

# BUILDING 48

February/March 2005 Air and Soil Vapor Test Results  
Sampling completed by New York State

This information sheet summarizes the overall conclusions of the New York State Departments of Environmental Conservation and Health's (i.e., the State's) air and soil vapor investigation on the Huron Campus. It also provides the results of the indoor air and sub-slab vapor sampling for Building 48. Data given here supplement those provided in the *Preliminary Site Assessment Data Report, Huron Real Estate Associates, LLC* (September 2005).

## OVERALL CONCLUSIONS

- The soil vapor data generated by this investigation clearly support the necessity of continuing IBM's on-going on-site investigation. The purpose of the investigation is to characterize the nature and extent of subsurface contamination on the Huron Campus and to evaluate the feasibility of expanding remedial actions.
- Thirty-five outdoor air samples were taken on the Huron Campus from February to March of 2005. For the compounds tested, the air levels are consistent with typical outdoor air background levels and are not a concern.
- The majority of the indoor air results for routinely occupied areas fell into two categories. In the first category, the air levels are consistent with background indoor air levels and are not of concern. In the second category, the levels are below or slightly above NYSDOH guidelines. In this category, the possibility of health effects in workers exposed to these levels is low. That is, the NYSDOH does not expect to be able to associate health effects from any of the chemicals at the levels measured in indoor air. As discussed below, the results for Building 48 fall into this second category.

## BUILDING 48 — GENERAL INFORMATION

- Indoor air samples were collected from two locations in the basement: near Column H9 and between Columns L2 and M2 (Figure 1).
- Sub-slab vapor samples were collected beneath the building's slab in the basement at the two locations described above (Figure 2).
- One outdoor air sample was collected from the west side of Building 48.
- Each sample was tested for eleven volatile compounds (see side box for complete list).
- Some results have the letter "J" next to them. This means that there is some degree of uncertainty in the result. However, the result is a reasonable estimate of the actual level and does not warrant sample recollection or disregard.
- All results are reported as concentrations in the unit of micrograms per cubic meter ( $\text{mcg}/\text{m}^3$ ).

### COMPOUNDS TESTED

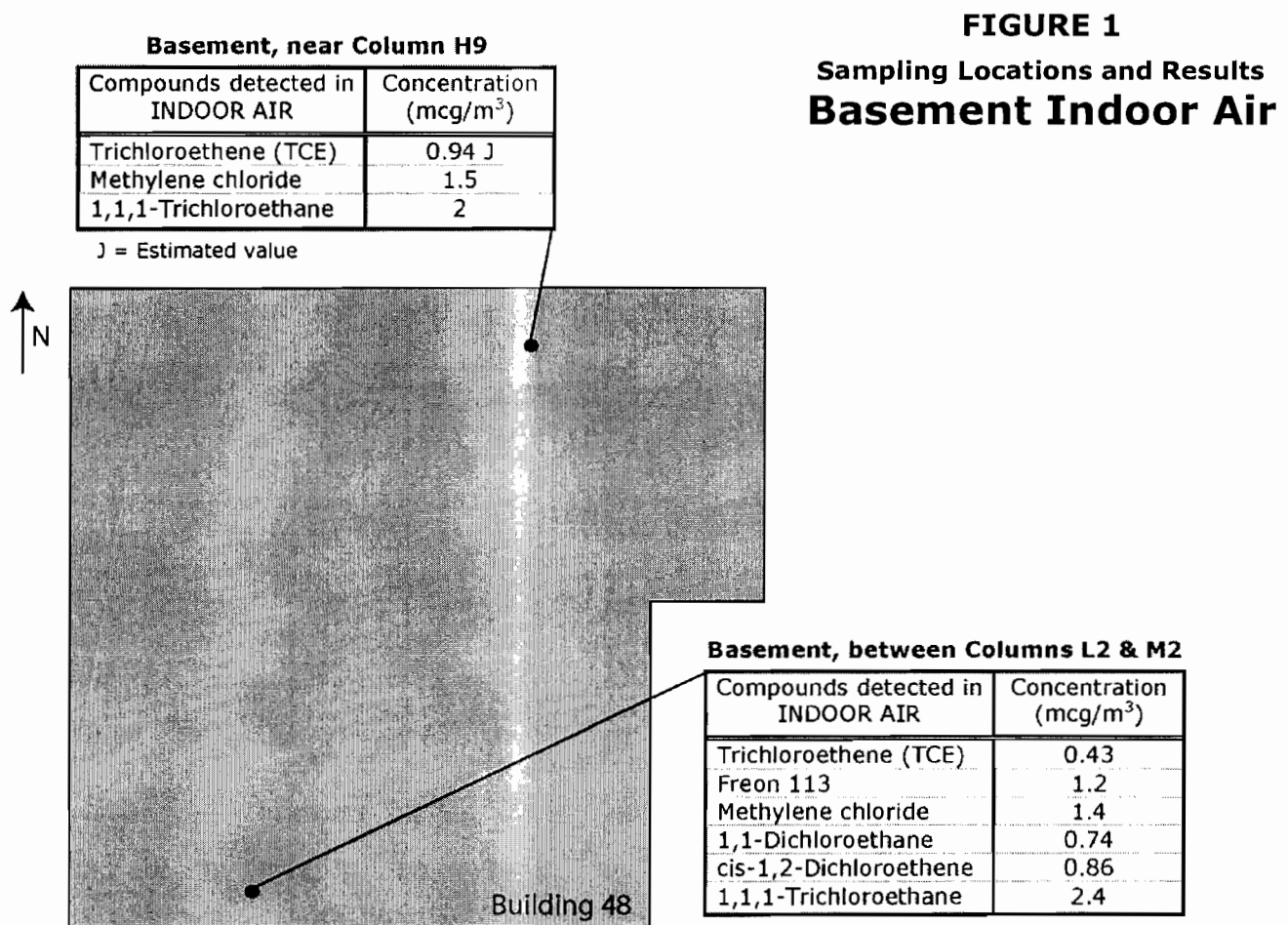
chloroethane  
1,1-dichloroethane  
1,1-dichloroethene  
cis-1,2-dichloroethene  
trans-1,2-dichloroethene  
Freon 113  
methylene chloride  
1,1,1-trichloroethane  
trichloroethene (TCE)  
tetrachloroethene (PCE)  
vinyl chloride

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## BUILDING 48 — INDOOR AIR RESULTS

- Compounds detected in the indoor air samples are shown in Figure 1.
- TCE was detected in both indoor air samples at concentrations of 0.43 and 0.94 (estimated) mcg/m<sup>3</sup>. The NYSDOH's guideline for TCE in air is 5 mcg/m<sup>3</sup>. This guideline is lower than the air levels that caused either non-cancer or cancer effects and was developed considering a continuous lifetime of exposure and the possibility that certain members of the population (including expecting mothers) may be sensitive to the effects of TCE. The possibility of health effects in workers exposed to the concentrations detected is low. That is, we don't expect to be able to associate health effects from the levels detected in indoor air. Although the levels of TCE detected in indoor air are below the NYSDOH guideline, reasonable and practical actions should be taken to reduce exposures.
- 1,1-Dichloroethane and cis-1,2-dichloroethene were detected at concentrations slightly above typical background levels in one of the samples and were not detected in the second sample. The concentrations of the other compounds detected are consistent with typical background levels in indoor air. These compounds are not a concern.



**BUILDING 48 — SUB-SLAB VAPOR RESULTS**

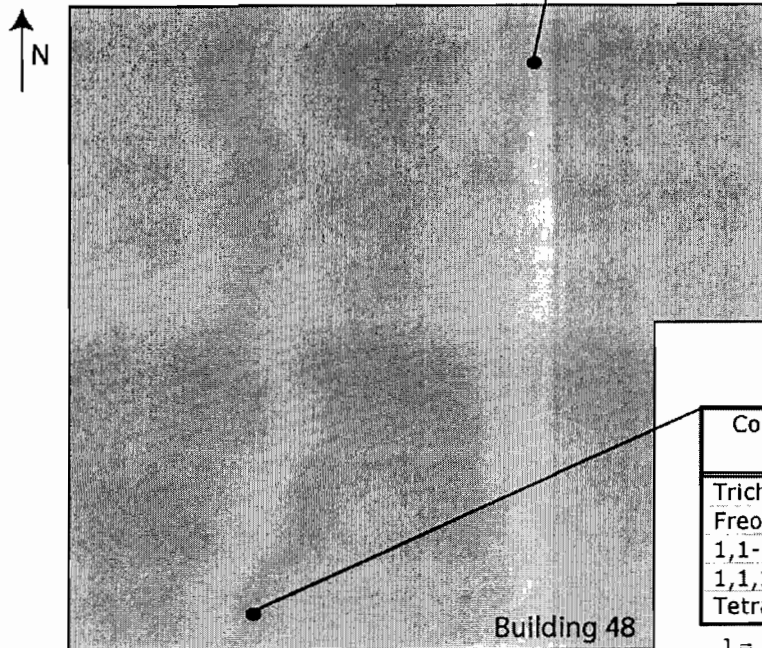
- Compounds detected in the sub-slab vapor samples are shown in Figure 2.

**FIGURE 2**  
Sampling Locations and Results  
**Sub-slab Vapor**

**Beneath basement slab, near Column H9**

Compounds detected in SUB-SLAB VAPOR	Concentration (mcg/m <sup>3</sup> )
Trichloroethene (TCE)	2.7 J
Freon 113	2
Methylene chloride	1.3
1,1-Dichloroethane	1
cis-1,2-Dichloroethene	1.4
1,1,1-Trichloroethane	2

J = Estimated value



**Beneath basement slab, between Columns L2 & M2**

Compounds detected in SUB-SLAB VAPOR	Concentration (mcg/m <sup>3</sup> )
Trichloroethene (TCE)	11 J
Freon 113	2.3
1,1-Dichloroethane	1.9
1,1,1-Trichloroethane	16
Tetrachloroethene (PCE)	3.6 J

J = Estimated value

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## SUPPLEMENTAL INFORMATION

- Huron Real Estate Associates, LLC, has been given copies of the following:
  - [1] a cover letter and information sheets, like this one, transmitting the results of the State's February/March 2005 sampling,
  - [2] laboratory sheets, building questionnaires and product inventories for each sample,
  - [3] *What Is Exposure?* — an information sheet describing how a person may come into contact with chemicals in the environment,
  - [4] *Soil Vapor Intrusion: Frequently Asked Questions* — an information sheet describing the process referred to as "soil vapor intrusion,"
  - [5] *PCE Fact Sheet* — providing information on tetrachloroethene (PCE) and the NYSDOH's guideline for PCE in air, and
  - [6] *TCE Fact Sheet* — providing information on trichloroethene (TCE) and the NYSDOH's guideline for TCE in air.
- Huron Real Estate Associates, LLC, will be sent the following documents that also give the results of the NYSDEC and NYSDOH's February/March 2005 sampling at the former IBM Endicott facility:
  - [7] *Preliminary Site Assessment Data Report, Huron Real Estate Associates, LLC* (September 2005) and
  - [8] *Fact Sheet: Former IBM Endicott Facility On-site Investigation Update* (September 2005).
- Copies of all items (1 through 8) are also available at the document repository for the IBM Endicott site, which is the George F. Johnson Memorial Library at 1001 Park Street in the Village of Endicott.
- Items 3 through 6 are also available on the NYSDOH's website ([http://www.health.state.ny.us/environmental/indoors/vapor\\_intrusion/fact\\_sheets/](http://www.health.state.ny.us/environmental/indoors/vapor_intrusion/fact_sheets/)), and Items 2, 7 and 8 on the NYSDEC's website (<http://www.dec.state.ny.us/website/der/projects/endicott/endicottdocs.html>).

## CONTACT INFORMATION

- For health-related questions, please contact Mr. Justin Deming of the NYSDOH at 1-800-458-1158, extension 27880 (toll-free).
- For questions pertaining to on-going environmental investigations and remedial actions at the former IBM Endicott facility, please contact Ms. Nicole Murry of the NYSDEC at 518-402-9814.