NYC 9/11 Public Portal Document

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PASC - Certificate of Analysis

Client ID:		R02020746 01A	R02020746 02A	R02020746 03A	R02020746 04A
Lab No.:		009504 02	009505 02	009506 02	009507 02
Date Sampled:		20-Feb-2002	20-Feb-2002	20-Feb-2002	20-Feb-2002
Component	MDL Units				
Total Tetrachlorodibenzofurans	ng	<0.22	<0.073	<0.075	<0.074
Total Pentachlorodibenzofurans	"	1.2	<0.077	<0.088	0.089
Total Hexachlorodibenzofurans	"	0.32	<0.10	<0.11	<0.10
Total Heptachlorodibenzofurans	"	<0.22	<0.14	<0.15	<0.14
Octachlorodibenzofuran	"	<0.15	<0.21	<0.22	<0.20
Total Tetrachlorodibenzo-p-dioxins	"	1.6	<0.13	<0.11	0.27
Total Pentachlorodibenzo-p-dioxins	"	1.1	<0.13	<0.15	<0.13
Total Hexachlorodibenzo-p-dioxins	"	2.3	<0.16	<0.17	<0.16
Total Heptachlorodibenzo-p-dioxins	"	0.82	<0.20	<0.22	<0.20
Octachlorodibenzo-p-dioxin	"	0.96	<0.24	<0.25	0.45
Surrogate Recoveries	%				
2,3,7,8-T4CDD-13C12		83	82	105	86
2,3,7,8-T4CDF-13C12		89	88	100	93
1,2,3,7,8-P5CDD-13C12		106	110	112	115
1,2,3,6,7,8-H6CDD-13C12		121	119	121	115
1,2,3,4,6,7,8-H7CDD-13C12		125	131	130	125
DCDD-13C12		122	114	122	116
2,3,7,8-Cl4-Dibenzofuran	ng	<0.17	<0.073	<0.075	<0.074
2,3,7,8-Cl4-Dibenzo-p-dioxin	"	<0.14	<0.13	<0.11	<0.13
1,2,3,7,8-Cl5-Dibenzofuran	"	<0.25	<0.078	<0.089	<0.080
2,3,4,7,8-Cl5-Dibenzofuran	"	<0.14	<0.076	<0.087	<0.078
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"	<0.16	<0.13	<0.15	<0.13
1,2,3,4,7,8-Cl6-Dibenzofuran	"	<0.16	<0.10	<0.11	<0.10
1,2,3,6,7,8-Cl6-Dibenzofuran	"	<0.10	<0.091	<0.100	<0.091
2,3,4,6,7,8-Cl6-Dibenzofuran	"	<0.12	<0.11	<0.12	<0.11
1,2,3,7,8,9-Cl6-Dibenzofuran	"	<0.14	<0.12	<0.14	<0.12
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"	<0.19	<0.17	<0.18	<0.17
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"	<0.17	<0.15	<0.17	<0.15
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"	<0.18	<0.16	<0.18	<0.16
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"	<0.27	<0.13	<0.14	<0.13
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"	<0.18	<0.15	<0.17	<0.15
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"	0.39	<0.20	<0.22	<0.20
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"	<0.15	<0.21	<0.22	<0.20
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"	0.96	<0.24	<0.25	0.45

TCDD

Client:Philip Analytical Services Inc Project:Misc.

NYC-WTC_000243744

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PASC - Certificate of Analysis

Client ID:			R02020746 05A	R02020746 06A	R02020746 07A	R02020746 08A
Lab No.:			009508 02	009509 02	009510 02	009511 02
Date Sampled:			20-Feb-2002	20-Feb-2002	20-Feb-2002	20-Feb-2002
Component	MDL	Units				
Total Tetrachlorodibenzofurans		ng	0.36	<0.073	<0.060	<0.068
Total Pentachlorodibenzofurans		"	0.73	<0.074	<0.068	<0.079
Total Hexachlorodibenzofurans		"	0.26	<0.14	<0.092	<0.10
Total Heptachlorodibenzofurans		"	<0.19	<0.13	<0.12	<0.14
Octachlorodibenzofuran		"	<0.21	<0.018	<0.17	<0.19
Total Tetrachlorodibenzo-p-dioxins		"	0.72	<0.11	0.19	0.25
Total Pentachlorodibenzo-p-dioxins		"	0.71	<0.12	<0.12	0.14
Total Hexachlorodibenzo-p-dioxins		"	1.7	2.1	<0.14	1.0
Total Heptachlorodibenzo-p-dioxins		"	0.61	1.1	<0.12	0.34
Octachlorodibenzo-p-dioxin		"	1.7	1.4	0.30	1.4
Surrogate Recoveries		%				
2,3,7,8-T4CDD-13C12			105	105	102	105
2,3,7,8-T4CDF-13C12			87	94	99	92
1,2,3,7,8-P5CDD-13C12			107	122	114	105
1,2,3,6,7,8-H6CDD-13C12			94	108	114	108
1,2,3,4,6,7,8-H7CDD-13C12			115	121	122	114
OCDD-13C12			103	114	121	110
2,3,7,8-Cl4-Dibenzofuran		ng	0.36	<0.049	<0.060	<0.068
2,3,7,8-Cl4-Dibenzo-p-dioxin		"	<0.11	<0.11	<0.094	<0.096
1,2,3,7,8-Cl5-Dibenzofuran		"	<0.057	<0.074	<0.069	<0.080
2,3,4,7,8-Cl5-Dibenzofuran		"	<0.11	<0.073	<0.068	<0.078
1,2,3,7,8-Cl5-Dibenzo-p-dioxin		"	<0.14	<0.12	<0.12	<0.13
1,2,3,4,7,8-Cl6-Dibenzofuran		"	0.25	<0.099	<0.090	<0.098
1,2,3,6,7,8-Cl6-Dibenzofuran		"	<0.14	<0.089	<0.080	<0.087
2,3,4,6,7,8-Cl6-Dibenzofuran		"	<0.12	<0.10	<0.094	<0.10
1,2,3,7,8,9-Cl6-Dibenzofuran		"	<0.14	<0.12	<0.11	<0.12
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin		"	<0.19	<0.16	<0.15	<0.16
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin		"	<0.17	<0.15	<0.13	<0.15
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin		"	<0.21	<0.16	<0.14	<0.15
1,2,3,4,6,7,8-Cl7-Dibenzofuran		"	0.20	<0.19	<0.11	<0.13
1,2,3,4,7,8,9-Cl7-Dibenzofuran		"	<0.15	<0.14	<0.14	<0.15
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin		"	0.31	0.53	<0.18	0.29
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran		"	<0.21	<0.018	<0.17	<0.19
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin		"	1.7	1.4	0.30	1.4

Client:Philip Analytical Services Inc Project:Misc.

NYC-WTC_000243745

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PASC - Certificate of Analysis

			R02020746	R02020746	R02020746	R02020746
			09A	10A	11A	12A
		Client ID:	009512 02	009513 02	009514 02	009515 02
		Lab No.:	20-Feb-2002	20-Feb-2002	20-Feb-2002	20-Feb-2002
		Date Sampled:				
Component	**MDL**	**Units**				
Total Tetrachlorodibenzofurans		ng	<0.071	0.60	<0.052	<0.061
Total Pentachlorodibenzofurans		"	<0.079	0.73	0.41	<0.069
Total Hexachlorodibenzofurans		"	<0.10	0.59	0.81	<0.091
Total Heptachlorodibenzofurans		"	<0.14	<0.12	0.31	<0.12
Octachlorodibenzofuran		"	<0.21	<0.17	<0.15	<0.17
Total Tetrachlorodibenzo-p-dioxins		"	<0.12	0.40	0.15	<0.096
Total Pentachlorodibenzo-p-dioxins		"	<0.13	0.78	0.79	<0.12
Total Hexachlorodibenzo-p-dioxins		"	<0.16	1.3	3.7	<0.14
Total Heptachlorodibenzo-p-dioxins		"	<0.20	0.46	1.3	<0.18
Octachlorodibenzo-p-dioxin		"	<0.24	0.35	1.1	0.26
Surrogate Recoveries		%				
2,3,7,8-T4CDD-13C12			86	103	131	109
2,3,7,8-T4CDF-13C12			91	101	111	106
1,2,3,7,8-P5CDD-13C12			109	117	126	124
1,2,3,7,8-P5CDF-13C12			115	101	123	126
1,2,3,6,7,8-H6CDD-13C12			122	118	133	136
1,2,3,4,6,7,8-H7CDD-13C12			108	109	131	130
OCDD-13C12						
2,3,7,8-Cl4-Dibenzofuran		ng	<0.071	0.26	0.12	<0.061
2,3,7,8-Cl4-Dibenzo-p-dioxin		"	<0.12	<0.090	<0.071	<0.096
1,2,3,7,8-Cl5-Dibenzofuran		"	<0.079	<0.066	<0.061	<0.070
2,3,4,7,8-Cl5-Dibenzofuran		"	<0.078	0.081	0.15	<0.069
1,2,3,7,8-Cl5-Dibenzo-p-dioxin		"	<0.13	<0.11	<0.10	<0.12
1,2,3,4,7,8-Cl6-Dibenzofuran		"	<0.099	0.15	0.24	<0.089
1,2,3,6,7,8-Cl6-Dibenzofuran		"	<0.089	<0.083	0.10	<0.080
2,3,4,6,7,8-Cl6-Dibenzofuran		"	<0.10	<0.097	<0.11	<0.093
1,2,3,7,8,9-Cl6-Dibenzofuran		"	<0.12	<0.11	<0.098	<0.11
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin		"	<0.16	<0.15	<0.13	<0.15
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin		"	<0.15	<0.14	<0.12	<0.13
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin		"	<0.16	<0.19	<0.13	<0.14
1,2,3,4,6,7,8-Cl7-Dibenzofuran		"	<0.13	<0.11	0.29	<0.11
1,2,3,4,7,8,9-Cl7-Dibenzofuran		"	<0.15	<0.13	<0.16	<0.13
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin		"	<0.20	0.21	0.57	<0.18
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran		"	<0.21	<0.17	<0.15	<0.17
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin		"	<0.24	0.35	1.1	0.26

Client:Philip Analytical Services Inc Project:Misc.

NYC-WTC_000243746

NYC 9/11 Public Portal Document

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PASC - Certificate of Analysis

	Client ID:		R02020746 13A	R02020746 14A	R02020746 15A	R02020746 16A
	Lab No.:		009516 02	009517 02	009518 02	009519 02
	Date Sampled:		20-Feb-2002	20-Feb-2002	20-Feb-2002	20-Feb-2002
Component	MDL	Units				
Total Tetrachlorodibenzofurans		ng	<0.057	<0.066	<0.067	<0.074
Total Pentachlorodibenzofurans		"	<0.066	<0.073	<0.081	<0.086
Total Hexachlorodibenzofurans		"	<0.085	<0.10	<0.10	<0.11
Total Heptachlorodibenzofurans		"	<0.12	<0.13	<0.15	<0.15
Octachlorodibenzofuran		"	<0.17	<0.18	<0.25	<0.22
Total Tetrachlorodibenzo-p-dioxins		"	<0.091	<0.10	<0.10	<0.12
Total Pentachlorodibenzo-p-dioxins		"	<0.11	<0.12	<0.14	<0.15
Total Hexachlorodibenzo-p-dioxins		"	<0.13	<0.15	<0.16	<0.17
Total Heptachlorodibenzo-p-dioxins		"	<0.17	<0.19	<0.21	<0.22
Octachlorodibenzo-p-dioxin		"	0.27	<0.20	<0.28	<0.24
Surrogate Recoveries		%				
2,3,7,8-T4CDD-13C12			106	108	99	105
2,3,7,8-T4CDF-13C12			104	106	96	108
1,2,3,7,8-P5CDD-13C12			119	127	105	123
1,2,3,6,7,8-H6CDD-13C12			127	114	121	132
1,2,3,4,6,7,8-H7CDD-13C12			131	125	122	136
OCDD-13C12			125	123	97	128
2,3,7,8-Cl4-Dibenzofuran		ng	<0.057	<0.066	<0.067	<0.074
2,3,7,8-Cl4-Dibenzo-p-dioxin		"	<0.091	<0.10	<0.10	<0.12
1,2,3,7,8-Cl5-Dibenzofuran		"	<0.067	<0.074	<0.081	<0.087
2,3,4,7,8-Cl5-Dibenzofuran		"	<0.065	<0.072	<0.080	<0.085
1,2,3,7,8-Cl5-Dibenzo-p-dioxin		"	<0.11	<0.12	<0.14	<0.15
1,2,3,4,7,8-Cl6-Dibenzofuran		"	<0.083	<0.098	<0.10	<0.11
1,2,3,6,7,8-Cl6-Dibenzofuran		"	<0.074	<0.088	<0.090	<0.095
2,3,4,6,7,8-Cl6-Dibenzofuran		"	<0.087	<0.10	<0.11	<0.11
1,2,3,7,8,9-Cl6-Dibenzofuran		"	<0.10	<0.12	<0.12	<0.13
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin		"	<0.14	<0.16	<0.17	<0.17
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin		"	<0.12	<0.15	<0.15	<0.16
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin		"	<0.13	<0.15	<0.16	<0.17
1,2,3,4,6,7,8-Cl7-Dibenzofuran		"	<0.11	<0.12	<0.14	<0.14
1,2,3,4,7,8,9-Cl7-Dibenzofuran		"	<0.13	<0.14	<0.16	<0.17
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin		"	<0.17	<0.19	<0.21	<0.22
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran		"	<0.17	<0.18	<0.25	<0.22
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin		"	0.27	<0.20	<0.28	<0.24

Client:Philip Analytical Services Inc Project:Misc.

NYC-WTC_000243747

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3/14/02

PASC - Certificate of Analysis

			R02020746
	Client ID:		17A
	Lab No:		009520 02
	Date Sampled:		20-Feb-2002
Component	**MDL**	**Units**	
Total Tetrachlorodibenzofurans		ng	<0.054
Total Pentachlorodibenzofurans		"	<0.064
Total Hexachlorodibenzofurans		"	<0.082
Total Heptachlorodibenzofurans		"	<0.11
Octachlorodibenzofuran		"	<0.16
Total Tetrachlorodibenzo-p-dioxins		"	<0.089
Total Pentachlorodibenzo-p-dioxins		"	<0.11
Total Hexachlorodibenzo-p-dioxins		"	<0.12
Total Heptachlorodibenzo-p-dioxins		"	<0.17
Octachlorodibenzo-p-dioxin		"	<0.18
Surrogate Recoveries		%	
2,3,7,8-T4CDD-13C12			105
2,3,7,8-T4CDF-13C12			108
1,2,3,7,8-P5CDD-13C12			120
1,2,3,6,7,8-H6CDD-13C12			124
1,2,3,4,6,7,8-H7CDD-13C12			127
OCDD-13C12			124
2,3,7,8-Cl4-Dibenzofuran		ng	<0.054
2,3,7,8-Cl4-Dibenzo-p-dioxin		"	<0.089
1,2,3,7,8-Cl5-Dibenzofuran		"	<0.064
2,3,4,7,8-Cl5-Dibenzofuran		"	<0.063
1,2,3,7,8-Cl5-Dibenzo-p-dioxin		"	<0.11
1,2,3,4,7,8-Cl6-Dibenzofuran		"	<0.079
1,2,3,6,7,8-Cl6-Dibenzofuran		"	<0.071
2,3,4,6,7,8-Cl6-Dibenzofuran		"	<0.083
1,2,3,7,8,9-Cl6-Dibenzofuran		"	<0.096
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin		"	<0.13
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin		"	<0.12
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin		"	<0.12
1,2,3,4,6,7,8-Cl7-Dibenzofuran		"	<0.11
1,2,3,4,7,8,9-Cl7-Dibenzofuran		"	<0.12
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin		"	<0.17
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran		"	<0.16
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin		"	<0.18

Client:Philip Analytical Services Inc Project:Misc.

NYC 9/11 Public Portal Document

3/14/02

PASC - Summary of Analysis Pre. Dates

Batch Code:	**0228CL01**	**0228CL01**	**0228CL01**
Total Tetrachlorodibenzofurans	009504 02	009510 02	009518 02
	009505 02	009511 02	009519 02
	009506 02	009512 02	009520 02
	009507 02	009513 02	
	009508 02	009514 02	
	009509 02	009515 02	
		009516 02	
		009517 02	
Date Analysed:	02/03/08	02/03/08	02/03/09
Date Prepared:	02/02/28	02/02/28	02/02/28
Batch Code:	**0228CL01**	**0228CL01**	**0228CL01**
2,3,7,8-Cl4-Dibenzofuran	009504 02	009510 02	009518 02
	009505 02	009511 02	009519 02
	009506 02	009512 02	009520 02
	009507 02	009513 02	
	009508 02	009514 02	
	009509 02	009515 02	
		009516 02	
		009517 02	
Date Analysed:	02/03/08	02/03/08	02/03/09
Date Prepared:	02/02/28	02/02/28	02/02/28

Client:Philip Analytical Services Inc Project:Misc.

NYC-WTC_000243749

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