐ Check here if additional BWSC112A BOL Summary Sheets are needed.

Revised: 03/10/2010

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115293
DATE: 04/06/2012
TIME: 11:04 - 11:04

CUSTOMER: LI01192 / C.O.W.(12028) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 95660 LBS(-AutoWt
ORIGIN: N. HIGH / NORTH HIGH TARE: 37800 LBS(-AutoWt
TRUCK: VINAGRO64 TRAILER: NET: 57860 LBS
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	28.9300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

WEIGHMASTER CUSTOMER

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115297
DATE: 04/06/2012
TIME: 12:15 - 12:15

N. High Sederol

CUSTOMER: LI01192 / C.O.W.(12028) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 79700 LBS(-AutoWt
ORIGIN: N. HIGH / NORTH HIGH TARE: 37800 LBS(-AutoWt
TRUCK: VINAGRO64 TRAILER: NET: 41900 LBS
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	20.9500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115282
DATE: 04/06/2012
TIME: 09:03 - 09:03

CUSTOMER: LI01192 / C.O.W.(12028)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N. HIGH / NORTH HIGH
TRUCK: VINAGRO64 TRAILER:
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92480 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 54680 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	27.3400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115289
DATE: 04/06/2012
TIME: 10:05 - 10:05

CUSTOMER: LI01192 / C.O.W.(12028)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N. HIGH / NORTH HIGH
TRUCK: VINAGRO64 TRAILER:
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 90400 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 52600 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	26.3000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

12.028

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

Vinar9070

BILL OF LADING Transport Log Sheet

Release Tracking Number ☐ - LRA

Page _____ OF _____

I. LOAD INFORMATION:

Load 1:

Signature of Transporter Representative: [signature]

Date of Shipment: 4/6/12

Time of Shipment: ☒ AM ☐ PM

Truck/Tractor Registration: 23730 RI

Trailer Registration (if any): 54332 RI

Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill

Date of Receipt: 4.6.12

Time of Receipt: 830 ☒ AM ☐ PM

Load Size (cu. yds./tons): 2336

Load 2:

Signature of Transporter Representative: [signature]

Date of Shipment: 4.6.12

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: 23730 RI

Trailer Registration (if any): 54332 RI

Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill

Date of Receipt: 4-6-12

Time of Receipt: 9.48 ☒ AM ☐ PM

Load Size (cu. yds./tons): 2642

Load 3:

Signature of Transporter Representative: [signature]

Date of Shipment: 4.6.12

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: 23730 RI

Trailer Registration (if any): 54332 RI

Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill

Date of Receipt: 4.6.12

Time of Receipt: 11.00 ☒ AM ☐ PM

Load Size (cu. yds./tons): 2947

Load 4:

Signature of Transporter Representative: [signature]

Date of Shipment: 4.6.12

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: 23703 RI

Trailer Registration (if any): 54332 RI

Receiving Facility/Temporary Storage Representative: Greenwood Street Landfill

Date of Receipt: 4.6.12

Time of Receipt: 12.00 ☐ AM ☒ PM

Load Size (cu. yds./tons): 2940

Load 5:

Signature of Transporter Representative:

Date of Shipment: 4.6.12

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration: 23730 RI

Trailer Registration (if any): 54332 RI

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

Load 6:

Signature of Transporter Representative:

Date of Shipment:

Time of Shipment: ☐ AM ☐ PM

Truck/Tractor Registration:

Trailer Registration (if any):

Receiving Facility/Temporary Storage Representative:

Date of Receipt:

Time of Receipt: ☐ AM ☐ PM

Load Size (cu. yds./tons):

J. LOG SHEET VOLUME INFORMATION:

Total Volume Recorded This Page (cu. yds./tons)

Total Carried Forward (cu. yds./tons):

Total Carried Forward and This Page (cu. yds./tons):

Job # 12-028

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC112A

BILL OF LADING (pursuant to 310 CMR 40.0030)

Release Tracking Number

SUMMARY OF SHIPMENT SHEET ____ OF ____

- LRA

A. SUMMARY OF SHIPMENT (To be filled out by the receiving facility upon receipt of Remediation Waste):

1. Date of Shipment: (mm/dd/yyyy)	2. Date of Receipt: (mm/dd/yyyy)	3. Number of Loads Shipped:	4. Daily Volume Shipped: ☐ yds³ ☒ tons ☐ gals
4/6/12	4/6/12	1	23.3500
4/6/12	4/6/12	1	26.4200
4/6/12	4/6/12	1	29.4700
4/6/12	4/6/12	1	29.4000
5. Totals Recorded on this Summary of Shipment Sheet:			

B. ☐ Check here if additional BWSC112A BOL Summary Sheets are needed.

Revised: 03/10/2010

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115276
DATE: 04/06/2012
TIME: 08:26 - 08:26

CUSTOMER: LI01192 / C.O.W.(12028)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N. HIGH / NORTH HIGH
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 82900 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 46700 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	23.3500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115287
DATE: 04/06/2012
TIME: 09:46 - 09:46

CUSTOMER: LI01192 / C.O.W.(12028)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N. HIGH / NORTH HIGH
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89040 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 52840 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	26.4200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115292
DATE: 04/06/2012
TIME: 10:54 - 10:54

CUSTOMER: LI01192 / C.O.W.(12028)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N. HIGH / NORTH HIGH
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 95140 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 58940 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	29.4700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 115296
DATE: 04/06/2012
TIME: 11:55 - 11:56

CUSTOMER: LI01192 / C.O.W.(12028)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N. HIGH / NORTH HIGH
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N. HIGH / NORTH HIGHPROFILE #: 12028
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 95000 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 58800 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CS / REGULATED SOIL	29.4000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

Appendix H-5

PCB Remediation Waste – CMU Block, Brick & Concrete

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

N/A
Tracking Number

A. Location Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

1. Provide the following information on the location where the waste was generated:

Former North High School
Release name (optional)

140 Harrington Way
Street

Location aid

Worcester
City/Town

MA
State

01604
Zip code

2. Date/Period of generation: 5/2012 From — 7/2012 To

3. U.S. EPA ID number: N/A

4. 21E release: ☐ Yes ☒ No

5. List additional tracking documents associated with this document:

None

B. Generator Information

Important: This form is not to be used for the shipment of remediation wastes subject to management under section 310 CMR 40.0035 of the Massachusetts Contingency Plan nor is it to be used in lieu of a hazardous waste manifest for hazardous waste or recyclable materials subject to the Massachusetts Hazardous Waste Regulations 310 CMR 30.000.

1. Provide the following generator information:

City of Worcester
Name of organization

Paul J. Moosey, P.E.
Contact name

Assistant DPW&P Commissioner
Title

20 East Worcester Street
Street address

Worcester
City/Town

MA
State

01604
Zip code

508-799-1454
Telephone number(including extension)

C. Owner and/or Operator Information

1. If the owner and/or operator is different from the generator as indicated in Section B, provide the following information:

Check applicable: ☐ owner ☐ operator

Name of organization

Contact name

Title

Street address

City/Town

State

Zip code

Telephone number

Ext.

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

N/A
Tracking Number

D. Transporter/Common Carrier Information

1. Provide the following information:

J.R. Vinagro Corp.
Transporter/Common carrier name

N/A
Hazardous waste license number (if applicable)

N/A
Licensing state (if applicable)

Dana Zewinski
Contact person

Project Manager
Title

2208 Plainfield Pike
Street

Johnston
City/Town

RI
State

02919
Zip code

(401) 943-7100
Telephone number

N/A
Ext.

E. Receiving Facility Information

1. Provide the following information on the receiving facility:

Casella Waste Systems - Greenwood Street Landfill
Operator/Facility name

Craig Salter
Contact person

Operations Manager
Title

30 NippNapp Trail
Street

Worcester
City/Town

MA
State

01607
Zip code

508-755-4604
Telephone number

N/A
Ext.

2. Type of facility:

- ☐ asphalt batch/cold mix
- ☐ asphalt batch/hot mix
- ☐ landfill/disposal
- ☐ landfill/ daily cover
- ☐ thermal processing
- ☒ landfill/structural fill
- ☒ other(specify): grading/shaping

3. Permit number: BUD W 060012 (2005)
BUD X241703 (2012)

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

N/A
Tracking Number

F. Description of Material

Check all that apply:

1. a. ☐ soil ☐ dredge material ☐ fill

   b. Description: _____

   c. Classification: ☐ MIT ☐ USDA ☒ USAEC ☐ ASEE

2. ☒ Other(describe): Painted CMU block, unpainted brick, unpainted concrete processed to less than 3 inches in size.

3. Type of contamination:

   a. ☐ gasoline ☐ diesel fuel ☐ #2 oil ☐ #4 oil
   ☐ #6 oil ☐ waste oil ☐ kerosene ☐ jet fuel

   b. ☒ Debris:

   ☒ demolition ☐ vegetative ☐ inorganic

   c. ☒ Other(describe): PCBs in paint on CMU block, residual PCBs in brick and concrete associated with abated PCB caulking (no caulking present in waste)

4. Constituents of concern (check all that apply):

☐ As	☐ HVOCs
☐ Cd	☐ PATH
☐ Cr	☐ VOCs
☒ Pb	☐ PAHs
☐ Hg	☐ BNAs
☐ Na	☐ TPH
☒ PCBs	☐ Other(describe): _____

5. Analyses performed (check all that apply):

☒ As	☐ PATH
☒ Cd	☐ VOCs
☒ Cr	☐ PAHs
☒ Pb	☐ BNAs
☒ Hg	☐ TPH
☐ Na	☐ TCLP (inorganic)
☒ PCBs	☐ TCLP (organic)
☐ HVOCs	☒ Other(describe): Barium, Selenium, Silver

6. Screening performed:

N/A
Type

N/A
Instrument used

N/A
Constituents

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

N/A
Tracking Number

H. Certification of Generator

"I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information contained herein is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information."

Paul Moosey
Signature

7/23/2012
Date

Paul J. Moosey, P.E.
Name(print)

I. Acknowledgment of Receipt by Receiving Facility

Casella Waste Systems - Greenwood Street Landfill
Receiving facility

Representative (print)

Title

Signature

Date

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

N/A
Tracking Number

F. Description of Material (cont.)

7. Estimated volume of materials:

5,000	7,000	N/A
Cubic yards	Tons	Other(specify units)

8. Contaminant source (check one):

- ☐ transportation accident
- ☐ ust
- ☒ other(describe): paint and caulking containing PCBs

9. Indicate which waste characterization support documentation is attached:

- ☐ site history information
- ☐ sampling and analytical methods/procedure
- ☒ laboratory data
- ☐ field screening data

If supporting documentation is not appended, provide an attachment stating the date and in connection with what document such information was previously submitted to the facility.

G. Qualified Environmental Professional Opinion

"I have personally examined and am familiar with the information contained on and submitted with this form. Based on this information, it is my opinion that the testing and assessment actions undertaken were adequate to characterize the waste, and that the facility or location can accept wastes with the characteristics described in this submittal. I am aware that significant penalties including, but not limited to, possible fines and imprisonment may result if I willfully submit information which I know to be false, inaccurate, or materially incomplete."

Tighe & Bond, Inc.
Name of organization

Marc J. Richards, P.E., LSP
Name of professional

Senior Project Manager/Associate
Title

508-471-9621 — Telephone number
N/A — Ext.

Signature

7/23/2012
Date

41571 (MA P.E.)
License number

Seal:

COMMONWEALTH OF MASSACHUSETTS
MARC J. RICHARDS
CIVIL
No. 41571
REGISTERED PROFESSIONAL ENGINEER

7/23/12

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention

Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

N/A
Tracking Number

J. Load Information

Note:
Make additional copies of this page as necessary.

Load#: _____

Signature of transporter

Casella Waste Systems - Greenwood Street Landfill

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Casella Waste Systems - Greenwood Street Landfill

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

Load#: _____

Signature of transporter

Casella Waste Systems - Greenwood Street Landfill

Date received | Time received | Date of shipment | Time of shipment

Truck/Tractor registration | Trailer registration

Load size (cubic yards/tons)

K. Log Sheet Volume Information

Total volume this page (cubic yards/tons)

Total carried forward (cubic yards/tons)

Total carried forward and this page (cubic yards/tons)

Page _____ of _____

NORTH HS, WORCESTER, MA

TRUCKING OF ABC TO GREENWOOD ST LANDFILL

	LBS.	TONS			
8/8/12 TOTAL	1931300	965.65	C & D/ABC	12143	35 tickets
8/9/12 TOTAL	2156140	1078.07	C & D/ABC	12143	41 tickets
8/10/12 TOTAL	1669593	858.23	C & D/ABC	12143	36 tickets
8/13/12 TOTAL	1791380	895.69	C & D/ABC	12143	34 tickets
8/14/12 TOTAL	1539460	769.73	C & D/ABC	12144	28 tickets
8/15/2012 TOTAL	184960	92.48	C & D/ABC	12144	4 tickets
TOTAL ALL ABOVE:	9272833	4659.85	C & D/ABC		

Date	Truck	Time	Ticket	lbs	tons	Material	Profile
8/8/2012	GALLAGHER1	7:53	122504	43860	21.93	C & D/ABC	12143
		8:43	122518	53860	26.93	C & D/ABC	12143
		9:32	122528	52800	26.4	C & D/ABC	12143
		10:23	122538	52660	26.33	C & D/ABC	12143
		11:25	122549	51300	25.65	C & D/ABC	12143
		12:13	122558	53600	26.8	C & D/ABC	12143
		12:59	122564	53440	26.72	C & D/ABC	12143
	VINAGRO64	8:05	122507	48860	24.43	C & D/ABC	12143
		9:03	122522	60060	30.03	C & D/ABC	12143
		9:55	122531	58620	29.31	C & D/ABC	12143
		10:48	122541	57620	28.81	C & D/ABC	12143
		11:39	122552	58200	29.1	C & D/ABC	12143
		12:33	122560	59980	29.99	C & D/ABC	12143
		13:28	122568	59740	29.87	C & D/ABC	12143
	GRANT30	8:15	122513	48760	24.38	C & D/ABC	12143
		9:15	122523	53460	26.73	C & D/ABC	12143
		10:06	122533	54220	27.11	C & D/ABC	12143
		10:57	122542	57020	28.51	C & D/ABC	12143
		11:49	122555	55420	27.71	C & D/ABC	12143
		12:42	122561	56800	28.4	C & D/ABC	12143
		13:36	122570	58160	29.08	C & D/ABC	12143
	GRANT37	8:17	122514	49180	24.59	C & D/ABC	12143
		9:23	122525	54140	27.07	C & D/ABC	12143
		10:11	122534	53000	26.5	C & D/ABC	12143
		11:02	122544	57940	28.97	C & D/ABC	12143
		11:53	122556	56200	28.1	C & D/ABC	12143
		12:46	122562	55660	27.83	C & D/ABC	12143
		13:43	122572	56100	28.05	C & D/ABC	12143
	GRANT31	8:18	122515	48820	24.41	C & D/ABC	12143
		9:25	122527	57880	28.94	C & D/ABC	12143
		10:17	122536	61380	30.69	C & D/ABC	12143
		11:07	122547	59480	29.74	C & D/ABC	12143
		11:57	122557	55620	27.81	C & D/ABC	12143
		11:45	122563	60440	30.22	C & D/ABC	12143
		13:46	122574	57020	28.51	C & D/ABC	12143
8/8/12 TOTAL				**1931300**	**965.65**	**C & D/ABC**	**12143**
				35 tickets			

(1)

News of Worcester Landfill
30 Hippapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122507
DATE: 08/08/2012
TIME: 08:05 - 08:05

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 86660 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37800 LBS(-AutoWt
TRUCK: VINAGR064 TRAILER:
NET: 48860 LBS
GENERATOR: N.H. CMU / N. HIGH CMUPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.4300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: D.B. Smith
Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

(2)

News of Worcester Landfill
30 Hippapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122522
DATE: 08/08/2012
TIME: 09:03 - 09:03

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 97860 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37800 LBS(-AutoWt
TRUCK: VINAGR064 TRAILER:
NET: 60060 LBS
GENERATOR: N.H. CMU / N. HIGH CMUPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	30.0300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver:
Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122531
DATE: 08/08/2012
TIME: 09:55 - 09:55

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO64 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMOROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 96420 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 58620 LBS
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.3100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

(4)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122541
DATE: 08/08/2012
TIME: 10:48 - 10:48

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO64 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMOROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 95420 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 57620 LBS
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.8100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

(5)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122552
DATE: 08/08/2012
TIME: 11:39 - 11:39

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR064 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 96000 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 58200 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.1000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

(6)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122560
DATE: 08/08/2012
TIME: 12:33 - 12:33

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR064 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 97780 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 59980 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.9900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

(7)

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122568
DATE: 08/08/2012
TIME: 13:28 - 13:28

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR064 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 97540 LBS(-AutoWt
TARE: 37800 LBS(-AutoWt
NET: 59740 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.8700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122504
DATE: 08/08/2012
TIME: 07:53 - 07:53

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 82860 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 43860 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	21.9300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 122518
DATE: 08/08/2012
TIME: 08:43 - 08:43

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 92860 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 39000 LBS(-AutoWt
TRUCK: GALLAGHER1 TRAILER:
NET: 53860 LBS
GENERATOR: N.H. CMU / N. HIGH CMPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.9300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 122528
DATE: 08/08/2012
TIME: 09:32 - 09:32

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 91800 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 39000 LBS(-AutoWt
TRUCK: GALLAGHER1 TRAILER:
NET: 52800 LBS
GENERATOR: N.H. CMU / N. HIGH CMPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.4000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
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Worcester,MA 01607
508-755-4604

TICKET: 122558
DATE: 08/08/2012
TIME: 12:13 - 12:13

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92600 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 53600 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHALT,BRICK,CONCRETE	26.8000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122564
DATE: 08/08/2012
TIME: 12:59 - 12:59

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92440 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 53440 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHALT,BRICK,CONCRETE	26.7200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122538
DATE: 08/08/2012
TIME: 10:23 - 10:23

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91660 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 52660 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.3300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
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508-755-4604

TICKET: 122540
DATE: 08/08/2012
TIME: 11:25 - 11:25

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 90300 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 51300 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.6500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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30 NippNapp Trail
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TICKET: 122513
DATE: 08/08/2012
TIME: 08:15 - 08:28

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT30 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86360 LBS<-AutoWt
TARE: 37600 LBS<-ManlWt
NET: 48760 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.3800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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30 NippNapp Trail
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TICKET: 122523
DATE: 08/08/2012
TIME: 09:15 - 09:16

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT30 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91060 LBS<-AutoWt
TARE: 37600 LBS<-ManlWt
NET: 53460 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.7300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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TICKET: 122533
DATE: 08/08/2012
TIME: 10:06 - 10:06

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 91820 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37600 LBS(-AutoWt
TRUCK: GRANT30 TRAILER:
NET: 54220 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.1100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
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TICKET: 122542
DATE: 08/08/2012
TIME: 10:57 - 10:57

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 94620 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37600 LBS(-AutoWt
TRUCK: GRANT30 TRAILER:
NET: 57020 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.5100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
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TICKET: 122555
DATE: 08/08/2012
TIME: 11:49 - 11:49

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 93020 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37600 LBS(-AutoWt
TRUCK: GRANT30 TRAILER:
NET: 55420 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.7100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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TICKET: 122561
DATE: 08/08/2012
TIME: 12:42 - 12:42

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 94400 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37600 LBS(-AutoWt
TRUCK: GRANT30 TRAILER:
NET: 56800 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.4000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
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TICKET: 122570
DATE: 08/08/2012
TIME: 13:36 - 13:36

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT38 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 95760 LBS(-AutoWt
TARE: 37600 LBS(-AutoWt
NET: 58160 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.0800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
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TICKET: 122514
DATE: 08/08/2012
TIME: 08:17 - 08:30

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT37 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 85980 LBS(-AutoWt
TARE: 36800 LBS(-ManlWt
NET: 49180 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.5900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
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TICKET: 122525
DATE: 08/08/2012
TIME: 09:23 - 09:23

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT37 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 90940 LBS(-AutoWt
TARE: 36800 LBS(-AutoWt
NET: 54140 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.0700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
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TICKET: 122534
DATE: 08/08/2012
TIME: 10:11 - 10:11

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT37 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89800 LBS(-AutoWt
TARE: 36800 LBS(-AutoWt
NET: 53000 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.5000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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TICKET: 122544
DATE: 08/08/2012
TIME: 11:02 - 11:02

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT37 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 94740 LBS(-AutoWt
TARE: 36800 LBS(-AutoWt
NET: 57940 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.9700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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TICKET: 122556
DATE: 08/08/2012
TIME: 11:53 - 11:53

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT37 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 93000 LBS(-AutoWt
TARE: 36800 LBS(-AutoWt
NET: 56200 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.1000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

Hews of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122562
DATE: 08/08/2012
TIME: 12:46 - 12:46

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT37 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92460 LBS(-AutoWt
TARE: 36800 LBS(-AutoWt
NET: 55660 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.8300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

Hews of Worcester Landfill
30 NippNapp Trail
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508-755-4604

TICKET: 122572
DATE: 08/08/2012
TIME: 13:43 - 13:43

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT37 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92900 LBS(-AutoWt
TARE: 36800 LBS(-AutoWt
NET: 56100 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.0500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122515
DATE: 08/08/2012
TIME: 08:18 - 08:32

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 86320 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37500 LBS(-ManlWt
TRUCK: GRANT31 TRAILER:
NET: 48820 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.4100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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30 NippNapp Trail
Worcester,MA 01607
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TICKET: 122527
DATE: 08/08/2012
TIME: 09:25 - 09:25

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 95380 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37500 LBS(-AutoWt
TRUCK: GRANT31 TRAILER:
NET: 57880 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.9400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122536
DATE: 08/08/2012
TIME: 10:17 - 10:17

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 98880 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37500 LBS(-AutoWt
TRUCK: GRANT31 TRAILER:
NET: 61380 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	30.6900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Bernie Rhude Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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30 NippNapp Trail
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508-755-4604

TICKET: 122547
DATE: 08/08/2012
TIME: 11:07 - 11:07

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 96980 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37500 LBS(-AutoWt
TRUCK: GRANT31 TRAILER:
NET: 59480 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.7400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Bernie Rhude Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122557
DATE: 08/08/2012
TIME: 11:57 - 11:57

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 93120 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37500 LBS(-AutoWt
TRUCK: GRANT31 TRAILER:
NET: 55620 LBS
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.8100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122563
DATE: 08/08/2012
TIME: 12:49 - 12:49

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 97940 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 37500 LBS(-AutoWt
TRUCK: GRANT31 TRAILER:
NET: 60440 LBS
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	30.2200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 122574
DATE: 08/08/2012
TIME: 13:46 - 13:46

This is a Reprint Ticket

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GRANT31
GENERATOR: N.H. CMU / N. HIGH CMU
HAULER: NA / Non App
COMMENT:

APPROVAL #:
TRAILER:
PROFILE #: 12143
ROUTE: NA / Non App

P.O.:
GROSS: 94520 LBS <-AutoW
TARE: 37500 LBS <-AutoW
NET: 57020 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.5100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____
IN: BECKY B: PCSCALE-WO

Weighmaster: _____
OUT: BECKY B: PCSCALE-WO

Date	Truck	Time	Ticket	lbs	tons	Material	Profile
8/9/2012	GALLAGHER1	7:32	122593	50640	25.32	C & D/ABC	12143
		8:33	122605	46400	23.2	C & D/ABC	12143
		9:28	122620	55040	27.52	C & D/ABC	12143
		10:46	122655	49860	24.93	C & D/ABC	12143
		11:56	122673	45280	22.64	C & D/ABC	12143
		12:45	122682	52580	26.29	C & D/ABC	12143
		13:38	122703	49360	24.68	C & D/ABC	12143
	PARENTEAU8	7:35	122594	57160	28.58	C & D/ABC	12143
		8:39	122607	55480	27.74	C & D/ABC	12143
		9:32	122621	54140	27.07	C & D/ABC	12143
		10:51	122657	52840	26.42	C & D/ABC	12143
		11:54	122672	53000	26.5	C & D/ABC	12143
		12:49	122683	52480	26.24	C & D/ABC	12143
		13:43	122705	59860	29.93	C & D/ABC	12143
	VINAGRO74	7:40	122598	51280	25.64	C & D/ABC	12143
		8:44	122608	48880	24.44	C & D/ABC	12143
		9:40	122625	55340	27.67	C & D/ABC	12143
		10:37	122649	54220	27.11	C & D/ABC	12143
		11:32	122669	49860	24.93	C & D/ABC	12143
		12:30	122678	53680	26.84	C & D/ABC	12143
		13:28	122699	51660	25.83	C & D/ABC	12143
	MARTINI21	7:44	122597	56040	28.02	C & D/ABC	12143
		8:47	122609	51180	25.59	C & D/ABC	12143
		9:48	122629	50660	25.33	C & D/ABC	12143
		10:44	122653	51460	25.73	C & D/ABC	12143
		11:49	122671	48220	24.11	C & D/ABC	12143
		13:00	122688	50400	25.2	C & D/ABC	12143
		13:52	122710	50140	25.07	C & D/ABC	12143
	VINAGRO55	8:12	122604	54400	27.2	C & D/ABC	12143
		9:12	122613	54660	27.33	C & D/ABC	12143
		10:15	122640	55660	27.83	C & D/ABC	12143
		11:21	122666	56740	28.37	C & D/ABC	12143
		12:32	122679	51480	25.74	C & D/ABC	12143
		13:33	122701	52320	26.16	C & D/ABC	12143
		14:33	122715	58240	29.12	C & D/ABC	12143
	VINAGRO70	8:22	122602	58100	29.05	C & D/ABC	12143
		9:37	122623	54500	27.25	C & D/ABC	12143
		10:25	122643	56160	28.08	C & D/ABC	12143
		11:47	122670	48640	24.32	C & D/ABC	12143
		12:56	122686	53180	26.59	C & D/ABC	12143
		13:44	122706	44920	22.46	C & D/ABC	12143
8/09/12 TOTAL				**2156140**	**1078.07**	**C & D/ABC**	**12143**
				41 tickets			

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30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122598
DATE: 08/09/2012
TIME: 07:40 - 07:54

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR074 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91080 LBS(-AutoWt
TARE: 39800 LBS(-ManlWt
NET: 51280 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.6400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122608
DATE: 08/09/2012
TIME: 08:44 - 08:44

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR074 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88680 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 48880 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.4400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122625
DATE: 08/09/2012
TIME: 09:40 - 09:40

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CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 95140 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 39800 LBS(-AutoWt
TRUCK: VINAGR074 TRAILER:
NET: 55340 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.6700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122649
DATE: 08/09/2012
TIME: 10:37 - 10:37

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 94020 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 39800 LBS(-AutoWt
TRUCK: VINAGR074 TRAILER:
NET: 54220 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.1100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 122669
DATE: 08/09/2012
TIME: 11:32 - 11:32

CUSTOMER: LI01308 / C.D.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR074 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89660 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 49860 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.9300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122678
DATE: 08/09/2012
TIME: 12:30 - 12:30

CUSTOMER: LI01308 / C.D.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR074 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 93480 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 53680 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.8400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122699
DATE: 08/09/2012
TIME: 13:28 - 13:28

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR074 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91460 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 51660 LBS
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.8300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K. Hunter Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 122604
DATE: 08/09/2012
TIME: 08:12 - 08:30

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR055 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 94700 LBS(-AutoWt
TARE: 40300 LBS(-ManlWt
NET: 54400 LBS
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.2000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122613
DATE: 08/09/2012
TIME: 09:12 - 09:12

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 94960 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 40300 LBS(-AutoWt
TRUCK: VINAGRO55 TRAILER:
NET: 54660 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.3300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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30 NippNapp Trail
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TICKET: 122640
DATE: 08/09/2012
TIME: 10:15 - 10:15

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 95960 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 40300 LBS(-AutoWt
TRUCK: VINAGRO55 TRAILER:
NET: 55660 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.8300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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508-755-4604

TICKET: 122666
DATE: 08/09/2012
TIME: 11:21 - 11:21

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 97040 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 56740 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.3700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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TICKET: 122679
DATE: 08/09/2012
TIME: 12:32 - 12:32

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91780 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 51480 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.7400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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TICKET: 122701
DATE: 08/09/2012
TIME: 13:33 - 13:33

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92620 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 52320 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.1600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
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508-755-4604

TICKET: 122715
DATE: 08/09/2012
TIME: 14:33 - 14:33

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 98540 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 58240 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.1200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122602
DATE: 08/09/2012
TIME: 08:22 - 08:22

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 94300 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 36200 LBS(-AutoWt
TRUCK: VINAGRO70 TRAILER:
NET: 58100 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.0500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122623
DATE: 08/09/2012
TIME: 09:37 - 09:37

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 90700 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 36200 LBS(-AutoWt
TRUCK: VINAGRO70 TRAILER:
NET: 54500 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.2500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122643
DATE: 08/09/2012
TIME: 10:25 - 10:25

CUSTOMER: LI01308 / C.D.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 92360 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 36200 LBS(-AutoWt
TRUCK: VINAGR070 TRAILER:
NET: 56160 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.0800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122670
DATE: 08/09/2012
TIME: 11:47 - 11:47

CUSTOMER: LI01308 / C.D.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 84840 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 36200 LBS(-AutoWt
TRUCK: VINAGR070 TRAILER:
NET: 48640 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.3200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122686
DATE: 08/09/2012
TIME: 12:56 - 12:56

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89380 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 53180 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.5900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122706
DATE: 08/09/2012
TIME: 13:44 - 13:44

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 81120 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 44920 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.4600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122593
DATE: 08/09/2012
TIME: 07:32 - 07:32

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89640 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 50640 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.3200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122605
DATE: 08/09/2012
TIME: 08:33 - 08:33

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 85400 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 46400 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.2000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122620
DATE: 08/09/2012
TIME: 09:28 - 09:28

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 94040 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 55040 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.5200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122655
DATE: 08/09/2012
TIME: 10:46 - 10:46

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88860 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 49860 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.9300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122673
DATE: 08/09/2012
TIME: 11:56 - 11:56

CUSTOMER: LI01308 / C.O.W(12143) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 84280 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU TARE: 39000 LBS(-AutoWt
TRUCK: GALLAGHER1 TRAILER: NET: 45280 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.6400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122682
DATE: 08/09/2012
TIME: 12:45 - 12:45

CUSTOMER: LI01308 / C.O.W(12143) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 91580 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU TARE: 39000 LBS(-AutoWt
TRUCK: GALLAGHER1 TRAILER: NET: 52580 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.2900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122703
DATE: 08/09/2012
TIME: 13:38 - 13:38

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88360 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 49360 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.6800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122594
DATE: 08/09/2012
TIME: 07:35 - 07:

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:

ORIGIN: N.H. CMU / N. HIGH CMU

TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 96660 LBS(-AutoW

TARE: 39500 LBS(-Man

NET: 57160 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.5800	ST

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TICKET: 122607
DATE: 08/09/2012
TIME: 08:39 - 08:39

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAUB TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 94980 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 55480 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.7400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122621
DATE: 08/09/2012
TIME: 09:32 - 09:32

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAUB TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 93640 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 54140 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.0700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122657
DATE: 08/09/2012
TIME: 10:51 - 10:51

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92340 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 52840 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.4200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122672
DATE: 08/09/2012
TIME: 11:54 - 11:54

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92500 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 53000 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.5000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122683
DATE: 08/09/2012
TIME: 12:49 - 12:49

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91980 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 52480 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.2400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122705
DATE: 08/09/2012
TIME: 13:43 - 13:43

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 99360 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 59860 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.9300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122597
DATE: 08/09/2012
TIME: 07:44 - 07:44

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI21 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 95440 LBS(-AutoWt
TARE: 39400 LBS(-AutoWt
NET: 56040 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.0200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122609
DATE: 08/09/2012
TIME: 08:47 - 08:47

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI21 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 90580 LBS(-AutoWt
TARE: 39400 LBS(-AutoWt
NET: 51180 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.5900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122629
DATE: 08/09/2012
TIME: 09:48 - 09:48

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI21 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 90060 LBS(-AutoWt
TARE: 39400 LBS(-AutoWt
NET: 50660 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.3300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122653
DATE: 08/09/2012
TIME: 10:44 - 10:44

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI21 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 90860 LBS(-AutoWt
TARE: 39400 LBS(-AutoWt
NET: 51460 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.7300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122671
DATE: 08/09/2012
TIME: 11:49 - 11:49

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI21 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 87620 LBS(-AutoWt
TARE: 39400 LBS(-AutoWt
NET: 48220 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.1100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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Worcester,MA 01607
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TICKET: 122688
DATE: 08/09/2012
TIME: 13:00 - 13:00

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI21 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89800 LBS(-AutoWt
TARE: 39400 LBS(-AutoWt
NET: 50400 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.2000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

Date	Truck	Time	Ticket	lbs	tons	Material	Profile
8/10/2012	VINAGRO55	7:31	122727	50700	25.35	C & D/ABC	12143
		8:37	122757	49860	24.93	C & D/ABC	12143
		9:32	122773	46400	23.2	C & D/ABC	12143
		10:27	122786	47740	23.87	C & D/ABC	12143
		11:52	122816	48420	24.21	C & D/ABC	12143
		12:50	122831	48340	24.17	C & D/ABC	12143
	VINAGRO74	7:26	122726	45340	22.67	C & D/ABC	12143
		8:31	122754	48940	24.47	C & D/ABC	12143
		9:23	122771	46660	23.33	C & D/ABC	12143
		10:14	122782	49200	24.6	C & D/ABC	12143
		11:22	122809	48640	24.32	C & D/ABC	12143
		12:14	122823	42460	21.23	C & D/ABC	12143
	PARENTEAU8	7:37	122729	52120	26.06	C & D/ABC	12143
		8:39	122758	50500	25.25	C & D/ABC	12143
		9:37	122775	48560	24.28	C & D/ABC	12143
		11:00	122797	47740	23.87	C & D/ABC	12143
		11:59	122818	47300	23.65	C & D/ABC	12143
		12:59	122834	48460	24.23	C & D/ABC	12143
	MARTINI14	7:42	122736	48460	24.23	C & D/ABC	12143
		8:45	122762	48000	24	C & D/ABC	12143
		9:41	122776	47960	23.98	C & D/ABC	12143
		10:34	122789	46160	23.08	C & D/ABC	12143
		11:55	122817	48640	24.32	C & D/ABC	12143
		12:46	122832	473.4	23.67	C & D/ABC	12143
	VINAGRO70	8:23	122749	47780	23.89	C & D/ABC	12143
		9:08	122768	46260	23.13	C & D/ABC	12143
		10:01	122781	46120	23.06	C & D/ABC	12143
		10:52	122794	46300	23.15	C & D/ABC	12143
		12:18	122826	47380	23.69	C & D/ABC	12143
		13:21	122838	48120	24.06	C & D/ABC	12143
	GALLAGHER1	9:00	122767	47380	23.69	C & D/ABC	12143
		9:53	122778	45660	22.83	C & D/ABC	12143
		11:12	122804	50580	25.29	C & D/ABC	12143
		12:02	122819	46580	23.29	C & D/ABC	12143
		13:00	122835	45020	22.51	C & D/ABC	12143
		14:02	122848	45340	22.67	C & D/ABC	12143
8/10/12 TOTAL				**1669593**	**858.23**	**C & D/ABC**	**12143**
				36 tickets			

(1)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122727
DATE: 08/10/2012
TIME: 07:31 - 07:31

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91000 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 50700 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.3500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

(2)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122757
DATE: 08/10/2012
TIME: 08:37 - 08:37

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 90160 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 49860 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.9300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

(3)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122773
DATE: 08/10/2012
TIME: 09:32 - 09:32

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO55 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86700 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 46400 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.2000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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(4)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122786
DATE: 08/10/2012
TIME: 10:27 - 10:27

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO55 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88040 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 47740 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.8700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

(5)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122816
DATE: 08/10/2012
TIME: 11:52 - 11:52

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR055 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88720 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 48420 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.2100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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(6)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122831
DATE: 08/10/2012
TIME: 12:50 - 12:50

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR055 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88640 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 48340 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.1700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

1

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122726
DATE: 08/10/2012
TIME: 07:26 - 07:26

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 85140 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 45340 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.6700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K. Fuentes Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

2

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122754
DATE: 08/10/2012
TIME: 08:31 - 08:31

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88740 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 48940 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.4700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K. Fuentes Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

3

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122771
DATE: 08/10/2012
TIME: 09:23 - 09:23

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMU PROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86460 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 46660 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.3300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

4

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122782
DATE: 08/10/2012
TIME: 10:14 - 10:14

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89000 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 49200 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.6000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

5

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122809
DATE: 08/10/2012
TIME: 11:22 - 11:22

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88440 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 48640 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.3200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K Fuentes Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122823
DATE: 08/10/2012
TIME: 12:14 - 12:14

6

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 82260 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 42460 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	21.2300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K Fuentes Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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508-755-4604

TICKET: 122749
DATE: 08/10/2012
TIME: 08:23 - 08:23

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 83980 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 47780 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.8900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122768
DATE: 08/10/2012
TIME: 09:08 - 09:08

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 82460 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 46260 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.1300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122781
DATE: 08/10/2012
TIME: 10:01 - 10:01

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 82320 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 46120 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.0600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122794
DATE: 08/10/2012
TIME: 10:52 - 10:52

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 82500 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 46300 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.1500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122826
DATE: 08/10/2012
TIME: 12:18 - 12:18

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #: P.O.:
ORIGIN: N.H. CMU / N. HIGH CMU GROSS: 83580 LBS(-AutoWt
TRUCK: VINAGRO70 TRAILER: TARE: 36200 LBS(-AutoWt
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143 NET: 47380 LBS
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.6900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122838
DATE: 08/10/2012
TIME: 13:21 - 13:21

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #: P.O.:
ORIGIN: N.H. CMU / N. HIGH CMU GROSS: 84320 LBS(-AutoWt
TRUCK: VINAGRO70 TRAILER: TARE: 36200 LBS(-AutoWt
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143 NET: 48120 LBS
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.0600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122729
DATE: 08/10/2012
TIME: 07:37 - 07:37

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 91620 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAU8 TRAILER:
NET: 52120 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.0600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122758
DATE: 08/10/2012
TIME: 08:39 - 08:39

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 90000 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAU8 TRAILER:
NET: 50500 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.2500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122775
DATE: 08/10/2012
TIME: 09:37 - 09:37

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 88060 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAUS TRAILER:
NET: 48560 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.2800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122797
DATE: 08/10/2012
TIME: 11:00 - 11:00

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 87240 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAUS TRAILER:
NET: 47740 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.8700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122818
DATE: 08/10/2012
TIME: 11:59 - 11:59

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86800 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 47300 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.6500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122834
DATE: 08/10/2012
TIME: 12:59 - 12:59

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 87960 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 48460 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.2300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122736
DATE: 08/10/2012
TIME: 07:42 - 07:56

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 87160 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 38700 LBS(-ManlWt
TRUCK: MARTINI14 TRAILER:
NET: 48460 LBS
GENERATOR: N.H. CMU / N. HIGH CMPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.2300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Russ Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122762
DATE: 08/10/2012
TIME: 08:45 - 08:45

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 86700 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 38700 LBS(-AutoWt
TRUCK: MARTINI14 TRAILER:
NET: 48000 LBS
GENERATOR: N.H. CMU / N. HIGH CMPROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.0000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Russ Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122776
DATE: 08/10/2012
TIME: 09:41 - 09:41

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI14 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86660 LBS(-AutoWt
TARE: 38700 LBS(-AutoWt
NET: 47960 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.9800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Russ Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122789
DATE: 08/10/2012
TIME: 10:34 - 10:34

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI14 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 84860 LBS(-AutoWt
TARE: 38700 LBS(-AutoWt
NET: 46160 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.0800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Russ Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 122817
DATE: 08/10/2012
TIME: 11:55 - 11:55

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI14 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 87340 LBS(-AutoWt
TARE: 38700 LBS(-AutoWt
NET: 48640 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.3200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Bun Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 122832
DATE: 08/10/2012
TIME: 12:56 - 12:56

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI14 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86040 LBS(-AutoWt
TARE: 38700 LBS(-AutoWt
NET: 47340 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.6700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Bun Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 122767
DATE: 08/10/2012
TIME: 09:00 - 09:00

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86380 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 47380 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.6900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122778
DATE: 08/10/2012
TIME: 09:53 - 09:53

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 84660 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 45660 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.8300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122804
DATE: 08/10/2012
TIME: 11:12 - 11:12

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89580 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 50580 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.2900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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TICKET: 122819
DATE: 08/10/2012
TIME: 12:02 - 12:02

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 85580 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 46580 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.2900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122835
DATE: 08/10/2012
TIME: 13:00 - 13:00

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 84020 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 45020 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.5100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
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TICKET: 122848
DATE: 08/10/2012
TIME: 14:02 - 14:02

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: GALLAGHER1 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 84340 LBS(-AutoWt
TARE: 39000 LBS(-AutoWt
NET: 45340 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.6700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

Date	Truck	Time	Ticket	lbs	tons	Material	Profile
8/13/2012	VINAGRO55	7:23	122864	56940	28.47	C & D/ABC	12143
		8:31	122886	52740	26.37	C & D/ABC	12143
		9:28	122903	61880	30.94	C & D/ABC	12143
		10:26	122923	52940	26.47	C & D/ABC	12143
		11:25	122943	52120	26.06	C & D/ABC	12143
		12:28	122965	55520	27.76	C & D/ABC	12143
	VINAGRO74	7:35	122867	53140	26.57	C & D/ABC	12143
		8:35	122889	54820	27.41	C & D/ABC	12143
		9:33	122904	46720	23.36	C & D/ABC	12143
		10:30	122925	47360	23.68	C & D/ABC	12143
		11:30	122945	44900	22.45	C & D/ABC	12143
		12:27	122964	48240	24.12	C & D/ABC	12143
		13:26	122981	53380	26.69	C & D/ABC	12143
	VINAGRO70	8:06	122880	51820	25.91	C & D/ABC	12143
		8:54	122898	54800	27.4	C & D/ABC	12143
		9:44	122911	55800	27.9	C & D/ABC	12143
		10:40	122930	55800	27.9	C & D/ABC	12143
		11:42	122952	53360	26.68	C & D/ABC	12143
		12:30	122966	49680	24.84	C & D/ABC	12143
		13:29	122983	48620	24.31	C & D/ABC	12143
	PARENTEAU8	7:38	122869	51420	25.71	C & D/ABC	12143
		8:40	122892	55760	27.88	C & D/ABC	12143
		9:40	122908	51840	25.92	C & D/ABC	12143
		10:37	122928	57980	28.99	C & D/ABC	12143
		11:35	122948	52700	26.35	C & D/ABC	12143
		12:34	122968	57960	28.98	C & D/ABC	12143
		13:31	122984	48360	24.18	C & D/ABC	12143
	MARTINI16	7:41	122870	52940	26.47	C & D/ABC	12143
		8:43	122894	53660	26.83	C & D/ABC	12143
		9:42	122910	49220	24.61	C & D/ABC	12143
		10:43	122931	51500	25.75	C & D/ABC	12143
		11:40	122951	49080	24.54	C & D/ABC	12143
		12:39	122971	56680	28.34	C & D/ABC	12143
		13:37	122986	51700	25.85	C & D/ABC	12143
8/13/12 TOTAL				**1791380**	**895.69**	**C & D/ABC**	**12143**
				34 tickets			

(1)

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122864
DATE: 08/13/2012
TIME: 07:23 - 07:23

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR055 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 97240 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 56940 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.4700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122886
DATE: 08/13/2012
TIME: 08:31 - 08:31

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR055 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 93040 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 52740 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.3700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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30 HippNapp Trail
Worcester,MA 01607
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TICKET: 122903
DATE: 08/13/2012
TIME: 09:28 - 09:28

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 102180 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 61880 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	30.9400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122923
DATE: 08/13/2012
TIME: 10:26 - 10:26

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 93240 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 52940 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.4700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122943
DATE: 08/13/2012
TIME: 11:25 - 11:25

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92420 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 52120 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.0600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122965
DATE: 08/13/2012
TIME: 12:28 - 12:28

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGROSS TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 95820 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 55520 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.7600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
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508-755-4604

TICKET: 122867
DATE: 08/13/2012
TIME: 07:35 - 07:35

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CUSTOMER: LI01308 / C.D.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92940 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 53140 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.5700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K. Fuentes Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122889
DATE: 08/13/2012
TIME: 08:35 - 08:35

2

CUSTOMER: LI01308 / C.D.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 94620 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 54820 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.4100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K. Fuentes Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122904
DATE: 08/13/2012
TIME: 09:33 - 09:33

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86520 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 46720 LBS
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.3600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K. [signature] Weighmaster: [signature]

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122925
DATE: 08/13/2012
TIME: 10:30 - 10:30

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CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 87160 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 47360 LBS
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	23.6800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K. [signature] Weighmaster: [signature]

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122945
DATE: 08/13/2012
TIME: 11:30 - 11:30

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR074 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 84700 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 44900 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.4500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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News of Worcester Landfill
30 HippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 122964
DATE: 08/13/2012
TIME: 12:27 - 12:27

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR074 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88040 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 48240 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.1200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122981
DATE: 08/13/2012
TIME: 13:26 - 13:26

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 93180 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 53380 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.6900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122880
DATE: 08/13/2012
TIME: 08:06 - 08:06

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88020 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 51820 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.9100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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orcester,MA 01607
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TICKET: 122898
DATE: 08/13/2012
TIME: 08:54 - 08:54

CUSTOMER: LI01308 / C.O.W(12143) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 91000 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU TARE: 36200 LBS(-AutoWt
TRUCK: VINAGR070 TRAILER: NET: 54800 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.4000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122911
DATE: 08/13/2012
TIME: 09:44 - 09:44

CUSTOMER: LI01308 / C.O.W(12143) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 92000 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU TARE: 36200 LBS(-AutoWt
TRUCK: VINAGR070 TRAILER: NET: 55800 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.9000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122930
DATE: 08/13/2012
TIME: 10:40 - 10:40

This is a Reprint Ticket

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR070 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92000 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 55800 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.9000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122952
DATE: 08/13/2012
TIME: 11:42 - 11:42

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGR070 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89560 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 53360 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.6800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122966
DATE: 08/13/2012
TIME: 12:30 - 12:30

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 85880 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 49680 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.8400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122983
DATE: 08/13/2012
TIME: 13:29 - 13:29

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: VINAGRO70 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 84820 LBS(-AutoWt
TARE: 36200 LBS(-AutoWt
NET: 48620 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.3100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122869
DATE: 08/13/2012
TIME: 07:38 - 07:38

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAUB TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 90920 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 51420 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.7100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122892
DATE: 08/13/2012
TIME: 08:40 - 08:40

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAUB TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 95260 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 55760 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.8800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122908
DATE: 08/13/2012
TIME: 09:40 - 09:40

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAUB TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91340 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 51840 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.9200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122928
DATE: 08/13/2012
TIME: 10:37 - 10:37

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAUB TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 97480 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 57980 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.9900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122948
DATE: 08/13/2012
TIME: 11:35 - 11:35

CUSTOMER: LI01308 / C.D.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92200 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 52700 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.3500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
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TICKET: 122968
DATE: 08/13/2012
TIME: 12:34 - 12:34

CUSTOMER: LI01308 / C.D.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 97460 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 57960 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.9800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122984
DATE: 08/13/2012
TIME: 13:31 - 13:31

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 87860 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 48360 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.1800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122870
DATE: 08/13/2012
TIME: 07:41 - 07:41

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI16 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89240 LBS(-AutoWt
TARE: 36300 LBS(-AutoWt
NET: 52940 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.4700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122894
DATE: 08/13/2012
TIME: 08:43 - 08:43

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI16 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89960 LBS(-AutoWt
TARE: 36300 LBS(-AutoWt
NET: 53660 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.8300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122910
DATE: 08/13/2012
TIME: 09:42 - 09:42

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI16 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMUROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 85520 LBS(-AutoWt
TARE: 36300 LBS(-AutoWt
NET: 49220 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.6100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122931
DATE: 08/13/2012
TIME: 10:43 - 10:43

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI16 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 87800 LBS(-AutoWt
TARE: 36300 LBS(-AutoWt
NET: 51500 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.7500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
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TICKET: 122951
DATE: 08/13/2012
TIME: 11:40 - 11:40

CUSTOMER: LI01308 / C.O.W(12143)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.H. CMU / N. HIGH CMU
TRUCK: MARTINI16 TRAILER:
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 85380 LBS(-AutoWt
TARE: 36300 LBS(-AutoWt
NET: 49080 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.5400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122971
DATE: 08/13/2012
TIME: 12:39 - 12:39

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 92980 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 36300 LBS(-AutoWt
TRUCK: MARTINI16 TRAILER:
NET: 56680 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	28.3400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 122986
DATE: 08/13/2012
TIME: 13:37 - 13:37

CUSTOMER: LI01308 / C.O.W(12143)
P.O.:
HAULCUST: WO: 0 APPROVAL #:
GROSS: 88000 LBS(-AutoWt
ORIGIN: N.H. CMU / N. HIGH CMU
TARE: 36300 LBS(-AutoWt
TRUCK: MARTINI16 TRAILER:
NET: 51700 LBS
GENERATOR: N.H. CMU / N. HIGH CMDROFILE #: 12143
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.8500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

Date	Truck	Time	Ticket	lbs	tons	Material	Profile
8/14/2012	VINAGRO55	7:56	123027	41220	20.61	C & D/ABC	12144
		8:56	123040	59020	29.51	C & D/ABC	12144
		10:03	123060	67960	33.98	C & D/ABC	12144
		11:14	123081	45180	22.59	C & D/ABC	12144
		12:13	123093	54700	27.35	C & D/ABC	12144
		13:10	123102	53120	26.56	C & D/ABC	12144
		14:16	123121	55720	27.86	C & D/ABC	12144
	VINAGRO74	8:11	123030	48880	24.44	C & D/ABC	12144
		9:06	123042	52620	26.31	C & D/ABC	12144
		10:14	123063	64860	32.43	C & D/ABC	12144
		11:19	123083	50160	25.08	C & D/ABC	12144
		12:20	123095	48280	24.14	C & D/ABC	12144
		13:18	123104	49900	24.95	C & D/ABC	12144
		14:20	123123	54220	27.11	C & D/ABC	12144
	PARENTEAU8	7:46	123024	58200	29.1	C & D/ABC	12144
		8:48	123039	60800	30.4	C & D/ABC	12144
		9:46	123055	61440	30.72	C & D/ABC	12144
		10:55	123076	62960	31.48	C & D/ABC	12144
		11:54	123090	55340	27.67	C & D/ABC	12144
		12:58	123100	51600	25.8	C & D/ABC	12144
		13:55	123118	53560	26.78	C & D/ABC	12144
	MARTINI20	8:22	123033	59060	29.53	C & D/ABC	12144
		9:24	123044	62140	31.07	C & D/ABC	12144
		10:23	123067	60100	30.05	C & D/ABC	12144
		11:24	123086	49780	24.89	C & D/ABC	12144
		12:34	123097	55080	27.54	C & D/ABC	12144
		13:32	123108	53060	26.53	C & D/ABC	12144
		14:33	123129	50500	25.25	C & D/ABC	12144
8/14/12 TOTAL				**1539460**	**769.73**	**C & D/ABC**	**12144**
				28 tickets			

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TICKET: 123024
DATE: 08/14/2012
TIME: 07:46 07:46

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 97700 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAUB TRAILER: NET: 58200 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.1000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 HippNapp Trail
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508-755-4604

TICKET: 123039
DATE: 08/14/2012
TIME: 08:48 - 08:48

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 100300 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAUB TRAILER: NET: 60800 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	30.4000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123055
DATE: 08/14/2012
TIME: 09:46 - 09:46

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 100940 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAUB TRAILER: NET: 61440 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	30.7200	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123076
DATE: 08/14/2012
TIME: 10:55 - 10:56

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 102460 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAUB TRAILER: NET: 62960 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	31.4800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123090
DATE: 08/14/2012
TIME: 11:54 - 11:54

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 94840 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 55340 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.6700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123100
DATE: 08/14/2012
TIME: 12:58 - 12:58

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: PARENTEAU8 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91100 LBS(-AutoWt
TARE: 39500 LBS(-AutoWt
NET: 51600 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.8000	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123118
DATE: 08/14/2012
TIME: 13:55 - 13:55

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 93060 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 39500 LBS(-AutoWt
TRUCK: PARENTEAU8 TRAILER: NET: 53560 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.7800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123033
DATE: 08/14/2012
TIME: 08:22 - 08:22

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 95960 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 36900 LBS(-AutoWt
TRUCK: MARTINI20 TRAILER: NET: 59060 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.5300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123044
DATE: 08/14/2012
TIME: 09:24 - 09:24

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 99040 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 36900 LBS(-AutoWt
TRUCK: MARTINI20 TRAILER: NET: 62140 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	31.0700	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123067
DATE: 08/14/2012
TIME: 10:23 - 10:23

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 97000 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 36900 LBS(-AutoWt
TRUCK: MARTINI20 TRAILER: NET: 60100 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	30.0500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123086
DATE: 08/14/2012
TIME: 11:24 - 11:24

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: MARTINI20 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 86680 LBS(-AutoWt
TARE: 36900 LBS(-AutoWt
NET: 49780 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.8900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123097
DATE: 08/14/2012
TIME: 12:34 - 12:34

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: MARTINI20 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 91980 LBS(-AutoWt
TARE: 36900 LBS(-AutoWt
NET: 55080 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.5400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123108
DATE: 08/14/2012
TIME: 13:32 - 13:32

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: MARTINI20 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89960 LBS(-AutoWt
TARE: 36900 LBS(-AutoWt
NET: 53060 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.5300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123129
DATE: 08/14/2012
TIME: 14:33 - 14:33

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: MARTINI20 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 87400 LBS(-AutoWt
TARE: 36900 LBS(-AutoWt
NET: 50500 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.2500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123027
DATE: 08/14/2012
TIME: 07:56 - 07:56

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 81520 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 40300 LBS(-AutoWt
TRUCK: VINAGROSS TRAILER: NET: 41220 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	20.6100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123040
DATE: 08/14/2012
TIME: 08:56 - 08:

508-755-4604

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 99320 LBS(-AutoW
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 40300 LBS(-Aut
TRUCK: VINAGROSS TRAILER: NET: 59020 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	29.5100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

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TICKET: 123060
DATE: 08/14/2012
TIME: 10:03 - 10:03

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 108260 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 40300 LBS(-AutoWt
TRUCK: VINAGROSS TRAILER: NET: 67960 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	33.9800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123081
DATE: 08/14/2012
TIME: 11:14 - 11:14

This is a Reprint Ticket

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 85480 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 40300 LBS(-AutoWt
TRUCK: VINAGROSS TRAILER: NET: 45180 LBS
GENERATOR: N.H. CMU / N. HIGH CMBROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.5900	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123093
DATE: 08/14/2012
TIME: 12:13 - 12:13

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 95000 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 40300 LBS(-AutoWt
TRUCK: VINAGROSS TRAILER: NET: 54700 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.3500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123102
DATE: 08/14/2012
TIME: 13:10 - 13:10

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 93420 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 40300 LBS(-AutoWt
TRUCK: VINAGROSS TRAILER: NET: 53120 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.5600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123121
DATE: 08/14/2012
TIME: 14:16 - 14:16

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: VINAGR055 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 96020 LBS(-AutoWt
TARE: 40300 LBS(-AutoWt
NET: 55720 LBS
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.8600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: _____ Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123030
DATE: 08/14/2012
TIME: 08:11 - 08:11

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: VINAGR074 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88680 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 48880 LBS
CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.4400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K Fuentes Weighmaster: _____

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123042
DATE: 08/14/2012
TIME: 09:06 - 09:06

CUSTOMER: LI01309 / C.D.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 92420 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 52620 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	26.3100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123063
DATE: 08/14/2012
TIME: 10:14 - 10:14

CUSTOMER: LI01309 / C.D.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 104660 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 64860 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	32.4300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123083
DATE: 08/14/2012
TIME: 11:19 - 11:19

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89960 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 50160 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	25.0800	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K Gunter Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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508-755-4604

TICKET: 123095
DATE: 08/14/2012
TIME: 12:20 - 12:20

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 88080 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 48280 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.1400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K Gunter Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

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TICKET: 123104
DATE: 08/14/2012
TIME: 13:18 - 13:18

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CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 89700 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 49900 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.9500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester, MA 01607
508-755-4604

TICKET: 123123
DATE: 08/14/2012
TIME: 14:20 - 14:20

7

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0 APPROVAL #:
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: VINAGRO74 TRAILER:
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT:

P.O.:
GROSS: 94020 LBS(-AutoWt
TARE: 39800 LBS(-AutoWt
NET: 54220 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	27.1100	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

Date	Truck	Time	Ticket	lbs	tons	Material	Profile
8/15/2012	VINAGRO74	7:50	123140	48920	24.46	C & D/ABC	12144
		11:59	123167	41280	20.64	C & D/ABC	12144
	PARENTEAU8	7:35	123137	45260	22.63	C & D/ABC	12144
		8:42	123145	49500	24.75	C & D/ABC	12144
8/15/12 TOTAL				**184960**	**92.48**	**C & D/ABC**	**12144**
				4 tickets			

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 123140
DATE: 08/15/2012
TIME: 07:50 - 07:50

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 88720 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 39800 LBS(-AutoWt
TRUCK: VINAGR074 TRAILER: NET: 48920 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.4600	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K Fuentes Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

2

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 123167
DATE: 08/15/2012
TIME: 11:59 - 11:59

CUSTOMER: LI01309 / C.O.W.(12144) P.O.:
HAULCUST: WO: 0 APPROVAL #: GROSS: 81080 LBS(-AutoWt
ORIGIN: N.HIGH A / N.HIGH ABC TARE: 39800 LBS(-AutoWt
TRUCK: VINAGR074 TRAILER: NET: 41280 LBS
GENERATOR: N.HIGH A / N.HIGH ABCPROFILE #: 12144
HAULER: NA / Non App ROUTE: NA / Non App
COMMENT: CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	20.6400	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver: K Fuentes Weighmaster:

IN: BECKY B: PCSCALE-WO OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 123137
DATE: 08/15/2012
TIME: 07:35 - 07:35

This is a Reprint Ticket

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: PARENTEAU8
GENERATOR: N.HIGH A / N.HIGH ABC
HAULER: NA / Non App
COMMENT:

APPROVAL #:
TRAILER:
PROFILE #: 12144
ROUTE: NA / Non App

P.O.:
GROSS: 84760 LBS <-AutoW
TARE: 39500 LBS <-AutoW
NET: 45260 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	22.6300	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver:
IN: BECKY B: PCSCALE-WO

Weighmaster:
OUT: BECKY B: PCSCALE-WO

News of Worcester Landfill
30 NippNapp Trail
Worcester,MA 01607
508-755-4604

TICKET: 123145
DATE: 08/15/2012
TIME: 08:42 - 08:42

This is a Reprint Ticket

CUSTOMER: LI01309 / C.O.W.(12144)
HAULCUST: WO: 0
ORIGIN: N.HIGH A / N.HIGH ABC
TRUCK: PARENTEAU8
GENERATOR: N.HIGH A / N.HIGH ABC
HAULER: NA / Non App
COMMENT:

APPROVAL #:
TRAILER:
PROFILE #: 12144
ROUTE: NA / Non App

P.O.:
GROSS: 89000 LBS <-AutoW
TARE: 39500 LBS <-AutoW
NET: 49500 LBS

CELL/TANK: NA

MATERIAL	QUANTITY	UNIT
CD / ASPHUALT,BRICK,CONCRETE	24.7500	ST

I Hereby Declare That I Have NOT Disposed Of Any Liquid Or Hazardous Waste

Driver:
IN: BECKY B: PCSCALE-WO

Weighmaster:
OUT: BECKY B: PCSCALE-WO

Appendix H-6

PCB Remediation Waste – Stucco & Materials That Absorbed PCBs

WASTE SHIPMENT RECORD

11-250-1

GENERATOR

1. Work site (Generator): Name North High school; Mailing Address 150 HARRINGTON WAY; City/State/Zip WORCESTER, MA	Owner's Name: City of Worcester, Louis Gloria, Clerk of Works	Owner's telephone no. 508 799 858
2. Remover's name and address: Southern Middlesex Insulation, 823 Pleasant St., Norwood, MA. 02062		Remover's telephone no. (781) 769-9310
3. Waste Disposal site (WDS): Name WASTE MANAGEMENT; Mailing Address 97 Rochester Neck RD.; City/State/Zip Rochester, NH	WDS telephone no. 603 330 2165	
Physical Site Location: Same	Additional Information: Profile No. 489636	

4. Name and address of responsible agency

U.S. EPA Region 1

5. Description of materials	6. Containers No.	Type	7. Total quantity m³ (yd³)
RQ, ASBESTOS, 9, NA2212, III RQ = 1 LB (ONE POUND)	1	30Y	30Y

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667

Can # 3095

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month / Day / Year
William McELROY SUPERVISOR	William McElroy	5 8 12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month / Day / Year
Carl Sherman	Carl Sherman	05/08/12
Address and telephone no.: RED Technologies LLC. 10 Northwood Dr. Bloomfield, CT 06002 860-342-1022		

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month / Day / Year
Address and telephone no.		

DISPOSAL SITE

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month / Day / Year
E Metzler SO	[signature]	5 9 12

ORIGINAL RETURN TO GENERATOR

WASTE SHIPMENT RECORD

11-250/2 09

GENERATOR

1. Work site (Generator):
Name: North High School
Mailing Address: 160 Harrington Way
City/State/Zip: Worcester, MA

Owner's Name: Louis Roy, Clerk of Works

Owner's telephone no.: 508 799 58

2. Remover's name and address: Southern Middlesex Insulation, 823 Pleasant St Norwood, MA 02062

Remover's telephone no.: 781 769-9310

3. Waste Disposal site (WDS):
Name: Waste Management
Mailing Address: 91 Rochester Neck Rd.
City/State/Zip: Rochester, NH

WDS telephone no: (603) 330-2165

Physical Site Location: SAME

Additional Information:

Profile No. 489636

4. Name and address of responsible agency

U.S. EPA Region 1

5. Description of materials

RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers
No.: 1
Type: 30 YD

7. Total quantity m³ (yd³): 30 YD

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can # 4010

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title: William McElroy
Signature: William McElroy
Month 5 Day 11 Year 12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title: Carl Sherman
Signature: Carl Sherman
Month 05 Day 11 Year 12

Address and telephone no.: RED Technologies LLC, 10 Northwood Dr. 860, Bloomfield, CT 06002 342-1022

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title: Carl Sherman
Signature: Carl Sherman
Month 05 Day 14 Year 12

Address and telephone no.: RED Technologies LLC, 10 Northwood Dr, Bloomfield, CT 06002
860-342-1022

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

DISPOSAL SITE

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title: Phil Brown
Signature:
Month 5 Day 15 Year 12

ORIGINAL - RETURN TO GENERATOR

WASTE SHIPMENT RECORD 11-250/309

GENERATOR

1. Work site (Generator):
Name: North High school
Mailing Address: 150 HARRINGTON WAY
City/State/Zip: WORCESTER, MA 01604

Owner's Name: Dennis Lamb, Clerk of works

Owner's telephone no.: 508 799 8578

2. Remover's name and address: Southern Middlesex Insulation
823 Pleasant St Norwood, MA 02062

Remover's telephone no.: 781 769-9310

3. Waste Disposal site (WDS):
Name: Waste Management
Mailing Address: 97 Rochester Neck Rd.
City/State/Zip: Rochester, NH.

WDS telephone no.: (603) 330-2165

Physical Site Location: SAME

Additional Information:

Profile No. 489636

4. Name and address of responsible agency
U.S. EPA Region 1

5. Description of materials
RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers
No. 001
Type 40yd

7. Total quantity
m³ (yd³) 30yd

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can #4002

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month	Day	Year
William McElroy	William McElroy	5	11	12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman	Carl Sherman	05	11	12

Address and telephone no.: RED Technologies LLC. 10 Northwood Dr Bloomfield, CT 06002 860-342-1022

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman	Carl Sherman	05	15	12

Address and telephone no.: RED Technologies LLC 10 Northwood Dr Bloomfield, CT 06002 860-342-1022

DISPOSAL SITE

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month	Day	Year
Philip Barnes	[signature]	5	16	12

ORIGINAL - RETURN TO GENERATOR

WASTE SHIPMENT RECORD

11-250/409

GENERATOR

1. Work site (Generator):
Name: NORTH High school
Mailing Address: 150 HARRINGTON WAY
City/State/Zip: WORCESTER, MA 01604

Owner's Name: [illegible] Clerk of Works

Owner's telephone no.: 5087998588

2. Remover's name and address: SOUTHERN MIDDLESEX INSULATION
823 PLEASANT ST. NORWOOD, MA 02062

Remover's telephone no.: 781 769-9310

3. Waste Disposal site (WDS):
Name: WASTE MANAGEMENT
Mailing Address: 97 Rochester Neck Rd
City/State/Zip: Rochester NH

WDS telephone no.: (603) 330-2165

Additional Information:

Physical Site Location: SAME

Profile No.: 489636

4. Name and address of responsible agency
U.S. EPA Region 1

5. Description of materials
RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers
No.: 1
Type: 40Y

7. Total quantity m³ (yd³): 40Y

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can # 4086

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month	Day	Year
William McELROY SUPERVISOR	William McElroy	5	15	12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman	Carl Sherman	05	15	12

Address and telephone no.: RED Technologies LLC
10 Northwood Dr
Bloomfield, CT 06002
860-342-1022

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman	Carl Sherman	05	16	12

Address and telephone no.: RED Technologies LLC
10 Northwood Dr.
Bloomfield, CT 06002
860-342-1022

DISPOSAL SITE

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month	Day	Year
Philip Barsuto	[signature]	5	17	12

ORIGINAL - RETURN TO GENERATOR

WASTE SHIPMENT RECORD

9 40,44
11-250-5

GENERATOR

1. Work site (Generator):
Name: NORTH HIGH SCHOOL
Mailing Address: 150 HARRINGTON WAY
City/State/Zip: WORCESTER MA 01604

Owner's Name: Louis [illegible] Clerk of Works

Owner's telephone no.: 508 799 85[illegible]

2. Remover's name and address:
SOUTHERN MIDDLESEX INSULATION
823 PLEASANT St. NORWOOD MA 02062

Remover's telephone no.: 781-769-93[illegible]

3. Waste Disposal site (WDS):
Name: WASTE MANAGEMENT
Mailing Address: 97 ROCHESTER NECK Rd.
City/State/Zip: ROCHESTER N.H.

WDS telephone no.: 603 330 - 2165

Physical Site Location: SAME

Additional Information:

Profile No. 489636

4. Name and address of responsible agency
U.S. EPA REGION 2

5. Description of materials
RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers
No.: 1
Type: 40yd.

7. Total quantity m³ (yd³): 40y

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can # 4044

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month Day Year
William McELROY SUPERVISOR	William McElroy	5-16-12

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Kevin EDMISTON	[signature]	5-16-12
Address and telephone no.: 10 Northwood Dr, Blmfld, CT 06002 860-218-2428		

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Carl Sherman	Carl Sherman	05-22-12
Address and telephone no.: RED Technologies LLC 10 Northwood Dr Bloomfield, CT 06002	860-342-1022	

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
EMetcalf SO	[signature]	5 23 17

ORIGINAL RETURN TO GENERATOR

WASTE SHIPMENT RECORD 11-250-609

GENERATOR

1. Work site (Generator):
Name: NORTH HIGH SCHOOL
Mailing Address: 150 HARRINGTON WAY
City/State/Zip: WORCESTER MA 01604

Owner's Name: Doris Kae Chakoparks

Owner's telephone no.: 508 798 688

2. Remover's name and address:
SOUTHERN MIDDLESEX INSULATION
823 PLEASANT ST. NORWOOD MA 02062

Remover's telephone no.: 781-769-9310

3. Waste Disposal site (WDS):
Name: WASTE MANAGEMENT
Mailing Address: 97 ROCHESTER NECK RD.
City/State/Zip: ROCHESTER N.H.

WDS telephone no.: 603 330-2165

Physical Site Location: SAME

Additional Information:

Profile No. 489636

4. Name and address of responsible agency
U.S. EPA REGION 2

5. Description of materials
RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers
No. 1 Type 40 yd

7. Total quantity m³ (yd³)
40 y

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can #4013

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month	Day	Year
William McElroy Supervisor	William McElroy	5	16	12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman	Carl Sherman	05	16	12

Address and telephone no.: RED Technologies LLC, 10 Northwood Dr, Bloomfield, CT 06002 — 860-342-1022

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman	Carl Sherman	05	21	12

Address and telephone no.: RED Technologies LLC, 10 Northwood Dr, Bloomfield, CT 06002 — 860-342-1022

DISPOSAL SITE

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month	Day	Year
[illegible]	[illegible]	5	22	12

ORIGINAL - RETURN TO GENERATOR

WASTE SHIPMENT RECORD

4002 | 09

11-250/7

GENERATOR

1. Work site (Generator):
Name: NORTH High School
Mailing Address: 150 HARRINGTON WAY
City/State/Zip: WORCESTER, MA 01604

Owner's Name: [signature]

Owner's telephone no.: 5082898 58

2. Remover's name and address: Southern MIDDlesex INSULATION
823 pleasant ST. NORWOOD, MA 02062

Remover's telephone no.: 781 769-9310

3. Waste Disposal site (WDS):
Name: WASTE MANAgement
Mailing Address: 97 Rochester Neck Rd.
City/State/Zip: Rochester, N.H.

WDS telephone no. (603) 330-2165

Physical Site Location: SAME

Additional Information:

Profile No. 489636

4. Name and address of responsible agency
U.S. EPA Region 2

5. Description of materials
RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers
No. 1 Type 40 Y

7. Total quantity m³ (yd³) 40 Y

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can# 4002

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month	Day	Year
William McElroy SUPERVISOR	William McElroy	5	17	12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Kevin EDMISTON DRIVER	[signature]	5	17	12

Address and telephone no.: 10 Northwood DR, BLMFD, CT 06002 860-218-2428

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman	Carl Sherman	05	23	12

Address and telephone no.: RED Technologies LLC 10 Northwood Dr. Bloomfield, CT 06002 860-342-1022

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month	Day	Year
G McFeler SO	[signature]	5	24	12

ORIGINAL RETURN TO GENERATOR

WASTE SHIPMENT RECORD

07
11-250/8

GENERATOR

1. Work site (Generator):
Name: NORTH High school
Mailing Address: 150 HARRINGTON WAY
City/State/Zip: WORCESTER, MA 01604

Owner's Name: Louis Gloy
Clerk of Works

Owner's telephone no.: 5287998588

2. Remover's name and address:
SOUTHERN MIDDLESEX INSULATION
823 PLEASANT ST. NORWOOD MA, 02062

Remover's telephone no.: 781 ~~603~~ 769-9310

3. Waste Disposal site (WDS):
Name: WASTE MANAGEMENT
Mailing Address: 9 TT ROCHESTER NECK Rd.
City/State/Zip: ROCHESTER, NH

WDS telephone no.: 603-330-2165

Physical Site Location: SAME

Additional Information:

Profile No. 489636

4. Name and address of responsible agency
U.S. EPA Region 1

5. Description of materials
RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers
No.: 1
Type: 40Y

7. Total quantity m³ (yd³): 40Y

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can #4024

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month	Day	Year
William McELROY SUPERVISOR	William McElroy	5	18	12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman	Carl Sherman	05	18	12

Address and telephone no.: RED Technologies LLC
10 Northwood Dr.
Bloomfield, CT 06002
860-342-1022

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman RED Technologies LLC	Carl Sherman	05	29	12

Address and telephone no.: 10 Northwood Dr.
Bloomfield, CT 06002
860-342-1022

DISPOSAL SITE

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month	Day	Year
Phillip Bose	[signature]	5/30/12		

ORIGINAL - RETURN TO GENERATOR

WASTE SHIPMENT RECORD 11-250-909

GENERATOR

1. Work site (Generator):
Name: NORTH High school
Mailing Address: 150 HARRINGTON WAY
City/State/Zip: WORCESTER, MA 01604

Owner's Name: Paul Rogers Clerk of Works

Owner's telephone no.: 5087798568

2. Remover's name and address: Southern MIDDIESEX INSULATION 823 PLEASANT ST. NORWOOD, MA 02062

Remover's telephone no.: (781) 769-9310

3. Waste Disposal site (WDS):
Name: WASTE MANAGEMENT
Mailing Address: 97 Rochester Neck Rd.
City/State/Zip: Rochester, N.H.

WDS telephone no.: (603) 330-2165

Physical Site Location: SAME

Additional Information:

Profile No. 4 8 9 6 3 6

4. Name and address of responsible agency
U.S. EPA Region 1

5. Description of materials
RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers No. 1 Type 40Y

7. Total quantity m³ (yd³) 40Y

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can #4042

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month	Day	Year
William McElroy Supervisor	William McElroy	5	23	12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Kevin Edmiston	Kevin Edmiston	5	23	12

Address and telephone no.: 10 Northwood DR BLMFD, CT 06002 860-318-2425

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month	Day	Year
Carl Sherman RED Technologies	Carl Sherman	05	30	12

Address and telephone no.: 10 Northwood Dr. Bloomfield, CT 06002 860-342-1022

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month	Day	Year
Phillip Bassett	[illegible]	5	31	12

ORIGINAL RETURN TO GENERATOR

WASTE SHIPMENT RECORD 11-250-10 (430)

GENERATOR

1. Work site (Generator):
Name: NORTH High School
Mailing Address: 150 HARRINGTON WAY
City/State/Zip: WORCESTER, MA 01604

Owner's Name: Louis [illegible] Clerk of Works

Owner's telephone no.: 5081998588

2. Remover's name and address: SOUTHERN MIDDLESEX INSULATION
823 PLEASANT ST. NORWOOD, MA. 02062

(781) Remover's telephone no.: 769-9310

3. Waste Disposal site (WDS):
Name: WASTE MANAGEMENT
Mailing Address: 97 ROCHESTER NECK Rd.
City/State/Zip: ROCHESTER, N.H.

WDS telephone no.: (603) 330-2165

Physical Site Location: SAME

Additional Information:

Profile No. 489636

4. Name and address of responsible agency
U.S. EPA Region 1

5. Description of materials
RQ, ASBESTOS, 9, NA2212, III
RQ = 1 LB (ONE POUND)

6. Containers
No.: 1
Type: 40Y

7. Total quantity m³ (yd³): 40Y

8. Special handling instructions and additional information (provided by generator.)
* EMERGENCY RESPONSE NUMBER: (860) 342-0667
Can # 4010

9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations. NOTE: Generator must retain a copy of this form.

Printed/typed name & title	Signature	Month Day Year
William McElroy Supervisor	William McElroy	5-25-12

TRANSPORTER

10. Transporter 1 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Carl Sherman RED Technologies	Carl Sherman	05-25-12
Address and telephone no.: 10 Northwood Dr. Bloomfield, CT 06002	860-342-1022	

11. Transporter 2 (Acknowledgement of receipt of materials)

Printed/typed name & title	Signature	Month Day Year
Gary Fitzgerald TRI-S Environmental	Gary Fitzgerald	06-4-12
Address and telephone no.: 25-Pinney Street Ellington, CT. 06029	860-875-2110	

DISPOSAL SITE

12. Discrepancy indication space

Rejected: Yes ☐ No ☐

13. Waste disposal site owner or operator: Certification of receipt of asbestos materials covered by this manifest except as noted in item 12.

Printed/typed name & title	Signature	Month Day Year
G M Fidel	[signature]	6 6 12

ORIGINAL RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MP5087991454

2. Page 1 of

3. Emergency Response Phone: 781-929-7333

4. Waste Tracking Number: 01

5. Generator's Name and Mailing Address
City of Worcester
10 East Worcester Street
Worcester, MA 01608
Generator's Phone: 508-799-1454

Generator's Site Address (if different than mailing address)
140 Harrington Way
Worcester, MA 01608

6. Transporter 1 Company Name: RED Technologies LLC
U.S. EPA ID Number: CTR000050585B

7. Transporter 2 Company Name: CCDS
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Waste USA Landfill - Casella
21 Landfill Lane
Newport, VT 05855
U.S. EPA ID Number:
Facility's Phone:

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. NON-DOT Regulated, NON-RCRA PCB Bulk Product Waste	001	CM	13,780	K
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
Weight in Section 11 is Estimate approval #3222
Can # 3623

14. 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.

Generator's/Offeror's Printed/Typed Name: JEREMY FLANSBURG
Signature: Jeremy O. Flansburg COW
Month 5 Day 22 Year 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Justin Chichester
Signature:
Month 5 Day 23 Year 12
Transporter 2 Printed/Typed Name: Jeff Pearl
Signature:
Month 5 Day 24 Year 12

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Sherry Bonilla
Signature: Sherry Bonilla
Month 5 Day 25 Year 12

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MPC087001454

2. Page 1 of

3. Emergency Response Phone: 781 929-7333

4. Waste Tracking Number: 02

5. Generator's Name and Mailing Address
City of Worcester
20 East Worcester Street
Worcester, MA 01608
Generator's Phone: 508-799-1454

Generator's Site Address (if different than mailing address)
140 Harrington Way
Worcester, MA 01608

6. Transporter 1 Company Name: RED Technologies LLC
U.S. EPA ID Number: CTR000505958

7. Transporter 2 Company Name: CCDS
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Waste USA Landfill - Casella
21 Landfill Lane
Newport, VT 05855
Facility's Phone:
U.S. EPA ID Number:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. NON-DOT Regulated, NON-RCRA PCB Bulk Product Waste	001	CM	10,000	K	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
approval #3222
30105

14. 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.

Generator's/Offeror's Printed/Typed Name: JEREMY FLANSBURG
Signature: Jeremy Flansburg COW
Month 5 Day 23 Year 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kevin Edmiston
Signature: Kevin Edmiston
Month 5 Day 24 Year 12

Transporter 2 Printed/Typed Name: DAN SEARLES
Signature:
Month 5 Day 25 Year 12

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Cindy Lepin
Signature: C Lepin
Month 5 Day 25 Year 12

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

69-BLC-D 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number MP5087991454	2. Page 1 of	3. Emergency Response Phone (781) 929-7333	4. Waste Tracking Number 03

5. Generator's Name and Mailing Address
City of Worcester
20 East Worcester Street
Worcester, MA 01068
Generator's Phone: 508-799-1454

Generator's Site Address (if different than mailing address)
140 Harrington Way
Worcester, MA 01068

6. Transporter 1 Company Name: RED Technologies LLC — U.S. EPA ID Number: CTR000505958

7. Transporter 2 Company Name: CCDS — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Waste USA Landfill - Caselle
21 Landfill Lane
Newport, VT 05855
Facility's Phone:
U.S. EPA ID Number:

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. NON-DOT Regulated, NON-RCRA PCB Bulk Product Waste	001	CM	10,450	K
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information

wght in Sect. 11 estimate

Apperoval # 3222

14. 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.

Generator's/Offeror's Printed/Typed Name: JEREMY FLANSBURG — Signature: Jerry C. Flansburg COW — Month 5 Day 22 Year 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mark Andrade Jr. — Signature: Mark Andrade Jr — Month 05 Day 23 Year 12

Transporter 2 Printed/Typed Name: Dan Seanes — Signature: [signature] — Month 5 Day 24 Year 12

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Sherry Bradley — Signature: Sherry Bradley — Month 5 Day 25 Year 12

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

69-BLC-O 5 11977 (Rev. 9/09) DESIGNATED FACILITY TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number MP508788454	2. Page 1 of	3. Emergency Response Phone 781-929-7333	4. Waste Tracking Number 04

5. Generator's Name and Mailing Address
City of Worcester
20 East Worcester Street
Worcester, MA 01608
Generator's Phone: 508-799-1454

Generator's Site Address (if different than mailing address)
140 Harrington Way
Worcester, MA 01608

6. Transporter 1 Company Name: RED Technologies LLC — U.S. EPA ID Number: CTR000505858

7. Transporter 2 Company Name: CCBS — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Waste USA Landfill - Casella
21 Landfill Lane
Newport, VT 05855
Facility's Phone: — U.S. EPA ID Number:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. NON-DOT Regulated, NON-RCRA PCB Bulk Product Waste	001	CM	14,481	K	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
Weight in section 11 is Estimate
Can # 3051
Approval #3222

14. 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.

Generator's/Offeror's Printed/Typed Name: JEREMY F CANSBURG — Signature: [signature] COW — Month 5 Day 28 Year 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Justin Chichester — Signature: [signature] — Month 5 Day 28 Year 12

Transporter 2 Printed/Typed Name: Jeff Peal — Signature: [signature] — Month 5 Day 28 Year 12

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Cindy Pepin — Signature: [signature] — Month 5 Day 28 Year 12

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

Appendix H-7

PCB Remediation Waste – Brick & Stucco >50 ppm PCBs

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: MP5 087 991 454
2. Page 1 of: 1
3. Emergency Response Phone: (800) 535-5053
4. Manifest Tracking Number: 009036371 JJK

5. Generator's Name and Mailing Address: CITY OF WORCESTER
20 EAST WORCESTER STREET
WORCESTER MA 01068
Generator's Phone: (508) 799-1454

Generator's Site Address (if different than mailing address):
140 HARRINGTON WAY
WORCESTER, MA 01068

6. Transporter 1 Company Name: EQ NORTHEAST, INC
U.S. EPA ID Number: MAD 084 814 136

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: WAYNE DISPOSAL, INC
49350 N I-94 SERVICE DRIVE
BELLEVILLE, MI 48111
Facility's Phone: (800) 592-5489
U.S. EPA ID Number: MID 048 090 633

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. RQ UN3432, Polychlorinated biphenyls, solid, mixture, 9, PGIII, ERG #171	002	CF	547	K	~~PCB01~~	MA02	PCB6
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
T: CT25060WDI / (S) PCB DEBRIS / SEE PCB CONTINUATION SHEET

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: Clark C Burritt
Signature: C Burritt
Month / Day / Year: 05 / 21 / 12

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: RICHARD GANNON
Signature: Richard Gannon
Month / Day / Year: 05 / 21 / 12

Transporter 2 Printed/Typed Name:
Signature:
Month / Day / Year:

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			

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:
Signature:
Month / Day / Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Appendix H-8

Excluded PCB Products – Painted CMU Block & Floor/Ceiling Tiles

REMEDIATION ENGINEERING & DEVELOPMENT

41111

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

NY GENERATORS

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fa 60) 342-1042

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK# 47717 ASBESTOS DISPOSAL & DOCUMENTATION FORM 256765

Job Number _____ P.O. # _____

Contractor SOUTHERN MIDDLESEX INSULATION

Address 823 PLEASANT ST.

City NORWOOD State MA. Zip 02062

Telephone Number 1-781-769-9310

Date Container Del. 3/2/12 Date of Pickup 4/4/12

Type of Container 100 YD

VOLUME 95 CY Friable ☐ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

CITY OF WORCESTER

Address 20 EAST WORCESTER ST.

City WORCESTER, MA State Zip 01604

Phone Number

GENERATING LOCATION

NORTH HIGH SCHOOL

Address 150 HARRINGTON WAY

City WORCESTER State MA. Zip 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____
Name Address Telephone #

Driver N/A Registration #: _____ Date: _____
Signature State / #

Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

Driver: _____ Registration #: CT-42504-A Date: 4/4/12
Signature State / #

Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

By: Lindsay Kelly **Transfer Date:** 4/5/12 **Permit #** 1130836 PO

Discrepancy: _____

Certification of transfer of materials covered by this manifest

Transporter 3: Swift 6500 Industrial Hwy Gary, IN 219-977-2021
Name Address Telephone #

Driver: _____ Registration #: 304890 IN Date: 4-6-12
Signature State / #

Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises

Location: 9000 Minerva Rd. Waynesburg, OH 44688

Ph: 330-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____

Discrepancy If Any: _____

Received by: _____ Date: 4/9/12

Certification of transfer of materials covered by this manifest

GENERATOR

41110

EMERGENCY CONTACT (860) 218-2428
CT, MA RI, VT, NH, ME GENERATORS
NY GENERATORS

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fax: (860) 342-1042

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

257027

Tk# 47718 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor: Southern Middlesex Insulation
Address: 823 Pleasant St.
City: Norwood State: MA Zip: 02062
Telephone Number: 1-781-769-9310
Date Container Del.: 4/2/12 Date of Pickup: 4/3/12
Type of Container: Covered 40 Yarder R-O
VOLUME: 40 CY (MUST BE IN CUBIC YARDS) Friable ☐ Non-Friable ☑
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address: 20 East Worcester St
City: Worcester State: MA Zip: 01604
Phone Number

GENERATING LOCATION
North High School
Address: 150 Harrington Way
City: Worcester, State: MA Zip: 01604
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy Louis E Roy

Transporter 1: _____
Name: N/A Address: _____ Telephone #: _____
Driver: _____ Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: Carl Spencer Registration #: CT51216A Date: 4-3-12
Signature State / #
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
By: Lindsay Kelly Transfer Date: 4/9/12 Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: Swift 2200 S 75th Ave Phoenix AZ 800 800 2200
Name Address Telephone #
Driver: _____ Registration #: Tk# 120179 Date: 4-12-12
Signature State / #
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
330-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Total Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: Sharon Dunne Date: 4/13/12
Certification of transfer of materials covered by this manifest

GENERATOR

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

47719

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

NY GENERATORS

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fax (860) 342-1042

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK# 47719 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor 823 Pleasant St,
Address Southern Middlesex Insulation
City Norwood State MA Zip 02062
Telephone Number 1-781-769-9310
Date Container Del. 4/2/12 Date of Pickup 4/3/12
Type of Container close 40 yard
VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester St.
City Worcester MA State Zip
Phone Number

GENERATING LOCATION
North High School
Address 150 Harrington Way
City Worcester State MA Zip 01604
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy Louis E Roy Jr

Transporter 1: N/A
Name Address Telephone #
Driver: _____ Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: Carl Sherman Registration #: CT 51216A Date: 4-3-12
Signature State / #
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
By: Lindsay U. Kelly Transfer Date: 4/9/12 Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: Swift 2200 S. 75th Ave Phoenix, AZ 800 800 2200
Name Address Telephone #
Driver: M L Wilt Registration #: NCDL 5196873 Date: 4-12-12
Signature State / #
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
Ph: 330-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: _____ Date: _____
Certification of transfer of materials covered by this manifest

MINERVA ENTERPRISES
2012 APR 13 A 11:11

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Po id, CT 06480
(86 42-1022
Fa 60) 342-1042

E.P.A. AGENCY

47720

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK# 47720 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation

Address 823 pleasant ST

City NORWOOD State MA Zip 02062

Telephone Number 1-781-769-9310

Date Container Del. 2/5/12 Date of Pickup 4/4/12

Type of Container 100 YD

VOLUME 75 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☒ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address 20 EAST WORCESTER ST.

City Worcester, MA State Zip 01604

Phone Number

GENERATING LOCATION

NORTH High School

Address 150 HARRINGTON WAY

City WORCESTER MA State Zip 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____
Name Address Telephone #

Driver: N/A Registration #: _____ Date: _____
Signature State / #

Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

Driver: _____ Registration #: CT-42504-A Date: 4/4/12
Signature State / #

Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

By: Lindsay Ky Transfer Date: 4/5/12 Permit # 1130836 PO

Discrepancy: _____

Certification of transfer of materials covered by this manifest

Transporter 3: West Motor Freight 740 S Reading Ave Boyertown, PA 6103672611
Name Address Telephone #

Driver: _____ Registration #: PVR3440 OH Date: 4/10/12
Signature State / #

Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises

Location: 9000 Minerva Rd. Waynesburg, OH 44688

Ph: 330-866-3435 Permit # _____

OTHER Landfill Name: _____

Location: _____

Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____

Discrepancy If Any: _____

Received by: _____ Date: 2012 APR 13 P 12: 59

MINERVA ENTERPRISES

Certification of transfer of materials covered by this manifest

EMERGENCY CONTACT (860) 218-2428
CT, MA RI, VT, NH, ME GENERATORS
NY GENERATORS

173 Pickering Street
Portland, CT 06480
(860) 342-1022
F 360) 342-1042

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

T. 447721 ASBESTOS DISPOSAL & DOCUMENTATION FORM 257051

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation
Address 823 Pleasant St.
City Norwood State MA Zip 02062
Telephone Number 1-781-769-9310
Date Container Del. 4/3/12 Date of Pickup 4/4/12
Type of Container 40 yd closed
VOLUME 40 **CY** Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester St.
City Worcester, MA State Zip 01604
Phone Number

GENERATING LOCATION
North High School
Address 150 Harrington Way
City Worcester State MA Zip 01604
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____
Driver: N/A Name _____ Address _____ Telephone # _____
Signature _____ Registration #: _____ Date: _____
State / #
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Driver: _____ Name _____ Address _____ Telephone # _____
Signature _____ Registration #: 42691A/CT Date: 4-4-12
State / #
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
By: _____ **Transfer Date:** 4/9/12 **Permit #** 1130836 PO Telephone #
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: West
Driver: _____ Name _____ Address _____ Telephone # _____
Signature _____ Registration #: _____ Date: 4-12-12
State / #
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
Ph: 330-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received _____
Discrepancy If Any: _____
Received by: _____ Date: 4/13/12
Certification of transfer of materials covered by this manifest
GENERATOR

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(8 42-1022
Fa 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50901

TK#50901

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation

Address 873 Pleasant St.

City Norwood State MA Zip 02062

Telephone Number 1-781-769-9310

Date Container Del. 4/3/12 Date of Pickup 4-10-12

Type of Container 40YD closed

VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address 20 East Worcester St.

City Worcester State MA Zip 01604

Phone Number

GENERATING LOCATION

North High School

Address 150 Harrington Way

City Worcester State MA Zip 01604

Phone Number

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AUTHORIZED SIGNATURE William McElroy

ra orter 1: _____
Name Address Telephone #

river: _____ Registration #: _____ Date: _____
Signature State / #

Acknowledgement of receipt of materials

ansporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

iver: Carl Skeman Registration #: CT 51216A Date: 4-10-12
Signature State / #

Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

: _____ Transfer Date: 4/13/12 Permit # 1130836 PO

screpancy: _____

Certification of transfer of materials covered by this manifest

ansporter 3: West
Name Address Telephone #

ver: _____ Registration #: _____ Date: 4-23-12
Signature State / #

Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises

cation: 9000 Minerva Rd. Waynesburg, OH 44688

0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____

crepancy If Any: _____

ceived by: _____ Date: _____

MINERVA ENTERPRISES
2012 APR 24 P 1:17

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

50902

CT, MA RI, VT, NH, ME GENERATORS

NY GENERATORS

173 Pickering Street
Po[illegible]nd, CT 06480
(86[illegible]42-1022
Fa[illegible]60) 342-1042

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

257249

TK#50902 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor Southern Middlesex Insulation
Address 823 Pleasant St.
City Norwood State MA Zip 02062
Telephone Number 1-781-769-9310
Date Container Del. 4/3/12 Date of Pickup 4/9/12
Type of Container 40 YD closed
VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester St.
City Worcester, MA State Zip 01604
Phone Number

GENERATING LOCATION
North High School
Address 150 Harrington Way
City Worcester, MA State Zip 01604
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to IESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are lassified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William McElroy

ra[illegible]orter 1: _____
Name Address Telephone #
river: N/A Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
river: Carl Skeeman Registration #: CT 51216A Date: 4-9-12
Signature State / #
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
y: Lindsay Kelly Transfer Date: 4/16/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: Swift 3154 SR 72 Jonestown PA 717-865 7380
Name Address Telephone #
iver: [signature] Registration #: 2008141 Date: 04-17-12
Signature State / #
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
c[illegible]n: 9000 Minerva Rd. Waynesburg, OH 44688
:_ 0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____
screpancy If Any: _____
ceived by: Kristina Loftis [signature] Date: 4-19-12
Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Po d, CT 06480
(86 42-1022
Fa 30) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50903

TK# 50903 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation

Address 823 pleasant St.

City Norwood State MA Zip 02062

Telephone Number 1-781-769-9310

Date Container Del. 4/3/12 Date of Pickup 4/11/12

Type of Container 40 YD

VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address 20 East Worcester St.

City Worcester, MA State Zip 01604

Phone Number

GENERATING LOCATION

North High School

Address 150 Harrington Way

City Worcester, MA State Zip 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

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AUTHORIZED SIGNATURE William McEvoy

ra orter 1: _____

Name N/A Address Telephone #

river: _____ Registration #: _____ Date: _____

Signature State / #

Acknowledgement of receipt of materials

ansporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428

Name Address Telephone #

iver: Carl Slemen Registration #: CT 5126A Date: 4-12-12

Signature State / #

Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022

Telephone #

: Lindsay Kelly Transfer Date: 4/13/12 Permit # 1130836 PO

screpancy: _____

Certification of transfer of materials covered by this manifest

ansporter 3: West

Name Address Telephone #

ver: _____ Registration #: _____ Date: 4-23-12

Signature State / #

Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises

n: 9000 Minerva Rd. Waynesburg, OH 44688

0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____

crepancy If Any: _____

MINERVA ENTERPRISES

ceived by: _____ Date: 2012 APR 24 P 1:17

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

50904

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fa[illegible]0) 342-1042

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK#50904 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor Southern Middlesex Insulation
Address 823 Pleasant St.
City Norwood State MA Zip 02062
Telephone Number 1-781-769-9310
Date Container Del. 4/3/12 Date of Pickup 4/18/12
Type of Container 40 YD Closed
VOLUME 40 CY Friable ☐ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester St.
City Worcester State MA Zip 01604
Phone Number

GENERATING LOCATION
North High School
Address 150 Harrington Way
City Worcester, State MA Zip 01604
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
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UTHORIZED SIGNATURE William McElroy

ra rter 1: _____
Name N/A Address Telephone #
iver: _____ Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

ansporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
iver: Carl Sherman Registration #: CT 51216A Date: 4-18-12
Signature State / #
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
: Lindsay Okely Transfer Date: 4/23/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

insporter 3: Swift
Name Address Telephone #
ver: [signature] Registration #: _____ Date: 04/24/12
Signature State / #
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
ation: 9000 Minerva Rd. Waynesburg, OH 44688
866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: MINERVA ENTERPRISES
crepancy If Any: _____
eived by: _____ 2012 APR 25 P 2:15 Date: _____
Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(86 12-1022
Fa 60) 342-1042

E.P.A. AGENCY
EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50905 M

258222

TK# 50905

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation
Address 823 Pleasant St.
City Norwood State MA Zip 02062
Telephone Number 1-781-769-9310
Date Container Del. 4/3/12 Date of Pickup 4/28/12
Type of Container Closed 40 YD
VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester St.
City Worcester, MA State Zip 01604
Phone Number

GENERATING LOCATION
North High School
Address 150 Harrington Way
City Worcester, MA State Zip 01604
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
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AUTHORIZED SIGNATURE William McElroy

ra orter 1: _____
Name N/A Address Telephone #
river: _____ Signature Registration #: _____ State / # Date: _____
Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
iver: _____ Signature Registration #: CT5216A State / # Date: 4-28-12
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
: Lindsay L. Kelly Transfer Date: 5/4/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: Swift Phoenix, AZ 800-800-2200
Name Address Telephone #
ver: _____ Signature Registration #: 1109783 State / # Date: 5-9-12
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
cation: 9000 Minerva Rd. Waynesburg, OH 44688
-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____
crepancy If Any: _____
eived by: Sharon Dunne Date: 5/10/12
Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(8 342-1022
Fa 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50906

TK#50906

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor: Southern Middlesex Insulation

Address: 823 Pleasant St.

City: Norwood State: MA Zip: 02062

Telephone Number: 1-781-769-9310

Date Container Del.: 4/18/12 Date of Pickup: 4/23/12

Type of Container: 40 yd

VOLUME: 40 CY (MUST BE IN CUBIC YARDS) Friable ☑ Non-Friable ☑

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address: 20 East Worcester Way

City: Worcester State: MA Zip: 01604

Phone Number

GENERATING LOCATION

North High School

Address: 150 Harrington Way

City: Worcester State: MA Zip: 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

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AUTHORIZED SIGNATURE William McElroy

ra orter 1: _____ Name _____ Address _____ Telephone #

river: N/A Signature _____ Registration #: _____ State / # _____ Date: _____

Acknowledgement of receipt of materials

ansporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428

Name Address Telephone #

iver: [signature] Signature Registration #: CT 51032A State / # Date: 4-23-12

Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022

Telephone #

r: [signature] Transfer Date: 4/25/12 Permit # 1130836 PO

screpancy: _____

Certification of transfer of materials covered by this manifest

ansporter 3: John Villaran Swift

Name Address Telephone #

ver: [signature] Signature Registration #: _____ State / # Date: 4/29/12

Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises

cation: 9000 Minerva Rd. Waynesburg, OH 44688

0-866-3435 Permit # _____

OTHER Landfill Name: _____

Location: _____

Permit # _____

MINERVA ENTERPRISES

proximate Volume of Asbestos Received. _____

crepancy If Any: _____

eived by: _____ Date: _____

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(86 42-1022
Fa: 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50907

257940

TK#50907 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation

Address 823 Pleasant ST

City Norwood State MA Zip 02062

Telephone Number 1-781-769-9310

Date Container Del. 4/23/12 Date of Pickup 4/24/12

Type of Container 40YD

VOLUME 40 CY Friable ☐ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address 20 EAST WORCESTER ST

City WORCESTER State MA Zip 01604

Phone Number

GENERATING LOCATION

North High School

Address 150 HARRINGTON WAY

City WORCESTER State MA Zip 01604

Phone Number

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AUTHORIZED SIGNATURE William McEvoy

ra orter 1: _____
Name N/A Address Telephone #
river: _____ Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
iver: Carl Sherman Registration #: CT 51216A Date: 4-24-12
Signature State / #
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
: Lindsay L. Kelly Transfer Date: 5/2/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: Swift terminal PHX 602- 2222
Name Address Telephone #
ver: Kenny Registration #: 305548 Date: 5-3-12
Signature State / #
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
ation: 9000 Minerva Rd. Waynesburg, OH 44688
0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

oximate Volume of Asbestos Received: _____
crepancy If Any: _____
ceived by: Sharon Dunne Date: 5/4/12
Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

50908

173 Pickering Street
Po[illegible]nd, CT 06480
(86[illegible]42-1022
Fa[illegible]60) 342-1042

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK# 50908 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT ST.
City NORWOOD State MA Zip 02062
Telephone Number 1-781-764-9310
Date Container Del. _____ Date of Pickup 4-25-12
Type of Container 40 YD
VOLUME 40 CY Friable ☒ Non-Friable ☒
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☒ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address 20 EAST WORCESTER ST.
City WORCESTER State MA Zip 01604
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip 01604
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are assified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William McElroy

ra[illegible]orter 1: _____
Name Address Telephone #
river: N/A Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

ansporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
iver: Carl Sherman Registration #: CT 51216 A Date: 4-25-12
Signature State / #
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
: Lindsay L. Kelly Transfer Date: 4/30/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: Scott 2200 S. 75 AV. Phoenix AZ. 1800-633-4346
Name Address Telephone #
ver: Scott Scanlan Registration #: 5545781641320 Date: 5-2-12
Signature State / # FL
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
ca 9000 Minerva Rd. Waynesburg, OH 44688
0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

oroximate Volume of Asbestos Received: _____
crepancy If Any: _____
ceived by: _____ Date: _____

MINERVA ENTERPRISES
2012 MAY 4 A 7:00

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Port[illegible]d, CT 06480
(86[illegible] [illegible]2-1022
Fa[illegible] 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50909

257612

TK# 50909 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor SOUTHERN MIDDLESEX INSULATION

Address 823 PLEASANT ST.

City NORWOOD State MA Zip 02062

Telephone Number 1-781-769-9310

Date Container Del. _____ Date of Pickup 4-20-12

Type of Container CLOSED 40 YD.

VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☒ Other ☐

GENERATOR/BUILDING OWNER

CITY OF WORCESTER

Address 20 EAST WORCESTER ST.

City WORCESTER State MA Zip 01604

Phone Number

GENERATING LOCATION

NORTH HIGH SCHOOL

Address 150 HARRINGTON WAY

City WORCESTER State MA Zip 01604

Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to OSHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McGlory

Transporter 1: _____ Name N/A Address _____ Telephone #

Driver: _____ Signature Registration #: _____ State / # Date: _____

Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428

Driver: Carl Sherman Signature Name Registration #: CT 5126A State / # Address Date: 4.20.12 Telephone #

Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022

Driver: [illegible] Transfer Date: 4/23/12 Permit # 1130836 PO Telephone #

Discrepancy: _____

Certification of transfer of materials covered by this manifest

Transporter 3: Swift 28000 BELL RD New Boston MI

Driver: Jermaine [illegible] Signature Name Registration #: 306572 State / # Address Date: 4-26-12 Telephone #

Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises

Location: 9000 Minerva Rd. Waynesburg, OH 44688

Ph: 330-866-3435 Permit # _____

OTHER Landfill Name: _____ Location: _____ Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____

Discrepancy If Any: _____

Received by: Kristina Lofgis Date: 4-27-12

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

50910

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fa[illegible]0) 342-1042

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK# 50910 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT ST.
City NORWOOD State MA Zip 02062
Telephone Number 1-781-769-9310
Date Container Del. 4/11/12 Date of Pickup 4-20-12
Type of Container CLOSED 40 YD.
VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address 20 EAST WORCESTER ST.
City WORCESTER State MA Zip 01604
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip 01604
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are assified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

UTHORIZED SIGNATURE William McElroy

ra[illegible]rter 1: N/A
Name Address Telephone #
river: _____ Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

ansporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
iver: Carl Sherman Registration #: CT 51216A Date: 4-20-12
Signature State / #
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
r: Tamara L Pound Transfer Date: 4/23/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: Fernando Avalos
Name Address Telephone #
ver: [signature] Registration #: _____ Date: 4-24-12
Signature State / #
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
cation: 9000 Minerva Rd. Waynesburg, OH 44688
366-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____
crepancy If Any: _____
eived by: S Dunne Date: 4/25/12
Certification of transfer of materials covered by this manifest

RED TECHNOL... LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

50911

173 Pickering Street
Pc ...d, CT 06480
(86... 42-1022
Fa... 60) 342-1042

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK#50911 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT ST.
City NORWOOD State MA Zip 02062
Telephone Number 1-781-761-9310
Date Container Del. ~~CLO~~ Date of Pickup 4-23-12
Type of Container CLOSED 40 YD
VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address 20 EAST WORCESTER ST.
City WORCESTER State MA Zip 01604
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip 01604
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are assified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William McElroy

ra... orter 1: _____
Name Address Telephone #
river: N/A Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

ansporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
iver: [signature] Registration #: CT-51032-A Date: 4/23/12
Signature State / #
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
: Lindsay Kelly Transfer Date: 4/27/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: SWIFT 7470 ROUND ROND Rd N. SYRACUSE, NY 1-800-347-4485
Name Address Telephone #
ver: Dwain Mivechian Registration #: 1117965 IN Date: 4-30-12
Signature State / #
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
n: 9000 Minerva Rd. Waynesburg, OH 44688
0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____
crepancy If Any: _____
ceived by: _____ Date: _____

MINERVA ENTERPRISES
2012 MAY 1 A 10:07

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(86 42-1022
Fa 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50912

258088

TK# 50912

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor SOUTHERN MIDDLESEX INSULATION

Address 823 PLEASANT ST.

City NORWOOD State MA Zip 02062

Telephone Number 1-781-764-9310

Date Container Del. _____ Date of Pickup 4-30-12

Type of Container 40 YD

VOLUME 40 CY Friable ☐ Non-Friable ☑
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☒ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER

CITY OF WORCESTER

Address 20 EAST WORCESTER ST.

City WORCESTER State MA Zip 01604

Phone Number

GENERATING LOCATION

NORTH HIGH SCHOOL

Address 150 HARRINGTON WAY

City WORCESTER State MA Zip 01604

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to IESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are lassified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William McElroy

ra orter 1: _____

Name N/A Address _____ Telephone # _____

river: _____ Signature _____ Registration #: _____ State / # _____ Date: _____

Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428

Name _____ Address _____ Telephone # _____

iver: _____ Signature _____ Registration #: CT5/216A State / # _____ Date: 5-1-12

Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022

r: _____ Telephone # _____ Transfer Date: 5/4/12 Permit # 1130836 PO

screpancy: _____

Certification of transfer of materials covered by this manifest

ansporter 3: SWIFT 18700 BELL RD. NEW BOSTON, MI 48164 575-9487

Name _____ Address _____ Telephone # _____

ver: _____ Signature _____ Registration #: 2103564 IN State / # _____ Date: 5/7/12

Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises

cation: 9000 Minerva Rd. Waynesburg, OH 44688

J-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____

crepancy If Any: _____

eived by: Sharon Dunne Date: 5/8/12

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fax (860) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50913

TK# 50913 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT St.
City NORWOOD State MA Zip 02062
Telephone Number 1-781-764-9310
Date Container Del. _____ Date of Pickup 4-30-12
Type of Container 40 YD
VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☑ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address 20 EAST WORCESTER St.
City WORCESTER State MA Zip 01604
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip 01604
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____ Name _____ Address _____ Telephone #
Driver: _____ Signature _____ Registration #: _____ State / # _____ Date: _____
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: _____ Signature _____ Registration #: CT 51216A State / # Date: 5-1-12
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
By: _____ Transfer Date: 5/4/12 Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: SWIFT MELSTANFILL 4141 Parkway Col OH 800 800 2200
Name Address Telephone #
Driver: _____ Signature _____ Registration #: 12262 OH State / # Date: 5/6/12
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
Ph: 0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: _____ Date: _____
Certification of transfer of materials covered by this manifest

MINERVA ENTERPRISES
2012 MAY -7 A 10: 49

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(86 42-1022
Fa 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50914

258101

TK#50914 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT ST.
City NORWOOD State MA Zip 02062
Telephone Number 1-781-764-9310
Date Container Del. _____ Date of Pickup 5-3-12
Type of Container 40 YD
VOLUME 40 CY Friable ☐ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☑ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address 20 EAST WORCESTER ST.
City WORCESTER MA State Zip 01604
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER MA State Zip 01604
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to NESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____ Name _____ Address _____ Telephone #
Driver: N/A Signature _____ Registration #: _____ State / # _____ Date: _____
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: [signature] Signature Registration #: CT-51032-A State / # Date: 5/3/12
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
By: Lindsay L. Kelly Transfer Date: 5/4/12 Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: MAXWELL BELIN 4141 PARKWEST DR (SWIFT) 614-308-2300
Name Address Telephone #
Driver: Maxwell Belin Signature Registration #: 110987211 State / # Date: 5-7-12
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: Sharon Dunne Date: 5/8/12
Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(86 42-1022
Fa: 60) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50915

TK# 50915 ASBESTOS DISPOSAL & DOCUMENTATION FORM 258309

Job Number _____ P.O. # _____

Contractor SOUTHERN MIDDLESEX INSULATION

Address 823 PLEASANT ST.

City NORWOOD State MA Zip 02062

Telephone Number 781-769-9310

Date Container Del. _____ Date of Pickup 5/7/12

Type of Container 40 YD

VOLUME 40 CY Friable ☒ Non-Friable ☒
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, 111

Bag ☐ Drum ☐ T-Pack ☒ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER

CITY OF WORCESTER

Address 20 EAST WORCESTER ST.

City WORCESTER State MA Zip

Phone Number

GENERATING LOCATION

NORTH HIGH SCHOOL

Address 150 HARRINGTON WAY

City WORCESTER State MA Zip

Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to OSHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: N/A
Name Address Telephone #

Driver: _____ Registration #: _____ Date: _____
Signature State / #

Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

Driver: [signature] Registration #: 4269A/CT Date: 5-7-12
Signature State / #

Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

By: Lindsay Kelly **Transfer Date:** 5/9/12 **Permit #** 1130836 PO

Discrepancy: _____

Certification of transfer of materials covered by this manifest

Transporter 3: Swift Syracuse NY
Name Address Telephone #

Driver: [signature] Registration #: _____ Date: 5-10-12
Signature State / # IN

Acknowledgement of receipt of materials 05/10/12

Landfill Name: Minerva Enterprises

Location: 9000 Minerva Rd. Waynesburg, OH 44688

866-3435 Permit # _____

OTHER Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____

Discrepancy If Any: _____

Received by: [signature] Date: 5/11/12

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING ... PMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

50916

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fa 60) 342-1042

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

2 5823

TK#50916 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT ST.
City NORWOOD State MA Zip 02062
Telephone Number 781-769-9310
Date Container Del. _____ Date of Pickup 5-7-12
Type of Container 40 YD
VOLUME 40 CY Friable ☒ Non-Friable ☒
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☒ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address 20 EAST WORCESTER ST.
City WORCESTER State MA Zip
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are assified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

UTHORIZED SIGNATURE William McElroy

ra orter 1: _____
Name Address Telephone #
river: N/A Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

ansporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
iver: [signature] Registration #: 42691A/CT Date: 5-7-12
Signature State / #
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
r: [signature] Transfer Date: 5/9/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: West Motor Freight 240 S Reading Ave Boyertown, PA 330 7831230
Name Address Telephone #
ver: Deborah Williams Registration #: AF 95454 PA Date: 5/9/12
Signature State / #
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
cation: 9000 Minerva Rd. Waynesburg, OH 44688
0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____
crepancy If Any _____
ceived by: Kristina Loftis [signature] Date: 5-10-12
Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(860) 342-1022
Fax (860) 342-1042

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50917

258558

TK#50917 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT ST.
City NORWOOD State MA Zip 02062
Telephone Number 781-769-9310
Date Container Del. _____ Date of Pickup 5-7-12
Type of Container 40 YD
VOLUME 40 CY Friable ☐ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☐ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address 20 EAST WORCESTER ST.
City WORCESTER State MA Zip
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to OSHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____
Name N/A Address Telephone #
Driver: _____ Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: Carl Klemm Registration #: CT5216A Date: 5-7-12
Signature State / #
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
By: Lindsay Kelly Transfer Date: _____ Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: Smith
Name Address Telephone #
Driver: M. Drinkt M. Drinkt Registration #: _____ Date: 05/15/12
Signature State / #
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
Ph: 330-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: Sharon Dunne Date: 5/16/12
Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

50918

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

173 Pickering Street
Po[illegible]nd, CT 06480
(86[illegible]42-1022
Fa[illegible]0) 342-1042

TK#50918 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT ST.
City NORWOOD State MA Zip 02062
Telephone Number 781-769-9310
Date Container Del. _____ Date of Pickup 5-11-12
Type of Container 40 YD
VOLUME 40 CY Friable ☒ Non-Friable ☒
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☒ Wrapped ☒ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address
20 EAST WORCESTER ST.
City WORCESTER State MA Zip
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address
150 HARRINGTON WAY
City WORCESTER State MA Zip
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to OSHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____ Name _____ Address _____ Telephone #
Driver: NA Signature _____ Registration #: _____ State / # Date: _____
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: Mark Andrade Jr. Signature Registration #: CT 42691-A State / # Date: 5-11-12
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
By: Lindsay V. Kely Transfer Date: 5/17/12 Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: SWIFT 24200 Bell Rd New Boston MI 734-753-2346
Name Address Telephone #
Driver: [illegible] Signature Registration #: 308719 MI State / # Date: 5-17-12
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
Ph: 330-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: _____ Date: _____
Certification of transfer of materials covered by this manifest

MINERVA ENTERPRISES
2012 MAY 18 A 9:31

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(86 42-1022
Fa 0) 342-1042

E.P.A. AGENCY
EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

50919

258815

TK# 50919

ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor Southern Middlesex Insulation
Address 823 pleasant St
City Norwood State MA Zip 02062
Telephone Number 781-769-9310
Date Container Del. 5/7/12 Date of Pickup 5/14/12
Type of Container 40 y closed
VOLUME 40 CY Friable ☑ Non-Friable ☑
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☐ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester ~~St~~ ST
City Worcester State MA. Zip 01605
Phone Number

GENERATING LOCATION
North High School
Address 150 Harrington Way
City Worcester State MA. Zip 01605
Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined y 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are assified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William M. Elroy

ra orter 1: _____
Name Address Telephone #
river: N/A Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
river: Registration #: CT 42091A Date: 5-14-12
Signature State / #
Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
y: Transfer Date: 5/17/12 Permit # 1130836 PO
screpancy: _____
Certification of transfer of materials covered by this manifest

ansporter 3: West Motor Freight 740 Spangler Ave Boyertown PA 6103672241
Name Address Telephone #
ver: Registration #: PVR3640/PA Date: 5/18/12
Signature State / #
Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises
cation: 9000 Minerva Rd. Waynesburg, OH 44688
: 0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____
crepancy If Any: _____
ceived by: Kristina Lofgis Date: 5-22-12
Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

EMERGENCY CONTACT (860) 218-2428

50920

173 Pickering Street
Po[illegible]d, CT 06480
86[illegible] 42-1022
Fax [illegible]0) 342-1042

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK# 50920 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor SOUTHERN MIDDLESEX INSULATION
Address 823 PLEASANT ST
City NORWOOD State MA Zip 02062
Telephone Number 781-769-9310
Date Container Del. _____ Date of Pickup 5-17-12
Type of Container 40 yd.
VOLUME 40 CY Friable ☒ Non-Friable ☒
MUST BE IN CUBIC YARDS
Q, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☒ Wrapped ☒ Other ☐

GENERATOR/BUILDING OWNER
CITY OF WORCESTER
Address 20 EAST WORCESTER St.
City WORCESTER State MA Zip 01605
Phone Number

GENERATING LOCATION
NORTH HIGH SCHOOL
Address 150 HARRINGTON WAY
City WORCESTER State MA Zip 01605
Phone Number

Certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to OSHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: _____
Name Address Telephone #
Driver: [signature] Registration #: 44608A Date: 5-17-12
Signature State / #
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: N/A Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
By: Lindsay L. Kelly Transfer Date: 5/18/12 Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: Swift
Name Address Telephone #
Driver: Charles Gorgen Registration #: _____ Date: 05/20/12
Signature State / #
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
Ph: 0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: _____ Date: _____

MINERVA ENTERPRISES
MAY 31 A 10:45

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

E.P.A. AGENCY

50921

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS

NY GENERATORS

173 Pickering Street
Por d, CT 06480
(860 42-1022
Fax 0) 342-1042

EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

259016

TK#50921 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____

Contractor Southern Middlesex Insulation

Address 823 pleasant St.

City NORWOOD State MA Zip 02062

Telephone Number 781-769-9310

Date Container Del. 5/16/12 Date of Pickup 5/18/12

Type of Container 40 y closed

VOLUME 40 y CY Friable ☑ Non-Friable ☐
MUST BE IN CUBIC YARDS

RQ, Asbestos, 9, NA2212, PG, III

Bag ☐ Drum ☐ T-Pack ☑ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER

City of Worcester

Address 20 EAST WORCESTER ST.

City WORCESTER, MA. State Zip 01605

Phone Number

GENERATING LOCATION

NORTH High SCHOOL

Address 150 HARRINGTON WAY

City WORCESTER, MA State Zip 01605

Phone Number

certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined / 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to ESHAP standards for asbestos waste disposal found in 40 CFR part 61.150.

hipper's Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are assified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national overnment regulations.

AUTHORIZED SIGNATURE William McElroy

ra orter 1: _____
Name N/A Address Telephone #

river: _____ Registration #: _____ Date: _____
Signature State / #

Acknowledgement of receipt of materials

ransporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #

river: Carl Skeman Registration #: CT512164 Date: 5-18-12
Signature State / #

Acknowledgement of receipt of materials

ansfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #

y: Lindsay Kly Transfer Date: 5/22/12 Permit # 1130836 PO

screpancy: _____

Certification of transfer of materials covered by this manifest

ansporter 3: West
Name Address Telephone #

ver: _____ Registration #: _____ Date: 5-23-12
Signature State / #

Acknowledgement of receipt of materials

ndfill Name: Minerva Enterprises

ca 9000 Minerva Rd. Waynesburg, OH 44688

: 0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

proximate Volume of Asbestos Received: _____

crepancy If Any: _____

ceived by: Sharon Dunne Date: 5/25/12

Certification of transfer of materials covered by this manifest

RED TECHNOLOGIES, LLC
REMEDIATION ENGINEERING & DEVELOPMENT

173 Pickering Street
Portland, CT 06480
(86 42-1022
Fax. 60) 342-1042

E.P.A. AGENCY

50922

EMERGENCY CONTACT (860) 218-2428

CT, MA RI, VT, NH, ME GENERATORS
EPA New England
1 Congress Street
Boston, MA 02114-2023
(617) 918-1111

NY GENERATORS
EPA Region 2
290 Broadway, 26th Floor
New York, NY 10007-1866
(212) 264-6770

TK# 50922 ASBESTOS DISPOSAL & DOCUMENTATION FORM

Job Number _____ P.O. # _____
Contractor Southern Middlesex Insulation
Address 823 Pleasant St.
City Norwood State MA Zip 02062
Telephone Number 781-769-9310
Date Container Del. 5/17/12 Date of Pickup 5/23/12
Type of Container 40 y closed
VOLUME 40 CY Friable ☑ Non-Friable ☐
MUST BE IN CUBIC YARDS
RQ, Asbestos, 9, NA2212, PG, 111
Bag ☐ Drum ☐ T-Pack ☑ Wrapped ☑ Other ☐

GENERATOR/BUILDING OWNER
City of Worcester
Address 20 East Worcester St.
City Worcester, MA State Zip 01068
Phone Number

GENERATING LOCATION
North High School
Address 150 Harrington Way
City Worcester MA State Zip 01068
Phone Number

I certify the above named material does not contain free liquid as defined by 40 CFR part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to OSHAP standards for asbestos waste disposal found in 40 CFR part 61.150.
Shipper'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 Government regulations.

AUTHORIZED SIGNATURE William McElroy

Transporter 1: N/A
Name Address Telephone #
Driver: _____ Registration #: _____ Date: _____
Signature State / #
Acknowledgement of receipt of materials

Transporter 2: RED Technologies LLC, 10 Northwood Drive Bloomfield, CT 06002 860-218-2428
Name Address Telephone #
Driver: Ken Edwards Registration #: 42691A/CT Date: 5-23-12
Signature State / #
Acknowledgement of receipt of materials

Transfer Facility: Charles M. Gordon & Sons, Inc. 203 Pickering Street, Portland, CT 06480 860-342-1022
Telephone #
By: Lindsay Ikely Transfer Date: 5/24/12 Permit # 1130836 PO
Discrepancy: _____
Certification of transfer of materials covered by this manifest

Transporter 3: SWIFT 2476 AMERICAN DR MENASHA WI 920-991-0069
Name Address Telephone #
Driver: Kenneth Kerr Registration #: 2001318 (IN) Date: 5-25-12 5/28/12
Signature State / #
Acknowledgement of receipt of materials

Landfill Name: Minerva Enterprises
Location: 9000 Minerva Rd. Waynesburg, OH 44688
Ph: 0-866-3435 Permit # _____

OTHER
Landfill Name: _____
Location: _____
Ph: _____ Permit # _____

Approximate Volume of Asbestos Received: _____
Discrepancy If Any: _____
Received by: _____ Date: 5/29/12
Certification of transfer of materials covered by this manifest