

Item #1

Private Contractor Sampling Requirements DuPont Pompton Lakes

The most important concern of EPA and NJDEP regarding vapor intrusion sampling is to assure that accurate and precise data are generated, while allowing residents the flexibility to engage their own vapor intrusion (VI) contractor. Therefore, EPA and NJDEP are requiring stringent contractor qualifications for vapor intrusion sampling. The work must be conducted by a New Jersey Licensed Site Remediation Professional (LSRP) who must demonstrate that they have a high level of recent experience and a proven track record in VI sub-slab sampling, indoor air and ambient air sampling. EPA and NJDEP will review and approve or reject qualifications on a case-by-case basis for the homes above the Vapor Mitigation Area at the DuPont Pompton Lakes Site. Residents in the Vapor Mitigation Area that have not yet had sub-slab sampling conducted and do not have a vapor mitigation system installed are eligible to have a qualified LSRP conduct vapor intrusion sampling.

Pre-Qualifications for a Contractor to Conduct Vapor Intrusion Sampling

1. The LSRP may not subcontract the sampling and must submit the following information for all relevant previous vapor intrusion projects:
 - a) Site name
 - b) Site address
 - c) Site identification numbers
 - d) Contact information for the environmental agency involved with the investigation
 - e) A short description of the sampling conducted
 - f) Identify the members of the sampling team that conducted the previous sampling effort and describe the specific role of the LSRP in the previous effort
 - g) Identify the number of sub-slab and indoor air sample sets collected by the proposed sampling team over the past two years.
 - h) Discuss the amount of vapor intrusion sampling conducted by the LSRP over the past five years.
2. Resident/LSRP must compile and submit to EPA Item #2, Homeowner and Selected Contractor Information
3. Resident/LSRP must respond to all questions highlighted in yellow and submit to EPA Item #3, Quality Assurance Project Plan.

If Determined Qualified the LSRP Shall Abide by the Following Conditions:

1. The LSRP must agree to follow the NJDEP/EPA approved “*Indoor Air/Sub-Slab Vapor Sample Collection Procedures - Scope of Work*” for the DuPont Pompton Lakes site (see Item #4) and adhere to the EPA Quality Assurance Project Plan (see Item #3) in conformance with the guidance documents cited in the referenced websites.
2. The LSRP must agree that any vapor intrusion sampling of homes will only include one indoor air sample, one sub-slab sample, and one ambient air sample. The ambient/upwind sample may be combined in accordance with the criteria in the QAPP (see Item #3). The LSRP must provide an itemized estimate of all costs, but the total cost shall not exceed \$900 for one (1) sub-slab sample or \$2000 for all three (3) samples (indoor air, sub-slab, and ambient) and all required reports. All samples will be validated by NJDEP and/or EPA. Payment will be remitted once the analytical data has been validated by NJDEP/EPA and found to be acceptable. If all results from a single sample are found to be invalid, re-sampling will be at the cost of the LSRP.
3. The LSRP must compile all data, maps, and submit reports, as required by the NJDEP and/or EPA.
4. The LSRP proposed by any homeowner that opts for vapor intrusion sampling must provide at least two weeks notice to Dave Kluesner, EPA, of proposed vapor intrusion sampling and must obtain a written approval from EPA.
5. An EPA representative or the EPA contractor must be present when vapor intrusion samples are collected and all vapor intrusion sampling events must be coordinated and scheduled based on the availability of agency personnel.
6. The LSRP will report preliminary results (i.e., unvalidated) to the home owner and EPA within two weeks of receipt of the laboratory analytical data without interpretation of the results (e.g., evaluation of indoor air concentrations with respect to potential sources. The Sub-Slab soil gas sampling results shall report only the ten (10) contaminants of concern (COCs) for this site. These contaminants, the Site Specific Comparison Levels and the reporting format are in the following example:

23 Main Street	Site-Specific	Sub-Slab
Chemical	Sub-Slab Soil Gas	Soil Gas
Sample Date	Comparison Levels	Results
		02-Dec-09
Carbon tetrachloride	13	ND
1,1-Dichloroethane	5,000	ND
1,2-Dichloroethane	8	ND
1,1-Dichloroethene	2,000	ND

1,2-Dichloroethene (<i>cis</i>)	350	ND
1,2-Dichloroethene (<i>trans</i>)	700	ND
Tetrachloroethene (PCE)	16	31
1,1,1-Trichloroethane	22,000	ND
Trichloroethene (TCE)	11	ND
Vinyl chloride	5	ND

Notes:
 All results are reported in ug/m³
 All soil gas results are compared to the Site-Specific Sub-Slab Soil Gas Comparison Levels presented in the June 2007 DuPont Pompton Lakes Vapor Intrusion Investigation and Remedial Action Workplan

ND - non-detect

Bolded results note exceedances of the Sub-Slab Soil Gas Comparison Levels

The indoor and ambient air sampling results shall report the ten (10) contaminants of concern (COCs) for this site, followed by “Other Volatile Organic Compounds” that are identified. These contaminants, the Site Specific Comparison Levels and the reporting format are the following example table:

Chemical	Site-Specific Indoor Air Comparison Levels	Indoor Air Results	Outdoor Air Results
Sample Date		31-Mar-10	31,Mar-10<>
SITE COMPOUNDS OF CONCERN			
Carbon tetrachloride	1	Not Detected	Not Detected
1,1-Dichloroethane	510	Not Detected	Not Detected
1,2-Dichloroethane	0.8	Not Detected	Not Detected
1,1-Dichloroethene	220	Not Detected	Not Detected
1,2-Dichloroethene (<i>cis</i>)	36	Not Detected	Not Detected
1,2-Dichloroethene (<i>trans</i>)	73	Not Detected	Not Detected
Tetrachloroethene	1	Not Detected	Not Detected
1,1,1-Trichloroethane	1,000	Not Detected	Not Detected
Trichloroethene	1	Not Detected	Not Detected
Vinyl chloride	0.5	Not Detected	Not Detected
OTHER VOLATILE ORGANIC COMPOUNDS			
Acetone	3,300	15	Not Detected
Allyl chloride	0.6	Not Detected	Not Detected
Benzene	0.6	Not Detected	Not Detected
Bromodichloromethane	1	Not Detected	Not Detected
Bromoform	2	Not Detected	Not Detected
Bromomethane	5	Not Detected	Not Detected
1,3-Butadiene	0.4	Not Detected	Not Detected
Chlorobenzene	51	Not Detected	Not Detected
Chloroethane	2	Not Detected	Not Detected
Chloroform	1	Not Detected	Not Detected
Chloromethane	95	1	1
Carbon disulfide	730	Not Detected	Not Detected
2-Chlorotoluene	73	Not Detected	Not Detected
Cyclohexane	6,200	Not Detected	Not Detected
Dibromochloromethane	2	Not Detected	Not Detected
1,2-Dibromoethane	2	Not Detected	Not Detected

1,2-Dichlorobenzene	150	Not Detected	Not Detected
1,3-Dichlorobenzene	11	Not Detected	Not Detected
1,4-Dichlorobenzene	1	Not Detected	Not Detected
Dichlorodifluoromethane	180	3	3
1,2-Dichloropropane	0.9	Not Detected	Not Detected
1,3-Dichloropropene (cis)	0.9 (total)	Not Detected	Not Detected
1,3-Dichloropropene (trans)		Not Detected	Not Detected
1,2-Dichlorotetrafluoroethane	No Criteria Available	Not Detected	Not Detected
1,4-Dioxane	No Criteria Available	Not Detected	Not Detected
Ethylbenzene	1,100	4	Not Detected
4-Ethyltoluene	No Criteria Available	Not Detected	Not Detected
n-Heptane	No Criteria Available	Not Detected	Not Detected
1,3-Hexachlorobutadiene	No Criteria Available	Not Detected	Not Detected
n-Hexane	730	Not Detected	Not Detected
Isopropanol	No Criteria Available	Not Detected	Not Detected
Methyl Chloride	4	Not Detected	Not Detected
Methyl ethyl ketone	5,100	2	Not Detected
Methyl isobutyl ketone	3,100	Not Detected	Not Detected
Methyl methacrylate	No Criteria Available	Not Detected	Not Detected
Methyl tert-butyl ether	2	Not Detected	Not Detected
Styrene	1,000	Not Detected	Not Detected
Tert-butyl alcohol	66	Not Detected	Not Detected
1,1,2,2- Tetrachloroethane	1	Not Detected	Not Detected
Tetrahydrofuran	No Criteria Available	Not Detected	Not Detected
Toluene	5,100	2	Not Detected
1,2,4- Trichlorobenzene	36	Not Detected	Not Detected
1,1,2-Trichloroethane	1	Not Detected	Not Detected
Trichlorofluoromethane	730	1	1
1,1,2- Trichloro-1,2,2-trifluoroethane	31,000	Not Detected	Not Detected
1,2,4-Trimethylbenzene	No Criteria Available	Not Detected	Not Detected
1,3,5- Trimethylbenzene	No Criteria Available	Not Detected	Not Detected
2,2,4- Trimethylpentane	No Criteria Available	Not Detected	Not Detected
Vinyl bromide	0.9	Not Detected	Not Detected
Xylenes (m&p)	110 (total)	9	Not Detected
Xylenes (o)		2	Not Detected

Notes:

1. All results are reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).
2. These results are preliminary and have not undergone data validation.
3. The indoor air concentrations may be attributed solely or in part to background sources (indoor or outdoor).
4. Note that samples were collected over an approximate 24-hour time period ending on the sample date shown above.