

# Letter Health Consultation

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CHILLUM PERC SITE  
CHILLUM, PRINCE GEORGE COUNTY, MARYLAND

EPA FACILITY ID: MDN00305887

NOVEMBER 3, 2009

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Agency for Toxic Substances and Disease Registry  
Division of Health Assessment and Consultation  
Atlanta, Georgia 30333

## **Health Consultation: A Note of Explanation**

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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LETTER HEALTH CONSULTATION

CHILLUM PERC SITE

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EPA FACILITY ID: MDN00305887

Prepared By:

Exposure Investigations and Site Assessment Branch  
Division of Health Assessment and Consultation  
U.S. Department of Health and Human Services  
Agency for Toxic Substances and Disease Registry

Bicky Corman  
General Counsel  
Government of the District of Columbia  
District Department of the Environment  
Office of the General Counsel  
51 N St., N.E., 6th Floor  
Washington, DC 20002

Dear Ms. Corman,

The Agency for Toxic Substances and Disease Registry (ATSDR) thanks the District of Columbia Department of Health (DDOH) and the District of Columbia Department of Environment (DDOE) for providing ATSDR with the Riggs Park Indoor Air, Sub-Slab Vapor, Soil and Groundwater Sampling and Analysis Report (2009). We evaluated the sampling information in this report to continue ATSDR's goal to help the community affected by the Riggs Park/Chillum PCE site understand the public health implications of the groundwater contamination at this site, ATSDR evaluated this new sampling information in the context of prior sampling data sets from the site area. The following is a summary of our findings.

The Riggs Park residential community in Washington, DC is located above a mixed gasoline and tetrachloroethene (perc) contaminated groundwater plume near the intersection of Riggs Road and Eastern Avenue in Chillum, Maryland (Chillum perc site). Since 1990, numerous environmental investigation, remediation, and assessment activities have been conducted at the site. ATSDR has addressed requests related to the environmental contamination at this site from the US Environmental Protection Agency (EPA), local public health partners, and community members. Vapor intrusion is the primary exposure pathway of concern for the site. ATSDR completed three health consultations and four ATSDR Record of Activity (AROA) health consultations evaluating environmental data collected in 2003, 2006 and 2007.

In 2008, the S.S. Papadopoulos & Associates, Inc. collected environmental samples on behalf of DDOH and DDOE. During this sampling event, a total of 779 samples (128 indoor air samples, 39 outdoor air samples, 529 soil vapor samples, 69 soil samples and 14 groundwater samples) were collected at the site. Up to 68 volatile organic compounds (VOCs) were analyzed via EPA methods TO-15 and 8260. ATSDR reviewed and compared these new data to other data previously reviewed (approximately 178 indoor air samples, 37 outdoor air samples, 258 soil vapor samples, and 5 groundwater samples). Overall, the detected VOCs and their concentrations in the latest data set are consistent with the results found in prior data sets. For example, the maximum indoor and outdoor air concentrations of the primary site-related VOCs identified previously (perc, benzene, toluene, methylbenzene, xylenes, and methyl tert-butyl ether) appear to be similar or lower for the Papadopoulos sampling event as compared to previous sampling events (Table 1).

***All of the environmental sampling data sets reviewed to date support ATSDR's overall conclusion that all indoor and outdoor air VOC concentrations detected at this site are***

*at levels below those expected to harm people's health [see previous health consultations for supporting information].*

Throughout our public health evaluations for this site, ATSDR has relied on actual indoor and outdoor air sampling results as the basis for our conclusions about health effects. ATSDR acknowledges that higher concentrations of VOCs exist underground in soil vapor as a result of the groundwater contamination. We understand that the District has recommended mitigation actions in some homes in the site area based on the higher concentrations observed in the subsurface. ATSDR considers reducing or minimizing exposure to hazardous chemicals as a prudent public health measure. Therefore, we support the District's and EPA's plan to continue the remediation efforts to reduce the VOC levels in groundwater at this site. We also support continuing the ongoing health education activities with this community. ATSDR will continue to work with DDOH, DDOE, EPA, and community members to respond to public health questions and concerns related to this site.

If you have additional questions, please contact Lora Werner at 215-814-3141 or via [lkw9@cdc.gov](mailto:lkw9@cdc.gov), or me at 770-488-0669 or 1-800-CDC-INFO or via [jcz8@cdc.gov](mailto:jcz8@cdc.gov).

Sincerely,

Jane Zhu  
Environmental Health Scientist  
Division of Health Assessment and Consultation  
Agency for Toxic Substances and Diseases Registry

Enclosures

CC: EPA Raj Sharma

**Table 1 Summary of indoor air, outdoor air and soil vapor sampling results**

Indoor air samples ( $\mu\text{g}/\text{m}^3$ )				
Analyte	Papadopoulos sample number	Maximum concentration	Previous Health Consultation Sample number	Maximum concentration
Tetrachloroethene	128	42.31	157	38.90
Benzene	128	8.36	203	26.8
Toluene	128	164.73	203	155.0
Ethylbenzene	128	7.28	203	79.9
Methyl tert-butyl ether	128	1.77	203	17.07
Xylenes-m,p	128	26.01	203	196.9
Xylene-o	128	11.79	191	75.3
Outdoor Samples ( $\mu\text{g}/\text{m}^3$ )				
Tetrachloroethene	39	4.95	37	5.49
Benzene	39	1.95	37	2.24
Toluene	39	5.64	37	51.96
Ethylbenzene	39	4.81	37	8.90
Methyl tert-butyl ether	39	Not available	37	0.50
Xylenes-m,p	39	20.03	37	25.53 (total)
Xylene-o	39	7.89	37	Not available
Soil Vapor Samples ( $\mu\text{g}/\text{m}^3$ )				
Tetrachloroethene	529	929.02	35	2101.8
Benzene	529	24.88	216	160
Toluene	529	173.69	214	1100
Ethylbenzene	529	49.42	216	91
Methyl tert-butyl ether	529	667.36	216	2300
Xylenes-m,p	529	270.18	59	71
Xylene-o	529	189.89	59	28

[ATSDR] Agency for Toxic Substances and Disease Registry. Health consultation concerning active soil gas data review, Chillum Perc Site. Atlanta: US Department of Health and Human Services. January 12, 2004

[ATSDR] Agency for Toxic Substances and Disease Registry. Health consultation Environmental data review, Chillum Perc Site. Atlanta: US Department of Health and Human Services. November, 2004.

[ATSDR] Agency for Toxic Substances and Disease Registry. Health consultation Indoor and outdoor air data evaluation of Chillum perc site, Chillum Perc Site. Atlanta: US Department of Health and Human Services. December 29, 2008.

S.S. Papadopoulos, Riggs Park Indoor Air, Sub-Slab Vapor, Soil and Groundwater Sampling and Analysis Report. 7944 Wisconsin Avenue, Bethesda, Maryland. February 2009.