ASSOCIATES INC.

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September 12, 2012

Ms. Kimberly Tisa
U.S. Environmental Protection Agency
PCB Coordinator
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, Massachusetts 02109

RE: Response to EPA Questions/Comments
PCB Cleanup and Disposal Notification under 40 CFR 761.61 (a)(3)
Physical Plant Renovations 2nd Floor, Room 230A

Dear Ms. Tisa:

This letter has been sent on behalf of the University of Massachusetts – Amherst (UMASS), to provide responses to the August 7, 2012 comments issued by your office on the above referenced TSCA Request (March 23, 2012 submission from ATC). Outlined below is additional information and clarification on the planned PCB Cleanup and Disposal to facilitate receiving United States Environmental Protection Agency (EPA) approval.

GENERAL COMMENTS

1. *Please provide the address for the Physical Plant Building.*

Response:

Physical Plant Building
360 Campus Center Way
Amherst, MA 01003

2. *All information required under 761.61(a)(3) was not provided. For example, a figure showing the sample locations and extent of contamination was not provided in accordance with 761.61(a)(3)(i)(C).*

Response:

Refer to ***Attachment A*** for the Figure 1 Site Diagram that shows the sample locations for the initial source sampling.

3. *It is unclear what the proposed renovation work is and how that relates to the locations of the caulk which was sampled. Please clarify what the actual renovation will impact.*

Response:

The scope of the renovation includes a complete gut of the former Physical Plant Offices located at the 2nd Floor of the building. Demolition will include removal of all interior finishes, partition walls, ceilings, mechanical, electrical and plumbing equipment, etc.). In addition, the perimeter window units at both the 1960 and 1967 wings of the floor and storefront window/door assembly (Front Entry) will be removed and replaced as part of the renovation work.

4. *It is unclear if sufficient sampling has been conducted to verify the PCB concentrations in the caulk and glazing at the site. For example, Attachment C identifies the type, location, and PCB concentration of various materials. Generally, most of the caulk samples were collected within the area identified as Room 230A with a few samples on the storefront window. EPA would generally require that a minimum of 3 samples of each type of material be collected for PCB analysis with a higher frequency based on the number of windows/doors present. As it is unclear what and how many doors/windows will be impacted, sufficient information has not been provided to support the representativeness of the sampling for this project.*

Response:

The following homogeneous types of window units and storefront assemblies are located at the 2nd Floor area of the former Physical Plant offices:

- Metal Window Units with Fixed Upper and Lower Glass Panels at Room 230A (Total quantity = 24 each). Contains both interior and exterior caulking and glazing.

- Wood Framed Window Units – Double Hung with Operable Sash – (Total quantity = 22 each). Contains only exterior caulking and glazing compound.

- Metal Storefront Assembly with Entrance Doors – (Total quantity = 1 each). Contains interior and exterior caulking around the framework.

During the initial characterization, two (2) samples of each type of homogeneous material were collected and analyzed. Sample analysis indicated the interior window caulking on the metal window units to contain PCB >50 parts per million (ppm), therefore this material is assumed to be TSCA regulated and additional sampling was not performed.

To confirm that the remaining caulking and glazing materials are less than <50 ppm, an additional sample of each material was collected on August 31, 2012 resulting in a total of three (3) samples per homogeneous material. Results indicated all samples to be less than 50 ppm. Refer to ***Attachment B*** for the PCB Laboratory Report.

SPECIFIC COMMENTS:

1. *Page 1. There is a reference to Attachment A for the location of Room 230A. In reviewing the Attachment A diagram, there is no location labeled Room 230A. Clarification should be provided showing what area is presented by this designation.*

   Response:

   Refer to ***Attachment C*** for the revised Site Layout Drawing that shows Room 230A.

2. *Page 2. Section III. Although materials (i.e. interior door caulking, exterior door caulking and interior window glazing compound) may have PCB concentrations greater than (>) 1 part per million (ppm) but less than (<) 50 ppm, the concentration alone is not sufficient to justify that these materials are an Excluded PCB Product. The Product must meet all criteria listed in the 761.3 definition. Please provide a discussion of these materials within the notification.*

   Response:

   The Physical Plant Building was original constructed in 1960 with an addition to the north side of the building completed in 1967. The analytical results for the interior and exterior door caulking (storefront assembly) and interior window glazing compound (metal window units) yielded detectable PCB's but not above the associated TSCA defined level of 50 ppm that would characterize this material as a PCB Bulk Product Waste. These materials were a different color and textured as compared to the interior window caulking on the metal window units found to contain PCB >50 ppm. Furthermore, there were was no evidence of a spill or release of PCB oil at these locations. Therefore, the detectable concentration of PCB's in the caulking and glazing compound were most likely a result of the manufacturing process and the material is considered an "Excluded PCB Product" under 40 CFR 761.3 (iii). Additionally, these materials will be managed as Excluded PCB Product at a RCRA solid waste landfill that can accept materials with PCBs at those concentrations.

3. *Page 3.*

   a. *The 1997 SOP concrete sampling has been updated and finalized. This SOP, "Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs), Rev 4, May 5, 2011 should be used for sampling of porous surfaces. A copy of this SOP is enclosed for your reference.*

      Response:

      The December 30, 1997 procedure referenced on Page 3 was inadvertently included with the Notification. The concrete sampling performed at the site was performed in accordance with the May 5, 2011 SOP.

b. *Please clarify if steel lintels are present at this Site as there is no mention of these matrices in the Notification. If steel lintels are present, a discussion should be included in the characterization section of the Notification. This discussion should describe the condition of the lintels, the location, and whether these items are in contact with the caulk.*

Response:

At the interior side of Room 230A, the metal window frame butts up directly against masonry block at the header. At stated in the notification, the caulking will be removed along with the window framework as PCB >50 ppm waste and the remaining masonry block will be coated and covered with gypsum board. There is a metal lintel located at the exterior side of the window unit. However, this caulking was found to be None Detect for PCB's.

4. *Page 4, Paragraph 1 and Page 5, Subparagraph 3. Under 761.61(c), PCB concentrations may remain at a site above the perspective PCB cleanup standards specified under 761.61(a) provided there is no reasonable risk to public health or the environment. A site Owner must provide justification to support this alternative remediation (i.e. encapsulation) versus meeting the perspective PCB clean up standard(s) under 761.61(a). Justification could be excessive financial burden or structural/architectural considerations. This must be included in the Notification.*

Response:

Results of the substrate sampling indicated PCB's in excess of 1 ppm within ½ inch of the window frame. The specified remediation under the notification will remove the window unit along with the source material (i.e. caulking) between the framework and masonry block. In order to 100% remove the remaining PCB that has leached into the masonry block, the masonry block would have to be scarified or chipped away which would result in damage making the masonry block structurally compromised. Additionally, the costs to repair/replace the masonry blocks would have a huge impact on the overall costs for the project. Therefore, as an alternative method, the exposed masonry block will be encapsulated with a Sika coating and then enclosed with gypsum board. It is ATC's position that this alternative method of remediation will not only encapsulate the residual remaining PCB's in the block, but it will also prevent physical contact by building occupants with the added step of enclosing the block with gypsum board.

5. *Page 4, Section V*

a. *The first paragraph indicates that there are a total of 24 window units located in Room 230A that are assumed to contain interior caulk with greater that or equal to (≥) 50 ppm. However, in the 2nd paragraph there is reference to 25 window units.*

Response:

The correct quantity of window units to be removed and replaced at Room 230A is 24 each.

b. *The diagram provided in Attachment A requires clarification with respect to the extent of the 2nd floor designated at Room 230A. It would also be helpful if the locations of the window units to be removed are identified in color as the "dashed line" is difficult to distinguish on the diagram.*

Response:

Refer to the attached revised Site Layout Diagram that shows the locations of the window units to be removed and replaced.

c. *There is only reference to interior caulk as a PCB bulk product waste. Please clarify how the exterior caulk will be disposed of.*

Response:

Sample results of the exterior window caulking on the metal window units at Room 230A indicated no PCB's detected. However, the caulking was found to contain asbestos. Therefore, the remediation work proposed will include removal and disposal of window unit in its entirety along with all interior and exterior caulking at both asbestos and PCB >50 ppm waste.

6. *Please clarify how the encapsulation distance was determined.*

Response:

Three (3) samples of the block and mortar at three (3) separate distances away from the caulk joint at the frame were collected and analyzed (i.e. ½ inch, 2 inches and 4 inches). Results of the block and mortar at a ½ inch distance from the caulking joint yielded four (4) out the six (6) samples to contain PCB > 1.0 ppm. Results of the block and mortar at both the two (2) and four (4) inch distances from the caulk joint yielded all twelve (12) samples to contain PCB's < 1.0 ppm.

The existing masonry block surround extends approximately six (6) inches out from the window unit. The data set suggests that only the block and mortar within two (2) inches of the caulk joint needs to be addressed. However, as a conservative measure and to make the coating more uniformly applied, the block within the entire 6 inch surround area will be completely encapsulated.

7. *Page 6.*

a. *Item 13. It is indicated that masonry/block window surround will be cleaned to meet the standards under 761.61 (a) for non-porous surfaces. The surrounds are porous surfaces, not non-porous surfaces. Please clarify what is being proposed to meet the 761.61(a) requirements for porous surfaces.*

Response:

After removal of the caulking, the masonry block window surrounds will be cleaned to meet the 761.79(b)(4) requirements for porous surfaces including a double wash rinse procedures outlined in Subpart S.

b. *Item 14. Please be aware that the waste containers in addition to the storage area must be marked with the PCB Ml label.*

Response:

All waste containers shall be labeled with the yellow Caution Contains PCBs (Ml Label) as per 761.45.

c. *Item 15. Air monitoring is planned for asbestos. Is there any plan to conduct air monitoring for total dust during the removal operations?*

Response:

In addition to the asbestos air sampling, the outside work zone area will also be monitored for dust with a DustTrak Aerosol Monitor equipped with a 10 micron (10 um) filter.

d. *Item 17. It is indicated that final air clearance testing for asbestos will be performed prior to removal of the containment. Will the sampling be conducted inside containment? Will cleaning of the containment surfaces be conducted prior to removal of the containment?*

Response:

Removal of the window units and associated materials will be completed first, followed by a complete cleaning of all exposed surfaces within the containment area. ATC will then perform a final visual inspection of the work area to ensure no dust or debris is present. Final air clearance testing for asbestos will then be performed inside the containment. If sample results are below acceptable state standards, then the containment area shall be torn down.

e. *Item 18. Masonry/block should be visibly cleaned of dust prior to removal of the containment.*

Response:

As indicated above under Item d, all surfaces within the containment area will be cleaned of visible dust prior to acceptance of the visual inspection, final air clearance testing and tear down of the containment.

8. *Page 7. Waste Disposal*

a. *Please include the number of linear feet of caulk that will be removed and disposed of.*

Response:

Total quantity of caulking to be removed is 384 linear feet.

b. *The waste storage area should be marked as required under 761.40 and 761.45.*

Response:

All waste shall be stored on-site within a roll-off that is properly secured within a chain-linked fenced that is locked. The waste storage area shall be properly marked as required by 761.40 and 761.45.

c. *Please clarify how contaminated materials, PPE and any liquid wastes will be managed and disposed of.*

Response:

All caulking, window components, debris, PPE, plastic, tape, filters, etc. shall be properly packaged and disposed of as PCB >50 ppm waste. All liquid wastes generated during the work shall be properly containerized in a drum for disposal as PCB >50 ppm waste.

9. *There is no discussion of decontamination of field equipment. If necessary, this may be incorporated into the Contractor Work Plan.*

Response:

There is no plan to decontaminate any field equipment. A small quantity of tools will be required to complete the remediation process and all such items will all be disposed of as PCB >50 ppm waste.

If you have any questions regarding this information, please feel free to call me directly at (413) 664-6687 or derrick.wissman@atcassociates.com .

Sincerely,

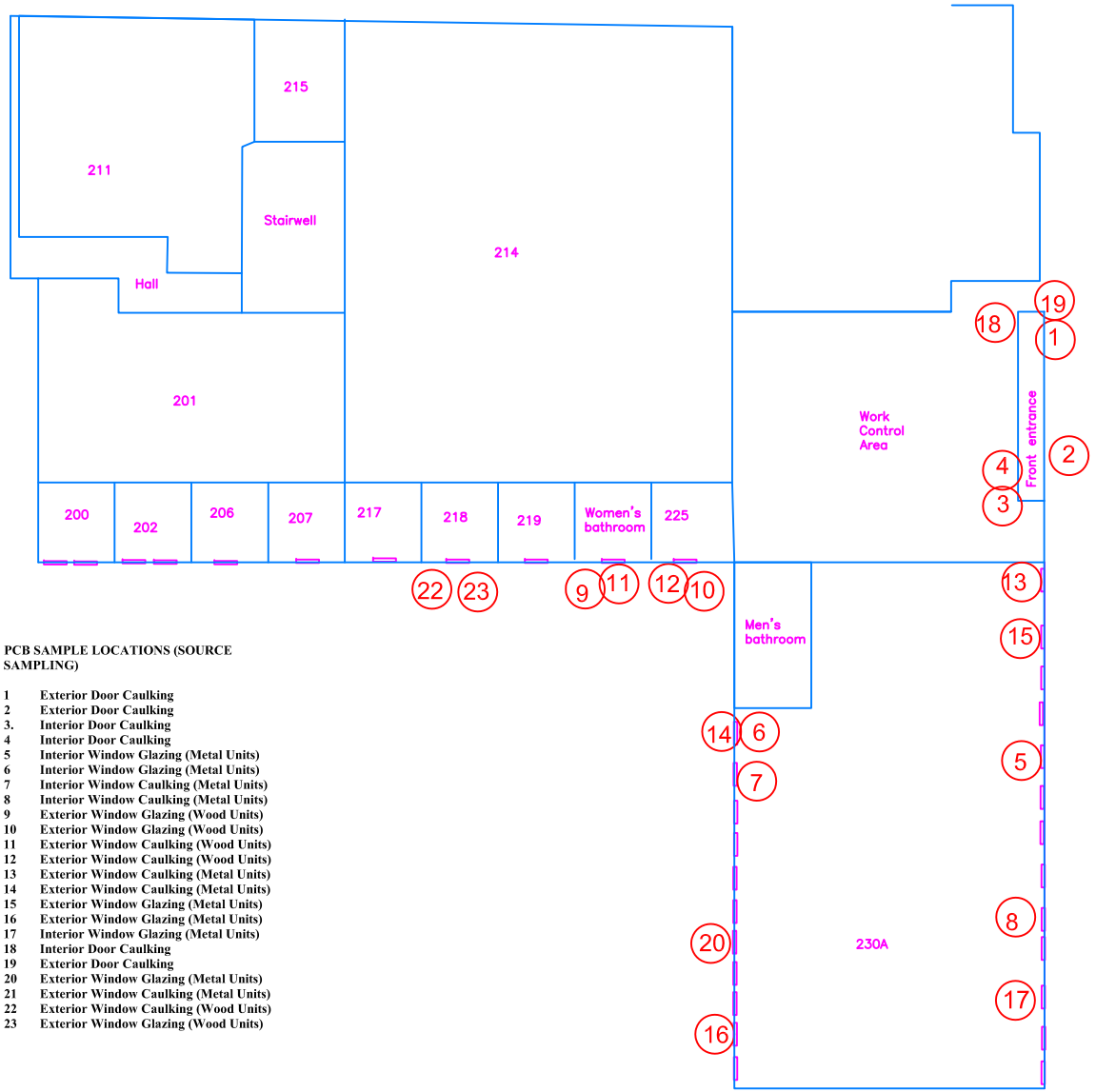
ATC Associates Inc.

Derrick Wissman
Senior Project Manager

Attachment

ATTACHMENT A

FIGURE 1 – SITE DIAGRAM (PCB SAMPLE LOCATIONS)



PCB SAMPLE LOCATIONS (SOURCE SAMPLING)

1	Exterior Door Caulking
2	Exterior Door Caulking
3.	Interior Door Caulking
4	Interior Door Caulking
5	Interior Window Glazing (Metal Units)
6	Interior Window Glazing (Metal Units)
7	Interior Window Caulking (Metal Units)
8	Interior Window Caulking (Metal Units)
9	Exterior Window Glazing (Wood Units)
10	Exterior Window Glazing (Wood Units)
11	Exterior Window Caulking (Wood Units)
12	Exterior Window Caulking (Wood Units)
13	Exterior Window Caulking (Metal Units)
14	Exterior Window Caulking (Metal Units)
15	Exterior Window Glazing (Metal Units)
16	Exterior Window Glazing (Metal Units)
17	Interior Window Glazing (Metal Units)
18	Interior Door Caulking
19	Exterior Door Caulking
20	Exterior Window Glazing (Metal Units)
21	Exterior Window Caulking (Metal Units)
22	Exterior Window Caulking (Wood Units)
23	Exterior Window Glazing (Wood Units)

DRAFTSMAN: TBS
PROJECT NUMBER: 081-0486.0001
CKD BY: DW
DRAWING NUMBER: 1
APPD BY: DW
DATE: 9/5/12
CKD. DATE: 9/5/12
SCALE: NOT TO SCALE

Figure 1: Site Diagram, PCB Sample Locations

Drawing based on information from Fennick & McCredie
Not To Scale

UMass Physical Plant
Amherst Campus
Amherst, Massachusetts

ATC ASSOCIATES INC.
73 WILLIAM FRANKS DRIVE
WEST SPRINGFIELD, MA

DIAGRAM: 1

ATTACHMENT B

PCB LABORATORY RESULTS (ADDITIONAL SAMPLES)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Westfield
Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
Tel: (413)572-4000

TestAmerica Job ID: 360-42480-1
Client Project/Site: Laboratory Analysis

For:
ATC Associates, Inc.
73 William Franks Drive
West Springfield, Massachusetts 01089

Attn: Mr. Derrick Wissman

Authorized for release by:
9/6/2012 4:06:36 PM
Joe Chimi
Report Production Representative
joe.chimi@testamericainc.com

Designee for

Aaron Benoit
Project Manager I
aaron.benoit@testamericainc.com

Table of Contents

Case Narrative

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Job ID: 360-42480-1

Laboratory: TestAmerica Westfield

Narrative

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Receipt

The samples were received on 8/31/2012 2:56 PM; the samples arrived in good condition. The temperature of the cooler at receipt was 26.4° C.

GC Semi VOA

Method 8082: The following samples contained more than one Aroclor component: UMPS-PCB-18 (Int Door Caulk) (360-42480-2), UMPS-PCB-22 (Ext Caulk Wood) (360-42480-6). Results are estimated due to shared peaks.

Detection Summary

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Client Sample ID: UMPS-PCB-17 (Int Glaze Metal) — Lab Sample ID: 360-42480-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.1		0.84		mg/Kg	1	☼	8082	Total/NA

Client Sample ID: UMPS-PCB-18 (Int Door Caulk) — Lab Sample ID: 360-42480-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	5.5		0.78		mg/Kg	1	☼	8082	Total/NA
PCB-1254	3.2		0.78		mg/Kg	1	☼	8082	Total/NA

Client Sample ID: UMPS-PCB-19 (Ext Door Caulk) — Lab Sample ID: 360-42480-3

No Detections

Client Sample ID: UMPS-PCB-20 (Ext Glaze Metal) — Lab Sample ID: 360-42480-4

No Detections

Client Sample ID: UMPS-PCB-21 (Ext Caulk Metal) — Lab Sample ID: 360-42480-5

No Detections

Client Sample ID: UMPS-PCB-22 (Ext Caulk Wood) — Lab Sample ID: 360-42480-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	13		0.83		mg/Kg	1	☼	8082	Total/NA
PCB-1260	13		0.83		mg/Kg	1	☼	8082	Total/NA

Client Sample ID: UMPS-PCB-23 (Ext Glaze Wood) — Lab Sample ID: 360-42480-7

No Detections

Method Summary

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (GC/ECD)	MA DEP	TAL WFD
Moisture	Percent Moisture	EPA	TAL WFD

Protocol References:

EPA = US Environmental Protection Agency

MA DEP = Massachusetts Department Of Environmental Protection

Laboratory References:

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Sample Summary

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
360-42480-1	UMPS-PCB-17 (Int Glaze Metal)	Solid	08/31/12 13:35	08/31/12 14:56
360-42480-2	UMPS-PCB-18 (Int Door Caulk)	Solid	08/31/12 13:42	08/31/12 14:56
360-42480-3	UMPS-PCB-19 (Ext Door Caulk)	Solid	08/31/12 13:51	08/31/12 14:56
360-42480-4	UMPS-PCB-20 (Ext Glaze Metal)	Solid	08/31/12 14:02	08/31/12 14:56
360-42480-5	UMPS-PCB-21 (Ext Caulk Metal)	Solid	08/31/12 14:10	08/31/12 14:56
360-42480-6	UMPS-PCB-22 (Ext Caulk Wood)	Solid	08/31/12 14:19	08/31/12 14:56
360-42480-7	UMPS-PCB-23 (Ext Glaze Wood)	Solid	08/31/12 14:26	08/31/12 14:56

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Client Sample ID: UMPS-PCB-17 (Int Glaze Metal)
Date Collected: 08/31/12 13:35
Date Received: 08/31/12 14:56

Lab Sample ID: 360-42480-1
Matrix: Solid
Percent Solids: 100.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1
PCB-1221	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1
PCB-1232	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1
PCB-1242	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1
PCB-1248	**1.1**		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1
PCB-1254	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1
PCB-1260	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1
PCB-1262	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1
PCB-1268	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*30 - 150*	*09/04/12 15:00*	*09/05/12 17:32*	*1*
Tetrachloro-m-xylene	*86*		*30 - 150*	*09/04/12 15:00*	*09/05/12 17:32*	*1*
DCB Decachlorobiphenyl	*73*		*30 - 150*	*09/04/12 15:00*	*09/05/12 17:32*	*1*
DCB Decachlorobiphenyl	*80*		*30 - 150*	*09/04/12 15:00*	*09/05/12 17:32*	*1*

Client Sample ID: UMPS-PCB-18 (Int Door Caulk)
Date Collected: 08/31/12 13:42
Date Received: 08/31/12 14:56

Lab Sample ID: 360-42480-2
Matrix: Solid
Percent Solids: 100.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1
PCB-1221	ND		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1
PCB-1232	ND		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1
PCB-1242	ND		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1
PCB-1248	**5.5**		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1
PCB-1254	**3.2**		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1
PCB-1260	ND		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1
PCB-1262	ND		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1
PCB-1268	ND		0.78		mg/Kg	☼	09/04/12 15:00	09/05/12 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*113*		*30 - 150*	*09/04/12 15:00*	*09/05/12 17:54*	*1*
Tetrachloro-m-xylene	*122*		*30 - 150*	*09/04/12 15:00*	*09/05/12 17:54*	*1*
DCB Decachlorobiphenyl	*93*		*30 - 150*	*09/04/12 15:00*	*09/05/12 17:54*	*1*
DCB Decachlorobiphenyl	*106*		*30 - 150*	*09/04/12 15:00*	*09/05/12 17:54*	*1*

Client Sample ID: UMPS-PCB-19 (Ext Door Caulk)
Date Collected: 08/31/12 13:51
Date Received: 08/31/12 14:56

Lab Sample ID: 360-42480-3
Matrix: Solid
Percent Solids: 100.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1
PCB-1221	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1
PCB-1232	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1
PCB-1242	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1
PCB-1248	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1
PCB-1254	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1
PCB-1260	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1
PCB-1262	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1
PCB-1268	ND		0.97		mg/Kg	☼	09/04/12 15:00	09/05/12 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*95*		*30 - 150*	*09/04/12 15:00*	*09/05/12 18:16*	*1*

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Client Sample ID: UMPS-PCB-19 (Ext Door Caulk) — **Lab Sample ID: 360-42480-3**
Date Collected: 08/31/12 13:51 — **Matrix: Solid**
Date Received: 08/31/12 14:56 — **Percent Solids: 100.0**

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*30 - 150*	*09/04/12 15:00*	*09/05/12 18:16*	*1*
DCB Decachlorobiphenyl	*80*		*30 - 150*	*09/04/12 15:00*	*09/05/12 18:16*	*1*
DCB Decachlorobiphenyl	*81*		*30 - 150*	*09/04/12 15:00*	*09/05/12 18:16*	*1*

Client Sample ID: UMPS-PCB-20 (Ext Glaze Metal) — **Lab Sample ID: 360-42480-4**
Date Collected: 08/31/12 14:02 — **Matrix: Solid**
Date Received: 08/31/12 14:56 — **Percent Solids: 100.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1
PCB-1221	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1
PCB-1232	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1
PCB-1242	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1
PCB-1248	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1
PCB-1254	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1
PCB-1260	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1
PCB-1262	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1
PCB-1268	ND		0.91		mg/Kg	☼	09/04/12 15:00	09/05/12 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*30 - 150*	*09/04/12 15:00*	*09/05/12 18:38*	*1*
Tetrachloro-m-xylene	*84*		*30 - 150*	*09/04/12 15:00*	*09/05/12 18:38*	*1*
DCB Decachlorobiphenyl	*70*		*30 - 150*	*09/04/12 15:00*	*09/05/12 18:38*	*1*
DCB Decachlorobiphenyl	*73*		*30 - 150*	*09/04/12 15:00*	*09/05/12 18:38*	*1*

Client Sample ID: UMPS-PCB-21 (Ext Caulk Metal) — **Lab Sample ID: 360-42480-5**
Date Collected: 08/31/12 14:10 — **Matrix: Solid**
Date Received: 08/31/12 14:56 — **Percent Solids: 100.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1
PCB-1221	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1
PCB-1232	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1
PCB-1242	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1
PCB-1248	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1
PCB-1254	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1
PCB-1260	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1
PCB-1262	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1
PCB-1268	ND		0.84		mg/Kg	☼	09/04/12 15:00	09/05/12 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*94*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:00*	*1*
Tetrachloro-m-xylene	*68*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:00*	*1*
DCB Decachlorobiphenyl	*78*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:00*	*1*
DCB Decachlorobiphenyl	*80*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:00*	*1*

Client Sample ID: UMPS-PCB-22 (Ext Caulk Wood) — **Lab Sample ID: 360-42480-6**
Date Collected: 08/31/12 14:19 — **Matrix: Solid**
Date Received: 08/31/12 14:56 — **Percent Solids: 100.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1
PCB-1221	ND		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1
PCB-1232	ND		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1
PCB-1242	ND		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1

Method: 8082 - Polychlorinated Biphenyls (GC/ECD) (Continued)

Client Sample ID: UMPS-PCB-22 (Ext Caulk Wood) — **Lab Sample ID: 360-42480-6**
Date Collected: 08/31/12 14:19 — **Matrix: Solid**
Date Received: 08/31/12 14:56 — **Percent Solids: 100.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	ND		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1
PCB-1254	**13**		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1
PCB-1260	**13**		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1
PCB-1262	ND		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1
PCB-1268	ND		0.83		mg/Kg	☼	09/04/12 15:00	09/05/12 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*90*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:22*	*1*
Tetrachloro-m-xylene	*81*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:22*	*1*
DCB Decachlorobiphenyl	*87*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:22*	*1*
DCB Decachlorobiphenyl	*84*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:22*	*1*

Client Sample ID: UMPS-PCB-23 (Ext Glaze Wood) — **Lab Sample ID: 360-42480-7**
Date Collected: 08/31/12 14:26 — **Matrix: Solid**
Date Received: 08/31/12 14:56 — **Percent Solids: 100.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1
PCB-1221	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1
PCB-1232	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1
PCB-1242	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1
PCB-1248	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1
PCB-1254	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1
PCB-1260	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1
PCB-1262	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1
PCB-1268	ND		0.86		mg/Kg	☼	09/04/12 15:00	09/05/12 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:44*	*1*
Tetrachloro-m-xylene	*69*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:44*	*1*
DCB Decachlorobiphenyl	*67*	*p*	*30 - 150*	*09/04/12 15:00*	*09/05/12 19:44*	*1*
DCB Decachlorobiphenyl	*101*		*30 - 150*	*09/04/12 15:00*	*09/05/12 19:44*	*1*

General Chemistry

Client Sample ID: UMPS-PCB-17 (Int Glaze Metal) — **Lab Sample ID: 360-42480-1**
Date Collected: 08/31/12 13:35 — **Matrix: Solid**
Date Received: 08/31/12 14:56

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.00		1.0		%			09/04/12 17:33	1
Percent Solids	100		1.0		%			09/04/12 17:33	1

Client Sample ID: UMPS-PCB-18 (Int Door Caulk) — **Lab Sample ID: 360-42480-2**
Date Collected: 08/31/12 13:42 — **Matrix: Solid**
Date Received: 08/31/12 14:56

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.00		1.0		%			09/04/12 17:33	1
Percent Solids	100		1.0		%			09/04/12 17:33	1

Client Sample ID: UMPS-PCB-19 (Ext Door Caulk) — **Lab Sample ID: 360-42480-3**
Date Collected: 08/31/12 13:51 — **Matrix: Solid**
Date Received: 08/31/12 14:56

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.00		1.0		%			09/04/12 17:33	1
Percent Solids	100		1.0		%			09/04/12 17:33	1

Client Sample ID: UMPS-PCB-20 (Ext Glaze Metal) — **Lab Sample ID: 360-42480-4**
Date Collected: 08/31/12 14:02 — **Matrix: Solid**
Date Received: 08/31/12 14:56

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.00		1.0		%			09/04/12 17:36	1
Percent Solids	100		1.0		%			09/04/12 17:36	1

Client Sample ID: UMPS-PCB-21 (Ext Caulk Metal) — **Lab Sample ID: 360-42480-5**
Date Collected: 08/31/12 14:10 — **Matrix: Solid**
Date Received: 08/31/12 14:56

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.00		1.0		%			09/04/12 17:36	1
Percent Solids	100		1.0		%			09/04/12 17:36	1

Client Sample ID: UMPS-PCB-22 (Ext Caulk Wood) — **Lab Sample ID: 360-42480-6**
Date Collected: 08/31/12 14:19 — **Matrix: Solid**
Date Received: 08/31/12 14:56

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.00		1.0		%			09/04/12 17:36	1
Percent Solids	100		1.0		%			09/04/12 17:36	1

Client Sample ID: UMPS-PCB-23 (Ext Glaze Wood) — **Lab Sample ID: 360-42480-7**
Date Collected: 08/31/12 14:26 — **Matrix: Solid**
Date Received: 08/31/12 14:56

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.00		1.0		%			09/04/12 17:36	1
Percent Solids	100		1.0		%			09/04/12 17:36	1

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

GC Semi VOA

Prep Batch: 95040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-42480-1	UMPS-PCB-17 (Int Glaze Metal)	Total/NA	Solid	3540C	
360-42480-2	UMPS-PCB-18 (Int Door Caulk)	Total/NA	Solid	3540C	
360-42480-3	UMPS-PCB-19 (Ext Door Caulk)	Total/NA	Solid	3540C	
360-42480-4	UMPS-PCB-20 (Ext Glaze Metal)	Total/NA	Solid	3540C	
360-42480-5	UMPS-PCB-21 (Ext Caulk Metal)	Total/NA	Solid	3540C	
360-42480-6	UMPS-PCB-22 (Ext Caulk Wood)	Total/NA	Solid	3540C	
360-42480-7	UMPS-PCB-23 (Ext Glaze Wood)	Total/NA	Solid	3540C	
LCS 360-95040/2-A	Lab Control Sample	Total/NA	Solid	3540C	
LCSD 360-95040/3-A	Lab Control Sample Dup	Total/NA	Solid	3540C	
MB 360-95040/1-A	Method Blank	Total/NA	Solid	3540C	

Analysis Batch: 95054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-42480-1	UMPS-PCB-17 (Int Glaze Metal)	Total/NA	Solid	8082	95040
360-42480-2	UMPS-PCB-18 (Int Door Caulk)	Total/NA	Solid	8082	95040
360-42480-3	UMPS-PCB-19 (Ext Door Caulk)	Total/NA	Solid	8082	95040
360-42480-4	UMPS-PCB-20 (Ext Glaze Metal)	Total/NA	Solid	8082	95040
360-42480-5	UMPS-PCB-21 (Ext Caulk Metal)	Total/NA	Solid	8082	95040
360-42480-6	UMPS-PCB-22 (Ext Caulk Wood)	Total/NA	Solid	8082	95040
360-42480-7	UMPS-PCB-23 (Ext Glaze Wood)	Total/NA	Solid	8082	95040
LCS 360-95040/2-A	Lab Control Sample	Total/NA	Solid	8082	95040
LCSD 360-95040/3-A	Lab Control Sample Dup	Total/NA	Solid	8082	95040
MB 360-95040/1-A	Method Blank	Total/NA	Solid	8082	95040

General Chemistry

Analysis Batch: 94961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-42480-1	UMPS-PCB-17 (Int Glaze Metal)	Total/NA	Solid	Moisture	
360-42480-2	UMPS-PCB-18 (Int Door Caulk)	Total/NA	Solid	Moisture	
360-42480-3	UMPS-PCB-19 (Ext Door Caulk)	Total/NA	Solid	Moisture	
360-42480-4	UMPS-PCB-20 (Ext Glaze Metal)	Total/NA	Solid	Moisture	
360-42480-5	UMPS-PCB-21 (Ext Caulk Metal)	Total/NA	Solid	Moisture	
360-42480-6	UMPS-PCB-22 (Ext Caulk Wood)	Total/NA	Solid	Moisture	
360-42480-7	UMPS-PCB-23 (Ext Glaze Wood)	Total/NA	Solid	Moisture	

Surrogate Summary

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
360-42480-1	UMPS-PCB-17 (Int Glaze Metal)	86	86	73	80
360-42480-2	UMPS-PCB-18 (Int Door Caulk)	113	122	93	106
360-42480-3	UMPS-PCB-19 (Ext Door Caulk)	95	71	80	81
360-42480-4	UMPS-PCB-20 (Ext Glaze Metal)	86	84	70	73
360-42480-5	UMPS-PCB-21 (Ext Caulk Metal)	94	68	78	80
360-42480-6	UMPS-PCB-22 (Ext Caulk Wood)	90	81	87	84
360-42480-7	UMPS-PCB-23 (Ext Glaze Wood)	82	69	67 p	101
LCS 360-95040/2-A	Lab Control Sample	88	97	92	108
LCSD 360-95040/3-A	Lab Control Sample Dup	61	64	82	95
MB 360-95040/1-A	Method Blank	61	71	65	80

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (GC/ECD)

Lab Sample ID: MB 360-95040/1-A
Matrix: Solid
Analysis Batch: 95054

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 95040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1
PCB-1221	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1
PCB-1232	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1
PCB-1242	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1
PCB-1248	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1
PCB-1254	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1
PCB-1260	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1
PCB-1262	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1
PCB-1268	ND		0.10		mg/Kg		09/04/12 15:00	09/05/12 16:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*30 - 150*	*09/04/12 15:00*	*09/05/12 16:27*	*1*
Tetrachloro-m-xylene	*71*		*30 - 150*	*09/04/12 15:00*	*09/05/12 16:27*	*1*
DCB Decachlorobiphenyl	*65*		*30 - 150*	*09/04/12 15:00*	*09/05/12 16:27*	*1*
DCB Decachlorobiphenyl	*80*		*30 - 150*	*09/04/12 15:00*	*09/05/12 16:27*	*1*

Lab Sample ID: LCS 360-95040/2-A
Matrix: Solid
Analysis Batch: 95054

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 95040

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			0.500	0.471		mg/Kg		94	40 - 140		
PCB-1260			0.500	0.627		mg/Kg		125	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*88*		*30 - 150*
Tetrachloro-m-xylene	*97*		*30 - 150*
DCB Decachlorobiphenyl	*92*		*30 - 150*
DCB Decachlorobiphenyl	*108*		*30 - 150*

Lab Sample ID: LCSD 360-95040/3-A
Matrix: Solid
Analysis Batch: 95054

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 95040

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			0.500	0.376		mg/Kg		75	40 - 140	22	30
PCB-1260			0.500	0.557		mg/Kg		111	40 - 140	12	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*61*		*30 - 150*
Tetrachloro-m-xylene	*64*		*30 - 150*
DCB Decachlorobiphenyl	*82*		*30 - 150*
DCB Decachlorobiphenyl	*95*		*30 - 150*

Lab Chronicle

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Client Sample ID: UMPS-PCB-17 (Int Glaze Metal)

Lab Sample ID: 360-42480-1
Date Collected: 08/31/12 13:35
Matrix: Solid
Date Received: 08/31/12 14:56
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			95040	09/04/12 15:00	BRB	TAL WFD
Total/NA	Analysis	8082		1	95054	09/05/12 17:32	BRB	TAL WFD
Total/NA	Analysis	Moisture		1	94961	09/04/12 17:33	BH	TAL WFD

Client Sample ID: UMPS-PCB-18 (Int Door Caulk)

Lab Sample ID: 360-42480-2
Date Collected: 08/31/12 13:42
Matrix: Solid
Date Received: 08/31/12 14:56
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			95040	09/04/12 15:00	BRB	TAL WFD
Total/NA	Analysis	8082		1	95054	09/05/12 17:54	BRB	TAL WFD
Total/NA	Analysis	Moisture		1	94961	09/04/12 17:33	BH	TAL WFD

Client Sample ID: UMPS-PCB-19 (Ext Door Caulk)

Lab Sample ID: 360-42480-3
Date Collected: 08/31/12 13:51
Matrix: Solid
Date Received: 08/31/12 14:56
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			95040	09/04/12 15:00	BRB	TAL WFD
Total/NA	Analysis	8082		1	95054	09/05/12 18:16	BRB	TAL WFD
Total/NA	Analysis	Moisture		1	94961	09/04/12 17:33	BH	TAL WFD

Client Sample ID: UMPS-PCB-20 (Ext Glaze Metal)

Lab Sample ID: 360-42480-4
Date Collected: 08/31/12 14:02
Matrix: Solid
Date Received: 08/31/12 14:56
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			95040	09/04/12 15:00	BRB	TAL WFD
Total/NA	Analysis	8082		1	95054	09/05/12 18:38	BRB	TAL WFD
Total/NA	Analysis	Moisture		1	94961	09/04/12 17:36	BH	TAL WFD

Client Sample ID: UMPS-PCB-21 (Ext Caulk Metal)

Lab Sample ID: 360-42480-5
Date Collected: 08/31/12 14:10
Matrix: Solid
Date Received: 08/31/12 14:56
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			95040	09/04/12 15:00	BRB	TAL WFD
Total/NA	Analysis	8082		1	95054	09/05/12 19:00	BRB	TAL WFD
Total/NA	Analysis	Moisture		1	94961	09/04/12 17:36	BH	TAL WFD

Lab Chronicle

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Client Sample ID: UMPS-PCB-22 (Ext Caulk Wood)

Lab Sample ID: 360-42480-6

Date Collected: 08/31/12 14:19
Matrix: Solid
Date Received: 08/31/12 14:56
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			95040	09/04/12 15:00	BRB	TAL WFD
Total/NA	Analysis	8082		1	95054	09/05/12 19:22	BRB	TAL WFD
Total/NA	Analysis	Moisture		1	94961	09/04/12 17:36	BH	TAL WFD

Client Sample ID: UMPS-PCB-23 (Ext Glaze Wood)

Lab Sample ID: 360-42480-7

Date Collected: 08/31/12 14:26
Matrix: Solid
Date Received: 08/31/12 14:56
Percent Solids: 100.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3540C			95040	09/04/12 15:00	BRB	TAL WFD
Total/NA	Analysis	8082		1	95054	09/05/12 19:44	BRB	TAL WFD
Total/NA	Analysis	Moisture		1	94961	09/04/12 17:36	BH	TAL WFD

Laboratory References:

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Certification Summary

Client: ATC Associates, Inc.
Project/Site: Laboratory Analysis

TestAmerica Job ID: 360-42480-1

Laboratory: TestAmerica Westfield

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0494	09-30-12
Maine	State Program	1	MA00014	05-03-13
Massachusetts	State Program	1	M-MA014	06-30-13
New Hampshire	NELAC	1	2539	08-08-13
Rhode Island	State Program	1	LAO00057	12-30-12
Vermont	State Program	1	VT-10843	11-18-12

State Accreditation Matrix

Method Name	Description	Primary Accreditation	
		New Hampshire (NELAC)	Mass
180.1	Turbidity, Nephelometric	P	P
245.1	Mercury (CVAA)	NP/P	NP
300	Anions, Ion Chromatography	NP/P	NP/P
410.4	COD	NP	NP
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P
524.2	Trihalomethane compounds	P	P
608	Organochlorine Pest/PCBs (list upon request)	NP	NP
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP	NP
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW	
1103.1	E.coli		ambient/source
3546	Microwave Extraction	SW	
5035	Closed System Purge and Trap	SW	
6020	Metals (ICP/MS) (list upon request)	NP	
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P	
3010A	Preparation, Total Metals	NP/P	
3020A	Preparation, Total Metals	NP/P	
3050B	Preparation, Metals	SW	
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP	
5030B	Purge and Trap	NP	
6010C	Metals (ICP)(list upon request)	NP/SW	
7196A	Chromium, Hexavalent	NP/SW	
7470A	Mercury (CVAA)	NP	
7471A	Mercury (CVAA)	SW	
8081B	Organochlorine Pesticides (GC)(list upon request)	NP/SW	
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW	
8260C	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW	
8270D	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW	
9012A	Cyanide, Total and/or Amenable	NP/SW	
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP	
9045C	pH	SW	
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)	NP/SW	
Enterolert	Enterococcus		ambient/source
L107041C	Nitrogen, Nitrate	NP	
L107-06-1B	Nitrogen Ammonia	NP	NP
L204001A CN	Cyanide, Total	P	NP/P
L210-001A	Phenolics, Total Recoverable	NP	NP
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)	NP/SW	
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)	NP/SW	
SM 2320B	Alkalinity	NP/P	NP/P
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P
SM 2540D	Solids, Total Suspended (TSS)	NP	NP
SM 3500 CR D	Chromium, Hexavalent	NP	
SM 4500 Cl F	Chlorine, Residual		NP
SM 4500 H+ B	pH	NP/P	NP/P
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP
SM 4500 P E	Phosphorus, Total	NP	NP
SM 4500 S2 D	Sulfide, Total	NP	
SM 5210B	BOD, 5-Day	NP	NP
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP
SM 9215E	Heterotrophic Plate Count (SimPlate)		P
SM 9222D	Coliforms, Fecal (Membrane Filter)		NP
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P
SM 9223	Coliforms, Total, and E.Coli (Enumeration)		P

Not all organic compounds are accreditied under YNI
For methods with multiple compounds all compounds may not meet TNI criteria, a listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is the laboratories typcial listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Checklist

Client: ATC Associates, Inc.

Job Number: 360-42480-1

Login Number: 42480

List Source: TestAmerica Westfield

List Number: 1

Creator: Ard, Vanessa L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	False	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

EMAIL DERRICK.WISSMAN@ATCASSOCIATES.COM

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: DERRICK WISSMAN	Lab PM:	Carrier Tracking No(s):	COC No: 018631
Client Contact: DERRICK WISSMAN	Phone: 413-664-6687	E-Mail:		Page:
Company: ATC ASSOCIATES INC				Job #: 081-42486
Address: 73 William Franks Drive	Due Date Requested: 9/5/12			
City: West Springfield	TAT Requested (days): 3 day			
State, Zip: MA 01089	Quote #:			
Phone: 413-664-6687	PO #:			
Email: DERRICK.WISSMAN@ATCASSOCIATES.COM	WO #:			
Project Name/number: 081-42486-0001	SSOW#:			
Site: PHYSICAL PLANT - UMASS				

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; H - Ascorbic Acid; I - Ice; J - DI Water; M - Hexane; N - None; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; Z - other (specify)

Regulatory programs: MCP ☐ GW1/S1 ☐; RCP ☐ CT RSR ☐; DEP Form ☐ EDD Required ☐

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Sampler's Initials	Field Filtered Sample?	Perform MS/MSD?	PCB 8082 Soxhlet Prep 3540C	Total Number of containers	Special Instructions/Note:
UMPS-PCB-17 (INT GLAZE-METAL)	8/31/12	1335	G	S				X X	1	
UMPS-PCB-18 (INT DOOR CAULK	8/31/12	1342	G	S				X X	1	
UMPS-PCB-19 (EXT DOOR CAULK)	8/31/12	1351	G	S				X X	1	
UMPS-PCB-20 (EXT GLAZE-METAL)	8/31/12	1402	G	S				X X	1	
UMPS-PCB-21 (EXT CAULK METAL)	8/31/12	1410	G	S				X X	1	
UMPS-PCB-22 (EXT CAULK WOOD)	8/31/12	1419	G	S				X X	1	
UMPS-PCB-23 (EXT GLAZE WOOD)	8/31/12	1426	G	S				X X	1	

Preservation Codes:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☑ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Relinquished by:	Date/Time: 8/31/12 1456	Company: ATC	Received by:	Date/Time: 8/31/12 1456	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 26.4 NO ICE

ATTACHMENT C

REVISED SITE LAYOUT DRAWING

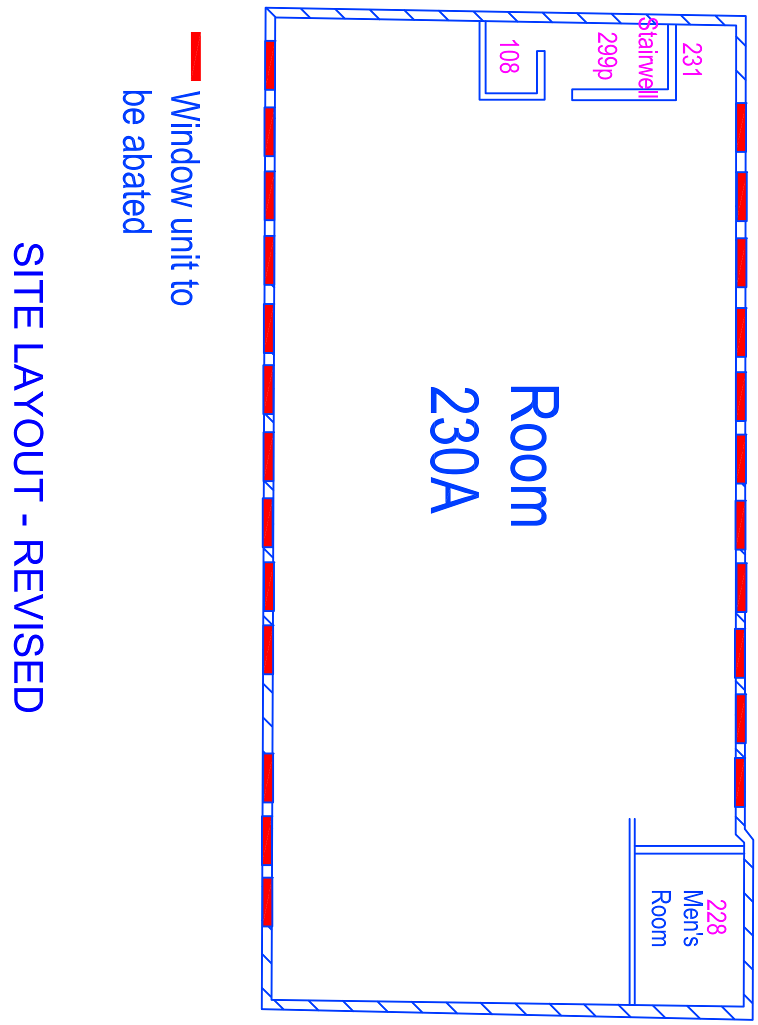


DIAGRAM: 1

ATC ASSOCIATES INC.
73 WILLIAM FRANKS DRIVE
WEST SPRINGFIELD, MA

Figure 1: Second Floor, Room 230A

UMass Physical Plant
Amherst Campus
Amherst, Massachusetts

Drawing based on field observations
Not To Scale

PROJECT NUMBER:	081.42486.0001	DRAFTSMAN	TBS
DRAWING NUMBER:	1	CKD BY'	DW
DATE:	9/5/12	APP'D BY'	DW
SCALE:	NOT TO SCALE	CKD. DATE:	9/5/12