



## FACT SHEET

### CITY OF NEW BEDFORD'S INDOOR AIR SAMPLING AT NEW BEDFORD HIGH SCHOOL Polychlorinated Biphenyl Indoor Air Sampling Results

City of New Bedford/TRC, April 25, 2011

During the February 2011 school vacation, TRC collected 61 air samples for polychlorinated biphenyl (PCB) analysis at New Bedford High School. TRC collected fifty-nine air samples from inside the building, and two samples were collected outside to compare ambient air levels during the sampling event. The sample locations were selected in collaboration with the United States Environmental Protection Agency (EPA) based on previous sampling (20 of the 26 locations that were sampled in 2008 were re-sampled in 2011), the performance of the air handling system, and the presence of lighting fixtures with potential PCB-containing ballasts and/or residues from releases from PCB ballasts detailed in a plan dated November 23, 2010 and posted on the City's website (NBHS→Indoor Studies→Air Handling System Cleaning and Indoor Air Monitoring for PCBs). Validation of the newly collected data was completed in April 2011.

#### **What do the results show?**

The PCB indoor air monitoring results are summarized in the attached figures showing the rooms sampled and the associated results. PCBs were detected in three samples (Rooms A-110-1, A-315-1, and A-203-2) at levels greater than  $0.3 \mu\text{g}/\text{m}^3$  total PCBs, which is the Acceptable Long-Term Average Exposure Concentration that was established by the EPA for the Keith Middle School (KMS) and New Bedford High School (NBHS) PCB air monitoring programs. This value of  $0.3 \mu\text{g}/\text{m}^3$  total PCBs is based on an occupational exposure (8 hours per day, 250 days per year, for 25 years). PCBs were detected in five samples (Rooms A-112-2, A-311-2, A-307-3, A-212-4, and A-315-4) at levels greater than  $0.05 \mu\text{g}/\text{m}^3$ , which is the level established by the EPA to conduct further investigation regarding the potential sources of PCBs. The rest of the air samples either had PCB detections below the levels discussed above, or PCBs were not detected at all. Of the 18 locations that had also been sampled in 2008, 13 locations had PCB concentrations in 2011 that were at similar levels or lower than levels that were detected in 2008.

#### **What was done during the April 2011 school vacation?**

TRC identified light fixtures where old ballasts with PCB oil appear to have leaked, leaving a residue on the metal tray that encloses the wiring and ballast. The light fixture trays were removed from Rooms A-110-1, A-315-1, A-203-2, and A-307-3. TRC also worked with School Department staff to evaluate air-flow in the three rooms where PCBs were detected at levels higher than  $0.3 \mu\text{g}/\text{m}^3$  and adjusted the unit ventilators so that they would take in more outdoor air. Air samples were re-collected during the April vacation in the eight rooms where PCBs were detected at levels higher than  $0.05 \mu\text{g}/\text{m}^3$ . As a precaution, rooms A-110-1, A-315-1, and A-203-2 will be closed until testing determines levels are below  $0.3 \mu\text{g}/\text{m}^3$  total PCBs. Preliminary analytical results (pre-validation) for the air samples that were collected during April vacation are expected from the laboratory by the end of this week. It is safe for students and staff to continue using rooms A-112-2, A-311-2, A-307-3, A-212-4, and A-315-4 while the potential sources are under evaluation.

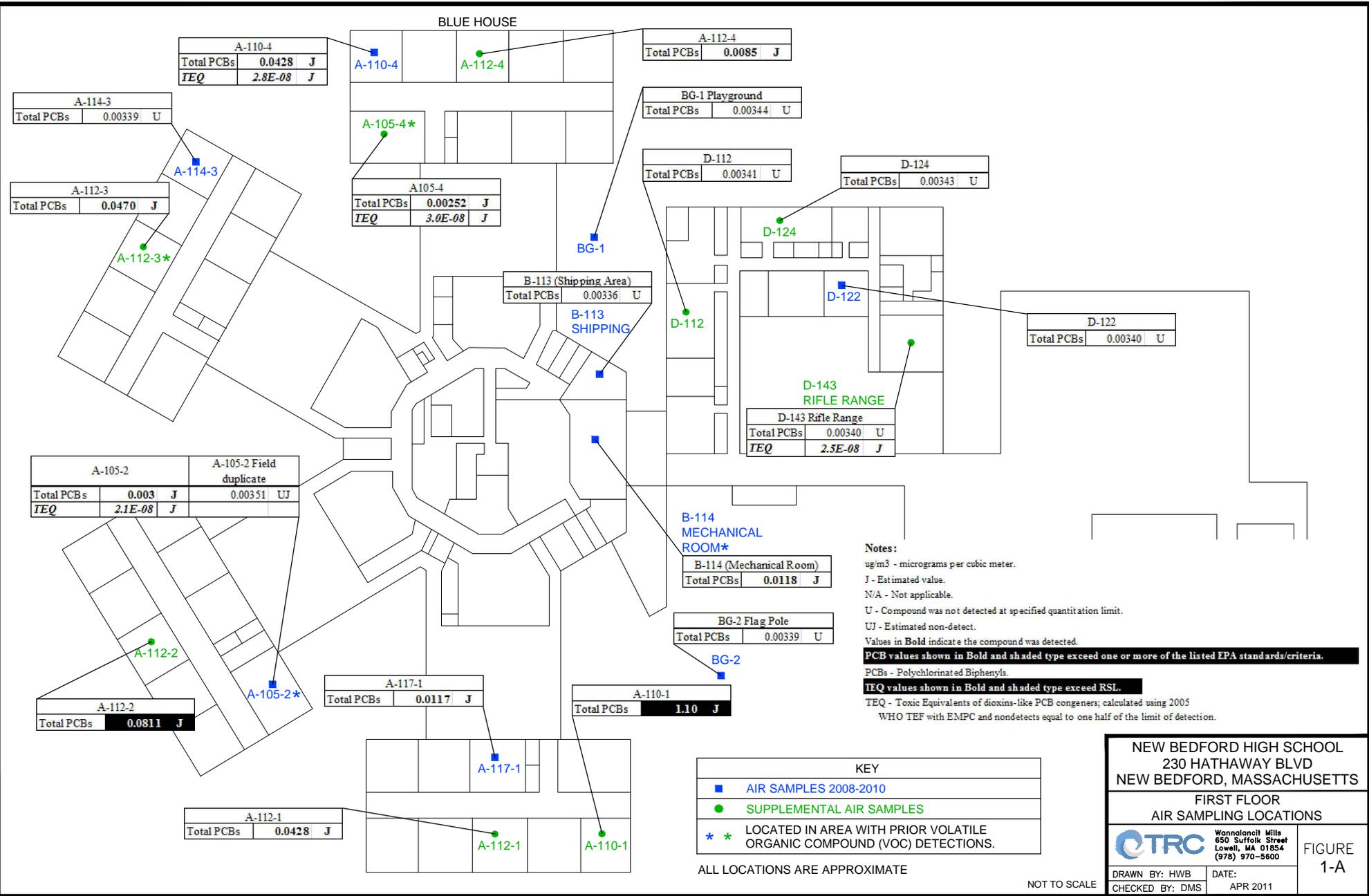
**What will be done going forward?**

The City and TRC will work to identify any necessary adjustments to the air handling system at the high school and to determine a remediation schedule. Almost 3,000 light fixtures are scheduled for replacement as part of the summer 2011 environmental work (see the March 2011 *Removal and Abatement Plan: NBHS Interior PCBs* on the City's website), including the fixtures noted above.

**For More Information**

This fact sheet and the full set of validated data tables associated with the February 2011 school vacation sampling are posted on the City's website (<http://www.newbedford-ma.gov/McCoy/sitemap/sitemap.html>) under "New Bedford High School" (Indoor Studies→Air Handling System Cleaning and Indoor Air Monitoring for PCBs). A memorandum containing a summary of the fluorescent light ballast survey results was issued in February 2011 and is also posted on the City's website (NBHS→Indoor Studies→Building Materials Assessment and Remediation). If you have additional questions, please contact Cheryl Henlin, City of New Bedford Environmental Stewardship Department, at (508) 991-6188 or email [cheryl.henlin@newbedford-ma.gov](mailto:cheryl.henlin@newbedford-ma.gov)

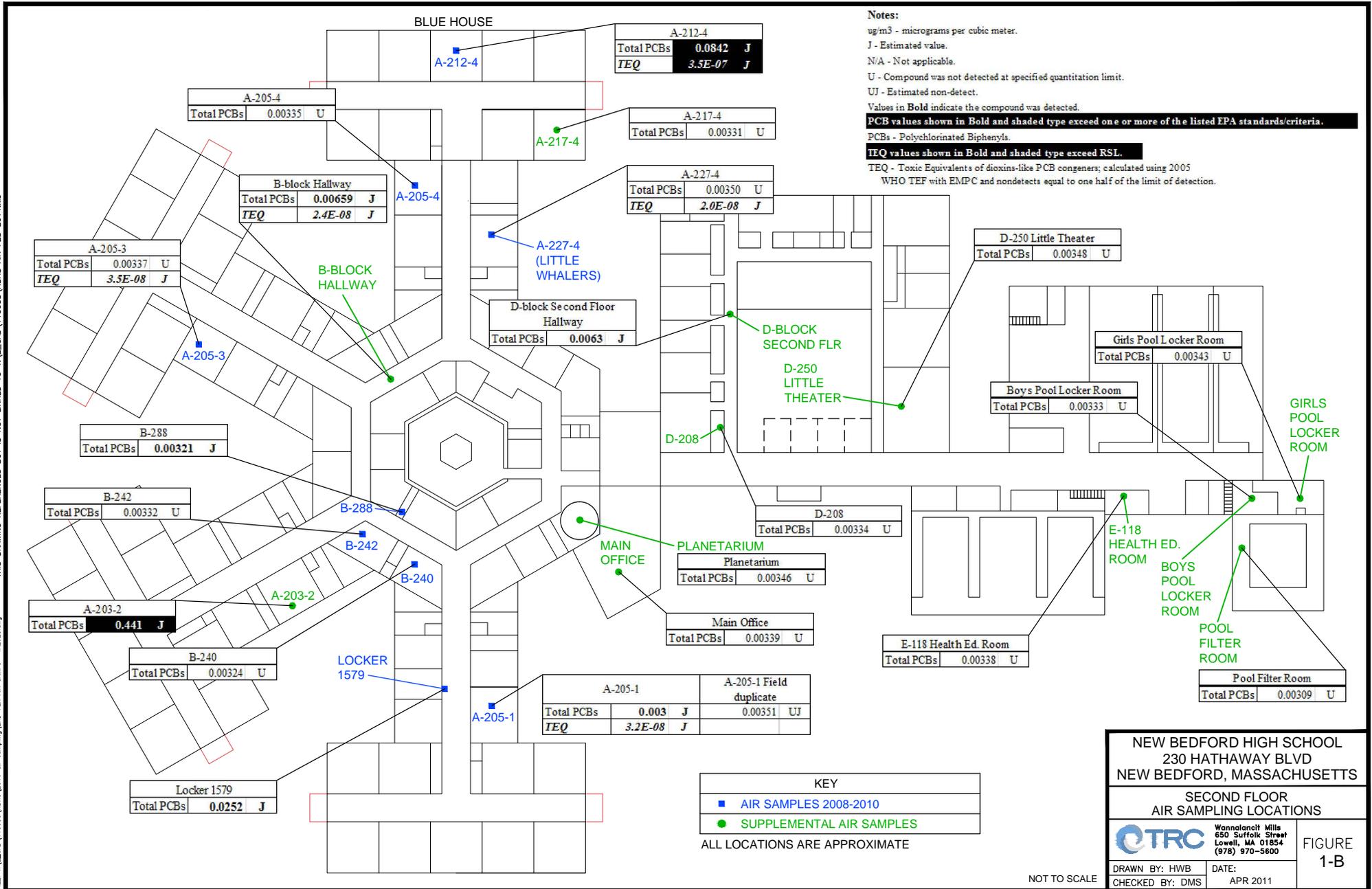
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**NEW BEDFORD HIGH SCHOOL**  
 230 HATHAWAY BLVD  
 NEW BEDFORD, MASSACHUSETTS  
 FIRST FLOOR  
 AIR SAMPLING LOCATIONS

	Wannancott Mills 650 Suffolk Street Lowell, MA 01854 (978) 970-5600	<b>FIGURE</b> 1-A
	DRAWN BY: HWB CHECKED BY: DMS	

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NEW BEDFORD HIGH SCHOOL  
 230 HATHAWAY BLVD  
 NEW BEDFORD, MASSACHUSETTS

SECOND FLOOR  
 AIR SAMPLING LOCATIONS

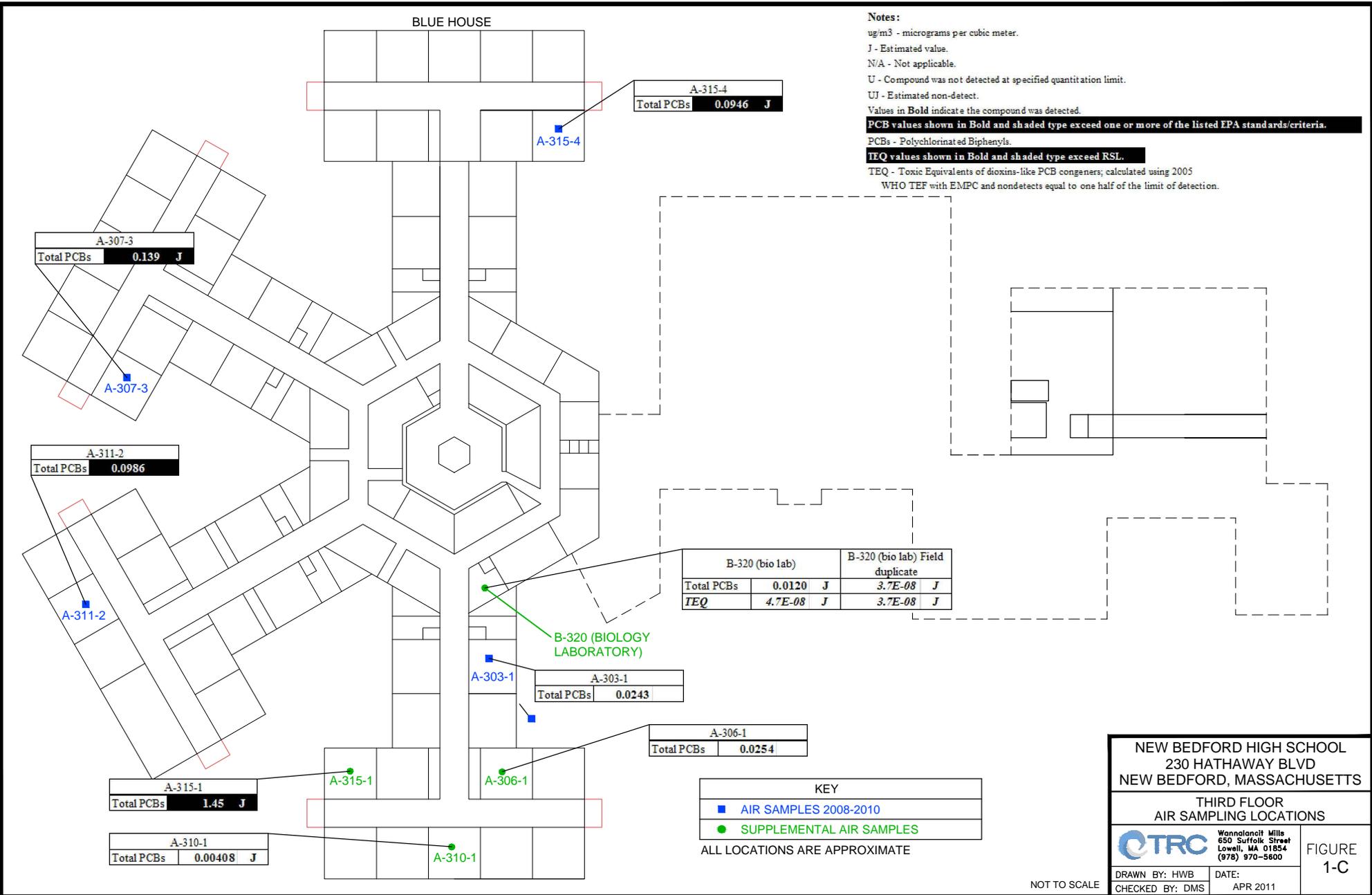
Wannalancit Mills  
 650 Suffolk Street  
 Lowell, MA 01854  
 (978) 970-5600

DRAWN BY: HWB      DATE:  
 CHECKED BY: DMS      APR 2011

FIGURE  
 1-B

NOT TO SCALE

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**Notes:**

- ug/m<sup>3</sup> - micrograms per cubic meter.
- J - Estimated value.
- N/A - Not applicable.
- U - Compound was not detected at specified quantitation limit.
- UJ - Estimated non-detect.
- Values in **Bold** indicate the compound was detected.
- PCB values shown in Bold and shaded type exceed one or more of the listed EPA standards/criteria.**
- PCBs - Polychlorinated Biphenyls.
- TEQ values shown in Bold and shaded type exceed RSL.**
- TEQ - Toxic Equivalents of dioxins-like PCB congeners; calculated using 2005 WHO TEF with EMPC and nondetects equal to one half of the limit of detection.

A-315-4	
Total PCBs	<b>0.0946 J</b>

A-307-3	
Total PCBs	<b>0.139 J</b>

A-311-2	
Total PCBs	<b>0.0986</b>

B-320 (bio lab)		B-320 (bio lab) Field duplicate	
Total PCBs	<b>0.0120 J</b>	<b>3.7E-08 J</b>	<b>3.7E-08 J</b>
IEQ	<b>4.7E-08 J</b>	<b>3.7E-08 J</b>	<b>3.7E-08 J</b>

A-303-1	
Total PCBs	<b>0.0243</b>

A-306-1	
Total PCBs	<b>0.0254</b>

A-315-1	
Total PCBs	<b>1.45 J</b>

A-310-1	
Total PCBs	<b>0.00408 J</b>

KEY	
■	AIR SAMPLES 2008-2010
●	SUPPLEMENTAL AIR SAMPLES

ALL LOCATIONS ARE APPROXIMATE

NOT TO SCALE

<b>NEW BEDFORD HIGH SCHOOL</b> 230 HATHAWAY BLVD NEW BEDFORD, MASSACHUSETTS	
THIRD FLOOR AIR SAMPLING LOCATIONS	
	<b>FIGURE 1-C</b>
Wannancott Mills 650 Suffolk Street Lowell, MA 01854 (978) 970-5600	DRAWN BY: HWB CHECKED BY: DMS
DATE: APR 2011	