

Lower Manhattan Testing

Collection Date: 10/1/01

Air Monitoring Table

Location Sampled	Ambient/Indoor	Fiber Conc. PCM (vcc)	Asbestos Conc. TEM (struc/mm2)
Park Pl & Church St	Ambient	<10Q	—
Murray St & Church St	Ambient	<10Q	—
Park Pl & Greenwich St	Ambient	<10Q	—
Murray St & Greenwich St	Ambient	<10Q	—
Fulton St & Church St	Ambient	0.035	Overload
Trinity Pl & Thames St	Ambient	0.015	<6.56
Warren St & North End Av	Ambient	<10Q	—
River Terrace & Park Pl West	Ambient	<10Q	—
River Terrace & Chambers St	Ambient	<10Q	—
River Terrace, Park Area	Ambient	<10Q	—
North End Av & Park Pl West	Ambient	<10Q	—
Warren St & North End Av	Ambient	<10Q	—
River Terrace & Vesey St	Ambient	<10Q	—
South End Av & Albany St	Ambient	<10Q	—
Rector Pl, by the Park	Ambient	<10Q	—
West Thames St, Waterfront	Ambient	<10Q	—
West of Third Pl	Ambient	<10Q	—
West St & Albany	Ambient	0.012	<6.56
Gateway Plaza, Park Area	Ambient	<10Q	—

Daily Field Survey

Instrument	Levels Found
Foxboro TVA 1000 Flame Ionization/Photo Ionization Detector Detection of volatile photo ionizable and flameable compounds	ND
Gastech GT 402 Combustible Gas Indicator Detection of: Hydrogen Sulfide, Oxygen, Carbon Monoxide, Lower Explosive Limit	ND 20.9% 2-8 P.M. ND
Crown Triple Plus Specialized Detectors Detection of: Hydrogen Cyanide, Chlorine, Ammonia, Carbon Monoxide	ND ND ND 2-8 P.M.
RKI Freon Detector Specialized Instrument for Detection of Freons Detection of: R 22	ND

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Volatile Organic Compounds (VOC) Non-Potable Water Results

Collection Date: 10/1/01 • Units: µg/L (ppb)

Contaminant	Level B6	Sample 3	Sample 4
Acetone	<1.0	<1.0	4.29
Benzene	<1.0	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0
Bromodichloromethane	<1.0	<1.0	<1.0
Bromoethane	<1.0	<1.0	<1.0
Bromofluoromethane	<1.0	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0
n-Butylbenzene	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0
Carbon Disulfide	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0
Dibromochloromethane	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0
4-Chlorotoluene	<1.0	<1.0	<1.0
Dibromoethane	<1.0	<1.0	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0
1,1-Dichloroethene	<1.0	<1.0	<1.0

↑ ↗
 Level B6
 WTC
 path stairs
 Location
 Sample 48h MAP?

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Murray St & Church St	Ambient	<LOQ	—
Park Pl & Greenwich St	Ambient	<LOQ	—
Murray St & Greenwich St	Ambient	<LOQ	—
Fulton St & Church St	Ambient	0.035	Overload
Trinity Pl & Thames St	Ambient	0.015	<6.56
Warren St & North End Av	Ambient	<LOQ	—
River Terrace & Park Pl West	Ambient	<LOQ	—
River Terrace & Chambers St	Ambient	<LOQ	—
River Terrace, Park Area	Ambient	<LOQ	—
North End Av & Park Pl West	Ambient	<LOQ	—
Warren St & North End Av	Ambient	<LOQ	—
River Terrace & Vesey St	Ambient	<LOQ	—
South End Av & Albany St	Ambient	<LOQ	—
Rector Pl, by the Park	Ambient	<LOQ	—
West Thames St, Waterfront	Ambient	<LOQ	—
West of Third Pl	Ambient	<LOQ	—
West St & Albany	Ambient	0.012	<6.56
Gateway Plaza, Park Area	Ambient	<LOQ	—

Daily Field Survey

Instrument	Levels Found
Foxboro TVA 1000 <i>Flame Ionization/Photo Ionization Detector</i> <i>Detection of volatile photo ionizable and flammable compounds</i>	ND
Gastech GT 402 <i>Combustible Gas Indicator</i>	Detection of: Hydrogen Sulfide Oxygen Carbon Monoxide Lower Explosive Limit
Crown Triple Plus <i>Specialized Detectors</i>	Detection of: Hydrogen Cyanide Chlorine Ammonia Carbon Monoxide
RKI Freon Detector <i>Specialized Instrument for Detection of Freons</i>	Detection of: R-22

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Volatile Organic Compounds (VOC) Non-Potable Water Results

Collection Date: 10/1/01 • Units: µg/L (ppb)

Contaminant	World Trade Center Path Station Level B6			
	Sample 1	Sample 2	Sample 3	Sample 4
Acetone	239	293	<1.0	4.29
Benzene	6.41	7.66	<1.0	<1.0
Bromobenzene	<1.0	<1.0	<1.0	<1.0
Bromochloromethane	<1.0	<1.0	<1.0	<1.0
Extramodichloromethane	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0
n-Butylbenzene	<1.0	<1.0	<1.0	<1.0
tert-Butylbenzene	<1.0	<1.0	<1.0	<1.0
sec-Butylbenzene	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0
Chloroethane	<1.0	<1.0	<1.0	<1.0
Chloroform	<1.0	<1.0	<1.0	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0
Debromochloromethane	<1.0	<1.0	<1.0	<1.0
2-Chlorotoluene	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	<1.0	<1.0	<1.0	<1.0
4-Ethyltoluene	<1.0	<1.0	<1.0	<1.0
Dibromomethane	<1.0	<1.0	<1.0	<1.0
1,2-Dibromomethane	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0

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Volatile Organic Compounds (VOC) Non-Potable Water Results

Collection Date: 10/1/01 • Units: µg/L (ppb)

Contaminant	World Trade Center Path Station Level B6			
	Sample 1	Sample 2	Sample 3	Sample 4
cis-1,2-Dichloroethene	2.11	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloropropane	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	3.23	3.49	<1.0	<1.0
Freon 113	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
p-Isopropyltoluene	<1.0	<1.0	<1.0	<1.0
Methylene chloride	37.6	81.6	<1.0	<1.0
Methyl isobutyl ketone (MIBK)	4.26	6.77	<1.0	<1.0
Methyl ethyl ketone (MEK)	32.6	46.8	<1.0	<1.0
2-Hexanone	<1.0	<1.0	<1.0	<1.0
Methyl tert-butyl ether	42.3	56.6	1.99	1.97
Naphthalene	14.5	13.4	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
Styrene	2.44	3.00	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0
Toluene	16.9	24.7	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	1.41	1.89	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0

Volatile Organic Compounds (VOC) Non-Potable Water Results

Collection Date: 10/1/01 • Units: µg/L (ppb)

Contaminant	World Trade Center Path Station Level B6			
	Sample 1	Sample 2	Sample 3	Sample 4
Trichloroethene	3.59	6.23	<1.0	<1.0
Trichlorofluoromethane	<1.0	1.16	1.12	1.42
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	4.94	3.75	<1.0	<1.0
1,3,5-Trimethylbenzene	1.44	1.00	<1.0	<1.0
o-Xylene	4.55	4.90	<1.0	<1.0
m,p-Xylene	11.2	11.7	<1.0	<1.0
Vinyl Chloride	<1.0	<1.0	<1.0	<1.0
Acetonitrile	42.4	54.7	—	—
Terratively identified Compounds				
Tetradecane	—	—	1.85	—

Volatile Organic Compounds (VOC) Non-Potable Water Results

Collection Date: 10/1/01 • Units: µg/L (ppb)

Contaminant	World Trade Center Path Station Level B6			
	Sample 1	Sample 2	Sample 3	Sample 4
cis-1,2-Dichloroethene	2.11	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0
1,3-Dichloropropane	<1.0	<1.0	<1.0	<1.0
1,1-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	3.23	3.49	<1.0	<1.0
Freon 113	<1.0	<1.0	<1.0	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	<1.0	<1.0	<1.0	<1.0
p-isopropyltoluene	<1.0	<1.0	<1.0	<1.0
Methylene chloride	37.6	81.6	<1.0	<1.0
Methyl isobutyl ketone (MIBK)	4.26	6.77	<1.0	<1.0
Methyl ethyl ketone (MEK)	32.6	46.8	<1.0	<1.0
2-Hexanone	<1.0	<1.0	<1.0	<1.0
Methyl-tert-butyl ether	42.3	56.5	1.99	1.92
Naphthalene	14.5	13.4	<1.0	<1.0
n-Propylbenzene	<1.0	<1.0	<1.0	<1.0
Styrene	2.44	3.00	<1.0	<1.0
1,1,1,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0
Toluene	16.9	24.7	<1.0	<1.0
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane	1.41	1.89	<1.0	<1.0
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0

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Volatile Organic Compounds (VOC) Non-Potable Water Results

Collection Date: 10/1/01 • Units: µg/L (ppb)

Contaminant	World Trade Center Path Station Level B6			
	Sample 1	Sample 2	Sample 3	Sample 4
Trichloroethene	3.59	6.23	<1.0	<1.0
Trichlorofluoromethane	<1.0	1.16	1.12	1.42
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	4.94	3.75	<1.0	<1.0
	1.44	1.00	<1.0	<1.0
	4.55	4.90	<1.0	<1.0
	11.2	11.7	<1.0	<1.0
	<1.0	<1.0	<1.0	<1.0
	42.4	54.7	-	-
Compounds	-	-	1.85	-

sub level
B6
WTC
path station

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Volatile Organic Compounds (VOC) Air Sampling Analysis Results

World Trade Center Path Station Level B6 • Collection Date: 10/1/01 • Units: ppb v/v

Location on Map

Contaminant	Sample 1
Dichlorodifluoromethane	2.33
Chloromethane	ND
1,2-Dichlorotetrafluoroethane	ND
Vinyl Chloride	ND
Bromomethane	ND
Chloroethane	ND
Trichlorofluoromethane	0.90
1,1-Dichloroethene	ND
Methylene chloride	ND
Freon 113	0.48
1,1-Dichloroethane	ND
Methyl-tert-butyl ether	4.21
cis-1,2-Dichloroethene	ND
Chloroform	1.46
1,2-Dichloroethane	ND
1,1,1-Trichloroethane	0.11
Benzene	4.94
Carbon Tetrachloride	0.12
1,2-Dichloropropane	ND
Trichloroethene	2.01
cis-1,3-Dichloropropene	ND
trans-1,3-Dichloropropene	ND

Contaminant	Sample 1
1,1,2-Trichloroethane	ND
Toluene	7.16
1,2-Dibromoethane	ND
Tetrachloroethene	0.62
Chlorobenzene	ND
Ethylbenzene	2.73
m,p-Xylene	4.005
Styrene	1.27
1,1,2,2-Tetrachloroethane	ND
o-Xylene	1.41
1,3,5-Trimethylbenzene	0.39
1,2,4-Trimethylbenzene	1.03
1,3-Dichlorobenzene	ND
1,4-Dichlorobenzene	0.44
1,2-Dichlorobenzene	ND
1,2,4-Trichlorobenzene	ND
Hexachloro-1,3-Butadiene	ND
Tentatively Identified Compounds	
1,1,1,2-Tetrafluoroethane	2.37
Freon 142	6.90
2-Methylbutane	1.52
Acetone	4.82

Air/Gas Sample Tests for Freon 22

WTC Path Station Level B6 • Collection Date: 10/0/01 • Units: ppb v/v

Parameter	Sample 1
Chlorodifluoromethane (Freon 22)	3.72

Non-Potable Water Tests for Freon 22

WTC Path Station Level B6 • Collection Date: 10/0/01 • Units: µg/L

Parameter	Sample 1 Large Pool of Water East Side	Sample 2 Large Pool of Water East Side WTC	Sample 3 Small Pool of Water Westside Path Tracks	Sample 4 Small Pool of Water Westside Path Tracks
Chlorodifluoromethane (Freon 22)	441	605	28.8	47.3

Non-Potable Water Tests for Salinity

WTC Path Station Level B6 • Collection Date: 10/1/01 • Units: ppt practical

Parameter	Sample 1 Small Pool Water Westside Path Tracks	Sample 2 Small Pool Water Westside Path Tracks
Salinity	18.0	18.0

B6 Level (Path Train)

10/1/01

O ₂	20.9%
H ₂ S	6 - 8 PPM
LEL	0 PPM
CO	0 PPM
PID	0 PPM
FID	0 PPM
Freon 22	0 PPM