

APPENDIX I - PRE & POST DIOXIN WIPE SAMPLING



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

October 24, 2002

Fred Burkhardt
ATC Associates
104 East 25th Street
10th Floor
New York, NY 10010-2917

TEL: (212) 353-8280
FAX (212) 353-8306

RE: 125 Cedar Street

Order No.: R02090951

Dear Fred Burkhardt:

PSC Analytical Services received 18 samples on 9/17/2002 1:00:00 PM for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Fred Usbeck
Manager, CIH

4418 Pottsville Pike, Reading, PA 19605 610-921-8833 FAX 610-921-8407



4418 Pottsville Pike phone: (610) 921-8833
Reading, PA 19605 fax: (610) 921-9667

AIR SAMPLING CHAIN OF CUSTODY

PSC Work Order #

R020 90951

Page 1 of 2

Report Results To:		PO #	
Name	Company	Name	Company
Mailing Address		Mailing Address	
City	State	City	State
Telephone #	Fax #	Telephone #	Fax #

Submit Invoice To:		Name	
		Company	
		Mailing Address	
		City	
		State	
		ZIP	
		Telephone #	
		Fax #	
Credit Card info (include exp. date)			

COMMON MATRIX TYPES

- 1. Badge (OVM/Passive Monitor)
- 2. Tube (specify type: charcoal, silica, XAD, etc)
- 3. Train (filter + tube, 2 tubes in series, etc)
- 4. Filter/Cassette (specify PVC, MCE, GFF, etc.)
- 5. Impinger Solutions (specify components)
- 6. Wipe (specify type)
- 7. Tedlar Bag
- 8. Sealed Can
- 9. PUF/Resin/XAD
- 10. Other (list details):

Job/Project Name: 125 Cedar Street

Sampler's Name(s):

Sampling Location (Specify State):

Due Date (Rush results requires Lab approval):

REPORTING REQUIREMENTS (Circle all that apply):

Full Data Package Reduced Deliverables Pkg Electronic Data Deliverables

113-0700266

#	SAMPLE DESCRIPTION (ID must match container labels)	MATRIX (see above list)	MEDIA (list catalog number)	FINAL VOLUME (specify: Liters, minutes, etc)	SAMPLE DATE	SAMPLE TIMES		FLOW RATES (specify units:)		ANALYSIS REQUESTED Use attachments if necessary. Please specify method requirements.
						Start	Stop	Initial	Final	
1	35-D-W		Wipe	12.2102	9/12					DIRSMA 67 1006
2	H									68
3	F 7 m									69
4	2N-D-W									70
5	-H									71
6	-F 2 m									72
7	2S-D-W									73
8	-H									74
9	-F 7 m									75
10										

1) Relinquished by:	Date: 9/13	Time:
3) Relinquished by:	Date:	Time:

(2) Received by:	Date: 02/09/17	Time: 1:00
(4) Received by:	Date:	Time:



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

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• NC DENR 599

• NY DOH NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090951

Lab ID: R02090951-01

Collection Date: 9/12/2002

Client Sample ID: 3S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-02

Collection Date: 9/12/2002

Client Sample ID: 3S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-03

Collection Date: 9/12/2002

Client Sample ID: 3S-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-04

Collection Date: 9/12/2002

Client Sample ID: 2N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-05

Collection Date: 9/12/2002

Client Sample ID: 2N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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INDUSTRIAL HYGIENE

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

ENVIRONMENTAL TESTING

• NY DOH/NELAC 10903
• PA DEP 06-353
• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090951

Lab ID: R02090951-06

Collection Date: 9/12/2002

Client Sample ID: 2N-D-N

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-07

Collection Date: 9/12/2002

Client Sample ID: 2S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-08

Collection Date: 9/12/2002

Client Sample ID: 2S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-09

Collection Date: 9/12/2002

Client Sample ID: 2S-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-10

Collection Date: 9/12/2002

Client Sample ID: 4N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Qualifiers:
BRL - Below Reporting Limit
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R - RPD outside accepted recovery limits
E - Value above quantitation range



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• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090951

Lab ID: R02090951-11

Collection Date: 9/12/2002

Client Sample ID: 4N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-12

Collection Date: 9/12/2002

Client Sample ID: 4N-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-13

Collection Date: 9/12/2002

Client Sample ID: 4S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-14

Collection Date: 9/12/2002

Client Sample ID: 4S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-15

Collection Date: 9/12/2002

Client Sample ID: 4S-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



INDUSTRIAL HYGIENE

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

ENVIRONMENTAL TESTING

• NY DOH/NELAC 10903
• PA DEP 06-353
• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090951

Lab ID: R02090951-16

Collection Date: 9/12/2002

Client Sample ID: 3N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-17

Collection Date: 9/12/2002

Client Sample ID: 3N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02090951-18

Collection Date: 9/12/2002

Client Sample ID: 3N-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

10/23/2002

PASC - Certificate of Analysis

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		Method	Blank	Blank	R02090951	R02090951
	Client ID:	Blank10/04	Spike#1	Spike#1	01A	02A
	Lab No.:	060266 02	060266 02	%Recoveries	060267 02	060268 02
	Date Sampled:	12-Sep-2002	12-Sep-2002		12-Sep-2002	12-Sep-2002
Component	MDL	Units				
Total Tetrachlorodibenzofurans	pg	<3.9	1100	-	<2.0	130
Total Pentachlorodibenzofurans	"	17	6400	-	<2.2	55
Total Hexachlorodibenzofurans	"	52	10000	-	<1.6	45
Total Heptachlorodibenzofurans	"	42	5100	-	<2.1	46
Octachlorodibenzofuran	"	67	4400	-	3.5	33
Total Tetrachlorodibenzo-p-dioxins	"	4.3	1100	-	4.3	110
Total Pentachlorodibenzo-p-dioxins	"	12	2700	-	<2.9	16
Total Hexachlorodibenzo-p-dioxins	"	35	7900	-	<8.9	<35
Total Heptachlorodibenzo-p-dioxins	"	26	2600	-	3.9	88
Octachlorodibenzo-p-dioxin	"	65	4900	-	16	390
Internal Recoveries	%					
2,3,7,8-T4CDF-13C12		65	70	70	82	72
2,3,7,8-T4CDD-13C12		74	84	84	79	75
1,2,3,7,8-P5CDF-13C12		43	70	70	88	61
1,2,3,7,8-P5CDD-13C12		48	76	76	105	67
1,2,3,4,7,8-H6CDF-13C12		72	85	85	86	73
1,2,3,6,7,8-H6CDD-13C12		74	88	88	91	76
1,2,3,4,6,7,8-H7CDF-13C12		82	86	86	83	71
1,2,3,4,6,7,8-H7CDD-13C12		75	89	89	81	68
OCDD-13C12		84	108	108	94	75
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg	<3.9	1100	105	<2.0	20
2,3,7,8-Cl4-Dibenzo-p-dioxin	"	4.3	1100	109	<2.6	<2.5
1,2,3,7,8-Cl5-Dibenzofuran	"	<9.6	2900	114	<2.1	4.0
2,3,4,7,8-Cl5-Dibenzofuran	"	17	3500	139	<2.3	<5.0
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"	12	2700	110	<2.9	<3.6
1,2,3,4,7,8-Cl6-Dibenzofuran	"	11	2400	97	<1.4	8.2
1,2,3,6,7,8-Cl6-Dibenzofuran	"	14	2600	102	<1.4	4.5
2,3,4,6,7,8-Cl6-Dibenzofuran	"	<14	2500	100	<1.7	10
1,2,3,7,8,9-Cl6-Dibenzofuran	"	29	2500	98	<2.0	<2.5
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"	<9.1	2700	108	<4.6	<2.4
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"	14	2600	105	<4.5	<3.4
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"	22	2600	102	<4.4	<2.3
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"	18	2600	104	<1.8	21
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"	25	2400	97	<2.5	<3.1
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"	26	2600	103	3.9	48
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"	67	4400	87	3.5	33
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"	65	4900	99	16	390
2,3,7,8-TCDF (DB225)	pg	-	-		-	13
Internal Recoveries	%					
2,3,7,8-TCDF-13C12		-	-		-	88
TEQ based on Nato Factors	pg	28.9			0.06	5.6

Client: Philip Analytical Services Inc Project: Misc.

10/23/2002

PASC - Certificate of Analysis

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		R02090951	R02090951	R02090951	R02090951	R02090951
Client ID:		03A	04A	05A	06A	07A
Lab No.:		060269 02	060270 02	060271 02	060272 02	060273 02
Date Sampled:		12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Component	MDL Units					
Total Tetrachlorodibenzofurans	pg	27	<1.9	<2.0	5.8	<1.7
Total Pentachlorodibenzofurans	"	<8.8	<1.9	<3.4	<1.5	<1.6
Total Hexachlorodibenzofurans	"	21	<1.5	<1.2	2.5	<1.1
Total Heptachlorodibenzofurans	"	57	<1.9	<1.8	11	<2.1
Octachlorodibenzofuran	"	53	<2.7	<2.2	9.6	4.2
Total Tetrachlorodibenzo-p-dioxins	"	56	<3.7	<3.4	20	<1.3
Total Pentachlorodibenzo-p-dioxins	"	5.1	<3.4	<5.8	<3.4	<2.9
Total Hexachlorodibenzo-p-dioxins	"	2.9	<8.0	<11	1.7	<3.7
Total Heptachlorodibenzo-p-dioxins	"	62	<3.3	7.0	9.8	<2.0
Octachlorodibenzo-p-dioxin	"	320	16	13	68	8.6
Internal Recoveries	%					
2,3,7,8-T4CDF-13C12		68	65	81	72	75
2,3,7,8-T4CDD-13C12		76	73	85	85	92
1,2,3,7,8-P5CDF-13C12		76	60	86	67	83
1,2,3,7,8-P5CDD-13C12		93	67	96	76	91
1,2,3,4,7,8-H6CDF-13C12		79	79	96	86	96
1,2,3,6,7,8-H6CDD-13C12		80	77	94	90	95
1,2,3,4,6,7,8-H7CDF-13C12		78	85	97	92	97
1,2,3,4,6,7,8-H7CDD-13C12		79	82	91	93	97
OCDD-13C12		91	100	115	104	112
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg	11	<1.9	<2.0	4.0	<1.7
2,3,7,8-Cl4-Dibenzo-p-dioxin	"	<3.7	<2.7	<2.5	<1.3	<1.3
1,2,3,7,8-Cl5-Dibenzofuran	"	<6.5	<1.8	<3.2	<1.5	<1.5
2,3,4,7,8-Cl5-Dibenzofuran	"	<7.1	<1.9	<3.5	<1.6	<1.6
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"	<4.2	<3.4	<3.0	<2.8	<2.9
1,2,3,4,7,8-Cl6-Dibenzofuran	"	5.2	<1.3	<1.1	<0.92	<0.97
1,2,3,6,7,8-Cl6-Dibenzofuran	"	3.0	<1.4	<1.1	<0.94	<0.99
2,3,4,6,7,8-Cl6-Dibenzofuran	"	<2.7	<1.6	<1.3	<1.1	<1.2
1,2,3,7,8,9-Cl6-Dibenzofuran	"	<3.3	<2.0	<1.6	<1.4	<1.4
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"	<2.6	<3.2	<3.3	<1.2	<1.6
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"	<2.6	<3.1	<3.3	<1.2	<1.6
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"	<2.5	<3.1	<3.2	<1.2	<1.6
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"	33	<1.6	<1.5	5.0	<3.2
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"	<2.8	<2.3	<2.2	<2.2	<4.5
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"	35	<3.3	4.7	9.8	<2.7
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"	53	<2.7	<2.2	9.6	4.2
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"	320	16	13	68	8.6
2,3,7,8-TCDF (DB225)	pg	<6.5	-	-	<5.7	<3.1
Internal Recoveries	%					
2,3,7,8-TCDF-13C12		81	-	-	96	92
TEQ based on Nato Factors	pg	3.0	0.02	0.06	0.63	0.01

Client: Philip Analytical Services Inc Project: Misc.

10/23/2002

PASC - Certificate of Analysis

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Component	MDL	Units	Client ID:	R02090951	R02090951	R02090951	R02090951	R02090951
			Lab No.:	08A	09A	10A	11A	12A
			Date Sampled:	060274 02	060275 02	060276 02	060277 02	060278 02
				12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Total Tetrachlorodibenzofurans	pg			<1.7	4.8	970	180	170
Total Pentachlorodibenzofurans	"			<1.7	<9.5	450	110	78
Total Hexachlorodibenzofurans	"			1.8	<4.1	250	45	45
Total Heptachlorodibenzofurans	"			<3.8	<6.3	35	11	11
Octachlorodibenzofuran	"			<2.5	<5.3	58	12	16
Total Tetrachlorodibenzo-p-dioxins	"			<2.0	10	1700	230	170
Total Pentachlorodibenzo-p-dioxins	"			<2.6	<5.9	290	130	56
Total Hexachlorodibenzo-p-dioxins	"			1.9	<16	260	14	17
Total Heptachlorodibenzo-p-dioxins	"			4.2	7.7	190	90	80
Octachlorodibenzo-p-dioxin	"			12	46	730	350	320
Internal Recoveries	%							
2,3,7,8-T4CDF-13C12				71	81	93	87	92
2,3,7,8-T4CDD-13C12				83	76	80	80	85
1,2,3,7,8-P5CDF-13C12				70	74	88	82	84
1,2,3,7,8-P5CDD-13C12				79	79	95	88	87
1,2,3,4,7,8-H6CDF-13C12				90	79	95	90	85
1,2,3,6,7,8-H6CDD-13C12				94	82	93	93	88
1,2,3,4,6,7,8-H7CDF-13C12				92	77	85	86	80
1,2,3,4,6,7,8-H7CDD-13C12				97	78	88	91	85
OCDD-13C12				114	68	79	86	77
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg			<1.7	<4.8	140	28	21
2,3,7,8-Cl4-Dibenzo-p-dioxin	"			<2.0	<5.9	<10	<3.4	<3.3
1,2,3,7,8-Cl5-Dibenzofuran	"			<1.6	<9.2	<12	<2.2	<6.1
2,3,4,7,8-Cl5-Dibenzofuran	"			<1.8	<9.8	31	13	8.0
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"			<2.6	<5.9	<4.6	<3.5	<3.9
1,2,3,4,7,8-Cl6-Dibenzofuran	"			1.6	<4.1	50	15	11
1,2,3,6,7,8-Cl6-Dibenzofuran	"			<0.86	<3.4	19	<7.0	<5.3
2,3,4,6,7,8-Cl6-Dibenzofuran	"			<1.0	<4.4	22	<7.2	7.8
1,2,3,7,8,9-Cl6-Dibenzofuran	"			<1.2	<4.8	<8.0	<3.7	<4.3
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"			<1.4	<20	<3.5	<4.0	<6.2
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"			<1.4	<14	9.7	4.4	<4.4
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"			<1.3	<15	10	<5.3	<4.8
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"			<3.3	<5.5	<68	<24	<23
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"			<4.6	<7.4	19	<8.5	<5.2
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"			4.2	7.7	100	47	40
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"			<2.5	<5.3	58	12	16
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"			12	46	730	350	320
2,3,7,8-TCDF (DB225)	pg			<3.7	<4.8	37	<9.8	<6.7
Internal Recoveries	%							
2,3,7,8-TCDF-13C12				92	81	87	86	93
TEQ based on Nato Factors	pg			0.21	0.12	42.1	11.9	8.7

Client:Philip Analytical Services Inc Project:Misc.

10/23/2002

PASC - Certificate of Analysis

Page 4 of 5

Component	MDL	Units	Client ID:	R02090951	R02090951	R02090951	R02090951	R02090951
			Lab No.:	13A	14A	15A	16A	17A
			Date Sampled:	060279 02	060280 02	060281 02	060282 02	060283 02
				12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Total Tetrachlorodibenzofurans	pg			<2.0	140	81	120	65
Total Pentachlorodibenzofurans	"			<2.7	95	64	250	19
Total Hexachlorodibenzofurans	"			<2.6	71	32	83	8.5
Total Heptachlorodibenzofurans	"			<3.4	<27	16	21	<8.9
Octachlorodibenzofuran	"			<5.1	22	18	31	7.9
Total Tetrachlorodibenzo-p-dioxins	"			6.6	190	130	670	94
Total Pentachlorodibenzo-p-dioxins	"			<4.6	160	80	210	17
Total Hexachlorodibenzo-p-dioxins	"			<13	120	47	92	18
Total Heptachlorodibenzo-p-dioxins	"			5.0	77	58	110	12
Octachlorodibenzo-p-dioxin	"			13	240	200	440	100
Internal Recoveries	%							
2,3,7,8-T4CDF-13C12				86	94	78	84	79
2,3,7,8-T4CDD-13C12				81	88	86	91	83
1,2,3,7,8-P5CDF-13C12				79	85	77	83	84
1,2,3,7,8-P5CDD-13C12				85	93	80	92	88
1,2,3,4,7,8-H6CDF-13C12				86	88	81	87	79
1,2,3,6,7,8-H6CDD-13C12				87	91	85	97	85
1,2,3,4,6,7,8-H7CDF-13C12				78	82	73	78	70
1,2,3,4,6,7,8-H7CDD-13C12				87	90	82	86	80
OCDD-13C12				77	80	88	90	82
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg			<2.0	25	<17	<49	<13
2,3,7,8-Cl4-Dibenzo-p-dioxin	"			<3.2	<2.7	<2.4	<3.8	<2.0
1,2,3,7,8-Cl5-Dibenzofuran	"			<2.6	<5.7	6.3	<9.1	<3.5
2,3,4,7,8-Cl5-Dibenzofuran	"			<2.8	<13	6.5	16	<3.7
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"			<4.6	<2.3	<2.3	<3.0	<2.6
1,2,3,4,7,8-Cl6-Dibenzofuran	"			<2.5	17	9.4	23	3.8
1,2,3,6,7,8-Cl6-Dibenzofuran	"			<2.1	7.8	<4.1	8.3	<2.4
2,3,4,6,7,8-Cl6-Dibenzofuran	"			<2.8	6.7	<3.5	<9.2	<2.9
1,2,3,7,8,9-Cl6-Dibenzofuran	"			<3.0	<5.8	<3.7	<3.7	<3.1
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"			<16	<6.3	<3.2	<3.0	<3.0
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"			<12	<4.5	<2.9	4.8	<2.7
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"			<13	<5.6	<2.6	5.3	<2.5
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"			<2.9	<24	<21	<39	<7.9
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"			<3.9	<32	<5.4	<13	<10
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"			5.0	42	32	61	<18
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"			<5.1	22	18	31	7.9
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"			13	240	200	440	100
2,3,7,8-TCDF (DB225)	pg			<8.9	8.1	<4.6	10	<3.6
Internal Recoveries	%							
2,3,7,8-TCDF-13C12				94	94	94	97	87
TEQ based on Nato Factors	pg			0.06	6.4	5.04	13.2	0.5

Client: Philip Analytical Services Inc Project: Misc.

10/23/2002

PASC - Certificate of Analysis

Page 5 of 5

R02090951

Client ID:

18A

Lab No.:

060284 02

Date Sampled:

12-Sep-2002

Component	MDL	Units	
Total Tetrachlorodibenzofurans		pg	130
Total Pentachlorodibenzofurans		"	62
Total Hexachlorodibenzofurans		"	21
Total Heptachlorodibenzofurans		"	14
Octachlorodibenzofuran		"	22
Total Tetrachlorodibenzo-p-dioxins		"	110
Total Pentachlorodibenzo-p-dioxins		"	35
Total Hexachlorodibenzo-p-dioxins		"	59
Total Heptachlorodibenzo-p-dioxins		"	74
Octachlorodibenzo-p-dioxin		"	300
Internal Recoveries		%	
2,3,7,8-T4CDF-13C12			90
2,3,7,8-T4CDD-13C12			102
1,2,3,7,8-P5CDF-13C12			94
1,2,3,7,8-P5CDD-13C12			98
1,2,3,4,7,8-H6CDF-13C12			94
1,2,3,6,7,8-H6CDD-13C12			98
1,2,3,4,6,7,8-H7CDF-13C12			80
1,2,3,4,6,7,8-H7CDD-13C12			88
OCDD-13C12			92
2,3,7,8-Cl4-Dibenzofuran (DB5)		pg	<20
2,3,7,8-Cl4-Dibenzo-p-dioxin		"	<2.4
1,2,3,7,8-Cl5-Dibenzofuran		"	<2.7
2,3,4,7,8-Cl5-Dibenzofuran		"	5.9
1,2,3,7,8-Cl5-Dibenzo-p-dioxin		"	<2.5
1,2,3,4,7,8-Cl6-Dibenzofuran		"	8.4
1,2,3,6,7,8-Cl6-Dibenzofuran		"	<3.2
2,3,4,6,7,8-Cl6-Dibenzofuran		"	<3.9
1,2,3,7,8,9-Cl6-Dibenzofuran		"	<4.1
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin		"	<2.9
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin		"	2.8
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin		"	3.4
1,2,3,4,6,7,8-Cl7-Dibenzofuran		"	<17
1,2,3,4,7,8,9-Cl7-Dibenzofuran		"	<13
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin		"	43
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran		"	22
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin		"	300
2,3,7,8-TCDF (DB225)		pg	<5.1
Internal Recoveries		%	
2,3,7,8-TCDF-13C12			109
TEQ based on Nato Factors		pg	5.18

Client:Philip Analytical Services Inc Project:Misc.

10/24/2002

PASC - Summary of Analysis Pre. Dates

Page MS-1 of 1

Batch Code:
PCDD/F (DB5)

1004HW01	1004HW01	1008HW01	1008HW01
060266 02	060272 02	060275 02	060281 02
060267 02	060273 02	060276 02	060282 02
060268 02	060274 02	060277 02	060283 02
060269 02		060278 02	060284 02
060270 02		060279 02	
060271 02		060280 02	

Date Analysed:
Date Prepared:

02/10/09	02/10/10	02/10/19	02/10/21
02/10/04	02/10/04	02/10/08	02/10/08

Batch Code:
2,3,7,8-TCDF (DB225)

1004HW01	1008HW01
060268 02	060281 02
060269 02	060282 02
060272 02	060283 02
060273 02	060284 02
060274 02	
060275 02	
060276 02	
060277 02	
060278 02	
060279 02	
060280 02	

Date Analysed:
Date Prepared:

02/10/20	02/10/22
02/10/04	02/10/08

Client:Philip Analytical Services Inc Project:Misc.



INDUSTRIAL HYGIENE

• EPAAN/LAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

ENVIRONMENTAL TESTING

• NY DOH/NELAC 10903
• PA DEP 06-353
• NJ DEP PA020
• CT DPH PH-0238

October 24, 2002

Fred Burkhardt
ATC Associates
104 East 25th Street
10th Floor
New York, NY 10010-2917

TEL: (212) 353-8280
FAX (212) 353-8306

RE: 125 Cedar Street

Order No.: R02090957

Dear Fred Burkhardt:

PSC Analytical Services received 18 samples on 9/17/2002 1:00:00 PM for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Fred Usbeck
Manager, CIH

4418 Pottsville Pike, Reading, PA 19605 610-921-8833 FAX 610-921-8407



1418 Pottsville Pike phone: (610) 921-8833
Reading, PA 19605 fax: (610) 921-9667

AIR SAMPLING CHAIN OF CUSTODY

PSC Work Order #

202090957

Page 1 of 2

Report Results To:	Quote #
Name	Frederick Buckland
Company	ATC
Mailing Address	
City	
State	
ZIP	
Telephone #	

Submit Invoice To:	Name
	Company
	Mailing Address
	City
	State
	ZIP
	Telephone #
	Fax #
	Credit Card Info (include exp. date)

COMMON MATRIX TYPES

- 1. Badge (OVM/Passive Monitor)
- 2. Tube (specify type: charcoal, silica, XAD, etc)
- 3. Train (filter + tube, 2 tubes in series, etc)
- 4. Filter/Cassette (specify PVC, MCE, GFF, etc.)
- 5. Impinger Solutions (specify components)
- 6. Wipe (specify type)
- 7. Tedlar Bag
- 8. Summa Can
- 9. PUF/Resin/XAD
- 10. Other (list details):

Job/Project Name: 125 Cedar Street

Sampler's Name(s):

Sampling Location (Specify State):

Due Date (Rush results requires Lab approval):

REPORTING REQUIREMENTS (Circle all that apply):

Full Data Package Reduced Deliverables Pkg Electronic Data Deliverables

#	SAMPLE DESCRIPTION (ID must match container labels)	MATRIX (see above list)	MEDIA (list catalog number)	FINAL AIR VOLUME (specify: Liters, minutes, etc)	SAMPLE DATE	SAMPLE TIMES (Start Stop)	FLOW RATES (specify units:) (Initial Final Average)	ANALYSIS REQUESTED (Use attachments if necessary. Please specify method requirements.)
1	6S-D-W		Wipe	W. 2 x 12.2	9/12			Dioxin 85 1000
2	-H							86
3	-F 7							87
4	5N-D-W							88
5	-H							89
6	-F 7							90
7	5S-D-W							91
8	-H							92
9	-F 7							93
10								

1) Relinquished by:	Date	Time
	9/13/02	
3) Relinquished by:	Date	Time

(2) Received by:	Date	Time
	09/17	1200
(4) Received by:	Date	Time



INDUSTRIAL HYGIENE

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

ENVIRONMENTAL TESTING

• NY DOH NELAC 10903
• PA DEP 06-353
• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090957

Lab ID: R02090957-01

Collection Date: 9/12/2002

Client Sample ID: 6S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Lab ID: R02090957-02

Collection Date: 9/12/2002

Client Sample ID: 6S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Lab ID: R02090957-03

Collection Date: 9/12/2002

Client Sample ID: 6S-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Lab ID: R02090957-04

Collection Date: 9/12/2002

Client Sample ID: 5N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Lab ID: R02090957-05

Collection Date: 9/12/2002

Client Sample ID: 5N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Qualifiers:

BRL - Below Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH/NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090957

Lab ID: R02090957-06

Collection Date: 9/12/2002

Client Sample ID: 5N-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090957-07

Collection Date: 9/12/2002

Client Sample ID: 5S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090957-08

Collection Date: 9/12/2002

Client Sample ID: 5S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090957-09

Collection Date: 9/12/2002

Client Sample ID: 5S-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090957-10

Collection Date: 9/12/2002

Client Sample ID: PH-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Page 2 of 4



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090957

Lab ID: R02090957-11

Collection Date: 9/12/2002

Client Sample ID: PH-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Lab ID: R02090957-12

Collection Date: 9/12/2002

Client Sample ID: PH-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Lab ID: R02090957-13

Collection Date: 9/12/2002

Client Sample ID: 12SW-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Lab ID: R02090957-14

Collection Date: 9/12/2002

Client Sample ID: 12SW-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Lab ID: R02090957-15

Collection Date: 9/12/2002

Client Sample ID: 12SW-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS

SW8290

Analyst: SUB

TCDD/TCDF

See Attached

1

10/19/2002

Qualifiers:

BRL - Below Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090957

Lab ID: R02090957-16

Collection Date: 9/12/2002

Client Sample ID: 12SE-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090957-17

Collection Date: 9/12/2002

Client Sample ID: 12SE-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090957-18

Collection Date: 9/12/2002

Client Sample ID: 12SE-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Qualifiers:

- BRL - Below Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

10/23/2002

PASC - Certificate of Analysis

Page 1 of 5

		R02090957	R02090957	R02090957	R02090957	R02090957
<i>Client ID:</i>		01A	02A	03A	04A	05A
<i>Lab No.:</i>		060285 02	060286 02	060287 02	060288 02	060289 02
<i>Date Sampled:</i>		12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Component	Units					
Total Tetrachlorodibenzofurans	pg	100	270	150	860	160
Total Pentachlorodibenzofurans	"	250	97	65	720	77
Total Hexachlorodibenzofurans	"	70	32	20	350	33
Total Heptachlorodibenzofurans	"	13	<20	<15	32	<5.3
Octachlorodibenzofuran	"	17	13	13	41	7.9
Total Tetrachlorodibenzo-p-dioxins	"	940	310	150	1200	160
Total Pentachlorodibenzo-p-dioxins	"	370	130	28	1400	9.6
Total Hexachlorodibenzo-p-dioxins	"	110	55	29	670	18
Total Heptachlorodibenzo-p-dioxins	"	74	66	58	200	59
Octachlorodibenzo-p-dioxin	"	290	230	220	550	140
Internal Recoveries	%					
2,3,7,8-T4CDF-13C12		86	83	85	87	94
2,3,7,8-T4CDD-13C12		91	85	85	91	82
1,2,3,7,8-P5CDF-13C12		90	88	90	76	102
1,2,3,7,8-P5CDD-13C12		93	92	94	80	99
1,2,3,4,7,8-H6CDF-13C12		91	83	90	95	92
1,2,3,6,7,8-H6CDD-13C12		96	88	92	93	87
1,2,3,4,6,7,8-H7CDF-13C12		85	81	85	86	89
1,2,3,4,6,7,8-H7CDD-13C12		88	87	90	93	87
OCDD-13C12		93	88	97	100	76
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg	<70	<42	<21	<170	<25
2,3,7,8-Cl4-Dibenzo-p-dioxin	"	<2.8	<2.1	<3.2	6.9	<5.1
1,2,3,7,8-Cl5-Dibenzofuran	"	<14	<5.9	<3.3	37	<1.5
2,3,4,7,8-Cl5-Dibenzofuran	"	<19	9.8	6.9	<68	<1.6
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"	<4.0	<2.6	<2.6	<17	<1.1
1,2,3,4,7,8-Cl6-Dibenzofuran	"	19	10	7.9	83	9.6
1,2,3,6,7,8-Cl6-Dibenzofuran	"	7.4	<3.5	<3.7	31	<4.6
2,3,4,6,7,8-Cl6-Dibenzofuran	"	7.0	<4.2	<4.4	30	4.0
1,2,3,7,8,9-Cl6-Dibenzofuran	"	<3.5	<4.4	<4.7	3.3	<3.8
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"	<5.2	<4.7	<6.9	9.0	<4.8
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"	<4.7	<4.2	<6.2	17	<3.5
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"	<4.3	<3.8	<5.6	25	<3.8
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"	<19	<18	<14	<77	<13
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"	<11	<23	<17	<1.8	<6.2
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"	40	34	32	100	<3.3
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"	17	13	13	41	7.9
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"	290	230	220	550	140
2,3,7,8-TCDF (DB225)	pg	10	5.4	4.4	27	<6.1
Internal Recoveries	%					
2,3,7,8-TCDF-13C12		97	90	92	100	90
TEQ based on Nato Factors	pg	4.1	6.5	4.8	30.3	1.5

Client:Philip Analytical Services Inc Project:Misc.

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PASC - Certificate of Analysis

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		R02090957	R02090957	R02090957	R02090957	R02090957
<i>Client ID:</i>		06A	07A	08A	09A	10A
<i>Lab No.:</i>		060290 02	060291 02	060292 02	060293 02	060323 02
<i>Date Sampled:</i>		12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Component	Units					
Total Tetrachlorodibenzofurans	pg	69	<2.9	88	330	78
Total Pentachlorodibenzofurans	"	19	<4.3	38	340	23
Total Hexachlorodibenzofurans	"	9.7	<1.2	15	170	8.6
Total Heptachlorodibenzofurans	"	<13	<1.8	<13	20	<9.7
Octachlorodibenzofuran	"	6.7	<3.8	11	72	9.9
Total Tetrachlorodibenzo-p-dioxins	"	89	9.9	160	360	120
Total Pentachlorodibenzo-p-dioxins	"	23	<3.8	13	370	23
Total Hexachlorodibenzo-p-dioxins	"	5.1	<13	15	440	21
Total Heptachlorodibenzo-p-dioxins	"	38	<3.3	60	300	21
Octachlorodibenzo-p-dioxin	"	210	16	210	890	47
Internal Recoveries	%					
2,3,7,8-T4CDF-13C12		106	83	84	102	93
2,3,7,8-T4CDD-13C12		91	74	73	88	87
1,2,3,7,8-P5CDF-13C12		119	89	84	101	99
1,2,3,7,8-P5CDD-13C12		118	88	83	98	98
1,2,3,4,7,8-H6CDF-13C12		98	94	85	97	96
1,2,3,6,7,8-H6CDD-13C12		94	85	78	90	92
1,2,3,4,6,7,8-H7CDF-13C12		93	86	81	100	91
1,2,3,4,6,7,8-H7CDD-13C12		89	78	77	97	93
OCDD-13C12		81	68	68	84	87
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg	13	<2.9	<23	<56	<18
2,3,7,8-Cl4-Dibenzo-p-dioxin	"	<3.3	<4.8	<3.8	<4.7	<2.4
1,2,3,7,8-Cl5-Dibenzofuran	"	<5.2	<4.1	<6.8	12	4.8
2,3,4,7,8-Cl5-Dibenzofuran	"	<5.5	<4.4	<7.2	32	5.6
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"	<2.9	<3.8	<3.6	<6.0	<2.2
1,2,3,4,7,8-Cl6-Dibenzofuran	"	5.9	<1.2	7.4	51	4.8
1,2,3,6,7,8-Cl6-Dibenzofuran	"	3.1	<0.99	2.9	20	<2.8
2,3,4,6,7,8-Cl6-Dibenzofuran	"	<2.5	<1.3	<2.8	<14	<3.3
1,2,3,7,8,9-Cl6-Dibenzofuran	"	<1.9	<1.4	<3.1	<4.6	<3.5
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"	<3.5	<4.0	<4.4	<6.1	<3.0
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"	<2.5	<2.9	<3.2	14	<2.7
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"	<2.7	<3.1	<3.4	24	<2.4
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"	<11	<1.6	<12	<89	<8.7
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"	<1.6	<1.7	<6.6	<2.8	<11
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"	38	<3.3	35	160	12
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"	6.7	<3.8	11	72	9.9
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"	210	16	210	890	47
2,3,7,8-TCDF (DB225)	pg	<4.1	<4.2	<5.4	12	<3.6
Internal Recoveries	%					
2,3,7,8-TCDF-13C12		96	79	79	97	97
TEQ based on Nato Factors	pg	2.8	0.02	1.6	30.3	3.7

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		R02090957	R02090957	R02090957	R02090957	R02090957
Client ID:		11A	12A	13A	14A	15A
Lab No.:		060324 02	060325 02	060326 02	060327 02	060328 02
Date Sampled:		12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Component	Units					
Total Tetrachlorodibenzofurans	pg	33	79	2.8	17	170
Total Pentachlorodibenzofurans	"	25	45	<3.5	39	40
Total Hexachlorodibenzofurans	"	10	20	<2.6	29	19
Total Heptachlorodibenzofurans	"	<13	<15	<10	<18	<20
Octachlorodibenzofuran	"	6.9	14	<4.5	17	16
Total Tetrachlorodibenzo-p-dioxins	"	62	150	5.7	83	160
Total Pentachlorodibenzo-p-dioxins	"	19	31	<2.0	65	37
Total Hexachlorodibenzo-p-dioxins	"	22	43	<2.6	69	41
Total Heptachlorodibenzo-p-dioxins	"	34	100	10	50	25
Octachlorodibenzo-p-dioxin	"	110	250	28	110	150
Internal Recoveries	%					
2,3,7,8-T4CDF-13C12		90	94	88	98	66
2,3,7,8-T4CDD-13C12		83	86	83	88	63
1,2,3,7,8-P5CDF-13C12		88	104	94	105	66
1,2,3,7,8-P5CDD-13C12		87	100	100	106	65
1,2,3,4,7,8-H6CDF-13C12		94	97	99	103	72
1,2,3,6,7,8-H6CDD-13C12		93	91	99	98	71
1,2,3,4,6,7,8-H7CDF-13C12		89	91	96	96	70
1,2,3,4,6,7,8-H7CDD-13C12		90	90	99	94	69
OCDD-13C12		90	88	93	96	70
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg	<14	<18	<2.8	<11	<25
2,3,7,8-Cl4-Dibenzo-p-dioxin	"	<2.4	<2.0	<2.3	<2.8	<3.3
1,2,3,7,8-Cl5-Dibenzofuran	"	<4.1	<2.7	<3.4	<5.6	<4.6
2,3,4,7,8-Cl5-Dibenzofuran	"	<4.2	5.2	<3.6	<8.4	<4.8
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"	<2.5	<3.2	<2.0	<3.5	<3.0
1,2,3,4,7,8-Cl6-Dibenzofuran	"	4.1	5.9	<2.4	9.3	7.9
1,2,3,6,7,8-Cl6-Dibenzofuran	"	<2.3	3.0	<2.3	<6.1	<4.5
2,3,4,6,7,8-Cl6-Dibenzofuran	"	<2.7	<2.9	<2.7	7.0	<5.4
1,2,3,7,8,9-Cl6-Dibenzofuran	"	<2.9	<3.1	<2.9	<2.9	<5.7
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"	<2.9	<2.8	<2.9	3.8	<3.2
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"	<2.6	3.2	<2.6	4.2	<2.9
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"	<2.4	<2.3	<2.4	6.0	<2.6
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"	<11	<13	<9.2	<16	<18
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"	<15	<17	<12	<20	<22
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"	18	59	6.6	28	<23
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"	6.9	14	<4.5	17	16
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"	110	250	28	110	150
2,3,7,8-TCDF (DB225)	pg	<3.7	<4.3	<4.2	<3.1	<8.8
Internal Recoveries	%					
2,3,7,8-TCDF-13C12		93	99	94	99	73
TEQ based on Nato Factors	pg	0.71	4.7	0.09	3.4	0.95

Client: Philip Analytical Services Inc Project: Misc.

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Component	Units	Client ID:	R02090957	R02090957	R02090957	Method	Method
		Lab No.:	16A	17A	18A	Blank 10/08	Blank 10/09
		Date Sampled:	060329 02	060330 02	060331 02	12-Sep-2002	12-Sep-2002
			12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Total Tetrachlorodibenzofurans	pg		5.9	36	90	<4.4	<1.5
Total Pentachlorodibenzofurans	"		<3.9	13	39	<10	<1.8
Total Hexachlorodibenzofurans	"		<1.2	5.4	20	5.4	<3.0
Total Heptachlorodibenzofurans	"		<1.8	<1.1	<2.0	21	<3.3
Octachlorodibenzofuran	"		<3.1	<3.6	12	33	<5.3
Total Tetrachlorodibenzo-p-dioxins	"		21	30	86	<6.0	<1.8
Total Pentachlorodibenzo-p-dioxins	"		5.7	<4.7	38	<5.2	<2.5
Total Hexachlorodibenzo-p-dioxins	"		<13	<19	6.0	<7.4	<2.7
Total Heptachlorodibenzo-p-dioxins	"		5.4	4.3	80	21	10
Octachlorodibenzo-p-dioxin	"		27	28	340	42	30
Internal Recoveries	%						
2,3,7,8-T4CDF-13C12			95	111	102	74	86
2,3,7,8-T4CDD-13C12			87	74	84	77	80
1,2,3,7,8-P5CDF-13C12			93	103	104	75	86
1,2,3,7,8-P5CDD-13C12			94	104	106	80	87
1,2,3,4,7,8-H6CDF-13C12			92	96	95	74	100
1,2,3,6,7,8-H6CDD-13C12			92	96	91	78	100
1,2,3,4,6,7,8-H7CDF-13C12			94	93	91	69	98
1,2,3,4,6,7,8-H7CDD-13C12			93	92	89	80	100
OCDD-13C12			81	81	79	78	94
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg		<3.4	11	17	<4.4	<1.5
2,3,7,8-Cl4-Dibenzo-p-dioxin	"		<3.6	<4.8	<3.3	<6.0	<1.8
1,2,3,7,8-Cl5-Dibenzofuran	"		<3.8	<5.5	<3.6	<10	<1.8
2,3,4,7,8-Cl5-Dibenzofuran	"		<4.1	<5.8	<4.4	<10	<1.9
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"		<3.7	<4.7	<4.9	<5.2	<2.5
1,2,3,4,7,8-Cl6-Dibenzofuran	"		<1.2	2.1	7.1	5.2	<2.8
1,2,3,6,7,8-Cl6-Dibenzofuran	"		<0.98	<1.4	<2.8	<3.7	<2.6
2,3,4,6,7,8-Cl6-Dibenzofuran	"		<1.3	<1.8	<3.6	<4.5	<3.2
1,2,3,7,8,9-Cl6-Dibenzofuran	"		<1.4	<2.0	<4.0	<4.7	<3.4
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"		<3.6	<3.8	<4.4	<8.2	<3.0
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"		<2.6	<2.7	<3.3	<7.4	<2.7
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"		<2.8	<3.0	<3.5	<6.7	<2.5
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"		<1.6	<2.1	<15	11	<3.0
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"		<2.1	<1.2	<2.3	<5.7	<3.8
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"		5.4	4.3	41	21	6.7
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"		<3.1	<3.6	12	33	<5.3
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"		27	28	340	42	30
2,3,7,8-TCDF (DB225)	pg		<4.1	<3.8	<3.9	-	
Internal Recoveries	%						
2,3,7,8-TCDF-13C12			102	92	98	-	
TEQ based on Nato Factors	pg		0.08	1.4	3.2		

Client: Philip Analytical Services Inc Project: Misc.

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<i>Client ID:</i> <i>Lab No.:</i> <i>Date Sampled:</i>		Blank Spike	Blank Spike %Recoveries
Component	Units		
Total Tetrachlorodibenzofurans	pg	1100	-
Total Pentachlorodibenzofurans	"	5300	-
Total Hexachlorodibenzofurans	"	9100	-
Total Heptachlorodibenzofurans	"	5000	-
Octachlorodibenzofuran	"	4700	-
Total Tetrachlorodibenzo-p-dioxins	"	1000	-
Total Pentachlorodibenzo-p-dioxins	"	2700	-
Total Hexachlorodibenzo-p-dioxins	"	7200	-
Total Heptachlorodibenzo-p-dioxins	"	2500	-
Octachlorodibenzo-p-dioxin	"	4800	-
Internal Recoveries	%		
2,3,7,8-T4CDF-13C12		86	86
2,3,7,8-T4CDD-13C12		81	81
1,2,3,7,8-P5CDF-13C12		88	88
1,2,3,7,8-P5CDD-13C12		90	90
1,2,3,4,7,8-H6CDF-13C12		93	93
1,2,3,6,7,8-H6CDD-13C12		95	95
1,2,3,4,6,7,8-H7CDF-13C12		95	95
1,2,3,4,6,7,8-H7CDD-13C12		95	95
OCDD-13C12		86	86
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg	1000	104
2,3,7,8-Cl4-Dibenzo-p-dioxin	"	1000	102
1,2,3,7,8-Cl5-Dibenzofuran	"	2600	102
2,3,4,7,8-Cl5-Dibenzofuran	"	2700	107
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"	2700	108
1,2,3,4,7,8-Cl6-Dibenzofuran	"	2400	94
1,2,3,6,7,8-Cl6-Dibenzofuran	"	2200	88
2,3,4,6,7,8-Cl6-Dibenzofuran	"	2400	95
1,2,3,7,8,9-Cl6-Dibenzofuran	"	2100	85
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"	2500	98
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"	2500	98
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"	2300	92
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"	2500	100
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"	2500	99
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"	2400	97
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"	4700	95
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"	4800	96
2,3,7,8-TCDF (DB225)	pg		
Internal Recoveries	%		
2,3,7,8-TCDF-13C12			
TEQ based on Nato Factors	pg		

Client: Philip Analytical Services Inc Project: Misc.

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PASC - Summary of Analysis Pre. Dates

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Batch Code:
PCDD/F(DB5)

1008HW01	1008HW01	1009NZ01
060285 02	060288 02	060289 02
060286 02		060290 02
060287 02		060291 02
		060292 02
		060293 02
		060323 02
		060324 02
		060325 02
		060326 02
		060327 02
		060328 02
		060329 02
		060330 02
		060331 02
Date Analysed:	02/10/21	02/10/22
Date Prepared:	02/10/08	02/10/08

Batch Code:
2,3,7,8-TCDF (DB225)

1008HW01	1009NZ01	1009NZ01	1009NZ01
060285 02	060289 02	060323 02	060329 02
060286 02	060290 02	060324 02	
060287 02	060291 02	060325 02	
060288 02	060292 02	060326 02	
	060293 02	060327 02	
	060330 02	060328 02	
	060331 02		
Date Analysed:	02/10/22	02/10/21	02/10/20
Date Prepared:	02/10/08	02/10/09	02/10/09



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

•EPA PA-00136

•NY DOH/NELAC 10908

•NJ DEP PA020

•AIHA ACCREDITATION NO. 100439

•PA DEP 06-353

•CT DPH PH-0238

•NC DENR 599

November 12, 2002

Fred Burkhardt
ATC Associates
104 East 25th Street
10th Floor
New York, NY 10010-2917

TEL: (212) 353-8280
FAX (212) 353-8306

RE: 125 Cedar Street

Order No.: R02090971

Dear Fred Burkhardt:

PSC Analytical Services received 12 samples on 9/17/2002 1:00:00 PM for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Fred Usbeck
Manager, CIH

4418 Pottsville Pike, Reading, PA 19605 610-921-8833 FAX 610-921-8407



INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 12-Nov-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090971

Lab ID: R02090971-01

Collection Date: 9/12/2002

Client Sample ID: 12N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-02

Collection Date: 9/12/2002

Client Sample ID: 12N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-03

Collection Date: 9/12/2002

Client Sample ID: 12N-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-04

Collection Date: 9/12/2002

Client Sample ID: 115-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-05

Collection Date: 9/12/2002

Client Sample ID: 115-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 12-Nov-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090971

Lab ID: R02090971-06

Collection Date: 9/12/2002

Client Sample ID: 115-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-07

Collection Date: 9/12/2002

Client Sample ID: 10N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-08

Collection Date: 9/12/2002

Client Sample ID: 10N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-09

Collection Date: 9/12/2002

Client Sample ID: 10N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-10

Collection Date: 9/12/2002

Client Sample ID: 9S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 12-Nov-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090971

Lab ID: R02090971-11

Collection Date: 9/12/2002

Client Sample ID: 9S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Lab ID: R02090971-12

Collection Date: 9/12/2002

Client Sample ID: 9S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/22/2002

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



PSC Analytical Services

4418 Pottsville Pike

Reading, PA 19605

phone: (610) 921-8833

fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order #

REC WORK OFF
R02096971

Page 1 of 3

JOB ID: 125 Cedar Street

Report Results To:		PO #	Quote #		
Name	Fred Burkhart				
Company	AAC Associates				
Mailing Address	104 East 25 th St				
City	NY	State	NY		
Telephone #		ZIP	10010		
		Fax #			
Submit Invoice To:		Name			
Company	SARIS				
Mailing Address					
City		State			
Telephone #		Fax #			
		Credit Card Info (include exp. date)			
Sampled by:		Sampling Location (Specify State):			
Due Date:		(Rush TAT requires Lab approval)			
REPORTING REQUIREMENTS (Circle all that apply)					
Full Data Package	Reduced Deliverables Package	Electronic Data Deliverables			
UST NPDES	MIPP RCRA Stormwater	DEP (PWS #)			
#	SAMPLE DESCRIPTION (ID must match container labels)	Final Air Volume (L or m³)	Matrix Type	Date	Time
1	PH-D-W	10.2cm x 10.2	wipe	9/12/02	
2	-H	10.2cm x 10.2			
3	-E T m bldg	10.2cm x 10.2			
4	1A SW-D-W	10.2cm x 10.2			
5	-H				
6	-E T m bldg				
7	1A SE-D-W				
8	-H				
9	-E T m bldg				
10	12 N-D-W				
(1) Relinquished by:		Date	Time	(2) Received by:	
(4) Received by:		Date	Time	(5) Relinquished by:	
Method of Delivery:		UPS	FED-EX	PAS Courier	Client

PSC Analytical Services

Sample Receipt Checklist

Client Name ATC ASSOCIATES

Date and Time Receive

9/17/2002 1:00:00 PM

Work Order Numbe R02090971

Received by ADM

Checklist completed b

Signature

[Signature]

Date

9/30/02

Reviewed by

Initials

[Signature]

Date

10/1/02

Matrix

Carrier name Subbed direct to PSC-Brg

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Presen ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Presen ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Presen ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☐

No ☒

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☐

No ☒

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☐

No ☒

Adjusted?

Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

See COC re. sample ID's. We used actual sample ID's. *[Signature]*

Corrective Action

PSC Services Analytiques

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done.

There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of six weeks from date of reception or as per contract. This report may not be reproduced except in its entirety, without the written authorization of PSC Analytical Services. Reference material results are under control statistically unless otherwise specified (RM).

The enclosed guidelines and criterias are provided for information purposes only.

In case of disparity between the guidelines and criterias provided and the official version, these are the valid one

Organic analyses are not corrected for extraction recovery standards except for PCDD/F and PCB's (congeners).

Batch and run dates for subcontracted analyses are reported only when available; if not, the date of reception of the certificate by fax is reported.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MENV or EPA methodologies.

See the confirmation analysis report in the appendix at the end of this report for the list of the methods used, and the list of parameters analyzed by subcontracting laboratories. Please contact your project manager for additionnals informations.

NOTES:

- = not analyzed

< = less than Reported Detection Limit (RDL)

NA = Not Applicable

RDL = Reported Detection Limit

Solids data is based on dry weight (unless otherwise specified).

Comments:

**PSC Analytical Services
Certificate of Analysis**

			R02090971	R02090971	R02090971	R02090971
			12A	02A	03A	04A
			039319 02	039320 02	039321 02	039322 02
			02/09/12	02/09/12	02/09/12	02/09/12
Client ID:						
Lab No.:						
Date Sampled:						
Component	MDL	Units				
Total Tetrachlorodibenzofurans		pg	18	57	100	4.2
Total Pentachlorodibenzofurans		"	3.5	8.6	31	0.45
Total Hexachlorodibenzofurans		"	13	4.3	16	<0.50
Total Heptachlorodibenzofurans		"	<2.1	<4.8	<1.4	<3.3
Octachlorodibenzofuran		"	9.7	4.0	5.0	<0.82
Total Tetrachlorodibenzo-p-dioxins		"	11	36	120	2.4
Total Pentachlorodibenzo-p-dioxins		"	5.1	12	64	0.88
Total Hexachlorodibenzo-p-dioxins		"	7.8	14	58	1.7
Total Heptachlorodibenzo-p-dioxins		"	24	17	35	<0.51
Octachlorodibenzo-p-dioxin		"	89	54	74	8.4
Internal Recoveries		%				
2,3,7,8-T4CDF-13C12			85	72	71	85
2,3,7,8-T4CDD-13C12			82	73	70	88
1,2,3,7,8-P5CDF-13C12			54	48	59	70
1,2,3,7,8-P5CDD-13C12			52	49	65	88
1,2,3,6,7,8-H6CDF-13C12			28	31	49	28
1,2,3,6,7,8-H6CDD-13C12			48	62	83	55
1,2,3,4,6,7,8-H7CDF-13C12			17	20	39	13
1,2,3,4,6,7,8-H7CDD-13C12			54	64	77	74
OCDD-13C12			54	65	82	70
2,3,7,8-Cl4-Dibenzofuran (DB5)		pg	0.44	<0.23	33	2.3
2,3,7,8-Cl4-Dibenzo-p-dioxin		"	<0.75	<0.34	<0.55	<0.52
1,2,3,7,8-Cl5-Dibenzofuran		"	<2.5	2.4	5.2	<0.58
2,3,4,7,8-Cl5-Dibenzofuran		"	<2.3	<2.4	5.3	0.45
1,2,3,7,8-Cl5-Dibenzo-p-dioxin		"	<1.1	<0.99	1.9	<0.48
1,2,3,4,7,8-Cl6-Dibenzofuran		"	<5.6	4.3	9.6	<0.44
1,2,3,6,7,8-Cl6-Dibenzofuran		"	<3.7	<3.1	<3.9	<0.44
2,3,4,6,7,8-Cl6-Dibenzofuran		"	6.3	<5.4	<4.3	<0.50
1,2,3,7,8,9-Cl6-Dibenzofuran		"	6.4	<0.96	1.5	<0.56
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin		"	<2.4	<0.40	1.1	<0.41
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin		"	2.7	<1.2	2.7	<0.41
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin		"	5.1	<3.2	3.1	<0.39
1,2,3,4,6,7,8-Cl7-Dibenzofuran		"	<1.9	<3.5	<53	<130
1,2,3,4,7,8,9-Cl7-Dibenzofuran		"	<16	<9.9	<1.4	<15
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin		"	16	9.8	15	<1.1
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran		"	9.7	4.0	5.0	<0.82
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin		"	89	54	74	8.4
2,3,7,8-TCDF (DB225)		pg	<3.0	3.9	4.8	<2.7
Internal Recoveries		%				
2,3,7,8-TCDF-13C12			118	112	107	111
TEQ based on Nato Factors		pg	2.4	0.71	9.1	0.47

**PSC Analytical Services
Certificate of Analysis**

			R02090971	R02090971	R02090971	R02090971
			05A	06A	07A	08A
			039323 02	039324 02	039325 02	039326 02
			02/09/12	02/09/12	02/09/12	02/09/12
Client ID:						
Lab No.:						
Date Sampled:						
Component	MDL	Units				
Total Tetrachlorodibenzofurans		pg	140	210	3.1	200
Total Pentachlorodibenzofurans		"	70	110	<0.55	56
Total Hexachlorodibenzofurans		"	33	70	<0.66	19
Total Heptachlorodibenzofurans		"	2.5	91	<0.84	<0.33
Octachlorodibenzofuran		"	4.4	38	<2.4	20
Total Tetrachlorodibenzo-p-dioxins		"	130	190	<0.65	200
Total Pentachlorodibenzo-p-dioxins		"	130	97	1.1	70
Total Hexachlorodibenzo-p-dioxins		"	93	190	1.1	70
Total Heptachlorodibenzo-p-dioxins		"	51	490	5.9	84
Octachlorodibenzo-p-dioxin		"	120	2000	17	280
Internal Recoveries		%				
2,3,7,8-T4CDF-13C12			83	80	86	87
2,3,7,8-T4CDD-13C12			84	84	83	86
1,2,3,7,8-P5CDF-13C12			71	65	81	79
1,2,3,7,8-P5CDD-13C12			75	73	90	90
1,2,3,6,7,8-H6CDF-13C12			58	46	80	71
1,2,3,6,7,8-H6CDD-13C12			71	67	81	81
1,2,3,4,6,7,8-H7CDF-13C12			56	39	52	78
1,2,3,4,6,7,8-H7CDD-13C12			79	81	91	88
OCDD-13C12			74	78	77	80
2,3,7,8-Cl4-Dibenzofuran (DB5)		pg	40	55	1.6	42
2,3,7,8-Cl4-Dibenzo-p-dioxin		"	14	<20	<0.71	14
1,2,3,7,8-Cl5-Dibenzofuran		"	6.4	11	<0.55	5.8
2,3,4,7,8-Cl5-Dibenzofuran		"	8.7	14	<0.53	<7.3
1,2,3,7,8-Cl5-Dibenzo-p-dioxin		"	<2.8	3.9	<0.48	2.2
1,2,3,4,7,8-Cl6-Dibenzofuran		"	14	28	<0.61	<12
1,2,3,6,7,8-Cl6-Dibenzofuran		"	<6.3	<12	<0.58	<5.9
2,3,4,6,7,8-Cl6-Dibenzofuran		"	7.3	15	<0.66	6.2
1,2,3,7,8,9-Cl6-Dibenzofuran		"	1.1	<3.6	<0.73	<1.5
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin		"	<1.7	3.4	<0.68	1.3
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin		"	3.4	9.5	<0.64	2.8
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin		"	5.8	13	<0.63	4.0
1,2,3,4,6,7,8-Cl7-Dibenzofuran		"	<30	91	<6.6	<60
1,2,3,4,7,8,9-Cl7-Dibenzofuran		"	<3.4	<14	<5.4	<5.7
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin		"	22	220	2.4	36
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran		"	4.4	38	<2.4	20
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin		"	120	2000	17	280
2,3,7,8-TCDF (DB225)		pg	7.3	9.9	<2.0	12
Internal Recoveries		%				
2,3,7,8-TCDF-13C12			116	111	111	112
TEQ based on Nato Factors		pg	26	27	0.20	22

**PSC Analytical Services
Certificate of Analysis**

			R02090971	R02090971	R02090971	R02090971
			09A	10A	11A	01A
			039327 02	039328 02	039329 02	039330 02
			02/09/12	02/09/12	02/09/12	02/09/12
Client ID:						
Lab No.:						
Date Sampled:						
Component	MDL	Units				
Total Tetrachlorodibenzofurans		pg	49	4.5	34	22
Total Pentachlorodibenzofurans		"	6.2	0.58	5.1	5.3
Total Hexachlorodibenzofurans		"	2.6	<0.29	2.8	1.1
Total Heptachlorodibenzofurans		"	<2.6	<1.9	2.1	<2.4
Octachlorodibenzofuran		"	<3.4	<3.3	<3.1	<2.0
Total Tetrachlorodibenzo-p-dioxins		"	43	5.0	31	55
Total Pentachlorodibenzo-p-dioxins		"	14	2.4	19	6.7
Total Hexachlorodibenzo-p-dioxins		"	9.4	0.68	15	<0.60
Total Heptachlorodibenzo-p-dioxins		"	12	0.84	14	3.5
Octachlorodibenzo-p-dioxin		"	55	6.8	41	18
Internal Recoveries		%				
2,3,7,8-T4CDF-13C12			90	79	86	142
2,3,7,8-T4CDD-13C12			83	72	85	52
1,2,3,7,8-P5CDF-13C12			65	59	63	92
1,2,3,7,8-P5CDD-13C12			70	56	64	84
1,2,3,6,7,8-H6CDF-13C12			90	81	65	50
1,2,3,6,7,8-H6CDD-13C12			84	89	85	72
1,2,3,4,6,7,8-H7CDF-13C12			72	63	50	36
1,2,3,4,6,7,8-H7CDD-13C12			80	73	80	72
OCDD-13C12			63	69	77	67
2,3,7,8-Cl4-Dibenzofuran (DB5)		pg	9.0	<0.22	8.5	6.1
2,3,7,8-Cl4-Dibenzo-p-dioxin		"	<0.93	<0.46	0.79	10
1,2,3,7,8-Cl5-Dibenzofuran		"	<0.56	<0.67	<1.6	1.2
2,3,4,7,8-Cl5-Dibenzofuran		"	1.5	<0.22	<1.1	0.97
1,2,3,7,8-Cl5-Dibenzo-p-dioxin		"	<1.5	<0.50	0.53	<0.78
1,2,3,4,7,8-Cl6-Dibenzofuran		"	2.6	<0.28	2.8	<1.6
1,2,3,6,7,8-Cl6-Dibenzofuran		"	<0.82	<0.28	<1.1	1.1
2,3,4,6,7,8-Cl6-Dibenzofuran		"	<0.93	<0.31	<0.99	<1.5
1,2,3,7,8,9-Cl6-Dibenzofuran		"	<1.0	<0.35	<0.55	<0.63
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin		"	<1.2	<0.46	<0.87	<0.50
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin		"	<1.1	<0.43	<0.83	<1.0
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin		"	<1.1	0.68	<1.3	<0.70
1,2,3,4,6,7,8-Cl7-Dibenzofuran		"	<14	<1.7	<0.68	<2.2
1,2,3,4,7,8,9-Cl7-Dibenzofuran		"	<3.9	<2.0	<0.94	<2.5
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin		"	<7.3	0.84	6.2	<3.1
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran		"	<3.4	<3.3	<3.1	<2.0
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin		"	55	6.8	41	18
2,3,7,8-TCDF (DB225)		pg	2.9	<2.0	<3.0	<2.0
Internal Recoveries		%				
2,3,7,8-TCDF-13C12			114	108	117	107
TEQ based on Nato Factors		pg	1.9	0.084	2.3	11

**PSC Analytical Services
Laboratory Method Blanks**

Component	RDL	Units	BLANK	
Batch Code:			1018JM01	RM
Surrogate Recoveries		%		
1,2,3,4,6,7,8-H7CDD-13C12			72	84
1,2,3,4,6,7,8-H7CDF-13C12			63	62
1,2,3,6,7,8-H6CDD-13C12			90	93
1,2,3,6,7,8-H6CDF-13C12			77	84
1,2,3,7,8-P5CDD-13C12			62	51
1,2,3,7,8-P5CDF-13C12			61	52
2,3,7,8-T4CDD-13C12			85	74
2,3,7,8-T4CDF-13C12			90	80
OCDD-13C12			66	66
OCDD		pg	<9.1	2300
OCDF		"	<2.9	2000
☐ H7CDD		"	<1.1	1200
☐ H7CDF		"	<0.66	2500
☐ H6CDD		"	<0.43	3300
☐ H6CDF		"	<0.72	4800
☐ P5CDD		"	<0.75	1100
☐ P5CDF		"	<0.29	2300
☐ T4CDD		"	0.36	1300
☐ T4CDF		"	<0.33	1100

**PSC Analytical Services
Summary of Analysis Prep. Dates**

Batch Code: 1018JM01
Surrogate Recoveries etc. 039319 02
 039320 02
 039321 02
 039322 02
 039323 02
 039324 02
 039325 02
 039326 02
 039327 02
 039328 02
 039329 02
 039330 02
Date Analyzed: 10/22/2002
Date Prepared: 10/18/2002

Batch Code: 1018JM01
2,3,7,8-Cl4DBF etc. 039319 02
 039320 02
 039321 02
 039322 02
 039323 02
 039324 02
 039325 02
 039326 02
 039327 02
 039328 02
 039329 02
 039330 02
Date Analyzed: 10/22/2002
Date Prepared: 10/18/2002



INDUSTRIAL HYGIENE

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

ENVIRONMENTAL TESTING

• NY DOH NELAC 10903
• PA DEP 06-353
• NJ DEP PA020
• CT DPH PH-0238

October 24, 2002

Fred Burkhardt
ATC Associates
104 East 25th Street
10th Floor
New York, NY 10010-2917

TEL: (212) 353-8280
FAX (212) 353-8306

RE: 125 Cedar Street

Order No.: R02090972

Dear Fred Burkhardt:

PSC Analytical Services received 18 samples on 9/17/2002 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Fred Usbeck
Manager, CIH



PSC Analytical Services

4418 Pottsville Pike
Reading, PA 19605
phone: (610) 921-8833
fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order #

R02090972

Page 1 of 2

10/3

Report Results To:	PO #	Quote #
	Name <u>THED BURKHARDT</u>	
Submit Invoice To:	Company <u>104 E 25 ST</u>	
	Mailing Address <u>NY ARC ASS</u>	
	City <u>NY</u> State <u>NY</u> ZIP <u>10010</u>	
	Telephone #	Fax #
	Name	
	Company <u>STATE</u>	
	Mailing Address	
	City	ZIP
	Telephone #	Fax #
	Credit Card Info (include exp. date)	

Sampled by: _____ Sampling Location (Specify State): _____
Due Date: _____ (Rush TAT requires Lab approval)

Full Data Package Reduced Deliverables Package Electronic Data Deliverables
UST NPDES MPP RCRA Stormwater DEP (PWS #)

ITEM #	SAMPLE DESCRIPTION (ID must match container labels)	Full Air Volume (4-60 min)	Matrix Type	Sampling Info	
				Date	Time
1	GS-10-H	10-24-02	WWS	9/24/02	10:30
2	GS-10-W	10-24-02	WWS	9/24/02	10:30
3	GS-10-F	10-24-02	WWS	9/24/02	10:30
4	GS-10-H	10-24-02	WWS	9/24/02	10:30
5	GS-10-W	10-24-02	WWS	9/24/02	10:30
6	GS-10-F	10-24-02	WWS	9/24/02	10:30
7	GS-10-H	10-24-02	WWS	9/24/02	10:30
8	GS-10-W	10-24-02	WWS	9/24/02	10:30
9	GS-10-F	10-24-02	WWS	9/24/02	10:30
10	GS-10-H	10-24-02	WWS	9/24/02	10:30

(1) Relinquished by: _____ Date _____ Time _____
(4) Received by: _____ Date _____ Time _____

Method of Delivery: UPS FED-EX PAS Courier Client US Mail Other

JOB ID: 125 CEDAR ST

ANALYSIS REQUESTED

Use attachments if necessary.

Please specify method requirements.

Preservatives Key:
A = Ascorbic Acid
C = HCl
H = HNO3
I = Ice
N = NaOH
O = Other:
N2 = Na2SO3
S = H2SO4
Z = ZnAcetate
X = None

Preservatives (See above key, list all that apply)
Type (P-Plastic, G-Glass, A-Air)
Container Volume (Liter, etc)
Number of Containers

0303	2500
04	04
05	05
06	06
07	07
08	08
09	09
10	10
11	11
12	12

(3) Relinquished by: _____ Date _____ Time _____
(6) Received at Lab: _____ Date 9/24/02 Time 13:00



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH/NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090972

Lab ID: R02090972-01

Collection Date: 9/12/2002

Client Sample ID: 9N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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DIOXINS AND FURANS
TCDD/TCDF

See Attached
SW8290

Analyst: SUB
1 10/19/2002

Lab ID: R02090972-02

Collection Date: 9/12/2002

Client Sample ID: 9N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS
TCDD/TCDF

See Attached
SW8290

Analyst: SUB
1 10/19/2002

Lab ID: R02090972-03

Collection Date: 9/12/2002

Client Sample ID: 9N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS
TCDD/TCDF

See Attached
SW8290

Analyst: SUB
1 10/19/2002

Lab ID: R02090972-04

Collection Date: 9/12/2002

Client Sample ID: 8S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS
TCDD/TCDF

See Attached
SW8290

Analyst: SUB
1 10/19/2002

Lab ID: R02090972-05

Collection Date: 9/12/2002

Client Sample ID: 8S-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

DIOXINS AND FURANS
TCDD/TCDF

See Attached
SW8290

Analyst: SUB
1 10/19/2002

Qualifiers:

BRL - Below Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH/NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090972

Lab ID: R02090972-06

Collection Date: 9/12/2002

Client Sample ID: 8S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-07

Collection Date: 9/12/2002

Client Sample ID: 8N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-08

Collection Date: 9/12/2002

Client Sample ID: 8N-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-09

Collection Date: 9/12/2002

Client Sample ID: 8N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-10

Collection Date: 9/12/2002

Client Sample ID: 7N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Qualifiers:

BRL - Below Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH/NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090972

Lab ID: R02090972-11

Collection Date: 9/12/2002

Client Sample ID: 7N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-12

Collection Date: 9/12/2002

Client Sample ID: 7N-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-13

Collection Date: 9/12/2002

Client Sample ID: 7S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-14

Collection Date: 9/12/2002

Client Sample ID: 7S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-15

Collection Date: 9/12/2002

Client Sample ID: 7S-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

• EPA NVLAP 101262-0
• AIHA ACCREDITATION NO. 100439
• NC DENR 599

• NY DOH NELAC 10903
• PA DEP 06-353

• NJ DEP PA020
• CT DPH PH-0238

Date: 24-Oct-02

CLIENT: ATC Associates
Project: 125 Cedar Street

Lab Order: R02090972

Lab ID: R02090972-16

Collection Date: 9/12/2002

Client Sample ID: 6N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-17

Collection Date: 9/12/2002

Client Sample ID: 6N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Lab ID: R02090972-18

Collection Date: 9/12/2002

Client Sample ID: 6N-D-7

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/19/2002

Qualifiers:

BRL - Below Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

10/23/2002

PASC - Certificate of Analysis

Page 2 of 5

Component	Units	Client ID:	R02090972	R02090972	R02090972	R02090972	R02090972
		Lab No.:	15A	16A	17A	18A	01A
		Date Sampled:	060299 02	060300 02	060301 02	060302 02	060304 02
			12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Total Tetrachlorodibenzofurans	pg		240	220	310	410	13
Total Pentachlorodibenzofurans	"		83	81	160	250	<2.5
Total Hexachlorodibenzofurans	"		52	37	63	120	2.4
Total Heptachlorodibenzofurans	"		5.7	31	32	56	5.2
Octachlorodibenzofuran	"		15	18	17	26	<3.3
Total Tetrachlorodibenzo-p-dioxins	"		230	260	390	450	26
Total Pentachlorodibenzo-p-dioxins	"		94	110	230	390	<5.4
Total Hexachlorodibenzo-p-dioxins	"		76	59	130	240	<7.7
Total Heptachlorodibenzo-p-dioxins	"		59	51	76	120	15
Octachlorodibenzo-p-dioxin	"		200	190	240	360	31
Internal Recoveries	%						
2,3,7,8-T4CDF-13C12			105	77	88	90	78
2,3,7,8-T4CDD-13C12			108	84	93	101	88
1,2,3,7,8-P5CDF-13C12			105	70	83	92	69
1,2,3,7,8-P5CDD-13C12			101	68	81	88	72
1,2,3,4,7,8-H6CDF-13C12			129	104	114	117	115
1,2,3,6,7,8-H6CDD-13C12			118	99	109	112	105
1,2,3,4,6,7,8-H7CDF-13C12			133	105	110	111	114
1,2,3,4,6,7,8-H7CDD-13C12			136	101	111	112	59
OCDD-13C12			158	104	97	115	125
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg		38	29	59	<79	<6.2
2,3,7,8-Cl4-Dibenzo-p-dioxin	"		<4.4	<2.9	<2.8	<2.3	<3.2
1,2,3,7,8-Cl5-Dibenzofuran	"		<5.0	<2.6	8.5	12	<2.4
2,3,4,7,8-Cl5-Dibenzofuran	"		10	6.7	13	25	<2.6
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"		<5.6	<2.5	4.2	6.8	<5.4
1,2,3,4,7,8-Cl6-Dibenzofuran	"		11	8.8	13	23	<1.3
1,2,3,6,7,8-Cl6-Dibenzofuran	"		5.9	<4.9	6.9	10.0	<1.3
2,3,4,6,7,8-Cl6-Dibenzofuran	"		5.6	6.3	6.3	11	<1.6
1,2,3,7,8,9-Cl6-Dibenzofuran	"		<1.3	<2.9	<2.6	<2.5	<1.9
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"		<2.6	<2.4	3.3	3.8	<2.0
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"		3.4	2.8	4.4	9.0	<2.0
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"		<2.5	4.6	<3.8	11	<2.0
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"		<18	17	21	30	4.4
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"		<4.6	3.3	<2.9	<5.9	<4.8
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"		30	28	39	62	15
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"		15	18	17	26	<3.3
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"		200	190	240	360	31
2,3,7,8-TCDF (DB225)	pg		<6.0	5.5	7.0	10	<1.9
Internal Recoveries	%						
2,3,7,8-TCDF-13C12			118	95	108	109	96
TEQ based on Nato Factors	pg		12.0	2.7	19.3	24.3	0.22

Client:Philip Analytical Services Inc Project:Misc.

10/23/2002

PASC - Certificate of Analysis

Page 3 of 5

Component	Units	Client ID:	R02090972	R02090972	R02090972	R02090972	R02090972
		Lab No.:	02A	03A	04A	05A	06A
		Date Sampled:	060305 02	060306 02	060307 02	060308 02	060309 02
			12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Total Tetrachlorodibenzofurans	pg		35	190	4.5	280	<5.3
Total Pentachlorodibenzofurans	"		7.4	70	<3.1	70	<3.2
Total Hexachlorodibenzofurans	"		13	38	5.3	39	<4.5
Total Heptachlorodibenzofurans	"		23	62	<4.5	38	16
Octachlorodibenzofuran	"		9.6	31	<5.0	19	<5.2
Total Tetrachlorodibenzo-p-dioxins	"		31	160	35	310	27
Total Pentachlorodibenzo-p-dioxins	"		11	95	<8.4	82	<7.5
Total Hexachlorodibenzo-p-dioxins	"		<14	54	<3.1	79	<10
Total Heptachlorodibenzo-p-dioxins	"		32	260	<6.9	100	41
Octachlorodibenzo-p-dioxin	"		140	1200	85	320	100
Internal Recoveries	%						
2,3,7,8-T4CDF-13C12			80	75	76	83	64
2,3,7,8-T4CDD-13C12			92	73	75	79	61
1,2,3,7,8-P5CDF-13C12			72	70	82	80	66
1,2,3,7,8-P5CDD-13C12			76	62	75	73	62
1,2,3,4,7,8-H6CDF-13C12			117	85	109	101	92
1,2,3,6,7,8-H6CDD-13C12			110	81	101	95	86
1,2,3,4,6,7,8-H7CDF-13C12			116	93	103	86	85
1,2,3,4,6,7,8-H7CDD-13C12			118	85	98	92	80
OCDD-13C12			127	96	110	103	92
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg		<8.0	30	4.5	43	<5.3
2,3,7,8-Cl4-Dibenzo-p-dioxin	"		<3.9	<4.2	<7.0	<5.5	<5.2
1,2,3,7,8-Cl5-Dibenzofuran	"		<2.9	<3.3	<3.0	7.2	<3.1
2,3,4,7,8-Cl5-Dibenzofuran	"		<3.2	7.3	<3.2	11	<5.3
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"		<3.6	<11	<8.4	<8.3	<7.5
1,2,3,4,7,8-Cl6-Dibenzofuran	"		3.6	8.9	2.4	10.0	<3.1
1,2,3,6,7,8-Cl6-Dibenzofuran	"		<1.9	<4.0	2.3	5.6	<3.1
2,3,4,6,7,8-Cl6-Dibenzofuran	"		<2.3	4.2	<2.0	<5.0	<3.7
1,2,3,7,8,9-Cl6-Dibenzofuran	"		<2.8	<3.2	<2.5	<3.3	<4.5
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"		<2.3	<4.2	<3.1	<4.3	<3.3
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"		<2.3	<4.2	<3.1	5.5	<3.2
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"		<2.2	<4.1	<3.1	<4.2	<3.2
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"		11	33	<3.8	24	13
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"		<5.0	<4.5	<5.4	<6.7	<7.8
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"		19	150	<6.9	52	22
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"		9.6	31	<5.0	19	<5.2
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"		140	1200	85	320	100
2,3,7,8-TCDF (DB225)	pg		<2.9	5.3	<4.2	7.7	<6.3
Internal Recoveries	%						
2,3,7,8-TCDF-13C12			101	83	78	85	70
TEQ based on Nato Factors	pg		1.6	11.0	13.5	0.5	1.15

Client:Philip Analytical Services Inc Project:Misc.

10/23/2002

PASC - Certificate of Analysis

Page 4 of 5

Component	Units	Client ID:	R02090972	R02090972	R02090972	Method	Blank
		Lab No.:	07A	08A	09A	Blank 10/17	Spike#1
		Date Sampled:	060310 02	060311 02	060312 02	065481 02	065481 02
			12-Sep-2002	12-Sep-2002	12-Sep-2002		
Total Tetrachlorodibenzofurans	pg		150	120	310	<2.6	1900
Total Pentachlorodibenzofurans	"		14	30	76	<2.4	5300
Total Hexachlorodibenzofurans	"		16	4.1	25	3.1	8900
Total Heptachlorodibenzofurans	"		9.4	2.2	21	<2.9	4300
Octachlorodibenzofuran	"		<6.3	<8.9	13	15	4500
Total Tetrachlorodibenzo-p-dioxins	"		200	140	380	<2.5	970
Total Pentachlorodibenzo-p-dioxins	"		47	40	85	<2.8	2700
Total Hexachlorodibenzo-p-dioxins	"		<24	11	58	4.4	7300
Total Heptachlorodibenzo-p-dioxins	"		25	39	40	5.5	2300
Octachlorodibenzo-p-dioxin	"		74	150	150	16	4800
Internal Recoveries	%						
2,3,7,8-T4CDF-13C12			74	83	77	54	62
2,3,7,8-T4CDD-13C12			72	78	72	66	68
1,2,3,7,8-P5CDF-13C12			84	85	84	56	61
1,2,3,7,8-P5CDD-13C12			77	84	82	51	61
1,2,3,4,7,8-H6CDF-13C12			98	109	102	100	97
1,2,3,6,7,8-H6CDD-13C12			93	99	96	92	95
1,2,3,4,6,7,8-H7CDF-13C12			91	99	98	101	95
1,2,3,4,6,7,8-H7CDD-13C12			88	96	96	91	96
OCDD-13C12			102	112	111	101	110
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg		<21	<17	<35	<2.6	950
2,3,7,8-Cl4-Dibenzo-p-dioxin	"		<6.6	<2.8	<3.5	<2.5	970
1,2,3,7,8-Cl5-Dibenzofuran	"		<3.1	<2.8	5.2	<2.3	2500
2,3,4,7,8-Cl5-Dibenzofuran	"		<3.4	<3.0	8.2	<2.5	2800
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"		<7.1	<3.6	<3.6	<2.8	2700
1,2,3,4,7,8-Cl6-Dibenzofuran	"		5.5	3.6	7.8	2.7	2200
1,2,3,6,7,8-Cl6-Dibenzofuran	"		3.1	<2.1	<3.8	<2.4	2300
2,3,4,6,7,8-Cl6-Dibenzofuran	"		<2.0	<2.6	3.1	<2.8	2100
1,2,3,7,8,9-Cl6-Dibenzofuran	"		<2.5	<3.0	<2.5	<3.4	2200
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"		<2.3	<2.9	<2.4	<3.2	2400
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"		<2.2	<2.9	<2.4	4.4	2500
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"		<2.2	<2.8	<2.3	<3.1	2300
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"		8.0	<9.4	13	<2.5	2100
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"		<4.3	2.5	<2.4	<3.6	2100
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"		14	22	21	5.5	2300
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"		<6.3	<8.9	13	15	4500
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"		74	150	150	16	4800
2,3,7,8-TCDF (DB225)	pg		-	-	-	-	-
Internal Recoveries	%						
2,3,7,8-TCDF-13C12			-	-	-	-	-
TEQ based on Nato Factors	pg		0.75	6.0	2.3		

Client:Philip Analytical Services Inc Project:Misc.

10/23/2002

PASC - Certificate of Analysis

Page 1 of 5

		R02090972	R02090972	R02090972	R02090972	R02090972
Client ID:		10A	11A	12A	13A	14A
Lab No.:		060294 02	060295 02	060296 02	060297 02	060298 02
Date Sampled:		12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002	12-Sep-2002
Component	Units					
Total Tetrachlorodibenzofurans	pg	190	140	120	49	280
Total Pentachlorodibenzofurans	"	170	73	39	13	160
Total Hexachlorodibenzofurans	"	140	45	31	8.0	78
Total Heptachlorodibenzofurans	"	67	21	<16	<5.7	20
Octachlorodibenzofuran	"	99	18	15	5.8	26
Total Tetrachlorodibenzo-p-dioxins	"	230	150	120	62	280
Total Pentachlorodibenzo-p-dioxins	"	140	83	46	19	150
Total Hexachlorodibenzo-p-dioxins	"	160	97	15	3.0	150
Total Heptachlorodibenzo-p-dioxins	"	180	57	61	18	100
Octachlorodibenzo-p-dioxin	"	320	140	190	48	350
Internal Recoveries	%					
2,3,7,8-T4CDF-13C12		100	107	98	95	88
2,3,7,8-T4CDD-13C12		96	95	92	94	92
1,2,3,7,8-P5CDF-13C12		97	106	98	97	87
1,2,3,7,8-P5CDD-13C12		98	106	95	96	84
1,2,3,4,7,8-H6CDF-13C12		120	116	112	115	109
1,2,3,6,7,8-H6CDD-13C12		116	109	100	109	99
1,2,3,4,6,7,8-H7CDF-13C12		112	120	110	120	109
1,2,3,4,6,7,8-H7CDD-13C12		122	125	113	127	113
OCDD-13C12		128	140	124	147	129
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg	40	<24	18	12	51
2,3,7,8-Cl4-Dibenzo-p-dioxin	"	<4.2	<5.6	<5.0	<4.5	<4.6
1,2,3,7,8-Cl5-Dibenzofuran	"	<8.5	<3.8	<3.2	<2.6	7.5
2,3,4,7,8-Cl5-Dibenzofuran	"	23	9.9	<7.0	<2.8	14
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"	<4.5	<6.0	<5.9	<5.2	<4.8
1,2,3,4,7,8-Cl6-Dibenzofuran	"	35	11	6.2	3.3	16
1,2,3,6,7,8-Cl6-Dibenzofuran	"	15	6.0	3.7	<2.0	7.7
2,3,4,6,7,8-Cl6-Dibenzofuran	"	25	7.1	4.2	<2.4	7.9
1,2,3,7,8,9-Cl6-Dibenzofuran	"	<4.5	<2.3	<1.6	<2.9	<2.7
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"	5.3	<3.4	<2.4	<1.7	3.4
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"	11	3.9	<2.4	<1.7	6.4
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"	14	6.3	5.0	<1.7	8.8
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"	<68	18	<14	<4.9	<28
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"	22	<7.0	<8.1	<4.1	<4.9
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"	100	29	32	9.3	51
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"	99	18	15	5.8	26
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"	320	140	190	48	350
2,3,7,8-TCDF (DB225)	pg	<4.5	<4.5	<3.2	<2.5	6.7
Internal Recoveries	%					
2,3,7,8-TCDF-13C12		110	107	100	103	104
TEQ based on Nato Factors	pg	27.9	9.0	4.2	1.6	18.4

Client:Philip Analytical Services Inc Project:Misc.

10/23/2002

PASC - Certificate of Analysis

Page 5 of 5

Component	Units	Client ID:	Blank	Method	Blank	Blank
		Lab No.:	Spike#1	Blank10/12	Spike #1	Spike #1
		Date Sampled:	%Recoveries	065469 02	065469 02	%Recoveries
				12-Sep-2002		
Total Tetrachlorodibenzofurans	pg		-	<3.7	1000	-
Total Pentachlorodibenzofurans	"		-	<4.5	5700	-
Total Hexachlorodibenzofurans	"		-	5.1	9300	-
Total Heptachlorodibenzofurans	"		-	5.2	4600	-
Octachlorodibenzofuran	"		-	19	5300	-
Total Tetrachlorodibenzo-p-dioxins	"		-	<4.3	1000	-
Total Pentachlorodibenzo-p-dioxins	"		-	<5.0	2700	-
Total Hexachlorodibenzo-p-dioxins	"		-	<4.8	7700	-
Total Heptachlorodibenzo-p-dioxins	"		-	8.0	2500	-
Octachlorodibenzo-p-dioxin	"		-	17	5000	-
Internal Recoveries	%					
2,3,7,8-T4CDF-13C12			62	86	92	92
2,3,7,8-T4CDD-13C12			68	74	79	79
1,2,3,7,8-P5CDF-13C12			61	90	102	102
1,2,3,7,8-P5CDD-13C12			61	85	109	109
1,2,3,4,7,8-H6CDF-13C12			97	113	98	98
1,2,3,6,7,8-H6CDD-13C12			95	102	108	108
1,2,3,4,6,7,8-H7CDF-13C12			95	125	104	104
1,2,3,4,6,7,8-H7CDD-13C12			96	117	111	111
OCDD-13C12			110	133	110	110
2,3,7,8-Cl4-Dibenzofuran (DB5)	pg		95	<3.7	990	99
2,3,7,8-Cl4-Dibenzo-p-dioxin	"		97	<4.3	1000	101
1,2,3,7,8-Cl5-Dibenzofuran	"		99	<4.3	2600	106
2,3,4,7,8-Cl5-Dibenzofuran	"		113	<4.7	3000	120
1,2,3,7,8-Cl5-Dibenzo-p-dioxin	"		108	<5.0	2700	109
1,2,3,4,7,8-Cl6-Dibenzofuran	"		87	<1.8	2300	91
1,2,3,6,7,8-Cl6-Dibenzofuran	"		93	2.7	2400	98
2,3,4,6,7,8-Cl6-Dibenzofuran	"		86	2.2	2500	99
1,2,3,7,8,9-Cl6-Dibenzofuran	"		89	<4.7	2000	80
1,2,3,4,7,8-Cl6-Dibenzo-p-dioxin	"		97	<4.8	2700	110
1,2,3,6,7,8-Cl6-Dibenzo-p-dioxin	"		100	<4.8	2400	95
1,2,3,7,8,9-Cl6-Dibenzo-p-dioxin	"		92	<4.7	2600	103
1,2,3,4,6,7,8-Cl7-Dibenzofuran	"		86	4.5	2200	89
1,2,3,4,7,8,9-Cl7-Dibenzofuran	"		85	<6.1	2400	96
1,2,3,4,6,7,8-Cl7-Dibenzo-p-dioxin	"		92	8.0	2500	100
1,2,3,4,6,7,8,9-Cl8-Dibenzofuran	"		91	19	5300	106
1,2,3,4,6,7,8,9-Cl8-Dibenzo-p-dioxin	"		96	17	5000	101
2,3,7,8-TCDF (DB225)	pg		-			
Internal Recoveries	%					
2,3,7,8-TCDF-13C12			-			
TEQ based on Nato Factors	pg					

Client:Philip Analytical Services Inc Project:Misc.

10/24/2002

PASC - Summary of Analysis Pre. Dates

Page MS-1 of 1

Batch Code:
PCDD/F(DB5)

1012FB01	1012FB01	1017NZ01
060294 02	060300 02	060306 02
060295 02	060301 02	060307 02
060296 02	060302 02	060308 02
060297 02	060304 02	060309 02
060298 02	060305 02	060310 02
060299 02	065481 02	060311 02
		060312 02

Date Analysed:
Date Prepared:

02/10/19	02/10/20	02/10/21
02/10/12	02/10/12	02/10/17

Batch Code:
2,3,7,8-TCDF (DB225)

1012FB01	1012FB01	1017NZ02
060294 02	060300 02	060306 02
060295 02	060301 02	060307 02
060296 02	060302 02	060308 02
060297 02	060304 02	060309 02
060298 02	060305 02	
060299 02		

Date Analysed:
Date Prepared:

02/10/21	02/10/21	02/10/21
02/10/12	02/10/12	02/10/17



4418 Pottsville Pike Reading, PA 19605
(Tel) 610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

December 03, 2002

Ben Sallemi
ATC Associates
104 East 25th Street
10th Floor
New York, NY 10010-2917

TEL: (212) 353-8280
FAX (212) 353-8306

RE: 15-22906-0002

Order No.: R02100403

Dear Ben Sallemi:

PSC Analytical Services received 18 samples on 10/11/2002 10:00:00 AM for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Fred Usbeck".

Fred Usbeck
Manager, CIH

4418 Pottsville Pike, Reading, PA 19605 610-921-8833 FAX 610-921-8407



Pottsville Pike Reading, PA 19605
610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

REMIT TO: PSC Analytical Services
Accounts Receivable
P.O. Box 3069-Department 3
Houston, TX 772533069
TEL: (610) 921-8833

INVOICE

INV DATE: December 03, 2002

Print DATE: December 03, 2002

Invoice No: 12759

Invoice TO ATC Associates
104 East 25th Street
10th Floor
New York, NY 100102917

Attn: Accounts Payable
Phone: (212) 353-8280

Work Order R02100403

Order Name 15-22906-0002

PO Number:

Date Received 10/11/2002

Item	Remarks	Matrix	Qty	Unit Price	Mult	Quoted	Test Total
Dioxins and Furans	HI RES wipes	Sediment	18	\$1,200.00	1	\$675.00	\$12,150.00

Subtotal: \$12,150.00

Discount: 0.00%

Surcharge: 0.00%

Misc Charges: \$0.00

Payment Received: \$0.00

**INVOICE Total: \$12,150.00
(USD)**

All Invoices are due and Payable net 30 days from date invoiced.



PSC Analytical Services

4418 Poltsville Pike
Reading, PA 19605
phone: (610) 921-8833
fax: (610) 921-9667 or 921-8833

CHAIN OF CUSTODY

PSC Work Order # 202100403

Page 7 of 8

Fax: (610) 921-9667 or 921-8407

PO #	Quote #
------	---------

JOB ID: 15-2996-0008

PO #		Quote #	
Report Results		Name <u>Beverly Ann Sellers</u>	
To:		Company <u>ATC Associates, Inc.</u>	
Mailing Address <u>164 E 85th Street</u>		City <u>New York</u> State <u>NY</u> ZIP <u>10010</u>	
Telephone # <u>212 353 2200</u>		Fax # <u>212 353 2306</u>	
Submit Invoice To:		Name _____	
Company _____		Mailing Address _____	
City _____ State _____ ZIP _____		Telephone # _____ Fax # _____	
Teletype # _____		Teletype (and info) (for telex exp. date) _____	
Sampled By <u>ASL</u>		Sampling Location (Specify State): <u>NY</u>	
Date <u>1/1</u>		(Rush TAT requires Lab approval)	
Product Package <u>Reduced Deliverables Package</u>		Electronic Data Deliverables	
Method <u>AMPH</u>		Stomach <u>DEP</u> (PWS # _____)	

SAMPLE DESCRIPTION (All must match container labels)		Final Air Volume <u>160 cu ft</u>	Matrix Type <u>ice</u>	Sampling Info	
				Date <u>10/29/02</u>	Time <u>10:00</u>
<u>4S - D - F</u>	<u>ice</u>	<u>160 cu ft</u>	<u>ice</u>	<u>10/29/02</u>	<u>10:00</u>
<u>4N - D - H</u>	<u>ice</u>	<u>160 cu ft</u>	<u>ice</u>	<u>10/29/02</u>	<u>10:00</u>
<u>4N - D - F</u>	<u>ice</u>	<u>160 cu ft</u>	<u>ice</u>	<u>10/29/02</u>	<u>10:00</u>
<u>4N - D - Black</u>	<u>ice</u>	<u>160 cu ft</u>	<u>ice</u>	<u>10/29/02</u>	<u>10:00</u>
<u>3S - D - H</u>	<u>ice</u>	<u>160 cu ft</u>	<u>ice</u>	<u>10/29/02</u>	<u>10:00</u>
<u>3S - D - F</u>	<u>ice</u>	<u>160 cu ft</u>	<u>ice</u>	<u>10/29/02</u>	<u>10:00</u>
<u>3N - D - H</u>	<u>ice</u>	<u>160 cu ft</u>	<u>ice</u>	<u>10/29/02</u>	<u>10:00</u>
<u>3N - D - F</u>	<u>ice</u>	<u>160 cu ft</u>	<u>ice</u>	<u>10/29/02</u>	<u>10:00</u>

JOB ID: <u>15-2096-0002</u>	
ANALYSIS REQUESTED Use attachments if necessary. Please specify method requirements.	
Preservatives (See above key; list all that apply) Type (P=Plastic, G=Glass, A=Air) Container Volume (liter, etc) Number of Containers	Preservatives Key A = Ascorbic Acid C = HCl H = HNO3 I = Ice N = NaOH O = Other: S = H2SO4 Z = ZnAcetate X = None

Method of Delivery

UITS

FED-EX

PAS Courier

US Mail

Other



PSC: Analytical Services

4418 Coltsville Pike

Reading, PA 19605

phone: (610) 921-8833

Fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order #

Page 2 of 2

JOB ID: 15-22906-ccc7

Report Results PO # _____ Quote # _____	
Name <u>Benjamin S. Heller</u>	
Company <u>ATC Associates Inc.</u>	
Mailing Address <u>100 E 57th Street</u>	
City <u>New York</u> State <u>NY</u> Zip <u>10010</u>	
Telephone # <u>212 353 2330</u> Fax # <u>212 353 2306</u>	
Name _____	
Company <u>SAATC</u>	
Mailing Address _____	
City _____ State _____ Zip _____	
Telephone # _____ Fax # _____	
Submit Invoice For: _____	
Sampled by <u>SAATC</u> Sampling Location (Specify State) <u>NY</u> (Rush TAT requires Lab approval)	
Time Date _____	
Reporting Requirements (Circle all that apply) ☐ Reduced Deliverables Package ☐ Electronic Data Deliverables	
Off Data Package: ☐ Reduced Deliverables Package ☐ Electronic Data Deliverables	
REPORT DESCRIPTION	
(If no match container labels)	
Final Air Volume <u>1000</u>	
Matrix Type <u>Water</u>	
Sampling Info	
Date <u>10/10/00</u>	
Time _____	
Number of Containers _____	
Preservatives (See above key; list all that apply) _____	
Type (P=Plastic, G=Glass, A=Air) _____	
Container Volume (liter, etc) _____	
Number of Containers _____	

JOB ID: <u>15-23946-0002</u>	
ANALYSIS REQUESTED Use attachments if necessary Please specify method requirements.	
Preservatives Key: A = Ascorbic Acid N2 = Na2S2O3 C = HCl S = H2SO4 H = HNO3 Z = ZnAcetate I = Ice X = None N = NaOH	
O = Other: _____	

Relinquished by: <u>SAATC</u>	
Date <u>10/10/00</u>	
Time _____	
Received at Lab: _____	
Date <u>10/11/00</u>	
Time <u>10:00</u>	

PSC Analytical Services

Sample Receipt Checklist

Client Name **ATC ASSOCIATES**

Date and Time Receive

10/11/2002 10:00:00 AM

Work Order Numbe **R02100403**

Received by

TMH

Checklist completed b

Signature

TMH

Date

10.11.02

Reviewed by

Initials

DK

Date

10.11.02

Matrix

Carrier name

FedEx

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Presen ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Presen ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Presen ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

ll samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

Adjusted?

Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action



4418 Pottsville Pike Reading, PA 19605
(Tel) 610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 03-Dec-02

CLIENT: ATC Associates

Project: 15-22906-0002

Lab Order: R02100403

Lab ID: R02100403-01

Collection Date: 10/9/2002

Client Sample ID: 4S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-02

Collection Date: 10/9/2002

Client Sample ID: 4N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-03

Collection Date: 10/9/2002

Client Sample ID: 4N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-04

Collection Date: 10/9/2002

Client Sample ID: 4N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-05

Collection Date: 10/9/2002

Client Sample ID: 4N-D-Blank

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



4418 Pottsville Pike Reading, PA 19605
(Tel) 610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 03-Dec-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100403

Lab ID: R02100403-06
Client Sample ID: 3S-D-W

Collection Date: 10/9/2002
Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/21/2002
						Analyst: SUB

Lab ID: R02100403-07
Client Sample ID: 3S-D-H

Collection Date: 10/9/2002
Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/21/2002
						Analyst: SUB

Lab ID: R02100403-08
Client Sample ID: 3S-D-F

Collection Date: 10/9/2002
Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/21/2002
						Analyst: SUB

Lab ID: R02100403-09
Client Sample ID: 3N-D-W

Collection Date: 10/9/2002
Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/21/2002
						Analyst: SUB

Lab ID: R02100403-10
Client Sample ID: 3N-D-H

Collection Date: 10/9/2002
Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/21/2002
						Analyst: SUB

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



4418 Pottsville Pike Reading, PA 19605
(Tel) 610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 03-Dec-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100403

Lab ID: R02100403-11

Collection Date: 10/9/2002

Client Sample ID: 3N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-12

Collection Date: 10/9/2002

Client Sample ID: 2S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-13

Collection Date: 10/9/2002

Client Sample ID: 2S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-14

Collection Date: 10/9/2002

Client Sample ID: 2S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-15

Collection Date: 10/9/2002

Client Sample ID: 2N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



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INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100-439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 03-Dec-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100403

Lab ID: R02100403-16

Collection Date: 10/9/2002

Client Sample ID: 2N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-17

Collection Date: 10/9/2002

Client Sample ID: 2N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Lab ID: R02100403-18

Collection Date: 10/9/2002

Client Sample ID: 2N-D-Blank

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/21/2002

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Certificate of Analysis

Certificate No.: 2J0576

CLIENT INFORMATION

Attention: Fred Usbeck
Client Name: PHILIP ANALYTICAL SERVICES-PA
Address: 4418, Pottville Pike
 Reading, Pensylvanie
 19605-1286
Fax Number: 610-921-9667
Phone Number: 1-800-345-4026

LABORATORY INFORMATION

Contact: Martin Dea
Project: AN022771
Date Received: 2002/10/16
Date Reported: 2002/11/29
Date Revised:
Revision Number: 0
No. of pages: 24

Project: SW 8290
Project Desc: PO#10295-R02100400
Sampled by: PHILIP ANALYTICAL SERVICES-PA

Approved by: _____
 Martin Dea, Chemist
 Project manager

Verified by: _____
 Éric Fortin, Chemist
 Inorganic Manager

Verified by: _____
 Stephan Obarewicz, Chemist
 High Resolution Manager

file # =039106ot.xls
 Revision No. 0

Certificate of Analysis

Certificate No.: 2J0576

CLIENT INFORMATION

Attention: Fred Usbeck
Client Name: PHILIP ANALYTICAL SERVICES-PA
Address: 4418, Pottville Pike
 Reading, Pennsylvania
 19605-1286
Fax Number: 610-921-9667
Phone Number: 1-800-345-4026

LABORATORY INFORMATION

Contact: Martin Dea
Project: AN022771
Date Received: 2002/10/16
Date Reported: 2002/11/29
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No. of pages: 24

Project: SW 8290
Project Desc: PO#10295-R02100400
Sampled by: PHILIP ANALYTICAL SERVICES-PA

Approved by: _____
 Martin Dea, Chemist
 Project manager

Verified by: _____
 Éric Fortin, Chemist
 Inorganic Manager

Verified by: _____
 Stephan Obarewicz, Chemist
 High Resolution Manager

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file # =039106ot.xls
 Revision No. 0

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	01A	01A	01A
Lab No.:	039106 02	039106 02	039106 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.21	pg	2.6	0.26
2,3,7,8-Cl4DBD	0.52	"	<0.52	<0.52
1,2,3,7,8-Cl5DBF	0.62	"	<0.62	<0.031
2,3,4,7,8-Cl5DBF	0.41	"	<0.41	<0.20
1,2,3,7,8-Cl5DBD	0.48	"	<0.48	<0.24
1,2,3,4,7,8-Cl6DBF	0.57	"	<0.57	<0.057
1,2,3,6,7,8-Cl6DBF	0.53	"	<0.53	<0.053
2,3,4,6,7,8-Cl6DBF	0.62	"	<0.62	<0.062
1,2,3,7,8,9-Cl6DBF	0.68	"	<0.68	<0.068
1,2,3,4,7,8-Cl6DBD	0.39	"	<0.39	<0.039
1,2,3,6,7,8-Cl6DBD	0.36	"	<0.36	<0.036
1,2,3,7,8,9-Cl6DBD	0.35	"	<0.35	<0.035
1,2,3,4,6,7,8-Cl7DBF	7.4	"	<7.4	<0.074
1,2,3,4,7,8,9-Cl7DBF	8.5	"	<8.5	<0.085
1,2,3,4,6,7,8-Cl7DBD	0.64	"	1.7	0.017
1,2,3,4,6,7,8,9-Cl8DBF	0.42	"	1.5	0.0015
1,2,3,4,6,7,8,9-Cl8DBD	0.71	"	26	0.026
	TEF	pg	0.31	
	MAX TEF	"	<1.8	
ΣT4CDF	0.21	pg	10	8
ΣP5CDF	0.42	"	0.76	1
ΣH6CDF	0.57	"	<0.57	0
ΣH7CDF	7.9	"	<7.9	0
OCDF	0.42	"	1.5	1
ΣT4CDD	0.53	"	8.9	3
ΣP5CDD	0.48	"	<0.48	0
ΣH6CDD	0.36	"	<0.36	0
ΣH7CDD	0.64	"	3.2	2
OCDD	0.71	"	26	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			84	
2,3,7,8-T4CDD-13C12			76	
1,2,3,7,8-P5CDF-13C12			82	
1,2,3,7,8-P5CDD-13C12			85	
1,2,3,6,7,8-H6CDF-13C12			76	
1,2,3,6,7,8-H6CDD-13C12			75	
1,2,3,4,6,7,8-H7CDF-13C12			82	
1,2,3,4,6,7,8-H7CDD-13C12			93	
OCDD-13C12			75	

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	02A	02A	02A
Lab No.:	039107 02	039107 02	039107 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.30	pg	0.40	0.040
2,3,7,8-Cl4DBD	0.38	"	<0.38	<0.38
1,2,3,7,8-Cl5DBF	0.54	"	<0.54	<0.027
2,3,4,7,8-Cl5DBF	0.52	"	<0.52	<0.26
1,2,3,7,8-Cl5DBD	0.66	"	<0.66	<0.33
1,2,3,4,7,8-Cl6DBF	0.39	"	<0.39	<0.039
1,2,3,6,7,8-Cl6DBF	0.36	"	<0.36	<0.036
2,3,4,6,7,8-Cl6DBF	0.42	"	<0.42	<0.042
1,2,3,7,8,9-Cl6DBF	0.46	"	<0.46	<0.046
1,2,3,4,7,8-Cl6DBD	0.28	"	<0.28	<0.028
1,2,3,6,7,8-Cl6DBD	0.26	"	<0.26	<0.026
1,2,3,7,8,9-Cl6DBD	0.26	"	<0.26	<0.026
1,2,3,4,6,7,8-Cl7DBF	110	"	<110	<1.1
1,2,3,4,7,8,9-Cl7DBF	130	"	<130	<1.3
1,2,3,4,6,7,8-Cl7DBD	0.68	"	<0.68	<0.0068
1,2,3,4,6,7,8,9-Cl8DBF	1.3	"	<1.3	<0.0013
1,2,3,4,6,7,8,9-Cl8DBD	0.50	"	1.3	0.0013
	TEF	pg	0.042	
	MAX TEF	"	<3.7	
ΣT4CDF	0.30	pg	0.40	1
ΣP5CDF	0.54	"	<0.54	0
ΣH6CDF	0.39	"	<0.39	0
ΣH7CDF	120	"	<120	0
OCDF	1.3	"	<1.3	0
ΣT4CDD	0.38	"	<0.38	0
ΣP5CDD	0.66	"	<0.66	0
ΣH6CDD	0.26	"	<0.26	0
ΣH7CDD	0.68	"	<0.68	0
OCDD	0.50	"	1.3	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			94	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			91	
1,2,3,7,8-P5CDD-13C12			96	
1,2,3,6,7,8-H6CDF-13C12			81	
1,2,3,6,7,8-H6CDD-13C12			84	
1,2,3,4,6,7,8-H7CDF-13C12			79	
1,2,3,4,6,7,8-H7CDD-13C12			92	
OCDD-13C12			76	

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	03A	03A	03A
Lab No.:	039108 02	039108 02	039108 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
-----------	-----	-------	-----	--------------

Dioxins and furans

2,3,7,8-Cl4DBF	0.38	pg	1.2	0.12
2,3,7,8-Cl4DBD	0.48	"	<0.48	<0.48
1,2,3,7,8-Cl5DBF	0.52	"	<0.52	<0.026
2,3,4,7,8-Cl5DBF	0.50	"	<0.50	<0.25
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.47	"	<0.47	<0.047
1,2,3,6,7,8-Cl6DBF	0.44	"	<0.44	<0.044
2,3,4,6,7,8-Cl6DBF	0.52	"	<0.52	<0.052
1,2,3,7,8,9-Cl6DBF	0.56	"	<0.56	<0.056
1,2,3,4,7,8-Cl6DBD	0.77	"	<0.77	<0.077
1,2,3,6,7,8-Cl6DBD	0.71	"	<0.71	<0.071
1,2,3,7,8,9-Cl6DBD	0.69	"	<0.69	<0.069
1,2,3,4,6,7,8-Cl7DBF	36	"	<36	<0.36
1,2,3,4,7,8,9-Cl7DBF	41	"	<41	<0.41
1,2,3,4,6,7,8-Cl7DBD	0.60	"	<0.60	<0.0060
1,2,3,4,6,7,8,9-Cl8DBF	0.62	"	<0.62	<0.00062
1,2,3,4,6,7,8,9-Cl8DBD	7.6	"	<7.6	<0.0076

TEF	pg	0.12
MAX TEF	"	<2.3

ΣT4CDF	0.38	pg	1.2	1
ΣP5CDF	0.52	"	<0.52	0
ΣH6CDF	0.47	"	<0.47	0
ΣH7CDF	38	"	<38	0
OCDF	0.62	"	<0.62	0
ΣT4CDD	0.48	"	1.3	1
ΣP5CDD	0.54	"	<0.54	0
ΣH6CDD	0.71	"	<0.71	0
ΣH7CDD	0.52	"	<0.52	0
OCDD	7.6	"	<7.6	0

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	90
2,3,7,8-T4CDD-13C12	86
1,2,3,7,8-P5CDF-13C12	89
1,2,3,7,8-P5CDD-13C12	91
1,2,3,6,7,8-H6CDF-13C12	79
1,2,3,6,7,8-H6CDD-13C12	82
1,2,3,4,6,7,8-H7CDF-13C12	84
1,2,3,4,6,7,8-H7CDD-13C12	91
OCDD-13C12	79

PSC Analytical Services Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	04A	04A	04A
Lab No.:	039109 02	039109 02	039109 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.56	pg	<0.56	<0.056
2,3,7,8-Cl4DBD	6.0	"	<6.0	<6.0
1,2,3,7,8-Cl5DBF	1.3	"	<1.3	<0.065
2,3,4,7,8-Cl5DBF	1.2	"	<1.2	<0.62
1,2,3,7,8-Cl5DBD	1.5	"	<1.5	<0.73
1,2,3,4,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,6,7,8-Cl6DBF	0.99	"	<0.99	<0.099
2,3,4,6,7,8-Cl6DBF	1.2	"	2.1	0.21
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	2.3	"	<2.3	<0.23
1,2,3,6,7,8-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,7,8,9-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,4,6,7,8-Cl7DBF	22	"	<22	<0.22
1,2,3,4,7,8,9-Cl7DBF	14	"	<14	<0.14
1,2,3,4,6,7,8-Cl7DBD	2.1	"	9.0	0.090
1,2,3,4,6,7,8,9-Cl8DBF	2.2	"	6.4	0.0064
1,2,3,4,6,7,8,9-Cl8DBD	5.7	"	78	0.078
	TEF	pg	0.38	
	MAX TEF	"	<9.2	
ΣT4CDF	0.56	pg	29	11
ΣP5CDF	1.3	"	4.8	1
ΣH6CDF	1.2	"	12	2
ΣH7CDF	9.5	"	<9.5	0
OCDF	2.2	"	6.4	1
ΣT4CDD	1.3	"	31	5
ΣP5CDD	1.5	"	6.7	2
ΣH6CDD	2.1	"	<2.1	0
ΣH7CDD	2.1	"	9.7	2
OCDD	5.7	"	78	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			88	
2,3,7,8-T4CDD-13C12			72	
1,2,3,7,8-P5CDF-13C12			66	
1,2,3,7,8-P5CDD-13C12			50	
1,2,3,6,7,8-H6CDF-13C12			78	
1,2,3,6,7,8-H6CDD-13C12			70	
1,2,3,4,6,7,8-H7CDF-13C12			78	
1,2,3,4,6,7,8-H7CDD-13C12			72	
OCDD-13C12			60	

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	05A	05A	05A
Lab No.:	039110 02	039110 02	039110 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.58	pg	<0.58	
2,3,7,8-Cl4DBD	0.34	"	0.38	
1,2,3,7,8-Cl5DBF	0.51	"	0.56	
2,3,4,7,8-Cl5DBF	0.49	"	<0.49	
1,2,3,7,8-Cl5DBD	0.46	"	<0.46	
1,2,3,4,7,8-Cl6DBF	0.72	"	<0.72	
1,2,3,6,7,8-Cl6DBF	0.30	"	<0.30	
2,3,4,6,7,8-Cl6DBF	0.45	"	<0.45	
1,2,3,7,8,9-Cl6DBF	0.62	"	<0.62	
1,2,3,4,7,8-Cl6DBD	0.60	"	<0.60	
1,2,3,6,7,8-Cl6DBD	0.55	"	<0.55	
1,2,3,7,8,9-Cl6DBD	0.54	"	<0.54	
1,2,3,4,6,7,8-Cl7DBF	1.8	"	<1.8	
1,2,3,4,7,8,9-Cl7DBF	1.2	"	<1.2	
1,2,3,4,6,7,8-Cl7DBD	0.74	"	<0.74	
1,2,3,4,6,7,8,9-Cl8DBF	0.87	"	1.2	
1,2,3,4,6,7,8,9-Cl8DBD	3.1	"	<3.1	
	TEF	pg	0.41	
	MAX TEF	"	<1.4	
ΣT4CDF	0.23	pg	<0.23	0
ΣP5CDF	0.51	"	0.56	1
ΣH6CDF	0.57	"	<0.57	0
ΣH7CDF	1.1	"	<1.1	0
OCDF	0.87	"	1.2	1
ΣT4CDD	0.34	"	0.38	1
ΣP5CDD	0.46	"	<0.46	0
ΣH6CDD	0.55	"	<0.55	0
ΣH7CDD	0.74	"	<0.74	0
OCDD	3.1	"	<3.1	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			94	
2,3,7,8-T4CDD-13C12			82	
1,2,3,7,8-P5CDF-13C12			80	
1,2,3,7,8-P5CDD-13C12			72	
1,2,3,6,7,8-H6CDF-13C12			58	
1,2,3,6,7,8-H6CDD-13C12			70	
1,2,3,4,6,7,8-H7CDF-13C12			48	
1,2,3,4,6,7,8-H7CDD-13C12			88	
OCDD-13C12			66	

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	06A	06A	06A
Lab No.:	039111 02	039111 02	039111 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.4	pg	<1.4	<0.14
2,3,7,8-Cl4DBD	0.94	"	<0.94	<0.94
1,2,3,7,8-Cl5DBF	1.5	"	<1.5	<0.073
2,3,4,7,8-Cl5DBF	1.4	"	<1.4	<0.70
1,2,3,7,8-Cl5DBD	1.4	"	<1.4	<0.68
1,2,3,4,7,8-Cl6DBF	2.5	"	<2.5	<0.25
1,2,3,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
2,3,4,6,7,8-Cl6DBF	2.7	"	<2.7	<0.27
1,2,3,7,8,9-Cl6DBF	3.0	"	<3.0	<0.30
1,2,3,4,7,8-Cl6DBD	3.9	"	<3.9	<0.39
1,2,3,6,7,8-Cl6DBD	3.6	"	<3.6	<0.36
1,2,3,7,8,9-Cl6DBD	3.5	"	<3.5	<0.35
1,2,3,4,6,7,8-Cl7DBF	96	"	<96	<0.96
1,2,3,4,7,8,9-Cl7DBF	110	"	<110	<1.1
1,2,3,4,6,7,8-Cl7DBD	3.7	"	<3.7	<0.037
1,2,3,4,6,7,8,9-Cl8DBF	3.0	"	<3.0	<0.0030
1,2,3,4,6,7,8,9-Cl8DBD	5.9	"	<5.9	<0.0060
	TEF	pg	0	
	MAX TEF	"	<6.8	
ΣT4CDF	0.76	pg	<0.76	0
ΣP5CDF	1.5	"	<1.5	0
ΣH6CDF	2.7	"	<2.7	0
ΣH7CDF	100	"	<100	0
OCDF	3.0	"	<3.0	0
ΣT4CDD	0.94	"	<0.94	0
ΣP5CDD	1.4	"	<1.4	0
ΣH6CDD	3.6	"	<3.6	0
ΣH7CDD	3.7	"	<3.7	0
OCDD	6.0	"	<6.0	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			108	
2,3,7,8-T4CDD-13C12			90	
1,2,3,7,8-P5CDF-13C12			70	
1,2,3,7,8-P5CDD-13C12			60	
1,2,3,6,7,8-H6CDF-13C12			66	
1,2,3,6,7,8-H6CDD-13C12			74	
1,2,3,4,6,7,8-H7CDF-13C12			48	
1,2,3,4,6,7,8-H7CDD-13C12			86	
OCDD-13C12			62	

PSC Analytical Services
Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	07A	07A	07A
Lab No.:	039112 02	039112 02	039112 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.65	pg	0.95	0.095
2,3,7,8-Cl4DBD	0.54	"	<0.54	<0.54
1,2,3,7,8-Cl5DBF	0.41	"	<0.41	<0.020
2,3,4,7,8-Cl5DBF	0.39	"	<0.39	<0.19
1,2,3,7,8-Cl5DBD	0.89	"	<0.89	<0.44
1,2,3,4,7,8-Cl6DBF	0.51	"	<0.51	<0.051
1,2,3,6,7,8-Cl6DBF	0.47	"	<0.47	<0.047
2,3,4,6,7,8-Cl6DBF	0.55	"	<0.55	<0.055
1,2,3,7,8,9-Cl6DBF	0.60	"	<0.60	<0.060
1,2,3,4,7,8-Cl6DBD	0.85	"	<0.85	<0.085
1,2,3,6,7,8-Cl6DBD	0.79	"	<0.79	<0.079
1,2,3,7,8,9-Cl6DBD	0.77	"	<0.77	<0.077
1,2,3,4,6,7,8-Cl7DBF	13	"	<13	<0.13
1,2,3,4,7,8,9-Cl7DBF	15	"	<15	<0.15
1,2,3,4,6,7,8-Cl7DBD	0.69	"	1.3	0.013
1,2,3,4,6,7,8,9-Cl8DBF	6.7	"	<6.7	<0.0067
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	11	0.011
	TEF	pg	0.12	
	MAX TEF	"	<2.1	
ΣT4CDF	0.65	pg	0.95	1
ΣP5CDF	0.41	"	<0.41	0
ΣH6CDF	0.55	"	<0.55	0
ΣH7CDF	14	"	<14	0
OCDF	6.7	"	<6.7	0
ΣT4CDD	0.54	"	<0.54	0
ΣP5CDD	0.89	"	<0.89	0
ΣH6CDD	0.79	"	<0.79	0
ΣH7CDD	0.69	"	2.3	2
OCDD	1.3	"	11	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			80	
1,2,3,7,8-P5CDF-13C12			80	
1,2,3,7,8-P5CDD-13C12			76	
1,2,3,6,7,8-H6CDF-13C12			76	
1,2,3,6,7,8-H6CDD-13C12			74	
1,2,3,4,6,7,8-H7CDF-13C12			90	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			82	

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	08A	08A	08A
Lab No.:	039113 02	039113 02	039113 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.7	pg	<1.7	<0.17
2,3,7,8-Cl4DBD	0.57	"	<0.57	<0.57
1,2,3,7,8-Cl5DBF	0.74	"	<0.74	<0.037
2,3,4,7,8-Cl5DBF	0.71	"	<0.71	<0.36
1,2,3,7,8-Cl5DBD	0.66	"	<0.66	<0.33
1,2,3,4,7,8-Cl6DBF	1.0	"	<1.0	<0.10
1,2,3,6,7,8-Cl6DBF	0.97	"	<0.97	<0.097
2,3,4,6,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,7,8,9-Cl6DBF	1.2	"	<1.2	<0.12
1,2,3,4,7,8-Cl6DBD	0.82	"	<0.82	<0.082
1,2,3,6,7,8-Cl6DBD	0.76	"	<0.76	<0.076
1,2,3,7,8,9-Cl6DBD	0.74	"	<0.74	<0.074
1,2,3,4,6,7,8-Cl7DBF	11	"	<11	<0.11
1,2,3,4,7,8,9-Cl7DBF	13	"	<13	<0.13
1,2,3,4,6,7,8-Cl7DBD	0.85	"	2.0	0.020
1,2,3,4,6,7,8,9-Cl8DBF	0.72	"	1.6	0.0016
1,2,3,4,6,7,8,9-Cl8DBD	1.6	"	21	0.021
	TEF	pg	0.043	
	MAX TEF	"	<2.4	
ΣT4CDF	0.53	pg	1.6	2
ΣP5CDF	0.74	"	<0.74	0
ΣH6CDF	1.1	"	<1.1	0
ΣH7CDF	12	"	<12	0
OCDF	0.72	"	1.6	1
ΣT4CDD	0.57	"	2.3	2
ΣP5CDD	0.66	"	<0.66	0
ΣH6CDD	0.76	"	<0.76	0
ΣH7CDD	0.85	"	4.0	2
OCDD	1.6	"	21	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			80	
1,2,3,7,8-P5CDF-13C12			84	
1,2,3,7,8-P5CDD-13C12			80	
1,2,3,6,7,8-H6CDF-13C12			58	
1,2,3,6,7,8-H6CDD-13C12			72	
1,2,3,4,6,7,8-H7CDF-13C12			54	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			84	

PSC Analytical Services
Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	09A	09A	09A
Lab No.:	039114 02	039114 02	039114 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.48	pg	1.6	0.16
2,3,7,8-Cl4DBD	0.79	"	<0.79	<0.79
1,2,3,7,8-Cl5DBF	0.78	"	<0.78	<0.039
2,3,4,7,8-Cl5DBF	0.60	"	<0.60	<0.30
1,2,3,7,8-Cl5DBD	0.81	"	<0.81	<0.40
1,2,3,4,7,8-Cl6DBF	0.84	"	<0.84	<0.084
1,2,3,6,7,8-Cl6DBF	0.78	"	<0.78	<0.078
2,3,4,6,7,8-Cl6DBF	0.92	"	<0.92	<0.092
1,2,3,7,8,9-Cl6DBF	0.99	"	<0.99	<0.099
1,2,3,4,7,8-Cl6DBD	0.66	"	<0.66	<0.066
1,2,3,6,7,8-Cl6DBD	0.61	"	<0.61	<0.061
1,2,3,7,8,9-Cl6DBD	0.60	"	<0.60	<0.060
1,2,3,4,6,7,8-Cl7DBF	56	"	<56	<0.56
1,2,3,4,7,8,9-Cl7DBF	2.4	"	<2.4	<0.024
1,2,3,4,6,7,8-Cl7DBD	0.72	"	<0.72	<0.0072
1,2,3,4,6,7,8,9-Cl8DBF	1.3	"	<1.3	<0.0013
1,2,3,4,6,7,8,9-Cl8DBD	3.3	"	<3.3	<0.0033
	TEF	pg	0.16	
	MAX TEF	"	<2.8	
ΣT4CDF	0.48	pg	1.6	1
ΣP5CDF	0.63	"	<0.63	0
ΣH6CDF	0.92	"	<0.92	0
ΣH7CDF	60	"	<60	0
OCDF	1.3	"	<1.3	0
ΣT4CDD	0.79	"	<0.79	0
ΣP5CDD	0.81	"	<0.81	0
ΣH6CDD	0.61	"	<0.61	0
ΣH7CDD	0.59	"	<0.59	0
OCDD	3.3	"	<3.3	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			76	
1,2,3,7,8-P5CDF-13C12			84	
1,2,3,7,8-P5CDD-13C12			76	
1,2,3,6,7,8-H6CDF-13C12			52	
1,2,3,6,7,8-H6CDD-13C12			66	
1,2,3,4,6,7,8-H7CDF-13C12			44	
1,2,3,4,6,7,8-H7CDD-13C12			94	
OCDD-13C12			76	

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	10A	10A	10A
Lab No.:	039115 02	039115 02	039115 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl ₄ DBF	1.6	pg	<1.6	<0.16
2,3,7,8-Cl ₄ DBD	1.1	"	<1.1	<1.1
1,2,3,7,8-Cl ₅ DBF	1.7	"	<1.7	<0.083
2,3,4,7,8-Cl ₅ DBF	1.6	"	<1.6	<0.80
1,2,3,7,8-Cl ₅ DBD	1.5	"	<1.5	<0.76
1,2,3,4,7,8-Cl ₆ DBF	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl ₆ DBF	1.2	"	<1.2	<0.12
2,3,4,6,7,8-Cl ₆ DBF	1.4	"	<1.4	<0.14
1,2,3,7,8,9-Cl ₆ DBF	1.6	"	<1.6	<0.16
1,2,3,4,7,8-Cl ₆ DBD	2.3	"	<2.3	<0.23
1,2,3,6,7,8-Cl ₆ DBD	2.2	"	<2.2	<0.22
1,2,3,7,8,9-Cl ₆ DBD	2.1	"	<2.1	<0.21
1,2,3,4,6,7,8-Cl ₇ DBF	130	"	<130	<1.3
1,2,3,4,7,8,9-Cl ₇ DBF	160	"	<160	<1.6
1,2,3,4,6,7,8-Cl ₇ DBD	6.4	"	<6.4	<0.064
1,2,3,4,6,7,8,9-Cl ₈ DBF	4.3	"	<4.3	<0.0043
1,2,3,4,6,7,8,9-Cl ₈ DBD	2.2	"	13	0.013
	TEF	pg	0.013	
	MAX TEF	"	<7.1	
ΣT ₄ CDF	0.46	pg	2.0	2
ΣP ₅ CDF	1.7	"	<1.7	0
ΣH ₆ CDF	1.3	"	<1.3	0
ΣH ₇ CDF	150	"	<150	0
OCDF	4.3	"	<4.3	0
ΣT ₄ CDD	1.1	"	6.9	2
ΣP ₅ CDD	1.5	"	<1.5	0
ΣH ₆ CDD	2.2	"	<2.2	0
ΣH ₇ CDD	6.4	"	<6.4	0
OCDD	2.2	"	13	1
Surrogate Recoveries		%		
2,3,7,8-T ₄ CDF-13C ₁₂			94	
2,3,7,8-T ₄ CDD-13C ₁₂			66	
1,2,3,7,8-P ₅ CDF-13C ₁₂			64	
1,2,3,7,8-P ₅ CDD-13C ₁₂			50	
1,2,3,6,7,8-H ₆ CDF-13C ₁₂			102	
1,2,3,6,7,8-H ₆ CDD-13C ₁₂			78	
1,2,3,4,6,7,8-H ₇ CDF-13C ₁₂			100	
1,2,3,4,6,7,8-H ₇ CDD-13C ₁₂			82	
OCDD-13C ₁₂			60	

PSC Analytical Services
Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	11A	11A	11A
Lab No.:	039116 02	039116 02	039116 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.79	pg	2.6	0.26
2,3,7,8-Cl4DBD	1.4	"	<1.4	<1.4
1,2,3,7,8-Cl5DBF	0.78	"	<0.78	<0.039
2,3,4,7,8-Cl5DBF	0.48	"	<0.48	<0.24
1,2,3,7,8-Cl5DBD	1.9	"	<1.9	<0.95
1,2,3,4,7,8-Cl6DBF	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBF	1.9	"	<1.9	<0.19
2,3,4,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
1,2,3,7,8,9-Cl6DBF	2.5	"	<2.5	<0.25
1,2,3,4,7,8-Cl6DBD	1.7	"	<1.7	<0.17
1,2,3,6,7,8-Cl6DBD	1.6	"	<1.6	<0.16
1,2,3,7,8,9-Cl6DBD	1.5	"	<1.5	<0.15
1,2,3,4,6,7,8-Cl7DBF	170	"	<170	<1.7
1,2,3,4,7,8,9-Cl7DBF	200	"	<200	<2.0
1,2,3,4,6,7,8-Cl7DBD	2.1	"	5.8	0.058
1,2,3,4,6,7,8,9-Cl8DBF	6.7	"	<6.7	<0.0067
1,2,3,4,6,7,8,9-Cl8DBD	1.5	"	54	0.054
	TEF	pg	0.37	
	MAX TEF	"	<8.1	
ΣT4CDF	0.79	pg	3.9	2
ΣP5CDF	0.50	"	<0.50	0
ΣH6CDF	2.1	"	<2.1	0
ΣH7CDF	180	"	<180	0
OCDF	6.7	"	<6.7	0
ΣT4CDD	1.4	"	<1.4	0
ΣP5CDD	1.9	"	<1.9	0
ΣH6CDD	1.6	"	<1.6	0
ΣH7CDD	2.1	"	12	2
OCDD	1.5	"	54	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			76	
1,2,3,7,8-P5CDF-13C12			74	
1,2,3,7,8-P5CDD-13C12			60	
1,2,3,6,7,8-H6CDF-13C12			44	
1,2,3,6,7,8-H6CDD-13C12			60	
1,2,3,4,6,7,8-H7CDF-13C12			36	
1,2,3,4,6,7,8-H7CDD-13C12			80	
OCDD-13C12			64	

PSC Analytical Services Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	12A	12A	12A
Lab No.:	039117 02	039117 02	039117 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.99	pg	2.2	0.22
2,3,7,8-Cl4DBD	1.3	"	<1.3	<1.3
1,2,3,7,8-Cl5DBF	0.99	"	<0.99	<0.049
2,3,4,7,8-Cl5DBF	0.95	"	<0.95	<0.48
1,2,3,7,8-Cl5DBD	2.5	"	<2.5	<1.2
1,2,3,4,7,8-Cl6DBF	2.2	"	<2.2	<0.22
1,2,3,6,7,8-Cl6DBF	2.1	"	<2.1	<0.21
2,3,4,6,7,8-Cl6DBF	2.4	"	<2.4	<0.24
1,2,3,7,8,9-Cl6DBF	2.6	"	<2.6	<0.26
1,2,3,4,7,8-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,6,7,8-Cl6DBD	1.8	"	<1.8	<0.18
1,2,3,7,8,9-Cl6DBD	1.7	"	<1.7	<0.17
1,2,3,4,6,7,8-Cl7DBF	250	"	<250	<2.5
1,2,3,4,7,8,9-Cl7DBF	290	"	<290	<2.9
1,2,3,4,6,7,8-Cl7DBD	3.5	"	<3.5	<0.035
1,2,3,4,6,7,8,9-Cl8DBF	3.7	"	20	0.020
1,2,3,4,6,7,8,9-Cl8DBD	3.9	"	7.3	0.0073

TEF	pg	0.24
MAX TEF	"	<10

ΣT4CDF	0.99	pg	2.2	1
ΣP5CDF	0.99	"	<0.99	0
ΣH6CDF	2.2	"	<2.2	0
ΣH7CDF	270	"	<270	0
OCDF	3.7	"	20	1
ΣT4CDD	1.7	"	5.8	2
ΣP5CDD	2.5	"	<2.5	0
ΣH6CDD	1.8	"	<1.8	0
ΣH7CDD	3.5	"	<3.5	0
OCDD	3.9	"	7.3	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	88
2,3,7,8-T4CDD-13C12	70
1,2,3,7,8-P5CDF-13C12	64
1,2,3,7,8-P5CDD-13C12	52
1,2,3,6,7,8-H6CDF-13C12	76
1,2,3,6,7,8-H6CDD-13C12	78
1,2,3,4,6,7,8-H7CDF-13C12	62
1,2,3,4,6,7,8-H7CDD-13C12	84
OCDD-13C12	58

PSC Analytical Services
Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	13A	13A	13A
Lab No.:	039118 02	039118 02	039118 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.29	pg	1.8	0.18
2,3,7,8-Cl4DBD	0.30	"	0.72	0.72
1,2,3,7,8-Cl5DBF	0.55	"	0.71	0.035
2,3,4,7,8-Cl5DBF	0.55	"	<0.55	<0.27
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.28	"	0.44	0.044
1,2,3,6,7,8-Cl6DBF	0.26	"	<0.26	<0.026
2,3,4,6,7,8-Cl6DBF	0.31	"	<0.31	<0.031
1,2,3,7,8,9-Cl6DBF	0.37	"	<0.37	<0.037
1,2,3,4,7,8-Cl6DBD	0.59	"	<0.59	<0.059
1,2,3,6,7,8-Cl6DBD	0.55	"	<0.55	<0.055
1,2,3,7,8,9-Cl6DBD	0.54	"	<0.54	<0.054
1,2,3,4,6,7,8-Cl7DBF	13	"	<13	<0.13
1,2,3,4,7,8,9-Cl7DBF	14	"	<14	<0.14
1,2,3,4,6,7,8-Cl7DBD	0.43	"	0.68	0.0068
1,2,3,4,6,7,8,9-Cl8DBF	0.83	"	<0.83	<0.00083
1,2,3,4,6,7,8,9-Cl8DBD	0.42	"	4.1	0.0041
	TEF	pg	0.99	
	MAX TEF	"	<2.1	
ΣT4CDF	0.29	pg	2.9	3
ΣP5CDF	0.55	"	1.3	2
ΣH6CDF	0.31	"	0.44	1
ΣH7CDF	14	"	<14	0
OCDF	0.83	"	<0.83	0
ΣT4CDD	0.30	"	3.3	3
ΣP5CDD	0.54	"	2.4	3
ΣH6CDD	0.55	"	<0.55	0
ΣH7CDD	0.43	"	0.68	1
OCDD	0.42	"	4.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			102	
2,3,7,8-T4CDD-13C12			84	
1,2,3,7,8-P5CDF-13C12			89	
1,2,3,7,8-P5CDD-13C12			84	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			81	
1,2,3,4,6,7,8-H7CDF-13C12			101	
1,2,3,4,6,7,8-H7CDD-13C12			95	
OCDD-13C12			80	

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	14A	14A	14A
Lab No.:	039119 02	039119 02	039119 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.34	pg	7.0	0.70
2,3,7,8-Cl4DBD	0.92	"	2.7	2.7
1,2,3,7,8-Cl5DBF	0.78	"	<0.78	<0.039
2,3,4,7,8-Cl5DBF	1.7	"	<1.7	<0.83
1,2,3,7,8-Cl5DBD	1.8	"	<1.8	<0.92
1,2,3,4,7,8-Cl6DBF	0.82	"	<0.82	<0.082
1,2,3,6,7,8-Cl6DBF	0.76	"	<0.76	<0.076
2,3,4,6,7,8-Cl6DBF	0.89	"	<0.89	<0.089
1,2,3,7,8,9-Cl6DBF	0.37	"	<0.37	<0.037
1,2,3,4,7,8-Cl6DBD	2.0	"	<2.0	<0.20
1,2,3,6,7,8-Cl6DBD	1.8	"	<1.8	<0.18
1,2,3,7,8,9-Cl6DBD	1.8	"	<1.8	<0.18
1,2,3,4,6,7,8-Cl7DBF	110	"	<110	<1.1
1,2,3,4,7,8,9-Cl7DBF	130	"	<130	<1.3
1,2,3,4,6,7,8-Cl7DBD	6.1	"	<6.1	<0.061
1,2,3,4,6,7,8,9-Cl8DBF	11	"	<11	<0.011
1,2,3,4,6,7,8,9-Cl8DBD	39	"	<39	<0.039

TEF	pg	3.4
MAX TEF	"	<8.6

ΣT4CDF	0.34	pg	24	9
ΣP5CDF	0.79	"	4.0	2
ΣH6CDF	0.89	"	<0.89	0
ΣH7CDF	120	"	<120	0
OCDF	11	"	<11	0
ΣT4CDD	0.92	"	22	5
ΣP5CDD	1.8	"	9.9	1
ΣH6CDD	1.8	"	39	1
ΣH7CDD	5.4	"	<5.4	0
OCDD	39	"	<39	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	86
2,3,7,8-T4CDD-13C12	61
1,2,3,7,8-P5CDF-13C12	47
1,2,3,7,8-P5CDD-13C12	36
1,2,3,6,7,8-H6CDF-13C12	91
1,2,3,6,7,8-H6CDD-13C12	56
1,2,3,4,6,7,8-H7CDF-13C12	66
1,2,3,4,6,7,8-H7CDD-13C12	44
OCDD-13C12	30

PSC Analytical Services
Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	15A	15A	15A
Lab No.:	039120 02	039120 02	039120 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.38	pg	2.1	0.21
2,3,7,8-Cl4DBD	0.60	"	<0.60	<0.60
1,2,3,7,8-Cl5DBF	0.91	"	0.94	0.047
2,3,4,7,8-Cl5DBF	0.87	"	<0.87	<0.44
1,2,3,7,8-Cl5DBD	1.1	"	<1.1	<0.56
1,2,3,4,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,6,7,8-Cl6DBF	1.0	"	<1.0	<0.10
2,3,4,6,7,8-Cl6DBF	1.2	"	<1.2	<0.12
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	1.5	"	<1.5	<0.15
1,2,3,6,7,8-Cl6DBD	1.4	"	<1.4	<0.14
1,2,3,7,8,9-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,4,6,7,8-Cl7DBF	69	"	<69	<0.69
1,2,3,4,7,8,9-Cl7DBF	79	"	<79	<0.79
1,2,3,4,6,7,8-Cl7DBD	2.1	"	<2.1	<0.021
1,2,3,4,6,7,8,9-Cl8DBF	3.5	"	<3.5	<0.0035
1,2,3,4,6,7,8,9-Cl8DBD	5.6	"	<5.6	<0.0056

TEF	pg	0.25
MAX TEF	"	<4.2

ΣT4CDF	0.38	pg	3.2	3
ΣP5CDF	0.91	"	0.94	1
ΣH6CDF	1.2	"	<1.2	0
ΣH7CDF	74	"	<74	0
OCDF	3.5	"	<3.5	0
ΣT4CDD	0.6	"	3.9	2
ΣP5CDD	1.1	"	<1.1	0
ΣH6CDD	1.4	"	<1.4	0
ΣH7CDD	2.1	"	<2.1	0
OCDD	5.6	"	<5.6	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	91
2,3,7,8-T4CDD-13C12	75
1,2,3,7,8-P5CDF-13C12	63
1,2,3,7,8-P5CDD-13C12	45
1,2,3,6,7,8-H6CDF-13C12	103
1,2,3,6,7,8-H6CDD-13C12	81
1,2,3,4,6,7,8-H7CDF-13C12	82
1,2,3,4,6,7,8-H7CDD-13C12	82
OCDD-13C12	57

PSC Analytical Services Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	16A	16A	16A
Lab No.:	039121 02	039121 02	039121 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	3.4	pg	<3.4	<0.34
2,3,7,8-Cl4DBD	0.50	"	<0.50	<0.50
1,2,3,7,8-Cl5DBF	0.48	"	0.52	0.026
2,3,4,7,8-Cl5DBF	0.76	"	<0.76	<0.38
1,2,3,7,8-Cl5DBD	0.91	"	<0.91	<0.46
1,2,3,4,7,8-Cl6DBF	0.57	"	1.2	0.12
1,2,3,6,7,8-Cl6DBF	0.64	"	<0.64	<0.064
2,3,4,6,7,8-Cl6DBF	0.34	"	<0.34	<0.034
1,2,3,7,8,9-Cl6DBF	0.37	"	<0.37	<0.037
1,2,3,4,7,8-Cl6DBD	0.97	"	<0.97	<0.097
1,2,3,6,7,8-Cl6DBD	0.90	"	<0.90	<0.090
1,2,3,7,8,9-Cl6DBD	0.88	"	<0.88	<0.088
1,2,3,4,6,7,8-Cl7DBF	30	"	<30	<0.30
1,2,3,4,7,8,9-Cl7DBF	3.9	"	<3.9	<0.039
1,2,3,4,6,7,8-Cl7DBD	3.0	"	<3.0	<0.030
1,2,3,4,6,7,8,9-Cl8DBF	3.8	"	37	0.037
1,2,3,4,6,7,8,9-Cl8DBD	11	"	<11	<0.011
	TEF	pg	0.18	
	MAX TEF	"	<2.7	
ΣT4CDF	0.31	pg	9.5	6
ΣP5CDF	0.48	"	3.8	3
ΣH6CDF	0.62	"	1.2	1
ΣH7CDF	32	"	<32	0
OCDF	3.8	"	37	1
ΣT4CDD	0.49	"	12	5
ΣP5CDD	1.1	"	1.6	1
ΣH6CDD	0.90	"	<0.90	0
ΣH7CDD	1.6	"	2.5	1
OCDD	11	"	<11	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			98	
2,3,7,8-T4CDD-13C12			82	
1,2,3,7,8-P5CDF-13C12			73	
1,2,3,7,8-P5CDD-13C12			58	
1,2,3,6,7,8-H6CDF-13C12			119	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			96	
1,2,3,4,6,7,8-H7CDD-13C12			74	
OCDD-13C12			51	

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**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	17A	17A	17A
Lab No.:	039122 02	039122 02	039122 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	2.2	pg	<2.2	<0.22
2,3,7,8-Cl4DBD	0.51	"	<0.51	<0.51
1,2,3,7,8-Cl5DBF	0.74	"	<0.74	<0.037
2,3,4,7,8-Cl5DBF	0.75	"	<0.75	<0.37
1,2,3,7,8-Cl5DBD	1.3	"	<1.3	<0.65
1,2,3,4,7,8-Cl6DBF	1.7	"	<1.7	<0.17
1,2,3,6,7,8-Cl6DBF	1.6	"	<1.6	<0.16
2,3,4,6,7,8-Cl6DBF	1.9	"	<1.9	<0.19
1,2,3,7,8,9-Cl6DBF	2.1	"	<2.1	<0.21
1,2,3,4,7,8-Cl6DBD	1.6	"	<1.6	<0.16
1,2,3,6,7,8-Cl6DBD	1.5	"	<1.5	<0.15
1,2,3,7,8,9-Cl6DBD	1.4	"	<1.4	<0.14
1,2,3,4,6,7,8-Cl7DBF	2.7	"	<2.7	<0.027
1,2,3,4,7,8,9-Cl7DBF	2.9	"	<2.9	<0.029
1,2,3,4,6,7,8-Cl7DBD	1.6	"	4.3	0.043
1,2,3,4,6,7,8,9-Cl8DBF	3.2	"	<3.2	<0.0033
1,2,3,4,6,7,8,9-Cl8DBD	5.8	"	36	0.036
	TEF	pg	0.079	
	MAX TEF	"	<3.1	
ΣT4CDF	0.36	pg	4.7	4
ΣP5CDF	0.77	"	<0.77	0
ΣH6CDF	1.9	"	<1.9	0
ΣH7CDF	100	"	<100	0
OCDF	3.2	"	<3.2	0
ΣT4CDD	0.51	"	1.8	1
ΣP5CDD	1.3	"	<1.3	0
ΣH6CDD	1.5	"	<1.5	0
ΣH7CDD	1.6	"	4.3	1
OCDD	5.8	"	36	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			90	
2,3,7,8-T4CDD-13C12			77	
1,2,3,7,8-P5CDF-13C12			69	
1,2,3,7,8-P5CDD-13C12			53	
1,2,3,6,7,8-H6CDF-13C12			49	
1,2,3,6,7,8-H6CDD-13C12			52	
1,2,3,4,6,7,8-H7CDF-13C12			36	
1,2,3,4,6,7,8-H7CDD-13C12			59	
OCDD-13C12			50	

PSC Analytical Services
Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	18A	18A	18A
Lab No.:	039123 02	039123 02	039123 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.45	pg	1.3	0.13
2,3,7,8-Cl4DBD	0.55	"	0.91	0.91
1,2,3,7,8-Cl5DBF	0.56	"	1.2	0.058
2,3,4,7,8-Cl5DBF	0.54	"	0.92	0.46
1,2,3,7,8-Cl5DBD	0.74	"	<0.74	<0.37
1,2,3,4,7,8-Cl6DBF	0.57	"	<0.57	<0.057
1,2,3,6,7,8-Cl6DBF	0.53	"	0.71	0.071
2,3,4,6,7,8-Cl6DBF	0.62	"	1.1	0.11
1,2,3,7,8,9-Cl6DBF	0.67	"	<0.67	<0.067
1,2,3,4,7,8-Cl6DBD	1.7	"	<1.7	<0.17
1,2,3,6,7,8-Cl6DBD	1.5	"	<1.5	<0.15
1,2,3,7,8,9-Cl6DBD	1.4	"	<1.4	<0.14
1,2,3,4,6,7,8-Cl7DBF	67	"	<67	<0.67
1,2,3,4,7,8,9-Cl7DBF	77	"	<77	<0.77
1,2,3,4,6,7,8-Cl7DBD	1.2	"	<1.2	<0.012
1,2,3,4,6,7,8,9-Cl8DBF	12	"	<12	<0.012
1,2,3,4,6,7,8,9-Cl8DBD	1.2	"	3.4	0.0034
	TEF	pg	1.7	
	MAX TEF	"	<4.2	
ΣT4CDF	0.45	pg	1.3	1
ΣP5CDF	0.56	"	2.1	2
ΣH6CDF	0.62	"	1.8	2
ΣH7CDF	72	"	<72	0
OCDF	12	"	<12	0
ΣT4CDD	0.55	"	0.91	1
ΣP5CDD	0.74	"	<0.74	0
ΣH6CDD	0.80	"	<0.80	0
ΣH7CDD	1.2	"	<1.2	0
OCDD	1.2	"	3.4	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			85	
2,3,7,8-T4CDD-13C12			70	
1,2,3,7,8-P5CDF-13C12			67	
1,2,3,7,8-P5CDD-13C12			59	
1,2,3,6,7,8-H6CDF-13C12			99	
1,2,3,6,7,8-H6CDD-13C12			79	
1,2,3,4,6,7,8-H7CDF-13C12			98	
1,2,3,4,6,7,8-H7CDD-13C12			84	
OCDD-13C12			69	

**PSC Analytical Services
Laboratory Method Blanks**

Component	RDL	Units	BLANK	TEF	# of Isomers	MR
Batch Code:			1104NZ01			
2,3,7,8-Cl4DBF	0.12	pg	0.50	0.050		106%
2,3,7,8-Cl4DBD	0.22	"	<0.22	<0.22		117%
1,2,3,7,8-Cl5DBF	0.21	"	0.31	0.015		116%
2,3,4,7,8-Cl5DBF	0.15	"	<0.15	<0.076		97%
1,2,3,7,8-Cl5DBD	0.38	"	<0.38	<0.19		96%
1,2,3,4,7,8-Cl6DBF	0.13	"	<0.13	<0.013		114%
1,2,3,6,7,8-Cl6DBF	0.12	"	0.15	0.015		105%
2,3,4,6,7,8-Cl6DBF	0.14	"	<0.14	<0.014		116%
1,2,3,7,8,9-Cl6DBF	0.15	"	<0.15	<0.015		119%
1,2,3,4,7,8-Cl6DBD	0.094	"	<0.094	<0.0094		102%
1,2,3,6,7,8-Cl6DBD	0.13	"	0.18	0.018		99%
1,2,3,7,8,9-Cl6DBD	0.11	"	<0.11	<0.011		99%
1,2,3,4,6,7,8-Cl7DBF	0.81	"	<0.81	<0.0081		105%
1,2,3,4,7,8,9-Cl7DBF	0.62	"	<0.62	<0.0062		52%
1,2,3,4,6,7,8-Cl7DBD	0.20	"	2.0	0.0020		102%
1,2,3,4,6,7,8,9-Cl8DBF	0.32	"	0.69	0.00069		125%
1,2,3,4,6,7,8,9-Cl8DBD	0.28	"	14	0.014		108%

**FET
FET MAX**

0.13
<0.70

ΣT4CDF	0.12	pg	0.50		1	106%
ΣP5CDF	0.21	"	0.31		1	107%
ΣH6CDF	0.13	"	0.15		1	109%
ΣH7CDF	0.58	"	<0.58		0	79%
OCDF	0.32	"	0.69		1	125%
ΣT4CDD	0.20	"	<0.20		0	117%
ΣP5CDD	0.38	"	<0.38		0	96%
ΣH6CDD	0.12	"	0.46		2	100%
ΣH7CDD	0.20	"	3.7		2	102%
OCDD	0.28	"	14		1	108%

Surrogate Recoveries

		%	
2,3,7,8-T4CDF-13C12			88
2,3,7,8-T4CDD-13C12			80
1,2,3,7,8-P5CDF-13C12			91
1,2,3,7,8-P5CDD-13C12			85
1,2,3,6,7,8-H6CDF-13C12			76
1,2,3,6,7,8-H6CDD-13C12			80
1,2,3,4,6,7,8-H7CDF-13C12			84
1,2,3,4,6,7,8-H7CDD-13C12			96
OCDD-13C12			74

**PSC Analytical Services
Laboratory Method Blanks**

Component Batch Code:	RDL	Units	BLANK 1108NZ01	TEF	# of Isomers	MR
2,3,7,8-Cl4DBF	0.34	pg	0.62	0.062		103%
2,3,7,8-Cl4DBD	0.59	"	<0.59	<0.59		118%
1,2,3,7,8-Cl5DBF	0.34	"	<0.34	<0.017		116%
2,3,4,7,8-Cl5DBF	0.33	"	<0.33	<0.17		105%
1,2,3,7,8-Cl5DBD	0.58	"	<0.58	<0.29		94%
1,2,3,4,7,8-Cl6DBF	0.50	"	<0.50	<0.050		98%
1,2,3,6,7,8-Cl6DBF	0.47	"	<0.47	<0.047		105%
2,3,4,6,7,8-Cl6DBF	0.55	"	<0.55	<0.055		164%
1,2,3,7,8,9-Cl6DBF	0.59	"	<0.59	<0.059		158%
1,2,3,4,7,8-Cl6DBD	0.58	"	<0.58	<0.058		90%
1,2,3,6,7,8-Cl6DBD	0.53	"	<0.53	<0.053		104%
1,2,3,7,8,9-Cl6DBD	0.52	"	<0.52	<0.052		108%
1,2,3,4,6,7,8-Cl7DBF	0.90	"	<0.90	<0.0090		104%
1,2,3,4,7,8,9-Cl7DBF	1.0	"	<1.0	<0.010		166%
1,2,3,4,6,7,8-Cl7DBD	0.77	"	<0.77	<0.0077		101%
1,2,3,4,6,7,8,9-Cl8DBF	0.48	"	0.92	0.00092		86%
1,2,3,4,6,7,8,9-Cl8DBD	1.6	"	<1.6	<0.0017		103%

FET
FET MAX

0.063
<1.5

ΣT4CDF	0.34	pg	0.62		1	103%
ΣP5CDF	0.34	"	<0.34		0	111%
ΣH6CDF	0.50	"	<0.50		0	131%
ΣH7CDF	0.97	"	<0.97		0	135%
OCDF	0.48	"	0.92		1	86%
ΣT4CDD	0.59	"	<0.59		0	118%
ΣP5CDD	0.58	"	<0.58		0	94%
ΣH6CDD	0.53	"	<0.53		0	101%
ΣH7CDD	0.77	"	<0.77		0	101%
OCDD	1.7	"	<1.7		0	103%

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	82
2,3,7,8-T4CDD-13C12	76
1,2,3,7,8-P5CDF-13C12	82
1,2,3,7,8-P5CDD-13C12	80
1,2,3,6,7,8-H6CDF-13C12	62
1,2,3,6,7,8-H6CDD-13C12	74
1,2,3,4,6,7,8-H7CDF-13C12	64
1,2,3,4,6,7,8-H7CDD-13C12	90
OCDD-13C12	78

PSC Analytical Services Laboratory Method Blanks

Component Batch Code:	RDL	Units	BLANK 1113NZ01	TEF	# of Isomers	MR
2,3,7,8-Cl4DBF	0.42	pg	1.4	0.14		108%
2,3,7,8-Cl4DBD	0.80	"	<0.80	<0.81		124%
1,2,3,7,8-Cl5DBF	0.69	"	<0.69	<0.035		119%
2,3,4,7,8-Cl5DBF	0.47	"	<0.47	<0.23		103%
1,2,3,7,8-Cl5DBD	0.57	"	<0.57	<0.28		98%
1,2,3,4,7,8-Cl6DBF	0.31	"	<0.31	<0.031		107%
1,2,3,6,7,8-Cl6DBF	0.57	"	<0.57	<0.057		113%
2,3,4,6,7,8-Cl6DBF	0.65	"	<0.65	<0.065		119%
1,2,3,7,8,9-Cl6DBF	0.37	"	<0.37	<0.037		114%
1,2,3,4,7,8-Cl6DBD	0.68	"	<0.68	<0.068		104%
1,2,3,6,7,8-Cl6DBD	0.63	"	<0.63	<0.063		113%
1,2,3,7,8,9-Cl6DBD	0.61	"	<0.61	<0.061		107%
1,2,3,4,6,7,8-Cl7DBF	0.92	"	<0.92	<0.0092		114%
1,2,3,4,7,8,9-Cl7DBF	0.50	"	<0.50	<0.0050		105%
1,2,3,4,6,7,8-Cl7DBD	0.72	"	<0.72	<0.0072		120%
1,2,3,4,6,7,8,9-Cl8DBF	0.55	"	2.5	0.0025		118%
1,2,3,4,6,7,8,9-Cl8DBD	3.5	"	<3.5	<0.0035		111%

FET
FET MAX

0.14
<1.9

ΣT4CDF	0.42	pg	1.4		1	108%
ΣP5CDF	0.48	"	<0.48		0	111%
ΣH6CDF	0.34	"	<0.34		0	113%
ΣH7CDF	0.47	"	<0.47		0	110%
OCDF	0.55	"	2.5		1	118%
ΣT4CDD	0.42	"	<0.42		0	124%
ΣP5CDD	0.57	"	<0.57		0	98%
ΣH6CDD	0.63	"	<0.63		0	108%
ΣH7CDD	0.72	"	<0.72		0	120%
OCDD	3.5	"	<3.5		0	111%

Surrogate Recoveries

2,3,7,8-T4CDF-13C12		%	99			
2,3,7,8-T4CDD-13C12			84			
1,2,3,7,8-P5CDF-13C12			80			
1,2,3,7,8-P5CDD-13C12			66			
1,2,3,6,7,8-H6CDF-13C12			83			
1,2,3,6,7,8-H6CDD-13C12			84			
1,2,3,4,6,7,8-H7CDF-13C12			69			
1,2,3,4,6,7,8-H7CDD-13C12			91			
OCDD-13C12			71			

**PSC Analytical Services
Summary of Analysis Prep. Dates**

Batch Code:	1104NZ01	1108NZ01	1108NZ01	1113NZ01
2,3,7,8-CI4DBF etc.	039106 02	039109 02	039115 02	039118 02
	039107 02	039110 02	039116 02	039119 02
	039108 02	039111 02	039117 02	039120 02
		039112 02		039121 02
		039113 02		039122 02
		039114 02		039123 02
Date Analyzed:	11/21/2002	11/22/2002	11/21/2002	11/22/2002
Date Prepared:	11/4/2002	11/8/2002	11/8/2002	11/13/2002
Batch Code:	1104NZ01	1108NZ01	1108NZ01	1113NZ01
ΣT4CDF etc.	039106 02	039109 02	039115 02	039118 02
	039107 02	039110 02	039116 02	039119 02
	039108 02	039111 02	039117 02	039120 02
		039112 02		039121 02
		039113 02		039122 02
		039114 02		039123 02
Date Analyzed:	11/21/2002	11/22/2002	11/21/2002	11/22/2002
Date Prepared:	11/4/2002	11/8/2002	11/8/2002	11/13/2002

No de certificat :
nh



INDUSTRIAL HYGIENE

•EPA PA-00136

•AIHA ACCREDITATION NO. 100439

•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903

•PA DEP 06-353

NJ DEP PA020

•CT DPH PH-0238

**REMIT TO: PSC Analytical Services
Accounts Receivable
P.O. Box 3069-Department 3
Houston, TX 772533069
TEL: (610) 921-8833**

INVOICE

INV DATE: November 19, 2002

Print DATE: November 19, 2002

Invoice No: 12294

Invoice TO **ATC Associates**
104 East 25th Street
10th Floor
New York, NY 100102917

Attn: Accounts Payable
Phone: (212) 353-8280

Work Order **R02100400**

PO Number:

Order Name 15-229606-0002

Date Received 10/11/2002

Item	Remarks	Matrix	Qty	Unit Price	Mult	Quoted	Test Total
Dioxins and Furans	HI RES wipes	Sediment	20	\$1,200.00	1	\$675.00	\$13,500.00

Subtotal: \$13,500.00

Discount: 0.00%

Surcharge: 0.00%

Misc Charges: **\$0.00**

Payment Received: \$0.00**INVOICE Total: \$13,500.00**

All Invoices are due and Payable net 30 days from date invoiced.

Reviewed, approved & forwarded for process
12/2/02

Vendor # _____ Liability Code _____

P.O. # _____

Month _____

[illegible]

Dr. Mgr. _____ Date _____



INDUSTRIAL HYGIENE

ENVIRONMENTAL TESTING

•EPA PA-00136

•NY DOH/NELAC 10903

•NJ DEP PA020

•AIHA ACCREDITATION NO. 100439

•PA DEP 06-353

•CT DPH PH-0238

•NC DENR 599

November 19, 2002

Ben Sallemi
ATC Associates
104 East 25th Street
10th Floor
New York, NY 10010-2917

TEL: (212) 353-8280
FAX (212) 353-8306

RE: 15-229606-0002

Order No.: R02100400

Dear Ben Sallemi:

PSC Analytical Services received 20 samples on 10/11/2002 10:00:00 AM for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Fred Usbeck
Manager, CIH

4418 Pottsville Pike, Reading, PA 19605 610-921-8833 FAX 610-921-8407


PSC Analytical Services

4418 Pottsville Pike
Reading, PA 19605
phone: (610) 921-8833
fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order #

ROA100400

Page 1 of 2

Report Results To:	PO #	Quote #
--------------------	------	---------

JOB ID: 15-22416-0002

Name	Benjamin Sullivan
Company	PTC Associates Inc.
Mailing Address	1000 E 4th Street 10th Floor
City	Reading, PA
State	PA
ZIP	19601
Telephone #	610-353-2220
Fax #	610-353-2306

ANALYSIS REQUESTED

Use attachments if necessary.

Please specify method requirements:

Preservatives Key:

A = Ascorbic Acid

C = HCl

H = HNO3

I = Ice

N = NaOH

O = Other

N2 = Na2S2O3

S = H2SO4

Z = ZnAcetate

X = None

Submit Invoice To:	Company	Mailing Address	City	State	ZIP	Telephone #	Fax #
--------------------	---------	-----------------	------	-------	-----	-------------	-------

Company: SHIPCO

Mailing Address

City

State

ZIP

Telephone #

Fax #

Credit Card Info (include exp. date)

Sampling Location (Specify State):

Due Date:

REPORTING REQUIREMENTS (Circle all that apply)

(Rush TAT requires Lab approval)

Full Data Package

Reduced Deliverables Package

Electronic Data Deliverables

IST • NPDES MIPP RCRA Stormwater DEP (PWS #)

SAMPLE DESCRIPTION

(If must match container labels)

Final Air Volume (liters)

Matrix Type

Sampling Info

Date

Time

Date

Time

Date

Time

Date

Time

Date

Time

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PSC Analytical Services

 4418 Pottsville Pike
 Reading, PA 19605
 phone: (610) 921-8833
 fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order #

 RO210040D
 Page 2 of 2

PO # Quote #

Report Results

To:

 Name Benjamin Soliman

 Company ASTA Associates Inc.

 Mailing Address 155 E 35th Street

 City NYC State NY ZIP 10016

 Telephone # 212 353 2300 Fax # 212 353 2300

Name

 Company SHK

Mailing Address

City State ZIP

Telephone # Fax #

Credit Card Info (include exp. date)

Sampling Location (Specify State):

Due Date:

(Rush TAT requires Lab approval)

REPORTING REQUIREMENTS (Circle all that apply)

Reduced Deliverables Package Electronic Data Deliverables

US1 • NPDES MPP RCRA Stormwater DEP (PWS #)

SAMPLE DESCRIPTION (ID must match container labels)

Final Air Volume

Matrix Type

Sampling Info

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

Date Time

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Date Time

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Date Time

Date Time

 JOB ID: 15-22966-0003
ANALYSIS REQUESTED

Use attachments if necessary.

Please specify method requirements.

Preservatives Key:

A = Ascorbic Acid

C = HCl

H = HNO3

I = Ice

N = NaOH

O = Other:

N2 = Na2SO3

S = H2SO4

Z = ZnAcetate

X = None

Preservatives (See above Key, list all that apply)

Type (P=Plastic, G=Glass, A=Air)

Container Volume (Liter, etc)

Number of Containers

Date Time

Date Time

Date Time

Date Time

Date Time

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Date Time

Method of Delivery: UPS

FED-EX

PAS Courier

Cite

US Mail

Other

PSC Analytical Services

Sample Receipt Checklist

Client Name **ATC ASSOCIATES**

Date and Time Receive

10/11/2002 10:00:00 AM

Work Order Numbe **R02100400**

Received by

TMH

Checklist completed b

Signature

TMH

Date

10/11/02

Reviewed by

Initials

DK

Date

10.11.02

Matrix

Carrier name

FedEx

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Presen ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Presen ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Presen ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

Adjusted?

Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action



INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 19-Nov-02

CLIENT: ATC Associates
Project: 15-229606-0002

Lab Order: R02100400

Lab ID: R02100400-01

Collection Date: 10/9/2002

Client Sample ID: PH-D-Blank

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/25/2002

Analyst: SUB

Lab ID: R02100400-02

Collection Date: 10/9/2002

Client Sample ID: PH-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/25/2002

Analyst: SUB

Lab ID: R02100400-03

Collection Date: 10/9/2002

Client Sample ID: PH-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/25/2002

Analyst: SUB

Lab ID: R02100400-04

Collection Date: 10/9/2002

Client Sample ID: PH-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/25/2002

Analyst: SUB

Lab ID: R02100400-05

Collection Date: 10/9/2002

Client Sample ID: 12S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/25/2002

Analyst: SUB

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 19-Nov-02

CLIENT: ATC Associates
Project: 15-229606-0002

Lab Order: R02100400

Lab ID: R02100400-06

Collection Date: 10/9/2002

Client Sample ID: 12S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-07

Collection Date: 10/9/2002

Client Sample ID: 12S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-08

Collection Date: 10/9/2002

Client Sample ID: 12SW-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-09

Collection Date: 10/9/2002

Client Sample ID: 12SW-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-10

Collection Date: 10/9/2002

Client Sample ID: 12SW-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Qualifiers:

- BRL - Below Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range



INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 19-Nov-02

CLIENT: ATC Associates
Project: 15-229606-0002

Lab Order: R02100400

Lab ID: R02100400-11

Collection Date: 10/9/2002

Client Sample ID: 12N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-12

Collection Date: 10/9/2002

Client Sample ID: 12N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-13

Collection Date: 10/9/2002

Client Sample ID: 12N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-14

Collection Date: 10/9/2002

Client Sample ID: 11S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-15

Collection Date: 10/9/2002

Client Sample ID: 11S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Page 3 of 4



INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 19-Nov-02

CLIENT: ATC Associates
Project: 15-229606-0002

Lab Order: R02100400

Lab ID: R02100400-16

Collection Date: 10/9/2002

Client Sample ID: 11S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-17

Collection Date: 10/9/2002

Client Sample ID: 11N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-18

Collection Date: 10/9/2002

Client Sample ID: 11N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-19

Collection Date: 10/9/2002

Client Sample ID: 11N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Lab ID: R02100400-20

Collection Date: 10/9/2002

Client Sample ID: 11N-D-Blank

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/25/2002

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

PSC Analytical Services
Certificate of Analysis

	R02100400	R02100400	R02100400
Client ID:	01A	01A	01A
Lab No.:	039046 02	039046 02	039046 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.09	pg	1.6	0.16
2,3,7,8-Cl4DBD	0.19	"	1.1	1.1
1,2,3,7,8-Cl5DBF	0.21	"	1.2	0.062
2,3,4,7,8-Cl5DBF	0.21	"	1.1	0.57
1,2,3,7,8-Cl5DBD	0.14	"	0.89	0.44
1,2,3,4,7,8-Cl6DBF	0.59	"	1.9	0.19
1,2,3,6,7,8-Cl6DBF	2.2	"	<2.2	<0.22
2,3,4,6,7,8-Cl6DBF	0.67	"	6.3	0.63
1,2,3,7,8,9-Cl6DBF	0.74	"	5.8	0.58
1,2,3,4,7,8-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl6DBD	0.25	"	1.8	0.18
1,2,3,7,8,9-Cl6DBD	0.25	"	2.6	0.26
1,2,3,4,6,7,8-Cl7DBF	4.8	"	<4.8	<0.048
1,2,3,4,7,8,9-Cl7DBF	0.7	"	6.4	0.064
1,2,3,4,6,7,8-Cl7DBD	2.5	"	<2.5	<0.025
1,2,3,4,6,7,8,9-Cl8DBF	0.27	"	5.7	0.0057
1,2,3,4,6,7,8,9-Cl8DBD	0.24	"	9.3	0.0093
	TEF	pg	4.2	
	MAX TEF	"	<4.7	
ΣT4CDF	0.09	pg	2.4	4
ΣP5CDF	0.21	"	2.3	2
ΣH6CDF	0.67	"	14	3
ΣH7CDF	0.68	"	6.4	1
OCDF	0.27	"	5.7	1
ΣT4CDD	0.19	"	1.1	1
ΣP5CDD	0.14	"	0.89	1
ΣH6CDD	0.25	"	4.5	2
ΣH7CDD	0.24	"	0.46	1
OCDD	0.24	"	9.3	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			78	
1,2,3,7,8-P5CDF-13C12			73	
1,2,3,7,8-P5CDD-13C12			64	
1,2,3,6,7,8-H6CDF-13C12			25	
1,2,3,6,7,8-H6CDD-13C12			56	
1,2,3,4,6,7,8-H7CDF-13C12			22	
1,2,3,4,6,7,8-H7CDD-13C12			69	
OCDD-13C12			61	

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	R02100400	R02100400	R02100400
Client ID:	02A	02A	02A
Lab No.:	039047 02	039047 02	039047 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.33	pg	3.2	0.32
2,3,7,8-Cl4DBD	0.61	"	<0.61	<0.61
1,2,3,7,8-Cl5DBF	1.00	"	<1.00	<0.050
2,3,4,7,8-Cl5DBF	0.22	"	0.82	0.41
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.60	"	<0.60	<0.060
1,2,3,6,7,8-Cl6DBF	0.63	"	<0.63	<0.063
2,3,4,6,7,8-Cl6DBF	0.67	"	0.96	0.096
1,2,3,7,8,9-Cl6DBF	0.99	"	<0.99	<0.099
1,2,3,4,7,8-Cl6DBD	0.41	"	<0.41	<0.041
1,2,3,6,7,8-Cl6DBD	0.39	"	<0.39	<0.039
1,2,3,7,8,9-Cl6DBD	1.4	"	<1.4	<0.14
1,2,3,4,6,7,8-Cl7DBF	8.0	"	<8.0	<0.080
1,2,3,4,7,8,9-Cl7DBF	2.1	"	<2.1	<0.021
1,2,3,4,6,7,8-Cl7DBD	0.87	"	1.9	0.019
1,2,3,4,6,7,8,9-Cl8DBF	0.5	"	11	0.011
1,2,3,4,6,7,8,9-Cl8DBD	0.63	"	9.1	0.0092
	TEF	pg	0.87	
	MAX TEF	"	<2.3	
ΣT4CDF	0.33	pg	3.8	2
ΣP5CDF	0.22	"	0.82	1
ΣH6CDF	0.67	"	0.96	1
ΣH7CDF	1.6	"	<1.6	0
OCDF	0.5	"	11	1
ΣT4CDD	0.34	"	4.4	2
ΣP5CDD	0.93	"	2.6	1
ΣH6CDD	0.41	"	<0.41	0
ΣH7CDD	0.87	"	1.9	1
OCDD	0.63	"	9.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			98	
2,3,7,8-T4CDD-13C12			79	
1,2,3,7,8-P5CDF-13C12			74	
1,2,3,7,8-P5CDD-13C12			65	
1,2,3,6,7,8-H6CDF-13C12			76	
1,2,3,6,7,8-H6CDD-13C12			83	
1,2,3,4,6,7,8-H7CDF-13C12			48	
1,2,3,4,6,7,8-H7CDD-13C12			67	
OCDD-13C12			49	

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**PSC Analytical Services
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	R02100400	R02100400	R02100400
Client ID:	03A	03A	03A
Lab No.:	039048 02	039048 02	039048 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.13	pg	5.4	0.54
2,3,7,8-Cl4DBD	0.18	"	1.8	1.8
1,2,3,7,8-Cl5DBF	0.13	"	1.5	0.074
2,3,4,7,8-Cl5DBF	0.12	"	1.7	0.84
1,2,3,7,8-Cl5DBD	0.27	"	0.44	0.22
1,2,3,4,7,8-Cl6DBF	0.15	"	<0.15	<0.015
1,2,3,6,7,8-Cl6DBF	1.5	"	<1.5	<0.15
2,3,4,6,7,8-Cl6DBF	0.17	"	2.2	0.22
1,2,3,7,8,9-Cl6DBF	0.19	"	0.32	0.032
1,2,3,4,7,8-Cl6DBD	0.19	"	<0.19	<0.019
1,2,3,6,7,8-Cl6DBD	0.58	"	<0.58	<0.058
1,2,3,7,8,9-Cl6DBD	0.13	"	0.95	0.095
1,2,3,4,6,7,8-Cl7DBF	11	"	<11	<0.11
1,2,3,4,7,8,9-Cl7DBF	13	"	<13	<0.13
1,2,3,4,6,7,8-Cl7DBD	0.16	"	3.2	0.032
1,2,3,4,6,7,8,9-Cl8DBF	0.78	"	<0.78	<0.00078
1,2,3,4,6,7,8,9-Cl8DBD	0.19	"	16	0.016
	TEF	pg	3.8	
	MAX TEF	"	<4.3	
ΣT4CDF	0.13	pg	13	7
ΣP5CDF	0.13	"	5.9	6
ΣH6CDF	0.17	"	2.5	2
ΣH7CDF	13	"	<13	0
OCDF	0.78	"	<0.78	0
ΣT4CDD	0.18	"	7.1	5
ΣP5CDD	0.27	"	9.3	8
ΣH6CDD	0.13	"	9.9	4
ΣH7CDD	0.16	"	7.2	2
OCDD	0.19	"	16	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			159	
2,3,7,8-T4CDD-13C12			133	
1,2,3,7,8-P5CDF-13C12			161	
1,2,3,7,8-P5CDD-13C12			166	
1,2,3,6,7,8-H6CDF-13C12			49	
1,2,3,6,7,8-H6CDD-13C12			75	
1,2,3,4,6,7,8-H7CDF-13C12			37	
1,2,3,4,6,7,8-H7CDD-13C12			95	
OCDD-13C12			77	

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	R02100400	R02100400	R02100400
Client ID:	04A	04A	04A
Lab No.:	039049 02	039049 02	039049 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.21	pg	5.0	0.50
2,3,7,8-Cl4DBD	0.13	"	1.6	1.6
1,2,3,7,8-Cl5DBF	0.89	"	<0.89	<0.045
2,3,4,7,8-Cl5DBF	0.79	"	<0.79	<0.39
1,2,3,7,8-Cl5DBD	0.33	"	<0.33	<0.17
1,2,3,4,7,8-Cl6DBF	0.23	"	1.2	0.12
1,2,3,6,7,8-Cl6DBF	0.71	"	<0.71	<0.071
2,3,4,6,7,8-Cl6DBF	0.26	"	1.4	0.14
1,2,3,7,8,9-Cl6DBF	0.29	"	<0.29	<0.029
1,2,3,4,7,8-Cl6DBD	0.21	"	<0.21	<0.021
1,2,3,6,7,8-Cl6DBD	0.20	"	<0.20	<0.020
1,2,3,7,8,9-Cl6DBD	0.2	"	0.69	0.069
1,2,3,4,6,7,8-Cl7DBF	11	"	<11	<0.11
1,2,3,4,7,8,9-Cl7DBF	140	"	<140	<1.4
1,2,3,4,6,7,8-Cl7DBD	0.11	"	3.4	0.034
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	0.2	"	24	0.024

TEF	pg	2.5
MAX TEF	"	<4.7

ΣT4CDF	0.21	pg	17	9
ΣP5CDF	0.15	"	3.1	5
ΣH6CDF	0.23	"	2.5	2
ΣH7CDF	140	"	<140	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.13	"	8.6	9
ΣP5CDD	0.66	"	4.2	4
ΣH6CDD	0.21	"	1.6	2
ΣH7CDD	0.11	"	6.8	2
OCDD	0.2	"	24	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	71
2,3,7,8-T4CDD-13C12	93
1,2,3,7,8-P5CDF-13C12	112
1,2,3,7,8-P5CDD-13C12	107
1,2,3,6,7,8-H6CDF-13C12	30
1,2,3,6,7,8-H6CDD-13C12	73
1,2,3,4,6,7,8-H7CDF-13C12	13
1,2,3,4,6,7,8-H7CDD-13C12	85
OCDD-13C12	76

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	R02100400	R02100400	R02100400
Client ID:	05A	05A	05A
Lab No.:	039050 02	039050 02	039050 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.33	pg	1.8	0.18
2,3,7,8-Cl4DBD	0.13	"	<0.13	<0.13
1,2,3,7,8-Cl5DBF	0.36	"	<0.36	<0.018
2,3,4,7,8-Cl5DBF	0.2	"	0.35	0.18
1,2,3,7,8-Cl5DBD	0.66	"	<0.66	<0.33
1,2,3,4,7,8-Cl6DBF	0.31	"	<0.31	<0.031
1,2,3,6,7,8-Cl6DBF	0.31	"	<0.31	<0.031
2,3,4,6,7,8-Cl6DBF	0.35	"	0.42	0.042
1,2,3,7,8,9-Cl6DBF	0.39	"	<0.39	<0.039
1,2,3,4,7,8-Cl6DBD	0.21	"	<0.21	<0.021
1,2,3,6,7,8-Cl6DBD	0.20	"	<0.20	<0.020
1,2,3,7,8,9-Cl6DBD	0.20	"	<0.20	<0.020
1,2,3,4,6,7,8-Cl7DBF	89	"	<89	<0.89
1,2,3,4,7,8,9-Cl7DBF	36	"	<36	<0.36
1,2,3,4,6,7,8-Cl7DBD	0.53	"	<0.53	<0.0053
1,2,3,4,6,7,8,9-Cl8DBF	5.6	"	<5.6	<0.0056
1,2,3,4,6,7,8,9-Cl8DBD	0.3	"	2.7	0.0027

TEF
MAX TEF

pg
" 0.40
<2.3

ΣT4CDF	0.33	pg	3.6	4
ΣP5CDF	0.21	"	0.35	1
ΣH6CDF	0.35	"	0.42	1
ΣH7CDF	99	"	<99	0
OCDF	5.6	"	<5.6	0
ΣT4CDD	0.13	"	0.90	2
ΣP5CDD	0.66	"	0.69	1
ΣH6CDD	0.21	"	<0.21	0
ΣH7CDD	0.19	"	<0.19	0
OCDD	0.3	"	2.7	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	134
2,3,7,8-T4CDD-13C12	129
1,2,3,7,8-P5CDF-13C12	120
1,2,3,7,8-P5CDD-13C12	114
1,2,3,6,7,8-H6CDF-13C12	50
1,2,3,6,7,8-H6CDD-13C12	91
1,2,3,4,6,7,8-H7CDF-13C12	29
1,2,3,4,6,7,8-H7CDD-13C12	98
OCDD-13C12	92

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	R02100400	R02100400	R02100400
Client ID:	06A	06A	06A
Lab No.:	039051 02	039051 02	039051 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.13	pg	7.9	0.79
2,3,7,8-Cl4DBD	1.4	"	<1.4	<1.4
1,2,3,7,8-Cl5DBF	0.21	"	1.5	0.076
2,3,4,7,8-Cl5DBF	0.2	"	2.2	1.1
1,2,3,7,8-Cl5DBD	0.89	"	0.65	0.33
1,2,3,4,7,8-Cl6DBF	0.12	"	1.4	0.14
1,2,3,6,7,8-Cl6DBF	0.12	"	1.1	0.11
2,3,4,6,7,8-Cl6DBF	0.13	"	1.6	0.16
1,2,3,7,8,9-Cl6DBF	0.39	"	<0.39	<0.039
1,2,3,4,7,8-Cl6DBD	0.16	"	0.75	0.075
1,2,3,6,7,8-Cl6DBD	0.75	"	<0.75	<0.075
1,2,3,7,8,9-Cl6DBD	0.15	"	1.1	0.11
1,2,3,4,6,7,8-Cl7DBF	9.0	"	<9.0	<0.090
1,2,3,4,7,8,9-Cl7DBF	17	"	<17	<0.17
1,2,3,4,6,7,8-Cl7DBD	0.14	"	2.6	0.026
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	1.9	0.0019
1,2,3,4,6,7,8,9-Cl8DBD	0.47	"	11	0.011
		pg	2.9	
		"	<4.7	
	TEF			
	MAX TEF			
ΣT4CDF	0.13	pg	23	10
ΣP5CDF	0.21	"	12	7
ΣH6CDF	0.12	"	4.1	3
ΣH7CDF	25	"	<25	0
OCDF	1.1	"	1.9	1
ΣT4CDD	0.25	"	12	7
ΣP5CDD	0.89	"	12	4
ΣH6CDD	0.15	"	13	6
ΣH7CDD	0.14	"	2.6	1
OCDD	0.47	"	11	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			93	
1,2,3,7,8-P5CDD-13C12			98	
1,2,3,6,7,8-H6CDF-13C12			66	
1,2,3,6,7,8-H6CDD-13C12			88	
1,2,3,4,6,7,8-H7CDF-13C12			73	
1,2,3,4,6,7,8-H7CDD-13C12			86	
OCDD-13C12			77	

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	R02100400	R02100400	R02100400
Client ID:	07A	07A	07A
Lab No.:	039052 02	039052 02	039052 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.13	pg	2.1	0.21
2,3,7,8-Cl4DBD	0.48	"	<0.48	<0.48
1,2,3,7,8-Cl5DBF	0.26	"	0.69	0.035
2,3,4,7,8-Cl5DBF	0.25	"	0.55	0.28
1,2,3,7,8-Cl5DBD	1.2	"	<1.2	<0.61
1,2,3,4,7,8-Cl6DBF	0.66	"	<0.66	<0.066
1,2,3,6,7,8-Cl6DBF	0.28	"	0.82	0.082
2,3,4,6,7,8-Cl6DBF	0.32	"	0.70	0.070
1,2,3,7,8,9-Cl6DBF	0.36	"	<0.36	<0.036
1,2,3,4,7,8-Cl6DBD	0.18	"	<0.18	<0.018
1,2,3,6,7,8-Cl6DBD	0.17	"	<0.17	<0.017
1,2,3,7,8,9-Cl6DBD	0.42	"	<0.42	<0.042
1,2,3,4,6,7,8-Cl7DBF	22	"	<22	<0.22
1,2,3,4,7,8,9-Cl7DBF	19	"	<19	<0.19
1,2,3,4,6,7,8-Cl7DBD	0.31	"	1.3	0.013
1,2,3,4,6,7,8,9-Cl8DBF	0.25	"	6.3	0.0063
1,2,3,4,6,7,8,9-Cl8DBD	0.4	"	8.7	0.0087

TEF	pg	0.70
MAX TEF	"	<2.4

ΣT4CDF	0.13	pg	4.4	5
ΣP5CDF	0.26	"	1.8	3
ΣH6CDF	0.32	"	1.9	3
ΣH7CDF	20	"	<20	0
OCDF	0.25	"	6.3	1
ΣT4CDD	0.22	"	0.43	1
ΣP5CDD	1	"	1.3	2
ΣH6CDD	0.17	"	<0.17	0
ΣH7CDD	0.31	"	2.6	2
OCDD	0.4	"	8.7	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	108
2,3,7,8-T4CDD-13C12	95
1,2,3,7,8-P5CDF-13C12	105
1,2,3,7,8-P5CDD-13C12	111
1,2,3,6,7,8-H6CDF-13C12	70
1,2,3,6,7,8-H6CDD-13C12	89
1,2,3,4,6,7,8-H7CDF-13C12	60
1,2,3,4,6,7,8-H7CDD-13C12	86
OCDD-13C12	76

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	R02100400	R02100400	R02100400
Client ID:	08A	08A	08A
Lab No.:	039053 02	039053 02	039053 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.6	pg	<1.6	<0.16
2,3,7,8-Cl4DBD	0.36	"	<0.36	<0.36
1,2,3,7,8-Cl5DBF	0.32	"	0.65	0.033
2,3,4,7,8-Cl5DBF	0.31	"	<0.31	<0.16
1,2,3,7,8-Cl5DBD	0.41	"	<0.41	<0.20
1,2,3,4,7,8-Cl6DBF	0.55	"	<0.55	<0.055
1,2,3,6,7,8-Cl6DBF	0.55	"	<0.55	<0.055
2,3,4,6,7,8-Cl6DBF	0.63	"	<0.63	<0.063
1,2,3,7,8,9-Cl6DBF	0.70	"	<0.70	<0.070
1,2,3,4,7,8-Cl6DBD	0.45	"	<0.45	<0.045
1,2,3,6,7,8-Cl6DBD	0.43	"	<0.43	<0.043
1,2,3,7,8,9-Cl6DBD	0.42	"	<0.42	<0.042
1,2,3,7,8,9-Cl6DBD	16	"	<16	<0.16
1,2,3,4,6,7,8-Cl7DBF	18	"	<18	<0.18
1,2,3,4,7,8,9-Cl7DBF	1.3	"	<1.3	<0.013
1,2,3,4,6,7,8-Cl7DBD	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBF	3.9	"	<3.9	<0.0039
1,2,3,4,6,7,8,9-Cl8DBD				
		pg	0.033	
TEF		"	<1.6	
MAX TEF				
ΣT4CDF	0.27	pg	<0.27	0
ΣP5CDF	0.32	"	0.65	1
ΣH6CDF	0.63	"	<0.63	0
ΣH7CDF	17	"	<17	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.36	"	<0.36	0
ΣP5CDD	0.41	"	0.63	1
ΣH6CDD	0.45	"	<0.45	0
ΣH7CDD	1.3	"	<1.3	0
OCDD	3.9	"	<3.9	0
OCDD		%		
Surrogate Recoveries				
2,3,7,8-T4CDF-13C12			86	
2,3,7,8-T4CDD-13C12			82	
1,2,3,7,8-P5CDF-13C12			71	
1,2,3,7,8-P5CDD-13C12			65	
1,2,3,6,7,8-H6CDF-13C12			48	
1,2,3,6,7,8-H6CDD-13C12			75	
1,2,3,4,6,7,8-H7CDF-13C12			47	
1,2,3,4,6,7,8-H7CDD-13C12			82	
OCDD-13C12			67	

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	R02100400	R02100400	R02100400
Client ID:	09A	09A	09A
Lab No.:	039054 02	039054 02	039054 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.32	pg	3.1	0.31
2,3,7,8-Cl4DBD	0.78	"	<0.78	<0.78
1,2,3,7,8-Cl5DBF	0.31	"	<0.31	<0.015
2,3,4,7,8-Cl5DBF	0.24	"	0.69	0.35
1,2,3,7,8-Cl5DBD	0.81	"	<0.81	<0.41
1,2,3,4,7,8-Cl6DBF	1.0	"	<1.0	<0.10
1,2,3,6,7,8-Cl6DBF	1.0	"	<1.0	<0.10
2,3,4,6,7,8-Cl6DBF	1.2	"	<1.2	<0.12
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	0.53	"	<0.53	<0.053
1,2,3,6,7,8-Cl6DBD	0.50	"	<0.50	<0.050
1,2,3,7,8,9-Cl6DBD	0.49	"	<0.49	<0.049
1,2,3,4,6,7,8-Cl7DBF	14	"	<14	<0.14
1,2,3,4,7,8,9-Cl7DBF	1.4	"	<1.4	<0.014
1,2,3,4,6,7,8-Cl7DBD	1.0	"	2.5	0.025
1,2,3,4,6,7,8,9-Cl8DBF	0.86	"	4.2	0.0042
1,2,3,4,6,7,8,9-Cl8DBD	1.0	"	30	0.030

TEF	pg	0.71
MAX TEF	"	<2.7

ΣT4CDF	0.32	pg	6.8	5
ΣP5CDF	0.31	"	1.3	2
ΣH6CDF	1.0	"	<1.0	0
ΣH7CDF	16	"	<16	0
OCDF	0.86	"	4.2	1
ΣT4CDD	0.53	"	0.70	1
ΣP5CDD	0.81	"	<0.81	0
ΣH6CDD	0.53	"	3.5	1
ΣH7CDD	1.0	"	5.5	2
OCDD	1.0	"	30	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	97
2,3,7,8-T4CDD-13C12	77
1,2,3,7,8-P5CDF-13C12	73
1,2,3,7,8-P5CDD-13C12	64
1,2,3,6,7,8-H6CDF-13C12	69
1,2,3,6,7,8-H6CDD-13C12	80
1,2,3,4,6,7,8-H7CDF-13C12	59
1,2,3,4,6,7,8-H7CDD-13C12	76
OCDD-13C12	52

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PSC Analytical Services
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	R02100400	R02100400	R02100400
Client ID:	10A	10A	10A
Lab No.:	039055 02	039055 02	039055 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.14	pg	1.7	0.17
2,3,7,8-Cl4DBD	0.47	"	<0.47	<0.47
1,2,3,7,8-Cl5DBF	0.14	"	0.72	0.036
2,3,4,7,8-Cl5DBF	0.14	"	1.1	0.55
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.21	"	2.0	0.20
1,2,3,6,7,8-Cl6DBF	1.9	"	<1.9	<0.19
2,3,4,6,7,8-Cl6DBF	0.24	"	2.4	0.24
1,2,3,7,8,9-Cl6DBF	2.3	"	<2.3	<0.23
1,2,3,4,7,8-Cl6DBD	0.31	"	1.3	0.13
1,2,3,6,7,8-Cl6DBD	0.29	"	1.4	0.14
1,2,3,7,8,9-Cl6DBD	0.28	"	2.0	0.20
1,2,3,4,6,7,8-Cl7DBF	6.2	"	<6.2	<0.062
1,2,3,4,7,8,9-Cl7DBF	3.3	"	<3.3	<0.033
1,2,3,4,6,7,8-Cl7DBD	0.34	"	1.9	0.019
1,2,3,4,6,7,8,9-Cl8DBF	0.98	"	4.2	0.0042
1,2,3,4,6,7,8,9-Cl8DBD	0.66	"	12	0.012

TEF	pg	1.7
MAX TEF	"	<3.0

ΣT4CDF	0.14	pg	2.5	2
ΣP5CDF	0.14	"	3.8	6
ΣH6CDF	0.24	"	7.3	5
ΣH7CDF	26	"	<26	0
OCDF	0.98	"	4.2	1
ΣT4CDD	0.13	"	1.7	3
ΣP5CDD	0.60	"	<0.60	0
ΣH6CDD	0.31	"	6.2	5
ΣH7CDD	0.34	"	3.8	2
OCDD	0.66	"	12	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	110
2,3,7,8-T4CDD-13C12	85
1,2,3,7,8-P5CDF-13C12	77
1,2,3,7,8-P5CDD-13C12	60
1,2,3,6,7,8-H6CDF-13C12	59
1,2,3,6,7,8-H6CDD-13C12	80
1,2,3,4,6,7,8-H7CDF-13C12	51
1,2,3,4,6,7,8-H7CDD-13C12	90
OCDD-13C12	73

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	R02100400	R02100400	R02100400
Client ID:	11A	11A	11A
Lab No.:	039056 02	039056 02	039056 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.8	pg	2.6	0.26
2,3,7,8-Cl4DBD	1.3	"	<1.3	<1.3
1,2,3,7,8-Cl5DBF	2.0	"	<2.0	<0.098
2,3,4,7,8-Cl5DBF	1.9	"	<1.9	<0.95
1,2,3,7,8-Cl5DBD	2.2	"	<2.2	<1.1
1,2,3,4,7,8-Cl6DBF	1.0	"	<1.0	<0.10
1,2,3,6,7,8-Cl6DBF	1.0	"	<1.0	<0.10
2,3,4,6,7,8-Cl6DBF	1.2	"	<1.2	<0.12
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBD	2.0	"	<2.0	<0.20
1,2,3,7,8,9-Cl6DBD	2.0	"	<2.0	<0.20
1,2,3,4,6,7,8-Cl7DBF	1.8	"	<1.8	<0.018
1,2,3,4,7,8,9-Cl7DBF	4.8	"	<4.8	<0.048
1,2,3,4,6,7,8-Cl7DBD	2.7	"	<2.7	<0.027
1,2,3,4,6,7,8,9-Cl8DBF	2.8	"	<2.8	<0.0028
1,2,3,4,6,7,8,9-Cl8DBD	4.7	"	5.0	0.0050
	TEF	pg	0.27	
	MAX TEF	"	<4.9	
ΣT4CDF	1.8	pg	2.6	1
ΣP5CDF	2.0	"	<2.0	0
ΣH6CDF	1.2	"	<1.2	0
ΣH7CDF	2.0	"	<2.0	0
OCDF	2.8	"	<2.8	0
ΣT4CDD	1.3	"	<1.3	0
ΣP5CDD	2.2	"	<2.2	0
ΣH6CDD	2.1	"	<2.1	0
ΣH7CDD	2.7	"	<2.7	0
OCDD	4.7	"	5.0	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			91	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			58	
1,2,3,7,8-P5CDD-13C12			65	
1,2,3,6,7,8-H6CDF-13C12			89	
1,2,3,6,7,8-H6CDD-13C12			69	
1,2,3,4,6,7,8-H7CDF-13C12			61	
1,2,3,4,6,7,8-H7CDD-13C12			64	
OCDD-13C12			93	

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	R02100400	R02100400	R02100400
Client ID:	12A	12A	12A
Lab No.:	039057 02	039057 02	039057 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.2	pg	<1.2	<0.12
2,3,7,8-Cl4DBD	3.1	"	<3.1	<3.1
1,2,3,7,8-Cl5DBF	2.3	"	<2.3	<0.11
2,3,4,7,8-Cl5DBF	2.2	"	<2.2	<1.1
1,2,3,7,8-Cl5DBD	2.5	"	<2.5	<1.3
1,2,3,4,7,8-Cl6DBF	2.6	"	<2.6	<0.26
1,2,3,6,7,8-Cl6DBF	16	"	<16	<1.6
2,3,4,6,7,8-Cl6DBF	80	"	<80	<8.0
1,2,3,7,8,9-Cl6DBF	3.2	"	<3.2	<0.32
1,2,3,4,7,8-Cl6DBD	61	"	<61	<6.1
1,2,3,6,7,8-Cl6DBD	6.0	"	<6.0	<0.60
1,2,3,7,8,9-Cl6DBD	5.9	"	<5.9	<0.59
1,2,3,4,6,7,8-Cl7DBF	5.6	"	<5.6	<0.056
1,2,3,4,7,8,9-Cl7DBF	6.4	"	<6.4	<0.064
1,2,3,4,6,7,8-Cl7DBD	3.5	"	<3.5	<0.035
1,2,3,4,6,7,8,9-Cl8DBF	3.2	"	5.4	0.0054
1,2,3,4,6,7,8,9-Cl8DBD	3.0	"	<3.0	<0.030
	TEF	pg	0.0054	
	MAX TEF	"	<23	
ΣT4CDF	1.2	pg	<1.2	0
ΣP5CDF	2.3	"	<2.3	0
ΣH6CDF	2.6	"	<2.6	0
ΣH7CDF	6.2	"	<6.2	0
OCDF	3.2	"	5.4	1
ΣT4CDD	3.1	"	<3.1	0
ΣP5CDD	2.5	"	<2.5	0
ΣH6CDD	290	"	<290	0
ΣH7CDD	3.5	"	<3.5	0
OCDD	3.0	"	<3.0	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			76	
2,3,7,8-T4CDD-13C12			84	
1,2,3,7,8-P5CDF-13C12			51	
1,2,3,7,8-P5CDD-13C12			46	
1,2,3,6,7,8-H6CDF-13C12			68	
1,2,3,6,7,8-H6CDD-13C12			69	
1,2,3,4,6,7,8-H7CDF-13C12			60	
1,2,3,4,6,7,8-H7CDD-13C12			61	
OCDD-13C12			117	

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	R02100400	R02100400	R02100400
Client ID:	13A	13A	13A
Lab No.:	039058 02	039058 02	039058 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	1.3	pg	<1.3	<0.13
2,3,7,8-Cl4DBD	1.1	"	<1.1	<1.1
1,2,3,7,8-Cl5DBF	0.99	"	<0.99	<0.050
2,3,4,7,8-Cl5DBF	0.96	"	<0.96	<0.48
1,2,3,7,8-Cl5DBD	3.8	"	<3.8	<1.9
1,2,3,4,7,8-Cl6DBF	1.5	"	<1.5	<0.15
1,2,3,6,7,8-Cl6DBF	1.4	"	<1.4	<0.14
2,3,4,6,7,8-Cl6DBF	1.6	"	<1.6	<0.16
1,2,3,7,8,9-Cl6DBF	1.8	"	<1.8	<0.18
1,2,3,4,7,8-Cl6DBD	0.59	"	<0.59	<0.059
1,2,3,6,7,8-Cl6DBD	0.56	"	<0.56	<0.056
1,2,3,7,8,9-Cl6DBD	0.54	"	<0.54	<0.054
1,2,3,4,6,7,8-Cl7DBF	5.2	"	<5.2	<0.052
1,2,3,4,7,8,9-Cl7DBF	6.0	"	<6.0	<0.060
1,2,3,4,6,7,8-Cl7DBD	1.2	"	<1.2	<0.012
1,2,3,4,6,7,8,9-Cl8DBF	1.3	"	<1.3	<0.0013
1,2,3,4,6,7,8,9-Cl8DBD	0.85	"	4.5	0.0045

TEF	pg	0.0045
MAX TEF	"	<4.6

ΣT4CDF	1.3	pg	<1.3	0
ΣP5CDF	0.99	"	<0.99	0
ΣH6CDF	1.5	"	<1.5	0
ΣH7CDF	5.8	"	<5.8	0
OCDF	1.3	"	<1.3	0
ΣT4CDD	1.1	"	1.9	1
ΣP5CDD	3.8	"	<3.8	0
ΣH6CDD	0.56	"	<0.56	0
ΣH7CDD	1.2	"	<1.2	0
OCDD	0.85	"	4.5	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	80
2,3,7,8-T4CDD-13C12	83
1,2,3,7,8-P5CDF-13C12	69
1,2,3,7,8-P5CDD-13C12	67
1,2,3,6,7,8-H6CDF-13C12	77
1,2,3,6,7,8-H6CDD-13C12	90
1,2,3,4,6,7,8-H7CDF-13C12	88
1,2,3,4,6,7,8-H7CDD-13C12	99
OCDD-13C12	94

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	R02100400	R02100400	R02100400
Client ID:	14A	14A	14A
Lab No.:	039059 02	039059 02	039059 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.1	pg	<1.1	
2,3,7,8-Cl4DBD	1.1	"	<1.1	
1,2,3,7,8-Cl5DBF	1.2	"	<1.2	<0.061
2,3,4,7,8-Cl5DBF	1.2	"	<1.2	<0.59
1,2,3,7,8-Cl5DBD	1.4	"	<1.4	<0.72
1,2,3,4,7,8-Cl6DBF	1.0	"	<1.0	<0.10
1,2,3,6,7,8-Cl6DBF	1.0	"	<1.0	<0.10
2,3,4,6,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,6,7,8-Cl6DBD	1.1	"	<1.1	<0.11
1,2,3,7,8,9-Cl6DBD	1.1	"	<1.1	<0.11
1,2,3,4,6,7,8-Cl7DBF	1.2	"	<1.2	<0.012
1,2,3,4,7,8,9-Cl7DBF	1.4	"	<1.4	<0.014
1,2,3,4,6,7,8-Cl7DBD	1.2	"	<1.2	<0.012
1,2,3,4,6,7,8,9-Cl8DBF	2.1	"	<2.1	<0.0021
1,2,3,4,6,7,8,9-Cl8DBD	4.3	"	<4.3	<0.0043
	TEF	pg	0	
	MAX TEF	"	<3.4	
ΣT4CDF	1.1	pg	<1.1	0
ΣP5CDF	1.2	"	<1.2	0
ΣH6CDF	1.0	"	<1.0	0
ΣH7CDF	1.4	"	<1.4	0
OCDF	2.1	"	<2.1	0
ΣT4CDD	1.1	"	<1.1	0
ΣP5CDD	1.4	"	<1.4	0
ΣH6CDD	1.1	"	<1.1	0
ΣH7CDD	1.2	"	<1.2	0
OCDD	4.3	"	<4.3	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			84	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			70	
1,2,3,7,8-P5CDD-13C12			79	
1,2,3,6,7,8-H6CDF-13C12			77	
1,2,3,6,7,8-H6CDD-13C12			90	
1,2,3,4,6,7,8-H7CDF-13C12			87	
1,2,3,4,6,7,8-H7CDD-13C12			98	
OCDD-13C12			87	

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	R02100400	R02100400	R02100400
Client ID:	15A	15A	15A
Lab No.:	039060 02	039060 02	039060 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.0	pg	1.9	0.19
2,3,7,8-Cl4DBD	2.0	"	<2.0	<2.0
1,2,3,7,8-Cl5DBF	1.7	"	<1.7	<0.087
2,3,4,7,8-Cl5DBF	1.7	"	<1.7	<0.84
1,2,3,7,8-Cl5DBD	1.5	"	<1.5	<0.77
1,2,3,4,7,8-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,6,7,8-Cl6DBF	1.4	"	<1.4	<0.14
2,3,4,6,7,8-Cl6DBF	1.6	"	<1.6	<0.16
1,2,3,7,8,9-Cl6DBF	1.7	"	<1.7	<0.17
1,2,3,4,7,8-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,7,8,9-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,4,6,7,8-Cl7DBF	2.8	"	<2.8	<0.028
1,2,3,4,7,8,9-Cl7DBF	3.2	"	<3.2	<0.032
1,2,3,4,6,7,8-Cl7DBD	1.4	"	<1.4	<0.014
1,2,3,4,6,7,8,9-Cl8DBF	1.6	"	2.0	0.0020
1,2,3,4,6,7,8,9-Cl8DBD	1.9	"	11	0.011
		pg	0.21	
TEF		"	<4.9	
MAX TEF				
ΣT4CDF	1.0	pg	1.9	1
ΣP5CDF	1.7	"	<1.7	0
ΣH6CDF	1.6	"	<1.6	0
ΣH7CDF	3.1	"	<3.1	0
OCDF	1.6	"	2.0	1
ΣT4CDD	2.0	"	<2.0	0
ΣP5CDD	1.5	"	<1.5	0
ΣH6CDD	1.3	"	<1.3	0
ΣH7CDD	1.4	"	<1.4	0
OCDD	1.9	"	11	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			66	
2,3,7,8-T4CDD-13C12			79	
1,2,3,7,8-P5CDF-13C12			59	
1,2,3,7,8-P5CDD-13C12			67	
1,2,3,6,7,8-H6CDF-13C12			48	
1,2,3,6,7,8-H6CDD-13C12			65	
1,2,3,4,6,7,8-H7CDF-13C12			44	
1,2,3,4,6,7,8-H7CDD-13C12			81	
OCDD-13C12			182	

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	R02100400	R02100400	R02100400
Client ID:	16A	16A	16A
Lab No.:	039061 02	039061 02	039061 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	12	pg	<12	<1.2
2,3,7,8-Cl4DBD	1.4	"	13	13
1,2,3,7,8-Cl5DBF	1.1	"	<1.1	<0.056
2,3,4,7,8-Cl5DBF	1.1	"	2.3	1.1
1,2,3,7,8-Cl5DBD	1.2	"	<1.2	<0.59
1,2,3,4,7,8-Cl6DBF	3.5	"	<3.5	<0.35
1,2,3,6,7,8-Cl6DBF	1.4	"	<1.4	<0.14
2,3,4,6,7,8-Cl6DBF	1.6	"	<1.6	<0.16
1,2,3,7,8,9-Cl6DBF	1.8	"	<1.8	<0.18
1,2,3,4,7,8-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,7,8,9-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,4,6,7,8-Cl7DBF	1.6	"	<1.6	<0.017
1,2,3,4,7,8,9-Cl7DBF	1.9	"	<1.9	<0.019
1,2,3,4,6,7,8-Cl7DBD	2.0	"	12	0.12
1,2,3,4,6,7,8,9-Cl8DBF	5.4	"	<5.4	<0.0054
1,2,3,4,6,7,8,9-Cl8DBD	1.7	"	110	0.11

TEF
MAX TEF

pg
"

15
<18

ΣT4CDF	0.82	pg	16	4
ΣP5CDF	1.1	"	11	4
ΣH6CDF	1.4	"	<1.4	0
ΣH7CDF	1.8	"	<1.8	0
OCDF	5.4	"	<5.4	0
ΣT4CDD	1.4	"	58	5
ΣP5CDD	1.2	"	21	3
ΣH6CDD	1.2	"	22	2
ΣH7CDD	2.0	"	25	2
OCDD	1.7	"	110	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	74
2,3,7,8-T4CDD-13C12	40
1,2,3,7,8-P5CDF-13C12	64
1,2,3,7,8-P5CDD-13C12	68
1,2,3,6,7,8-H6CDF-13C12	54
1,2,3,6,7,8-H6CDD-13C12	70
1,2,3,4,6,7,8-H7CDF-13C12	49
1,2,3,4,6,7,8-H7CDD-13C12	78
OCDD-13C12	105

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	R02100400	R02100400	R02100400
Client ID:	17A	17A	17A
Lab No.:	039062 02	039062 02	039062 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.89	pg	<0.89	
2,3,7,8-Cl4DBD	1.5	"	<1.5	
1,2,3,7,8-Cl5DBF	1.2	"	<1.2	<0.060
2,3,4,7,8-Cl5DBF	1.2	"	<1.2	<0.58
1,2,3,7,8-Cl5DBD	1.9	"	<1.9	<0.96
1,2,3,4,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,6,7,8-Cl6DBF	1.1	"	<1.1	<0.11
2,3,4,6,7,8-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,7,8,9-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,4,7,8-Cl6DBD	2.5	"	<2.5	<0.25
1,2,3,6,7,8-Cl6DBD	2.4	"	<2.4	<0.24
1,2,3,7,8,9-Cl6DBD	2.3	"	<2.3	<0.23
1,2,3,4,6,7,8-Cl7DBF	2.7	"	<2.7	<0.027
1,2,3,4,7,8,9-Cl7DBF	3.1	"	<3.1	<0.031
1,2,3,4,6,7,8-Cl7DBD	1.4	"	<1.4	<0.014
1,2,3,4,6,7,8,9-Cl8DBF	3.4	"	<3.4	<0.0034
1,2,3,4,6,7,8,9-Cl8DBD	5.4	"	<5.4	<0.0054
	TEF	pg	0	
	MAX TEF	"	<4.5	
ΣT4CDF	0.89	pg	<0.89	0
ΣP5CDF	1.2	"	<1.2	0
ΣH6CDF	1.3	"	<1.3	0
ΣH7CDF	3.0	"	<3.0	0
OCDF	3.4	"	<3.4	0
ΣT4CDD	1.5	"	<1.5	0
ΣP5CDD	1.9	"	<1.9	0
ΣH6CDD	2.5	"	<2.5	0
ΣH7CDD	1.4	"	<1.4	0
OCDD	5.4	"	<5.4	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			69	
2,3,7,8-T4CDD-13C12			73	
1,2,3,7,8-P5CDF-13C12			49	
1,2,3,7,8-P5CDD-13C12			51	
1,2,3,6,7,8-H6CDF-13C12			75	
1,2,3,6,7,8-H6CDD-13C12			80	
1,2,3,4,6,7,8-H7CDF-13C12			57	
1,2,3,4,6,7,8-H7CDD-13C12			71	
OCDD-13C12			50	

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	R02100400	R02100400	R02100400
Client ID:	18A	18A	18A
Lab No.:	039063 02	039063 02	039063 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	4.7	pg	<4.7	<0.47
2,3,7,8-Cl4DBD	0.72	"	<0.72	<0.72
1,2,3,7,8-Cl5DBF	0.40	"	<0.40	<0.020
2,3,4,7,8-Cl5DBF	0.36	"	1.2	0.58
1,2,3,7,8-Cl5DBD	1.1	"	<1.1	<0.55
1,2,3,4,7,8-Cl6DBF	1.9	"	<1.9	<0.19
1,2,3,6,7,8-Cl6DBF	1.5	"	<1.5	<0.15
2,3,4,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
1,2,3,7,8,9-Cl6DBF	0.64	"	2.2	0.22
1,2,3,4,7,8-Cl6DBD	0.81	"	<0.81	<0.081
1,2,3,6,7,8-Cl6DBD	1.7	"	<1.7	<0.17
1,2,3,7,8,9-Cl6DBD	0.73	"	2.3	0.23
1,2,3,4,6,7,8-Cl7DBF	3.7	"	<3.7	<0.037
1,2,3,4,7,8,9-Cl7DBF	2.7	"	<2.7	<0.027
1,2,3,4,6,7,8-Cl7DBD	4.4	"	<4.4	<0.044
1,2,3,4,6,7,8,9-Cl8DBF	1.4	"	11	0.011
1,2,3,4,6,7,8,9-Cl8DBD	2.8	"	22	0.022
	TEF	pg	1.1	
	MAX TEF	"	<3.7	
ΣT4CDF	0.27	pg	11	9
ΣP5CDF	0.4	"	2.7	2
ΣH6CDF	0.59	"	2.2	1
ΣH7CDF	5.9	"	<5.9	0
OCDF	1.4	"	11	1
ΣT4CDD	0.47	"	23	3
ΣP5CDD	1.1	"	3.3	1
ΣH6CDD	0.75	"	2.3	1
ΣH7CDD	0.20	"	<0.20	0
OCDD	2.8	"	22	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			94	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			79	
1,2,3,7,8-P5CDD-13C12			68	
1,2,3,6,7,8-H6CDF-13C12			95	
1,2,3,6,7,8-H6CDD-13C12			71	
1,2,3,4,6,7,8-H7CDF-13C12			81	
1,2,3,4,6,7,8-H7CDD-13C12			67	
OCDD-13C12			47	

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	R02100400	R02100400	R02100400
Client ID:	19A	19A	19A
Lab No.:	039064 02	039064 02	039064 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.58	pg	7.5	0.75
2,3,7,8-Cl4DBD	0.49	"	1.5	1.5
1,2,3,7,8-Cl5DBF	0.33	"	1.0	0.051
2,3,4,7,8-Cl5DBF	0.77	"	<0.77	<0.39
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.19	"	1.1	0.11
1,2,3,6,7,8-Cl6DBF	0.18	"	0.58	0.058
2,3,4,6,7,8-Cl6DBF	0.21	"	<0.21	<0.021
1,2,3,7,8,9-Cl6DBF	0.23	"	<0.23	<0.023
1,2,3,4,7,8-Cl6DBD	0.35	"	<0.35	<0.035
1,2,3,6,7,8-Cl6DBD	0.33	"	<0.33	<0.033
1,2,3,7,8,9-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,4,6,7,8-Cl7DBF	4.3	"	<4.3	<0.043
1,2,3,4,7,8,9-Cl7DBF	3.0	"	<3.0	<0.030
1,2,3,4,6,7,8-Cl7DBD	0.52	"	8.7	0.087
1,2,3,4,6,7,8,9-Cl8DBF	1.7	"	1.9	0.0019
1,2,3,4,6,7,8,9-Cl8DBD	0.64	"	26	0.026

TEF
MAX TEF

pg
" 2.6
<3.5

ΣT4CDF	0.58	pg	39	11
ΣP5CDF	0.33	"	7.8	4
ΣH6CDF	0.21	"	4.0	4
ΣH7CDF	2.8	"	<2.8	0
OCDF	1.7	"	1.9	1
ΣT4CDD	0.49	"	30	7
ΣP5CDD	0.54	"	10	4
ΣH6CDD	0.33	"	5.6	3
ΣH7CDD	0.52	"	18	2
OCDD	0.64	"	26	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	89
2,3,7,8-T4CDD-13C12	76
1,2,3,7,8-P5CDF-13C12	94
1,2,3,7,8-P5CDD-13C12	93
1,2,3,6,7,8-H6CDF-13C12	84
1,2,3,6,7,8-H6CDD-13C12	87
1,2,3,4,6,7,8-H7CDF-13C12	98
1,2,3,4,6,7,8-H7CDD-13C12	42
OCDD-13C12	83

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	R02100400	R02100400	R02100400
Client ID:	20A	20A	20A
Lab No.:	039065 02	039065 02	039065 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.20	pg	0.72	0.072
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.53	"	<0.53	<0.026
2,3,4,7,8-Cl5DBF	0.51	"	<0.51	<0.25
1,2,3,7,8-Cl5DBD	0.33	"	<0.33	<0.16
1,2,3,4,7,8-Cl6DBF	0.12	"	<0.12	<0.012
1,2,3,6,7,8-Cl6DBF	0.11	"	<0.11	<0.011
2,3,4,6,7,8-Cl6DBF	0.13	"	<0.13	<0.013
1,2,3,7,8,9-Cl6DBF	0.14	"	<0.14	<0.014
1,2,3,4,7,8-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,6,7,8-Cl6DBD	0.30	"	<0.30	<0.030
1,2,3,7,8,9-Cl6DBD	0.29	"	<0.29	<0.029
1,2,3,4,6,7,8-Cl7DBF	11	"	<11	<0.11
1,2,3,4,7,8,9-Cl7DBF	13	"	<13	<0.13
1,2,3,4,6,7,8-Cl7DBD	0.32	"	<0.32	<0.0032
1,2,3,4,6,7,8,9-Cl8DBF	0.29	"	8.7	0.0087
1,2,3,4,6,7,8,9-Cl8DBD	1.7	"	<1.7	<0.0017

TEF	pg	0.081
MAX TEF	"	<1.3

ΣT4CDF	0.20	pg	0.72	1
ΣP5CDF	0.53	"	<0.53	0
ΣH6CDF	0.15	"	<0.15	0
ΣH7CDF	12	"	<12	0
OCDF	0.29	"	8.7	1
ΣT4CDD	0.37	"	<0.37	0
ΣP5CDD	0.33	"	<0.33	0
ΣH6CDD	0.30	"	<0.30	0
ΣH7CDD	0.32	"	<0.32	0
OCDD	1.7	"	<1.7	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	95
2,3,7,8-T4CDD-13C12	86
1,2,3,7,8-P5CDF-13C12	97
1,2,3,7,8-P5CDD-13C12	93
1,2,3,6,7,8-H6CDF-13C12	89
1,2,3,6,7,8-H6CDD-13C12	90
1,2,3,4,6,7,8-H7CDF-13C12	101
1,2,3,4,6,7,8-H7CDD-13C12	55
OCDD-13C12	83

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**PSC Analytical Services
Laboratory Method Blanks**

Component Batch Code:	RDL	Units	BLANK 1016JM01	TEF	# of Isomers	MR
2,3,7,8-Cl4DBF	0.11	pg	1.1	0.11		100%
2,3,7,8-Cl4DBD	0.22	"	0.53	0.53		118%
1,2,3,7,8-Cl5DBF	0.36	"	<0.36	<0.018		109%
2,3,4,7,8-Cl5DBF	0.40	"	<0.40	<0.20		92%
1,2,3,7,8-Cl5DBD	0.31	"	<0.31	<0.15		92%
1,2,3,4,7,8-Cl6DBF	0.45	"	0.58	0.058		90%
1,2,3,6,7,8-Cl6DBF	0.47	"	<0.47	<0.047		97%
2,3,4,6,7,8-Cl6DBF	0.50	"	1.0	0.10		162%
1,2,3,7,8,9-Cl6DBF	0.76	"	<0.76	<0.076		162%
1,2,3,4,7,8-Cl6DBD	0.30	"	<0.30	<0.030		84%
1,2,3,6,7,8-Cl6DBD	0.28	"	<0.28	<0.028		92%
1,2,3,7,8,9-Cl6DBD	1.0	"	<1.0	<0.10		104%
1,2,3,4,6,7,8-Cl7DBF	2.5	"	<2.5	<0.025		101%
1,2,3,4,7,8,9-Cl7DBF	2.8	"	<2.8	<0.028		179%
1,2,3,4,6,7,8-Cl7DBD	1.6	"	<1.6	<0.016		97%
1,2,3,4,6,7,8,9-Cl8DBF	0.26	"	4.6	0.0046		75%
1,2,3,4,6,7,8,9-Cl8DBD	0.27	"	9.5	0.0095		95%

FET	pg	0.825
FET MAX	"	<1.5

ΣT4CDF	0.11	pg	2.2	5	100%
ΣP5CDF	0.18	"	<0.18	0	101%
ΣH6CDF	0.38	"	1.6	2	128%
ΣH7CDF	1.7	"	0.26	1	140%
OCDF	0.26	"	4.6	1	75%
ΣT4CDD	0.14	"	0.53	1	118%
ΣP5CDD	0.45	"	<0.45	0	92%
ΣH6CDD	0.30	"	<0.30	0	93%
ΣH7CDD	0.47	"	<0.47	1	97%
OCDD	0.27	"	9.5	1	95%

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	101
2,3,7,8-T4CDD-13C12	82
1,2,3,7,8-P5CDF-13C12	86
1,2,3,7,8-P5CDD-13C12	75
1,2,3,6,7,8-H6CDF-13C12	47
1,2,3,6,7,8-H6CDD-13C12	72
1,2,3,4,6,7,8-H7CDF-13C12	36
1,2,3,4,6,7,8-H7CDD-13C12	82
OCDD-13C12	75

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**PSC Analytical Services
Laboratory Method Blanks**

Component Batch Code:	RDL	Units	BLANK 1021NZ01	TEF	# of Isomers	MR
2,3,7,8-Cl4DBF	0.85	pg	<0.85	<0.085		90%
2,3,7,8-Cl4DBD	0.89	"	<0.89	<0.89		98%
1,2,3,7,8-Cl5DBF	0.98	"	<0.98	<0.049		100%
2,3,4,7,8-Cl5DBF	0.94	"	<0.94	<0.47		92%
1,2,3,7,8-Cl5DBD	0.81	"	<0.81	<0.40		81%
1,2,3,4,7,8-Cl6DBF	0.75	"	<0.75	<0.075		87%
1,2,3,6,7,8-Cl6DBF	0.75	"	<0.75	<0.075		89%
2,3,4,6,7,8-Cl6DBF	0.85	"	<0.85	<0.085		77%
1,2,3,7,8,9-Cl6DBF	0.94	"	<0.94	<0.094		73%
1,2,3,4,7,8-Cl6DBD	1.3	"	<1.3	<0.13		84%
1,2,3,6,7,8-Cl6DBD	1.3	"	<1.3	<0.13		80%
1,2,3,7,8,9-Cl6DBD	1.2	"	<1.2	<0.12		82%
1,2,3,4,6,7,8-Cl7DBF	2.4	"	<2.4	<0.024		96%
1,2,3,4,7,8,9-Cl7DBF	2.8	"	<2.8	<0.028		89%
1,2,3,4,6,7,8-Cl7DBD	2.3	"	<2.3	<0.023		92%
1,2,3,4,6,7,8,9-Cl8DBF	1.2	"	1.6	0.0016		76%
1,2,3,4,6,7,8,9-Cl8DBD	3.4	"	5.5	0.0055		89%
	FET	pg		0.007		
	FET MAX	"		<2.7		
ΣT4CDF	0.40	pg	<0.40		0	90%
ΣP5CDF	0.98	"	<0.98		0	96%
ΣH6CDF	0.75	"	<0.75		0	82%
ΣH7CDF	2.7	"	<2.7		0	93%
OCDF	1.2	"	1.6		1	76%
ΣT4CDD	0.89	"	<0.89		0	98%
ΣP5CDD	0.81	"	<0.81		0	81%
ΣH6CDD	1.3	"	<1.3		0	82%
ΣH7CDD	2.3	"	<2.3		0	92%
OCDD	3.4	"	5.5		1	89%
Surrogate Recoveries		%				
2,3,7,8-T4CDF-13C12			67			
2,3,7,8-T4CDD-13C12			65			
1,2,3,7,8-P5CDF-13C12			45			
1,2,3,7,8-P5CDD-13C12			44			
1,2,3,6,7,8-H6CDF-13C12			68			
1,2,3,6,7,8-H6CDD-13C12			77			
1,2,3,4,6,7,8-H7CDF-13C12			51			
1,2,3,4,6,7,8-H7CDD-13C12			65			
OCDD-13C12			131			

Certificate No:2J0573
nh

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file # =039046ot.xls
Revision No. 1

**PSC Analytical Services
Laboratory Method Blanks**

Component	RDL	Units	BLANK	TEF	# of Isomers	MR
Batch Code:			1025NZ01			
2,3,7,8-Cl4DBF	0.47	pg	1.3	0.13		97%
2,3,7,8-Cl4DBD	0.47	"	0.86	0.86		108%
1,2,3,7,8-Cl5DBF	0.56	"	<0.56	<0.028		107%
2,3,4,7,8-Cl5DBF	0.54	"	<0.54	<0.27		94%
1,2,3,7,8-Cl5DBD	1.1	"	<1.1	<0.54		89%
1,2,3,4,7,8-Cl6DBF	0.32	"	<0.32	<0.032		102%
1,2,3,6,7,8-Cl6DBF	0.30	"	<0.30	<0.030		98%
2,3,4,6,7,8-Cl6DBF	0.35	"	<0.35	<0.035		104%
1,2,3,7,8,9-Cl6DBF	0.38	"	<0.38	<0.038		103%
1,2,3,4,7,8-Cl6DBD	0.80	"	<0.80	<0.080		100%
1,2,3,6,7,8-Cl6DBD	0.75	"	<0.75	<0.075		92%
1,2,3,7,8,9-Cl6DBD	0.73	"	<0.73	<0.073		93%
1,2,3,4,6,7,8-Cl7DBF	0.72	"	<0.72	<0.0072		101%
1,2,3,4,7,8,9-Cl7DBF	1.1	"	<1.1	<0.011		95%
1,2,3,4,6,7,8-Cl7DBD	5.8	"	<5.8	<0.058		98%
1,2,3,4,6,7,8,9-Cl8DBF	5.9	"	2.7	0.0027		95%
1,2,3,4,6,7,8,9-Cl8DBD	4.0	"	11	0.011		98%

FET	pg	1.0
FET MAX	"	<2.3

ΣT4CDF	0.47	pg	1.3	1	97%
ΣP5CDF	0.56	"	<0.56	0	101%
ΣH6CDF	0.35	"	<0.35	0	102%
ΣH7CDF	0.81	"	<0.81	0	98%
OCDF	5.9	"	2.7	1	95%
ΣT4CDD	0.47	"	0.86	1	108%
ΣP5CDD	1.1	"	<1.1	0	89%
ΣH6CDD	0.75	"	<0.75	0	95%
ΣH7CDD	0.95	"	<0.95	0	98%
OCDD	4.0	"	11	1	98%

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	91
2,3,7,8-T4CDD-13C12	82
1,2,3,7,8-P5CDF-13C12	80
1,2,3,7,8-P5CDD-13C12	74
1,2,3,6,7,8-H6CDF-13C12	87
1,2,3,6,7,8-H6CDD-13C12	85
1,2,3,4,6,7,8-H7CDF-13C12	86
1,2,3,4,6,7,8-H7CDD-13C12	37
OCDD-13C12	68

Certificate No:2J0573
nh

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file # =039046ot.xls
Revision No. 1

**PSC Analytical Services
Summary of Analysis Prep. Dates**

Batch Code:	1016JM01	1021NZ01	1025NZ01
2,3,7,8-CI4DBF etc.	039046 02	039056 02	039063 02
	039047 02	039057 02	039064 02
	039048 02	039058 02	039065 02
	039049 02	039059 02	
	039050 02	039060 02	
	039051 02	039061 02	
	039052 02	039062 02	
	039053 02		
	039054 02		
	039055 02		
Date Analyzed:	10/30/2002	10/25/2002	11/2/2002
Date Prepared:	10/16/2002	10/21/2002	10/25/2002

Batch Code:	1016JM01	1021NZ01	1025NZ01
ΣT4CDF etc.	039046 02	039056 02	039063 02
	039047 02	039057 02	039064 02
	039048 02	039058 02	039065 02
	039049 02	039059 02	
	039050 02	039060 02	
	039051 02	039061 02	
	039052 02	039062 02	
	039053 02		
	039054 02		
	039055 02		
Date Analyzed:	10/30/2002	10/25/2002	11/2/2002
Date Prepared:	10/16/2002	10/21/2002	10/25/2002

No de certificat :
nh



4418 Pottsville Pike Reading, PA 19606
(Tel) 610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH RH-0238

REMIT TO: PSC Analytical Services
Accounts Receivable
P.O. Box 3069-Department 3
Houston, TX 772533069
TEL: (610) 921-8833

INVOICE

INV DATE: November 22, 2002
Print DATE: November 22, 2002

Invoice No: 12505

Invoice TO ATC Associates
104 East 25th Street
10th Floor
New York, NY 100102917

Attn: Accounts Payable
Phone: (212) 353-8280

Work Order R02100401

Order Name 15-22906-0002

PO Number:

Date Received 10/11/2002

Item	Remarks	Matrix	Qty	Unit Price	Mult	Quoted	Test Total
Dioxins and Furans	HI RES wipes	Sediment	20	\$1,200.00	1	\$675.00	\$13,500.00

Subtotal: \$13,500.00

Discount: 0.00%

Surcharge: 0.00%

Misc Charges: \$0.00

Payment Received: \$0.00

INVOICE Total: \$13,500.00

All Invoices are due and Payable net 30 days from date invoiced.

Vendor # _____

F.O. # _____

Project No.

Liability Code _____

on _____

G/L #	Amount

By Mgr. _____

*Reviewed, Approved
Submitted for
Processing
12/3/02*



4418 Pottsville Pike Reading, PA 19605
(Tel) 610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136*
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

November 22, 2002

Ben Sallemi
ATC Associates
104 East 25th Street
10th Floor
New York, NY 10010-2917

TEL: (212) 353-8280
FAX (212) 353-8306

RE: 15-22906-0002

Order No.: R02100401

Dear Ben Sallemi:

PSC Analytical Services received 20 samples on 10/11/2002 10:00:00 AM for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Fred Usbeck".

Fred Usbeck
Manager, CIH

4418 Pottsville Pike, Reading, PA 19605 610-921-8833 FAX 610-921-8407



PSC Analytical Services
 4418 Pollsville Pike
 Reading, PA 19605
 phone: (610) 921-8833
 fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order # RO2100401
 Page 3 of 2

JOB ID: 15-2346-0003

Report Results

PO # _____ Quote # _____
 Name Bergstein Sellen, Inc.
 Company ATC Asbestos Inc.
 Mailing Address 1010 E 55th Street
 City Brooklyn State NY ZIP 11216
 Telephone # 718 353 2338 Fax # 718 353 2336

Submit Invoice

Company Sellen
 Mailing Address _____
 City _____ State _____ ZIP _____
 Telephone # _____ Fax # _____
 E-mail (and info (include exp. date)) _____

Sampled by NYC Sampling Location (Specify State): NY
 Date/Time _____ (Rush TAT requires Lab approval)

Lab Package Reduced Deliverables Package Electronic Data Deliverables _____

Lab # 10000 Method RCRA Stormwater DEP (PWS #)

Sample Description Final Air Volume Matrix Type air Sampling Info 10/10/03

Sample ID	Sample Description	Final Air Volume	Matrix Type	Date	Time	Preservative Key
10000-1	Final Air Volume	10000	air	10/10/03		
10000-2	Final Air Volume	10000	air	10/10/03		
10000-3	Final Air Volume	10000	air	10/10/03		
10000-4	Final Air Volume	10000	air	10/10/03		
10000-5	Final Air Volume	10000	air	10/10/03		
10000-6	Final Air Volume	10000	air	10/10/03		
10000-7	Final Air Volume	10000	air	10/10/03		
10000-8	Final Air Volume	10000	air	10/10/03		
10000-9	Final Air Volume	10000	air	10/10/03		
10000-10	Final Air Volume	10000	air	10/10/03		

ANALYSIS REQUESTED

Use attachments if necessary
 Please specify method requirements

Preservatives Key
 A = Ascorbic Acid
 C = HCl
 H = HNO3
 I = Ice
 N = NaOH
 O = Other: _____
 N2 = Na2S2O3
 S = H2SO4
 Z = Zinc acetate
 X = None

Preservatives (See above key, list all that apply)
 Type (P=Plastic, G=Glass, A=Air)
 Container Volume (liter, etc)
 Number of Containers

Received by: NYC Date: 10/10/03 Time: 10:00
 Retained by: NYC Date: 10/10/03 Time: 10:00
 Retained by: NYC Date: 10/10/03 Time: 10:00
 Retained by: NYC Date: 10/10/03 Time: 10:00

Method of Delivery UPS FED-EX PAS Courier Clerk US Mail Other

44118 Poltsville Pike
Reading, PA 19605
phone: (610) 921-8833
fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order # 802106401

Page 4 of

Page 4 of 8

Report Results		To:		Submit Invoice To:		Job ID: 15-22906-0004	
Name: <u>Brydell Sallemi</u>		Company: <u>Art's Auto Sales Inc.</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		ANALYSIS REQUESTED	
Address: <u>1001 E 15th Street</u>		Telephone: <u>812-353-3306</u>		Fax: <u>812-353-3306</u>		Use attachments if necessary	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		Please specify method requirements.	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		Preservatives Key:	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		A = Ascorbic Acid	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		C = HCl	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		M2 = Na2S2O3	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		H = HNO3	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		S = H2SO4	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		I = Ice	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		Z = ZnAcetate	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		N = NaOH	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		X = None	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		O = Other:	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		Preservatives (See above key):	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		List all that apply:	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		Type (P=Plastic, G=Glass, A=Al)	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		Container Volume (Liter, etc)	
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>		Number of Containers	
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1001 E 15th Street</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Name: <u>SPAC</u>		City: <u>Meriden</u> State: <u>CT</u> ZIP: <u>06460</u>		Telephone: <u>812-353-3306</u>			
Address: <u>1</u>							

PSC Analytical Services

Sample Receipt Checklist

Client Name **ATC ASSOCIATES**

Date and Time Receive

10/11/2002 10:00:00 AM

Work Order Numbe **R02100401**

Received by

TMH

Checklist completed b

Signature

TMH

Date

10/11/02

Reviewed by

Initials

DK

Date

10.11.02

Matrix

Carrier name

FedEx

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Presen

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Presen ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Presen ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

Adjusted?

Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section b

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action



4418 Pottsville Pike Reading, PA 19606
(Tel) 610-921-8833 (Fax) 610-921-9867

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 22-Nov-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100401

Lab ID: R02100401-01

Collection Date: 10/9/2002

Client Sample ID: 10S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Lab ID: R02100401-02

Collection Date: 10/9/2002

Client Sample ID: 10S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Lab ID: R02100401-03

Collection Date: 10/9/2002

Client Sample ID: 10S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Lab ID: R02100401-04

Collection Date: 10/9/2002

Client Sample ID: 10N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Lab ID: R02100401-05

Collection Date: 10/9/2002

Client Sample ID: 10N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Qualifiers: BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



4418 Pottsville Pike Reading, PA 19606
(Tel) 610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 22-Nov-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100401

Lab ID: R02100401-06

Collection Date: 10/9/2002

Client Sample ID: 10N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Lab ID: R02100401-07

Collection Date: 10/9/2002

Client Sample ID: 9S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Lab ID: R02100401-08

Collection Date: 10/9/2002

Client Sample ID: 9S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Lab ID: R02100401-09

Collection Date: 10/9/2002

Client Sample ID: 9S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Lab ID: R02100401-10

Collection Date: 10/9/2002

Client Sample ID: 9N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



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INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 22-Nov-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100401

Lab ID: R02100401-11

Collection Date: 10/9/2002

Client Sample ID: 9N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Lab ID: R02100401-12

Collection Date: 10/9/2002

Client Sample ID: 9N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Lab ID: R02100401-13

Collection Date: 10/9/2002

Client Sample ID: 8S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Lab ID: R02100401-14

Collection Date: 10/9/2002

Client Sample ID: 8S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Lab ID: R02100401-15

Collection Date: 10/9/2002

Client Sample ID: 8S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached		H		1	11/22/2002

Qualifiers:

- BRL - Below Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level

- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

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INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 22-Nov-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100401

Lab ID: R02100401-16

Collection Date: 10/9/2002

Client Sample ID: 8N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Lab ID: R02100401-17

Collection Date: 10/9/2002

Client Sample ID: 8N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Lab ID: R02100401-18

Collection Date: 10/9/2002

Client Sample ID: 8N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Lab ID: R02100401-19

Collection Date: 10/9/2002

Client Sample ID: 8N-D-Blank

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Lab ID: R02100401-20

Collection Date: 10/9/2002

Client Sample ID: 7S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290	H		1	11/22/2002

Analyst: SUB

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

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Certificate of Analysis

Certificate No.: 2J0574

CLIENT INFORMATION

Attention: Fred Usbeck
Client Name: PHILIP ANALYTICAL SERVICES-PA
Address: 4418, Pottville Pike
 Reading, Pennsylvania
 19605-1286
Fax Number: 610-921-9667
Phone Number: 1-800-345-4026

LABORATORY INFORMATION

Contact: Martin Dea
Project: AN022771
Date Received: 2002/10/16
Date Reported: 2002/11/22
Date Revised:
Revision Number: 0
No. of pages: 26

Project: SW 8290
Project Desc: PO#10295-R02100400
Sampled by: PHILIP ANALYTICAL SERVICES-PA

Approved by: _____
 Martin Dea, Chemist
 Project manager

Verified by: _____
 Éric Fortin, Chemist
 Inorganic Manager

Verified by: _____
 Stephan Obarewicz, Chemist
 High Resolution Manager

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PSC Services Analytiques

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done.

There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of six weeks from date of reception or as per contract. This report may not be reproduced except in its entirety, without the written authorization of PSC Analytical Services. Reference material results are under control statistically unless otherwise specified (RM).

The enclosed guidelines and criterias are provided for information purposes only.

In case of disparity between the guidelines and criterias provided and the official version, these are the valid one.

Organic analyses are not corrected for extraction recovery standards except for PCDD/F and PCB's (congeners).

Batch and run dates for subcontracted analyses are reported only when available; if not, the date of reception of the certificate by fax is reported.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MENV or EPA methodologies.

See the confirmation analysis report in the appendix at the end of this report for the list of the methods used, and the list of parameters analyzed by subcontracting laboratories.

Please contact your project manager for additionnals informations.

NOTES:

- = not analyzed

< = less than Reported Detection Limit (RDL)

NA = Not Applicable

RDL = Reported Detection Limit

Solids data is based on dry weight (unless otherwise specified).

Comments:

PSC Analytical Services
Certificate of Analysis

	R02100401	R02100401	R02100401
Client ID:	01A	01A	01A
Lab No.:	039066 02	039066 02	039066 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.55	pg	<0.55	<0.055
2,3,7,8-Cl4DBD	0.40	"	<0.40	<0.40
1,2,3,7,8-Cl5DBF	0.55	"	<0.55	<0.028
2,3,4,7,8-Cl5DBF	0.35	"	0.46	0.23
1,2,3,7,8-Cl5DBD	0.42	"	<0.42	<0.21
1,2,3,4,7,8-Cl6DBF	0.15	"	<0.15	<0.015
1,2,3,6,7,8-Cl6DBF	0.14	"	<0.14	<0.014
2,3,4,6,7,8-Cl6DBF	0.16	"	0.49	0.049
1,2,3,7,8,9-Cl6DBF	0.18	"	<0.18	<0.018
1,2,3,4,7,8-Cl6DBD	0.26	"	<0.26	<0.026
1,2,3,6,7,8-Cl6DBD	0.24	"	<0.24	<0.024
1,2,3,7,8,9-Cl6DBD	0.23	"	<0.23	<0.023
1,2,3,4,6,7,8-Cl7DBF	10	"	<10	<0.10
1,2,3,4,7,8,9-Cl7DBF	12	"	<12	<0.12
1,2,3,4,6,7,8-Cl7DBD	0.56	"	0.79	0.0079
1,2,3,4,6,7,8,9-Cl8DBF	0.46	"	5.4	0.0054
1,2,3,4,6,7,8,9-Cl8DBD	0.61	"	5.1	0.0051
	TEF	pg	0.30	
	MAX TEF	"	<1.3	
ΣT4CDF	0.20	pg	1.9	3
ΣP5CDF	0.42	"	0.94	2
ΣH6CDF	0.15	"	0.49	1
ΣH7CDF	11	"	<11	0
OCDF	0.46	"	5.4	1
ΣT4CDD	0.40	"	1.8	2
ΣP5CDD	0.42	"	0.52	1
ΣH6CDD	0.24	"	<0.24	0
ΣH7CDD	0.56	"	0.79	1
OCDD	0.61	"	5.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			98	
2,3,7,8-T4CDD-13C12			87	
1,2,3,7,8-P5CDF-13C12			106	
1,2,3,7,8-P5CDD-13C12			102	
1,2,3,6,7,8-H6CDF-13C12			84	
1,2,3,6,7,8-H6CDD-13C12			86	
1,2,3,4,6,7,8-H7CDF-13C12			100	
1,2,3,4,6,7,8-H7CDD-13C12			79	
OCDD-13C12			79	

**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	02A	02A	02A
Lab No.:	039067 02	039067 02	039067 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	3.8	pg	12	1.2
2,3,7,8-Cl4DBD	3.1	"	<3.1	<3.1
1,2,3,7,8-Cl5DBF	4.0	"	<4.0	<0.20
2,3,4,7,8-Cl5DBF	3.8	"	<3.8	<1.9
1,2,3,7,8-Cl5DBD	3.6	"	<3.6	<1.8
1,2,3,4,7,8-Cl6DBF	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBF	2.0	"	<2.0	<0.20
2,3,4,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
1,2,3,7,8,9-Cl6DBF	2.5	"	<2.5	<0.25
1,2,3,4,7,8-Cl6DBD	3.7	"	<3.7	<0.37
1,2,3,6,7,8-Cl6DBD	4.1	"	<4.1	<0.41
1,2,3,7,8,9-Cl6DBD	3.3	"	<3.3	<0.33
1,2,3,4,6,7,8-Cl7DBF	7.2	"	<7.2	<0.072
1,2,3,4,7,8,9-Cl7DBF	5.3	"	<5.3	<0.053
1,2,3,4,6,7,8-Cl7DBD	4.6	"	10	0.10
1,2,3,4,6,7,8,9-Cl8DBF	8.7	"	33	0.033
1,2,3,4,6,7,8,9-Cl8DBD	7.8	"	59	0.059
		TEF	1.4	
		MAX TEF	<11	
ΣT4CDF	3.8	pg	12	1
ΣP5CDF	4.0	"	<4.0	0
ΣH6CDF	2.1	"	<2.1	0
ΣH7CDF	4.9	"	<4.9	0
OCDF	8.7	"	33	1
ΣT4CDD	3.1	"	<3.1	0
ΣP5CDD	3.6	"	<3.6	0
ΣH6CDD	3.4	"	<3.4	0
ΣH7CDD	4.6	"	22	2
OCDD	7.8	"	59	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			82	
2,3,7,8-T4CDD-13C12			83	
1,2,3,7,8-P5CDF-13C12			87	
1,2,3,7,8-P5CDD-13C12			88	
1,2,3,6,7,8-H6CDF-13C12			93	
1,2,3,6,7,8-H6CDD-13C12			85	
1,2,3,4,6,7,8-H7CDF-13C12			113	
1,2,3,4,6,7,8-H7CDD-13C12			105	
OCDD-13C12			76	

**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	03A	03A	03A
Lab No.:	039068 02	039068 02	039068 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.82	pg	4.6	0.46
2,3,7,8-Cl4DBD	1.3	"	<1.3	<1.3
1,2,3,7,8-Cl5DBF	2.0	"	<2.0	<0.10
2,3,4,7,8-Cl5DBF	1.9	"	<1.9	<0.97
1,2,3,7,8-Cl5DBD	2.7	"	<2.7	<1.3
1,2,3,4,7,8-Cl6DBF	2.5	"	<2.5	<0.25
1,2,3,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
2,3,4,6,7,8-Cl6DBF	2.7	"	<2.7	<0.27
1,2,3,7,8,9-Cl6DBF	2.9	"	<2.9	<0.29
1,2,3,4,7,8-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,7,8,9-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,4,6,7,8-Cl7DBF	2.3	"	<2.3	<0.023
1,2,3,4,7,8,9-Cl7DBF	2.7	"	<2.7	<0.027
1,2,3,4,6,7,8-Cl7DBD	3.4	"	<3.4	<0.034
1,2,3,4,6,7,8,9-Cl8DBF	3.3	"	12	0.012
1,2,3,4,6,7,8,9-Cl8DBD	2.9	"	21	0.021
	TEF	pg	0.50	
	MAX TEF	"	<5.9	
ΣT4CDF	0.82	pg	4.6	1
ΣP5CDF	2.0	"	<2.0	0
ΣH6CDF	2.5	"	<2.5	0
ΣH7CDF	2.5	"	<2.5	0
OCDF	3.3	"	12	1
ΣT4CDD	1.3	"	<1.3	0
ΣP5CDD	2.7	"	<2.7	0
ΣH6CDD	1.9	"	<1.9	0
ΣH7CDD	3.4	"	<3.4	0
OCDD	2.9	"	21	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			90	
1,2,3,7,8-P5CDF-13C12			94	
1,2,3,7,8-P5CDD-13C12			88	
1,2,3,6,7,8-H6CDF-13C12			92	
1,2,3,6,7,8-H6CDD-13C12			92	
1,2,3,4,6,7,8-H7CDF-13C12			104	
1,2,3,4,6,7,8-H7CDD-13C12			109	
OCDD-13C12			82	

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	04A	04A	04A
Lab No.:	039069 02	039069 02	039069 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	4.2	pg	<4.2	<0.42
2,3,7,8-Cl4DBD	3.6	"	<3.6	<3.6
1,2,3,7,8-Cl5DBF	5.4	"	<5.4	<0.27
2,3,4,7,8-Cl5DBF	5.2	"	<5.2	<2.6
1,2,3,7,8-Cl5DBD	6.2	"	<6.2	<3.1
1,2,3,4,7,8-Cl6DBF	4.8	"	<4.8	<0.48
1,2,3,6,7,8-Cl6DBF	4.5	"	<4.5	<0.45
2,3,4,6,7,8-Cl6DBF	5.2	"	<5.2	<0.52
1,2,3,7,8,9-Cl6DBF	5.6	"	<5.6	<0.56
1,2,3,4,7,8-Cl6DBD	3.1	"	<3.1	<0.31
1,2,3,6,7,8-Cl6DBD	2.8	"	<2.8	<0.28
1,2,3,7,8,9-Cl6DBD	2.8	"	<2.8	<0.28
1,2,3,4,6,7,8-Cl7DBF	130	"	<130	<1.3
1,2,3,4,7,8,9-Cl7DBF	150	"	<150	<1.5
1,2,3,4,6,7,8-Cl7DBD	2.7	"	<2.7	<0.027
1,2,3,4,6,7,8,9-Cl8DBF	8.8	"	<8.8	<0.0088
1,2,3,4,6,7,8,9-Cl8DBD	11	"	<11	<0.011
	TEF	pg	0	
	MAX TEF	"	<16	
ΣT4CDF	4.2	pg	<4.2	0
ΣP5CDF	5.4	"	<5.4	0
ΣH6CDF	4.8	"	<4.8	0
ΣH7CDF	140	"	<140	0
OCDF	8.8	"	<8.8	0
ΣT4CDD	3.6	"	<3.6	0
ΣP5CDD	6.2	"	<6.2	0
ΣH6CDD	2.8	"	<2.8	0
ΣH7CDD	2.7	"	<2.7	0
OCDD	11	"	<11	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			99	
2,3,7,8-T4CDD-13C12			92	
1,2,3,7,8-P5CDF-13C12			91	
1,2,3,7,8-P5CDD-13C12			83	
1,2,3,6,7,8-H6CDF-13C12			94	
1,2,3,6,7,8-H6CDD-13C12			93	
1,2,3,4,6,7,8-H7CDF-13C12			101	
1,2,3,4,6,7,8-H7CDD-13C12			99	
OCDD-13C12			79	

Certificate No: 2J0574
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PSC Analytical Services
Certificate of Analysis

	R02100401	R02100401	R02100401
Client ID:	05A	05A	05A
Lab No.:	039070 02	039070 02	039070 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	2.8	pg	<2.8	<0.28
2,3,7,8-Cl4DBD	4.6	"	<4.6	<4.6
1,2,3,7,8-Cl5DBF	4.3	"	<4.3	<0.21
2,3,4,7,8-Cl5DBF	4.1	"	<4.1	<2.1
1,2,3,7,8-Cl5DBD	3.7	"	<3.7	<1.8
1,2,3,4,7,8-Cl6DBF	2.4	"	<2.4	<0.24
1,2,3,6,7,8-Cl6DBF	2.2	"	<2.2	<0.22
2,3,4,6,7,8-Cl6DBF	2.6	"	<2.6	<0.26
1,2,3,7,8,9-Cl6DBF	2.8	"	<2.8	<0.28
1,2,3,4,7,8-Cl6DBD	4.5	"	<4.5	<0.45
1,2,3,6,7,8-Cl6DBD	4.1	"	<4.1	<0.41
1,2,3,7,8,9-Cl6DBD	4.0	"	<4.0	<0.40
1,2,3,4,6,7,8-Cl7DBF	47	"	<47	<0.47
1,2,3,4,7,8,9-Cl7DBF	54	"	<54	<0.54
1,2,3,4,6,7,8-Cl7DBD	4.3	"	<4.3	<0.043
1,2,3,4,6,7,8,9-Cl8DBF	4.2	"	<4.2	<0.0042
1,2,3,4,6,7,8,9-Cl8DBD	2.1	"	<2.1	<0.0021
	TEF	pg	0	
	MAX TEF	"	<12	
ΣT4CDF	2.7	pg	<2.7	0
ΣP5CDF	4.3	"	<4.3	0
ΣH6CDF	2.4	"	<2.4	0
ΣH7CDF	50	"	<50	0
OCDF	4.2	"	<4.2	0
ΣT4CDD	4.6	"	<4.6	0
ΣP5CDD	3.7	"	<3.7	0
ΣH6CDD	4.1	"	<4.1	0
ΣH7CDD	4.3	"	<4.3	0
OCDD	2.1	"	<2.1	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			85	
2,3,7,8-T4CDD-13C12			81	
1,2,3,7,8-P5CDF-13C12			89	
1,2,3,7,8-P5CDD-13C12			85	
1,2,3,6,7,8-H6CDF-13C12			86	
1,2,3,6,7,8-H6CDD-13C12			82	
1,2,3,4,6,7,8-H7CDF-13C12			97	
1,2,3,4,6,7,8-H7CDD-13C12			99	
OCDD-13C12			79	

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	R02100401	R02100401	R02100401
Client ID:	06A	06A	06A
Lab No.:	039071 02	039071 02	039071 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	3.1	pg	<3.1	<0.31
2,3,7,8-Cl4DBD	3.1	"	<3.1	<3.1
1,2,3,7,8-Cl5DBF	4.3	"	<4.3	<0.22
2,3,4,7,8-Cl5DBF	4.2	"	<4.2	<2.1
1,2,3,7,8-Cl5DBD	4.1	"	<4.1	<2.0
1,2,3,4,7,8-Cl6DBF	2.9	"	<2.9	<0.29
1,2,3,6,7,8-Cl6DBF	2.7	"	<2.7	<0.27
2,3,4,6,7,8-Cl6DBF	3.1	"	<3.1	<0.31
1,2,3,7,8,9-Cl6DBF	3.4	"	<3.4	<0.34
1,2,3,4,7,8-Cl6DBD	4.7	"	<4.7	<0.47
1,2,3,6,7,8-Cl6DBD	4.3	"	<4.3	<0.43
1,2,3,7,8,9-Cl6DBD	4.2	"	<4.2	<0.42
1,2,3,4,6,7,8-Cl7DBF	51	"	<51	<0.51
1,2,3,4,7,8,9-Cl7DBF	59	"	<59	<0.59
1,2,3,4,6,7,8-Cl7DBD	6.3	"	<6.3	<0.063
1,2,3,4,6,7,8,9-Cl8DBF	3.3	"	19	0.019
1,2,3,4,6,7,8,9-Cl8DBD	9.4	"	24	0.024
	TEF	pg	0.043	
	MAX TEF	"	<12	
ΣT4CDF	3.1	pg	<3.1	0
ΣP5CDF	4.3	"	<4.3	0
ΣH6CDF	2.9	"	<2.9	0
ΣH7CDF	55	"	<55	0
OCDF	3.3	"	19	1
ΣT4CDD	3.1	"	<3.1	0
ΣP5CDD	4.1	"	<4.1	0
ΣH6CDD	4.3	"	<4.3	0
ΣH7CDD	6.3	"	<6.3	0
OCDD	9.4	"	24	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			89	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			91	
1,2,3,7,8-P5CDD-13C12			92	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			86	
1,2,3,4,6,7,8-H7CDF-13C12			101	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			78	

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	R02100401	R02100401	R02100401
Client ID:	07A	07A	07A
Lab No.:	039072 02	039072 02	039072 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	2.5	pg	<2.5	<0.25
2,3,7,8-Cl4DBD	2.9	"	<2.9	<2.9
1,2,3,7,8-Cl5DBF	1.9	"	<1.9	<0.095
2,3,4,7,8-Cl5DBF	1.8	"	<1.8	<0.92
1,2,3,7,8-Cl5DBD	3.4	"	<3.4	<1.7
1,2,3,4,7,8-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,6,7,8-Cl6DBF	1.3	"	<1.3	<0.13
2,3,4,6,7,8-Cl6DBF	1.5	"	<1.5	<0.15
1,2,3,7,8,9-Cl6DBF	1.7	"	<1.7	<0.17
1,2,3,4,7,8-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,7,8,9-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,4,6,7,8-Cl7DBF	40	"	<40	<0.40
1,2,3,4,7,8,9-Cl7DBF	46	"	<46	<0.46
1,2,3,4,6,7,8-Cl7DBD	2.2	"	<2.2	<0.022
1,2,3,4,6,7,8,9-Cl8DBF	8.8	"	<8.8	<0.0088
1,2,3,4,6,7,8,9-Cl8DBD	7.7	"	<7.7	<0.0077
	TEF	pg	0	
	MAX TEF	"	<7.9	
ΣT4CDF	2.0	pg	<2.0	0
ΣP5CDF	1.9	"	<1.9	0
ΣH6CDF	1.4	"	<1.4	0
ΣH7CDF	43	"	<43	0
OCDF	8.8	"	<8.8	0
ΣT4CDD	2.9	"	<2.9	0
ΣP5CDD	3.4	"	<3.4	0
ΣH6CDD	1.9	"	<1.9	0
ΣH7CDD	2.2	"	<2.2	0
OCDD	7.7	"	<7.7	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			87	
2,3,7,8-T4CDD-13C12			92	
1,2,3,7,8-P5CDF-13C12			94	
1,2,3,7,8-P5CDD-13C12			97	
1,2,3,6,7,8-H6CDF-13C12			85	
1,2,3,6,7,8-H6CDD-13C12			83	
1,2,3,4,6,7,8-H7CDF-13C12			95	
1,2,3,4,6,7,8-H7CDD-13C12			89	
OCDD-13C12			79	

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	R02100401	R02100401	R02100401
Client ID:	08A	08A	08A
Lab No.:	039073 02	039073 02	039073 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.32	pg	3.2	0.32
2,3,7,8-Cl4DBD	1.4	"	<1.4	<1.4
1,2,3,7,8-Cl5DBF	2.0	"	<2.0	<0.10
2,3,4,7,8-Cl5DBF	2.7	"	<2.7	<1.3
1,2,3,7,8-Cl5DBD	1.7	"	<1.7	<0.84
1,2,3,4,7,8-Cl6DBF	0.47	"	2.7	0.27
1,2,3,6,7,8-Cl6DBF	2.7	"	<2.7	<0.27
2,3,4,6,7,8-Cl6DBF	0.51	"	3.7	0.37
1,2,3,7,8,9-Cl6DBF	0.55	"	4.4	0.44
1,2,3,4,7,8-Cl6DBD	2.5	"	<2.5	<0.25
1,2,3,6,7,8-Cl6DBD	3.3	"	<3.3	<0.33
1,2,3,7,8,9-Cl6DBD	0.57	"	3.3	0.33
1,2,3,4,6,7,8-Cl7DBF	0.61	"	3.7	0.037
1,2,3,4,7,8,9-Cl7DBF	4.9	"	<4.9	<0.049
1,2,3,4,6,7,8-Cl7DBD	1.3	"	5.1	0.051
1,2,3,4,6,7,8,9-Cl8DBF	14	"	<14	<0.014
1,2,3,4,6,7,8,9-Cl8DBD	1.8	"	16	0.016
		TEF	1.8	
		MAX TEF	<6.4	
ΣT4CDF	0.32	pg	4.5	3
ΣP5CDF	0.46	"	<0.46	0
ΣH6CDF	0.47	"	11	3
ΣH7CDF	0.66	"	3.7	1
OCDF	14	"	<14	0
ΣT4CDD	0.52	"	<0.52	0
ΣP5CDD	0.55	"	1.8	2
ΣH6CDD	0.58	"	3.3	1
ΣH7CDD	1.3	"	5.1	1
OCDD	1.8	"	16	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			91	
2,3,7,8-T4CDD-13C12			87	
1,2,3,7,8-P5CDF-13C12			78	
1,2,3,7,8-P5CDD-13C12			75	
1,2,3,6,7,8-H6CDF-13C12			93	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			89	
1,2,3,4,6,7,8-H7CDD-13C12			84	
OCDD-13C12			65	

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	R02100401	R02100401	R02100401
Client ID:	09A	09A	09A
Lab No.:	039074 02	039074 02	039074 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.24	pg	4.2	0.42
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.54	"	0.89	0.044
2,3,4,7,8-Cl5DBF	0.52	"	0.92	0.46
1,2,3,7,8-Cl5DBD	0.34	"	<0.34	<0.17
1,2,3,4,7,8-Cl6DBF	0.78	"	<0.78	<0.078
1,2,3,6,7,8-Cl6DBF	0.22	"	0.45	0.045
2,3,4,6,7,8-Cl6DBF	0.44	"	<0.44	<0.044
1,2,3,7,8,9-Cl6DBF	0.28	"	<0.28	<0.028
1,2,3,4,7,8-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,6,7,8-Cl6DBD	0.24	"	0.44	0.044
1,2,3,7,8,9-Cl6DBD	0.40	"	<0.40	<0.040
1,2,3,4,6,7,8-Cl7DBF	3.0	"	<3.0	<0.030
1,2,3,4,7,8,9-Cl7DBF	0.43	"	<0.43	<0.0043
1,2,3,4,6,7,8-Cl7DBD	0.30	"	2.3	0.023
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	0.31	"	17	0.017
	TEF	pg	1.1	
	MAX TEF	"	<1.9	
ΣT4CDF	0.24	pg	16	10
ΣP5CDF	0.54	"	4.2	5
ΣH6CDF	0.26	"	1.3	2
ΣH7CDF	0.59	"	<0.59	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.25	"	11	5
ΣP5CDD	0.38	"	5.8	3
ΣH6CDD	0.24	"	0.44	1
ΣH7CDD	0.30	"	4.2	2
OCDD	0.31	"	17	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			92	
1,2,3,7,8-P5CDD-13C12			87	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			90	
1,2,3,4,6,7,8-H7CDF-13C12			99	
1,2,3,4,6,7,8-H7CDD-13C12			103	
OCDD-13C12			86	

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	R02100401	R02100401	R02100401
Client ID:	10A	10A	10A
Lab No.:	039075 02	039075 02	039075 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.27	pg	1.5	0.15
2,3,7,8-Cl4DBD	0.36	"	<0.36	<0.36
1,2,3,7,8-Cl5DBF	0.43	"	<0.43	<0.022
2,3,4,7,8-Cl5DBF	0.37	"	<0.37	<0.18
1,2,3,7,8-Cl5DBD	0.43	"	<0.43	<0.22
1,2,3,4,7,8-Cl6DBF	0.38	"	<0.38	<0.038
1,2,3,6,7,8-Cl6DBF	0.35	"	<0.35	<0.035
2,3,4,6,7,8-Cl6DBF	0.42	"	<0.42	<0.042
1,2,3,7,8,9-Cl6DBF	0.31	"	<0.31	<0.031
1,2,3,4,7,8-Cl6DBD	0.51	"	<0.51	<0.051
1,2,3,6,7,8-Cl6DBD	0.48	"	<0.48	<0.048
1,2,3,7,8,9-Cl6DBD	0.51	"	<0.51	<0.051
1,2,3,4,6,7,8-Cl7DBF	0.68	"	<0.68	<0.0068
1,2,3,4,7,8,9-Cl7DBF	0.44	"	<0.44	<0.0044
1,2,3,4,6,7,8-Cl7DBD	0.49	"	0.76	0.0076
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	0.62	"	6.6	0.0066
	TEF	pg	0.16	
	MAX TEF	"	<1.2	
ΣT4CDF	0.27	pg	2.2	2
ΣP5CDF	0.38	"	<0.38	0
ΣH6CDF	0.26	"	<0.26	0
ΣH7CDF	0.54	"	<0.54	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.32	"	<0.32	0
ΣP5CDD	0.43	"	<0.43	0
ΣH6CDD	0.48	"	<0.48	0
ΣH7CDD	0.49	"	0.76	1
OCDD	0.62	"	6.6	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			99	
2,3,7,8-T4CDD-13C12			97	
1,2,3,7,8-P5CDF-13C12			99	
1,2,3,7,8-P5CDD-13C12			97	
1,2,3,6,7,8-H6CDF-13C12			86	
1,2,3,6,7,8-H6CDD-13C12			90	
1,2,3,4,6,7,8-H7CDF-13C12			88	
1,2,3,4,6,7,8-H7CDD-13C12			101	
OCDD-13C12			80	

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	R02100401	R02100401	R02100401
Client ID:	11A	11A	11A
Lab No.:	039076 02	039076 02	039076 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.25	pg	5.3	0.53
2,3,7,8-Cl4DBD	1.4	"	<1.4	<1.4
1,2,3,7,8-Cl5DBF	0.55	"	1.2	0.060
2,3,4,7,8-Cl5DBF	0.53	"	0.94	0.47
1,2,3,7,8-Cl5DBD	0.46	"	0.62	0.31
1,2,3,4,7,8-Cl6DBF	0.31	"	1.4	0.14
1,2,3,6,7,8-Cl6DBF	0.61	"	<0.61	<0.061
2,3,4,6,7,8-Cl6DBF	0.33	"	0.96	0.096
1,2,3,7,8,9-Cl6DBF	0.36	"	<0.36	<0.036
1,2,3,4,7,8-Cl6DBD	0.27	"	<0.27	<0.027
1,2,3,6,7,8-Cl6DBD	0.45	"	<0.45	<0.045
1,2,3,7,8,9-Cl6DBD	0.35	"	0.54	0.054
1,2,3,4,6,7,8-Cl7DBF	3.2	"	<3.2	<0.032
1,2,3,4,7,8,9-Cl7DBF	5.2	"	<5.2	<0.052
1,2,3,4,6,7,8-Cl7DBD	3.5	"	<3.5	<0.035
1,2,3,4,6,7,8,9-Cl8DBF	2.4	"	<2.4	<0.0024
1,2,3,4,6,7,8,9-Cl8DBD	0.7	"	29	0.029
	TEF	pg	1.7	
	MAX TEF	"	<3.4	
ΣT4CDF	0.25	pg	15	8
ΣP5CDF	0.55	"	3.8	3
ΣH6CDF	0.31	"	2.4	2
ΣH7CDF	4.8	"	<4.8	0
OCDF	2.4	"	<2.4	0
ΣT4CDD	0.61	"	10	4
ΣP5CDD	0.46	"	8.9	5
ΣH6CDD	0.36	"	1.7	2
ΣH7CDD	0.96	"	3.4	1
OCDD	0.7	"	29	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			99	
2,3,7,8-T4CDD-13C12			91	
1,2,3,7,8-P5CDF-13C12			96	
1,2,3,7,8-P5CDD-13C12			93	
1,2,3,6,7,8-H6CDF-13C12			78	
1,2,3,6,7,8-H6CDD-13C12			86	
1,2,3,4,6,7,8-H7CDF-13C12			76	
1,2,3,4,6,7,8-H7CDD-13C12			97	
OCDD-13C12			80	

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	R02100401	R02100401	R02100401
Client ID:	12A	12A	12A
Lab No.:	039077 02	039077 02	039077 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	1.3	pg	<1.3	<0.13
2,3,7,8-Cl4DBD	0.39	"	<0.39	<0.39
1,2,3,7,8-Cl5DBF	0.67	"	<0.67	<0.033
2,3,4,7,8-Cl5DBF	0.64	"	<0.64	<0.32
1,2,3,7,8-Cl5DBD	0.50	"	<0.50	<0.25
1,2,3,4,7,8-Cl6DBF	0.35	"	<0.35	<0.035
1,2,3,6,7,8-Cl6DBF	0.33	"	<0.33	<0.033
2,3,4,6,7,8-Cl6DBF	0.39	"	<0.39	<0.039
1,2,3,7,8,9-Cl6DBF	0.42	"	<0.42	<0.042
1,2,3,4,7,8-Cl6DBD	0.64	"	<0.64	<0.064
1,2,3,6,7,8-Cl6DBD	0.59	"	<0.59	<0.059
1,2,3,7,8,9-Cl6DBD	0.58	"	<0.58	<0.058
1,2,3,4,6,7,8-Cl7DBF	55	"	<55	<0.55
1,2,3,4,7,8,9-Cl7DBF	55	"	<55	<0.55
1,2,3,4,6,7,8-Cl7DBD	0.70	"	<0.70	<0.0070
1,2,3,4,6,7,8,9-Cl8DBF	0.87	"	<0.87	<0.00087
1,2,3,4,6,7,8,9-Cl8DBD	4.4	"	<4.4	<0.0044

TEF	pg	0
MAX TEF	"	<2.6

ΣT4CDF	0.42	pg	<0.42	0
ΣP5CDF	0.67	"	<0.67	0
ΣH6CDF	0.35	"	<0.35	0
ΣH7CDF	59	"	<59	0
OCDF	0.87	"	<0.87	0
ΣT4CDD	0.39	"	<0.39	0
ΣP5CDD	0.50	"	<0.50	0
ΣH6CDD	0.59	"	<0.59	0
ΣH7CDD	0.70	"	<0.70	0
OCDD	4.4	"	<4.4	0

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	100
2,3,7,8-T4CDD-13C12	98
1,2,3,7,8-P5CDF-13C12	95
1,2,3,7,8-P5CDD-13C12	92
1,2,3,6,7,8-H6CDF-13C12	68
1,2,3,6,7,8-H6CDD-13C12	83
1,2,3,4,6,7,8-H7CDF-13C12	62
1,2,3,4,6,7,8-H7CDD-13C12	97
OCDD-13C12	76

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	R02100401	R02100401	R02100401
Client ID:	13A	13A	13A
Lab No.:	039078 02	039078 02	039078 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.0	pg	<1.0	<0.10
2,3,7,8-Cl4DBD	0.36	"	0.53	0.53
1,2,3,7,8-Cl5DBF	0.70	"	<0.70	<0.035
2,3,4,7,8-Cl5DBF	0.67	"	<0.67	<0.34
1,2,3,7,8-Cl5DBD	0.66	"	<0.66	<0.33
1,2,3,4,7,8-Cl6DBF	0.85	"	<0.85	<0.085
1,2,3,6,7,8-Cl6DBF	0.79	"	<0.79	<0.079
2,3,4,6,7,8-Cl6DBF	0.92	"	<0.92	<0.092
1,2,3,7,8,9-Cl6DBF	1.00	"	<1.00	<0.100
1,2,3,4,7,8-Cl6DBD	0.73	"	<0.73	<0.073
1,2,3,6,7,8-Cl6DBD	0.68	"	<0.68	<0.068
1,2,3,7,8,9-Cl6DBD	0.66	"	<0.66	<0.066
1,2,3,4,6,7,8-Cl7DBF	2.6	"	<2.6	<0.026
1,2,3,4,7,8,9-Cl7DBF	61	"	<61	<0.61
1,2,3,4,6,7,8-Cl7DBD	0.31	"	<0.31	<0.0031
1,2,3,4,6,7,8,9-Cl8DBF	0.82	"	<0.82	<0.00082
1,2,3,4,6,7,8,9-Cl8DBD	0.82	"	2.1	0.0021
	TEF	pg	0.53	
	MAX TEF	"	<2.5	
ΣT4CDF	0.26	pg	<0.26	0
ΣP5CDF	0.70	"	<0.70	0
ΣH6CDF	0.85	"	<0.85	0
ΣH7CDF	57	"	<57	0
OCDF	0.82	"	<0.82	0
ΣT4CDD	0.36	"	0.53	1
ΣP5CDD	0.66	"	<0.66	0
ΣH6CDD	0.68	"	<0.68	0
ΣH7CDD	0.46	"	<0.46	0
OCDD	0.82	"	2.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			99	
2,3,7,8-T4CDD-13C12			94	
1,2,3,7,8-P5CDF-13C12			99	
1,2,3,7,8-P5CDD-13C12			95	
1,2,3,6,7,8-H6CDF-13C12			59	
1,2,3,6,7,8-H6CDD-13C12			78	
1,2,3,4,6,7,8-H7CDF-13C12			50	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			79	

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	R02100401	R02100401	R02100401
Client ID:	14A	14A	14A
Lab No.:	039079 02	039079 02	039079 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.39	pg	2.4	0.24
2,3,7,8-Cl4DBD	0.62	"	<0.62	<0.62
1,2,3,7,8-Cl5DBF	0.57	"	<0.57	<0.029
2,3,4,7,8-Cl5DBF	0.52	"	<0.52	<0.26
1,2,3,7,8-Cl5DBD	0.91	"	<0.91	<0.46
1,2,3,4,7,8-Cl6DBF	0.46	"	<0.46	<0.046
1,2,3,6,7,8-Cl6DBF	0.63	"	<0.63	<0.063
2,3,4,6,7,8-Cl6DBF	0.74	"	<0.74	<0.074
1,2,3,7,8,9-Cl6DBF	0.80	"	<0.80	<0.080
1,2,3,4,7,8-Cl6DBD	0.96	"	<0.96	<0.096
1,2,3,6,7,8-Cl6DBD	0.89	"	<0.89	<0.089
1,2,3,7,8,9-Cl6DBD	0.87	"	<0.87	<0.087
1,2,3,4,6,7,8-Cl7DBF	0.76	"	<0.76	<0.0076
1,2,3,4,7,8,9-Cl7DBF	7.4	"	<7.4	<0.074
1,2,3,4,6,7,8-Cl7DBD	1.5	"	<1.5	<0.015
1,2,3,4,6,7,8,9-Cl8DBF	0.86	"	1.6	0.0016
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	6.6	0.0066
	TEF	pg	0.24	
	MAX TEF	"	<2.2	
ΣT4CDF	0.39	pg	5.4	5
ΣP5CDF	0.54	"	<0.54	0
ΣH6CDF	0.68	"	<0.68	0
ΣH7CDF	6.9	"	<6.9	0
OCDF	0.86	"	1.6	1
ΣT4CDD	0.62	"	2.0	1
ΣP5CDD	0.91	"	1.7	1
ΣH6CDD	0.89	"	<0.89	0
ΣH7CDD	1.0	"	<1.0	0
OCDD	1.3	"	6.6	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			93	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			76	
1,2,3,7,8-P5CDD-13C12			69	
1,2,3,6,7,8-H6CDF-13C12			92	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			88	
1,2,3,4,6,7,8-H7CDD-13C12			84	
OCDD-13C12			62	

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	R02100401	R02100401	R02100401
Client ID:	15A	15A	15A
Lab No.:	039080 02	039080 02	039080 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	4.4	pg	<4.4	<0.44
2,3,7,8-Cl4DBD	0.56	"	<0.56	<0.56
1,2,3,7,8-Cl5DBF	0.54	"	<0.54	<0.027
2,3,4,7,8-Cl5DBF	0.52	"	<0.52	<0.26
1,2,3,7,8-Cl5DBD	0.73	"	<0.73	<0.36
1,2,3,4,7,8-Cl6DBF	1.6	"	<1.6	<0.16
1,2,3,6,7,8-Cl6DBF	0.25	"	<0.25	<0.025
2,3,4,6,7,8-Cl6DBF	0.94	"	<0.94	<0.094
1,2,3,7,8,9-Cl6DBF	0.60	"	<0.60	<0.060
1,2,3,4,7,8-Cl6DBD	0.96	"	<0.96	<0.096
1,2,3,6,7,8-Cl6DBD	0.89	"	<0.89	<0.089
1,2,3,7,8,9-Cl6DBD	0.87	"	<0.87	<0.087
1,2,3,4,6,7,8-Cl7DBF	3.4	"	<3.4	<0.034
1,2,3,4,7,8,9-Cl7DBF	20	"	<20	<0.20
1,2,3,4,6,7,8-Cl7DBD	2.6	"	<2.6	<0.026
1,2,3,4,6,7,8,9-Cl8DBF	2.4	"	<2.4	<0.0024
1,2,3,4,6,7,8,9-Cl8DBD	24	"	<24	<0.024

TEF	pg	0
MAX TEF	"	<2.5

ΣT4CDF	0.38	pg	7.4	5
ΣP5CDF	0.54	"	<0.54	0
ΣH6CDF	0.55	"	<0.55	0
ΣH7CDF	19	"	<19	0
OCDF	2.4	"	<2.4	0
ΣT4CDD	0.42	"	8.5	2
ΣP5CDD	0.73	"	3.2	2
ΣH6CDD	0.89	"	5.5	1
ΣH7CDD	1.3	"	<1.3	0
OCDD	24	"	<24	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	101
2,3,7,8-T4CDD-13C12	89
1,2,3,7,8-P5CDF-13C12	82
1,2,3,7,8-P5CDD-13C12	72
1,2,3,6,7,8-H6CDF-13C12	96
1,2,3,6,7,8-H6CDD-13C12	95
1,2,3,4,6,7,8-H7CDF-13C12	84
1,2,3,4,6,7,8-H7CDD-13C12	87
OCDD-13C12	63

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	R02100401	R02100401	R02100401
Client ID:	16A	16A	16A
Lab No.:	039081 02	039081 02	039081 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.15	pg	1.8	0.18
2,3,7,8-Cl4DBD	0.33	"	<0.33	<0.33
1,2,3,7,8-Cl5DBF	0.37	"	<0.37	<0.018
2,3,4,7,8-Cl5DBF	0.35	"	<0.35	<0.18
1,2,3,7,8-Cl5DBD	0.81	"	<0.81	<0.41
1,2,3,4,7,8-Cl6DBF	0.28	"	<0.28	<0.028
1,2,3,6,7,8-Cl6DBF	0.22	"	<0.22	<0.022
2,3,4,6,7,8-Cl6DBF	0.17	"	<0.17	<0.017
1,2,3,7,8,9-Cl6DBF	0.32	"	<0.32	<0.032
1,2,3,4,7,8-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,6,7,8-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,7,8,9-Cl6DBD	0.29	"	<0.29	<0.029
1,2,3,4,6,7,8-Cl7DBF	1.2	"	<1.2	<0.012
1,2,3,4,7,8,9-Cl7DBF	17	"	<17	<0.17
1,2,3,4,6,7,8-Cl7DBD	0.43	"	0.58	0.0058
1,2,3,4,6,7,8,9-Cl8DBF	0.58	"	<0.58	<0.00058
1,2,3,4,6,7,8,9-Cl8DBD	0.56	"	3.1	0.0031
	TEF	pg	0.19	
	MAX TEF	"	<1.5	
ΣT4CDF	0.15	pg	4.2	5
ΣP5CDF	0.37	"	<0.37	0
ΣH6CDF	0.30	"	<0.30	0
ΣH7CDF	16	"	<16	0
OCDF	0.58	"	<0.58	0
ΣT4CDD	0.33	"	4.3	2
ΣP5CDD	0.81	"	1.1	1
ΣH6CDD	0.30	"	<0.30	0
ΣH7CDD	0.43	"	0.58	1
OCDD	0.56	"	3.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			93	
2,3,7,8-T4CDD-13C12			93	
1,2,3,7,8-P5CDF-13C12			94	
1,2,3,7,8-P5CDD-13C12			92	
1,2,3,6,7,8-H6CDF-13C12			93	
1,2,3,6,7,8-H6CDD-13C12			94	
1,2,3,4,6,7,8-H7CDF-13C12			105	
1,2,3,4,6,7,8-H7CDD-13C12			105	
OCDD-13C12			83	

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	R02100401	R02100401	R02100401
Client ID:	17A	17A	17A
Lab No.:	039082 02	039082 02	039082 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.8	pg	<1.8	<0.18
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.33	"	<0.33	<0.016
2,3,4,7,8-Cl5DBF	0.25	"	<0.25	<0.12
1,2,3,7,8-Cl5DBD	0.41	"	<0.41	<0.21
1,2,3,4,7,8-Cl6DBF	0.44	"	<0.44	<0.044
1,2,3,6,7,8-Cl6DBF	0.12	"	<0.12	<0.012
2,3,4,6,7,8-Cl6DBF	0.45	"	<0.45	<0.045
1,2,3,7,8,9-Cl6DBF	0.49	"	<0.49	<0.049
1,2,3,4,7,8-Cl6DBD	0.61	"	<0.61	<0.061
1,2,3,6,7,8-Cl6DBD	0.56	"	<0.56	<0.056
1,2,3,7,8,9-Cl6DBD	0.55	"	<0.55	<0.055
1,2,3,4,6,7,8-Cl7DBF	1.3	"	<1.3	<0.013
1,2,3,4,7,8,9-Cl7DBF	3.2	"	<3.2	<0.032
1,2,3,4,6,7,8-Cl7DBD	2.9	"	<2.9	<0.029
1,2,3,4,6,7,8,9-Cl8DBF	0.71	"	2.8	0.0028
1,2,3,4,6,7,8,9-Cl8DBD	0.69	"	29	0.029
	TEF	pg	0.032	
	MAX TEF	"	<1.3	
ΣT4CDF	0.20	pg	2.2	4
ΣP5CDF	0.41	"	<0.41	0
ΣH6CDF	0.41	"	<0.41	0
ΣH7CDF	3.0	"	<3.0	0
OCDF	0.71	"	2.8	1
ΣT4CDD	0.37	"	3.0	2
ΣP5CDD	0.41	"	1.7	2
ΣH6CDD	0.56	"	<0.56	0
ΣH7CDD	1.1	"	2.2	1
OCDD	0.69	"	29	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			90	
2,3,7,8-T4CDD-13C12			87	
1,2,3,7,8-P5CDF-13C12			76	
1,2,3,7,8-P5CDD-13C12			72	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			85	
1,2,3,4,6,7,8-H7CDF-13C12			88	
1,2,3,4,6,7,8-H7CDD-13C12			86	
OCDD-13C12			64	

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	R02100401	R02100401	R02100401
Client ID:	18A	18A	18A
Lab No.:	039083 02	039083 02	039083 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.18	pg	2.0	0.20
2,3,7,8-Cl4DBD	0.25	"	<0.25	<0.25
1,2,3,7,8-Cl5DBF	0.24	"	0.36	0.018
2,3,4,7,8-Cl5DBF	0.31	"	<0.31	<0.15
1,2,3,7,8-Cl5DBD	0.44	"	<0.44	<0.22
1,2,3,4,7,8-Cl6DBF	0.34	"	<0.34	<0.034
1,2,3,6,7,8-Cl6DBF	0.18	"	0.19	0.019
2,3,4,6,7,8-Cl6DBF	0.21	"	<0.21	<0.021
1,2,3,7,8,9-Cl6DBF	0.22	"	<0.22	<0.022
1,2,3,4,7,8-Cl6DBD	0.14	"	<0.14	<0.014
1,2,3,6,7,8-Cl6DBD	0.13	"	<0.13	<0.013
1,2,3,7,8,9-Cl6DBD	0.13	"	<0.13	<0.013
1,2,3,4,6,7,8-Cl7DBF	1.2	"	<1.2	<0.012
1,2,3,4,7,8,9-Cl7DBF	0.81	"	<0.81	<0.0081
1,2,3,4,6,7,8-Cl7DBD	0.15	"	1.1	0.011
1,2,3,4,6,7,8,9-Cl8DBF	0.98	"	<0.98	<0.00098
1,2,3,4,6,7,8,9-Cl8DBD	0.59	"	11	0.011
	TEF	pg	0.26	
	MAX TEF	"	<1.0	
ΣT4CDF	0.18	pg	4.9	6
ΣP5CDF	0.24	"	1.7	3
ΣH6CDF	0.19	"	0.61	2
ΣH7CDF	0.75	"	<0.75	0
OCDF	0.98	"	<0.98	0
ΣT4CDD	0.27	"	4.9	3
ΣP5CDD	0.44	"	2.8	3
ΣH6CDD	0.13	"	0.37	1
ΣH7CDD	0.15	"	2.4	2
OCDD	0.59	"	11	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			84	
2,3,7,8-T4CDD-13C12			79	
1,2,3,7,8-P5CDF-13C12			85	
1,2,3,7,8-P5CDD-13C12			89	
1,2,3,6,7,8-H6CDF-13C12			79	
1,2,3,6,7,8-H6CDD-13C12			82	
1,2,3,4,6,7,8-H7CDF-13C12			92	
1,2,3,4,6,7,8-H7CDD-13C12			93	
OCDD-13C12			78	

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	R02100401	R02100401	R02100401
Client ID:	19A	19A	19A
Lab No.:	039084 02	039084 02	039084 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	14	pg	<14	<1.4
2,3,7,8-Cl4DBD	71	"	<71	<71
1,2,3,7,8-Cl5DBF	13	"	<13	<0.67
2,3,4,7,8-Cl5DBF	13	"	<13	<6.5
1,2,3,7,8-Cl5DBD	27	"	<27	<14
1,2,3,4,7,8-Cl6DBF	10	"	<10	<1.0
1,2,3,6,7,8-Cl6DBF	9.5	"	<9.5	<0.95
2,3,4,6,7,8-Cl6DBF	11	"	<11	<1.1
1,2,3,7,8,9-Cl6DBF	12	"	<12	<1.2
1,2,3,4,7,8-Cl6DBD	17	"	<17	<1.7
1,2,3,6,7,8-Cl6DBD	15	"	<15	<1.5
1,2,3,7,8,9-Cl6DBD	15	"	<15	<1.5
1,2,3,4,6,7,8-Cl7DBF	200	"	<200	<2.0
1,2,3,4,7,8,9-Cl7DBF	200	"	<200	<2.0
1,2,3,4,6,7,8-Cl7DBD	17	"	<17	<0.17
1,2,3,4,6,7,8,9-Cl8DBF	38	"	<38	<0.038
1,2,3,4,6,7,8,9-Cl8DBD	250	"	<250	<0.25
	TEF	pg	0	
	MAX TEF	"	<110	
ΣT4CDF	14	pg	<14	0
ΣP5CDF	13	"	<13	0
ΣH6CDF	10	"	<10	0
ΣH7CDF	220	"	<220	0
OCDF	38	"	<38	0
ΣT4CDD	71	"	<71	0
ΣP5CDD	27	"	<27	0
ΣH6CDD	15	"	<15	0
ΣH7CDD	17	"	<17	0
OCDD	250	"	<250	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			113	
2,3,7,8-T4CDD-13C12			102	
1,2,3,7,8-P5CDF-13C12			111	
1,2,3,7,8-P5CDD-13C12			112	
1,2,3,6,7,8-H6CDF-13C12			85	
1,2,3,6,7,8-H6CDD-13C12			85	
1,2,3,4,6,7,8-H7CDF-13C12			96	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			94	

Certificate No: 2J0574
nh

Page 19 of 20

file # =039066ot.xls
Revision No. 0

**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	20A	20A	20A
Lab No.:	039085 02	039085 02	039085 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.14	pg	2.4	0.24
2,3,7,8-Cl4DBD	0.42	"	<0.42	<0.42
1,2,3,7,8-Cl5DBF	0.49	"	<0.49	<0.025
2,3,4,7,8-Cl5DBF	0.41	"	<0.41	<0.21
1,2,3,7,8-Cl5DBD	0.51	"	<0.51	<0.25
1,2,3,4,7,8-Cl6DBF	0.26	"	<0.26	<0.026
1,2,3,6,7,8-Cl6DBF	0.24	"	<0.24	<0.024
2,3,4,6,7,8-Cl6DBF	0.28	"	<0.28	<0.028
1,2,3,7,8,9-Cl6DBF	0.31	"	<0.31	<0.031
1,2,3,4,7,8-Cl6DBD	0.28	"	<0.28	<0.028
1,2,3,6,7,8-Cl6DBD	0.26	"	<0.26	<0.026
1,2,3,7,8,9-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,4,6,7,8-Cl7DBF	0.81	"	<0.81	<0.0081
1,2,3,4,7,8,9-Cl7DBF	0.88	"	<0.88	<0.0088
1,2,3,4,6,7,8-Cl7DBD	0.66	"	<0.66	<0.0066
1,2,3,4,6,7,8,9-Cl8DBF	1.0	"	<1.0	<0.0010
1,2,3,4,6,7,8,9-Cl8DBD	2.8	"	<2.8	<0.0028
	TEF	pg	0.24	
	MAX TEF	"	<1.4	
ΣT4CDF	0.14	pg	4.9	5
ΣP5CDF	0.49	"	0.51	1
ΣH6CDF	0.26	"	<0.26	0
ΣH7CDF	0.82	"	<0.82	0
OCDF	1.0	"	<1.0	0
ΣT4CDD	0.42	"	0.89	1
ΣP5CDD	0.51	"	0.84	1
ΣH6CDD	0.26	"	<0.26	0
ΣH7CDD	0.37	"	<0.37	0
OCDD	2.8	"	<2.8	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			93	
2,3,7,8-T4CDD-13C12			92	
1,2,3,7,8-P5CDF-13C12			73	
1,2,3,7,8-P5CDD-13C12			66	
1,2,3,6,7,8-H6CDF-13C12			74	
1,2,3,6,7,8-H6CDD-13C12			83	
1,2,3,4,6,7,8-H7CDF-13C12			55	
1,2,3,4,6,7,8-H7CDD-13C12			78	
OCDD-13C12			54	

Certificate No: 2J0574
nh

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file # =039066ot.xls
Revision No. 0

**PSC Analytical Services
Laboratory Method Blanks**

Component	RDL	Units	BLANK	TEF	# of Isomers	MR
Batch Code:			1025NZ01			
2,3,7,8-Cl4DBF	0.40	pg	1.3	0.13		97%
2,3,7,8-Cl4DBD	0.58	"	0.86	0.86		108%
1,2,3,7,8-Cl5DBF	0.56	"	<0.56	<0.028		107%
2,3,4,7,8-Cl5DBF	0.54	"	<0.54	<0.27		94%
1,2,3,7,8-Cl5DBD	1.1	"	<1.1	<0.54		89%
1,2,3,4,7,8-Cl6DBF	0.32	"	<0.32	<0.032		102%
1,2,3,6,7,8-Cl6DBF	0.30	"	<0.30	<0.030		98%
2,3,4,6,7,8-Cl6DBF	0.35	"	<0.35	<0.035		104%
1,2,3,7,8,9-Cl6DBF	0.38	"	<0.38	<0.038		103%
1,2,3,4,7,8-Cl6DBD	0.80	"	<0.80	<0.080		100%
1,2,3,6,7,8-Cl6DBD	0.75	"	<0.75	<0.075		92%
1,2,3,7,8,9-Cl6DBD	0.73	"	<0.73	<0.073		93%
1,2,3,4,6,7,8-Cl7DBF	0.72	"	<0.72	<0.0072		101%
1,2,3,4,7,8,9-Cl7DBF	1.1	"	<1.1	<0.011		82%
1,2,3,4,6,7,8-Cl7DBD	5.8	"	<5.8	<0.058		98%
1,2,3,4,6,7,8,9-Cl8DBF	1.3	"	2.7	0.0027		95%
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	11	0.011		98%
	FET	pg		1.0		
	FET MAX	"		<2.3		
ΣT4CDF	0.40	pg	1.3		1	97%
ΣP5CDF	0.56	"	<0.56		0	101%
ΣH6CDF	0.35	"	<0.35		0	102%
ΣH7CDF	0.81	"	<0.81		0	92%
OCDF	1.3	"	2.7		1	95%
ΣT4CDD	0.58	"	0.86		1	108%
ΣP5CDD	1.1	"	<1.1		0	89%
ΣH6CDD	0.75	"	<0.75		0	95%
ΣH7CDD	0.95	"	<0.95		0	98%
OCDD	1.3	"	11		1	98%
Surrogate Recoveries		%				
2,3,7,8-T4CDF-13C12			91			
2,3,7,8-T4CDD-13C12			82			
1,2,3,7,8-P5CDF-13C12			80			
1,2,3,7,8-P5CDD-13C12			74			
1,2,3,6,7,8-H6CDF-13C12			87			
1,2,3,6,7,8-H6CDD-13C12			85			
1,2,3,4,6,7,8-H7CDF-13C12			86			
1,2,3,4,6,7,8-H7CDD-13C12			37			
OCDD-13C12			68			

**PSC Analytical Services
Laboratory Method Blanks**

Component	RDL	Units	BLANK	TEF	# of Isomers	MR
Batch Code:			1028NZ01			
2,3,7,8-Cl4DBF	0.25	pg	1.3	0.13		101%
2,3,7,8-Cl4DBD	0.40	"	0.57	0.57		113%
1,2,3,7,8-Cl5DBF	0.67	"	<0.67	<0.034		116%
2,3,4,7,8-Cl5DBF	0.73	"	<0.73	<0.36		106%
1,2,3,7,8-Cl5DBD	0.45	"	<0.45	<0.23		96%
1,2,3,4,7,8-Cl6DBF	0.52	"	0.53	0.053		98%
1,2,3,6,7,8-Cl6DBF	0.56	"	<0.56	<0.056		107%
2,3,4,6,7,8-Cl6DBF	0.85	"	<0.85	<0.085		120%
1,2,3,7,8,9-Cl6DBF	0.61	"	<0.61	<0.061		117%
1,2,3,4,7,8-Cl6DBD	0.58	"	<0.58	<0.058		93%
1,2,3,6,7,8-Cl6DBD	0.53	"	<0.53	<0.053		105%
1,2,3,7,8,9-Cl6DBD	0.52	"	<0.52	<0.052		68%
1,2,3,4,6,7,8-Cl7DBF	1.6	"	<1.6	<0.016		107%
1,2,3,4,7,8,9-Cl7DBF	1.4	"	<1.4	<0.014		115%
1,2,3,4,6,7,8-Cl7DBD	0.49	"	1.8	0.018		104%
1,2,3,4,6,7,8,9-Cl8DBF	2.9	"	<2.9	<0.0029		96%
1,2,3,4,6,7,8,9-Cl8DBD	0.83	"	32	0.032		103%
	FET	pg		0.80		
	FET MAX	"		<1.8		
ΣT4CDF	0.25	pg	1.9		2	101%
ΣP5CDF	0.41	"	<0.41		0	111%
ΣH6CDF	0.52	"	0.53		1	111%
ΣH7CDF	1.3	"	<1.3		0	111%
OCDF	2.9	"	<2.9		0	96%
ΣT4CDD	0.40	"	0.57		1	113%
ΣP5CDD	0.45	"	<0.45		0	96%
ΣH6CDD	0.53	"	<0.53		0	89%
ΣH7CDD	0.49	"	1.8		1	104%
OCDD	0.83	"	32		1	103%
Surrogate Recoveries		%				
2,3,7,8-T4CDF-13C12			55			
2,3,7,8-T4CDD-13C12			44			
1,2,3,7,8-P5CDF-13C12			46			
1,2,3,7,8-P5CDD-13C12			41			
1,2,3,6,7,8-H6CDF-13C12			33			
1,2,3,6,7,8-H6CDD-13C12			39			
1,2,3,4,6,7,8-H7CDF-13C12			26			
1,2,3,4,6,7,8-H7CDD-13C12			44			
OCDD-13C12			32			

**PSC Analytical Services
Laboratory Method Blanks**

Component	RDL	Units	BLANK	TEF	# of Isomers	MR
Batch Code:			1030NZ01			
2,3,7,8-Cl4DBF	0.27	pg	0.55	0.055		99%
2,3,7,8-Cl4DBD	0.27	"	<0.27	<0.27		112%
1,2,3,7,8-Cl5DBF	0.62	"	<0.62	<0.031		111%
2,3,4,7,8-Cl5DBF	0.59	"	<0.59	<0.30		99%
1,2,3,7,8-Cl5DBD	0.53	"	<0.53	<0.27		92%
1,2,3,4,7,8-Cl6DBF	0.45	"	0.50	0.050		109%
1,2,3,6,7,8-Cl6DBF	0.42	"	<0.42	<0.042		102%
2,3,4,6,7,8-Cl6DBF	0.49	"	<0.49	<0.049		110%
1,2,3,7,8,9-Cl6DBF	0.53	"	<0.53	<0.053		112%
1,2,3,4,7,8-Cl6DBD	0.43	"	<0.43	<0.043		105%
1,2,3,6,7,8-Cl6DBD	0.40	"	<0.40	<0.040		105%
1,2,3,7,8,9-Cl6DBD	0.39	"	0.45	0.045		100%
1,2,3,4,6,7,8-Cl7DBF	0.99	"	<0.99	<0.0099		105%
1,2,3,4,7,8,9-Cl7DBF	0.62	"	<0.62	<0.0062		96%
1,2,3,4,6,7,8-Cl7DBD	0.58	"	<0.58	<0.0058		104%
1,2,3,4,6,7,8,9-Cl8DBF	0.74	"	2.0	0.0020		97%
1,2,3,4,6,7,8,9-Cl8DBD	3.7	"	<3.7	<0.0037		102%
FET		pg		0.15		
FET MAX		"		<1.3		
ΣT4CDF	0.27	pg	0.55		1	99%
ΣP5CDF	0.62	"	<0.62		0	105%
ΣH6CDF	0.45	"	0.50		1	108%
ΣH7CDF	0.39	"	<0.39		0	101%
OCDF	0.74	"	2.0		1	97%
ΣT4CDD	0.27	"	<0.27		0	112%
ΣP5CDD	0.53	"	<0.53		0	92%
ΣH6CDD	0.40	"	0.45		1	103%
ΣH7CDD	0.47	"	<0.47		0	104%
OCDD	3.7	"	<3.7		0	102%
Surrogate Recoveries		%				
2,3,7,8-T4CDF-13C12			93			
2,3,7,8-T4CDD-13C12			88			
1,2,3,7,8-P5CDF-13C12			78			
1,2,3,7,8-P5CDD-13C12			74			
1,2,3,6,7,8-H6CDF-13C12			90			
1,2,3,6,7,8-H6CDD-13C12			90			
1,2,3,4,6,7,8-H7CDF-13C12			78			
1,2,3,4,6,7,8-H7CDD-13C12			87			
OCDD-13C12			65			

**PSC Analytical Services
Summary of Analysis Prep. Dates**

Batch Code:	1025NZ01	1025NZ01	1028NZ01	1028NZ01	1030NZ01
2,3,7,8-C14DBF etc.	039066 02	039067 02	039073 02	039074 02	039082 02
		039068 02	039075 02	039080 02	039083 02
		039069 02	039076 02	039081 02	039084 02
		039070 02	039077 02		039085 02
		039071 02	039078 02		
		039072 02	039079 02		
Date Analyzed:	11/2/2002	11/15/2002	11/17/2002	11/16/2002	11/17/2002
Date Prepared:	10/25/2002	10/25/2002	10/28/2002	10/28/2002	10/30/2002
Batch Code:	1025NZ01	1025NZ01	1028NZ01	1028NZ01	1030NZ01
ΣT4CDF etc.	039066 02	039067 02	039073 02	039074 02	039082 02
		039068 02	039075 02	039080 02	039083 02
		039069 02	039076 02	039081 02	039084 02
		039070 02	039077 02		039085 02
		039071 02	039078 02		
		039072 02	039079 02		
Date Analyzed:	11/2/2002	11/15/2002	11/17/2002	11/16/2002	11/17/2002
Date Prepared:	10/25/2002	10/25/2002	10/28/2002	10/28/2002	10/30/2002

No de certificat :
nh



4418 Pottsville Pike Reading, PA 19605
(Tel) 610-921-8833 (Fax) 610-921-9667

INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

November 27, 2002

Ben Sallemi
ATC Associates
104 East 25th Street
10th Floor
New York, NY 10010-2917

TEL: (212) 353-8280
FAX (212) 353-8306

RE: 15-22906-0002

Order No.: R02100402

Dear Ben Sallemi:

PSC Analytical Services received 20 samples on 10/11/2002 10:00:00 AM for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Fred Usbeck
Manager, CIH

*Approved for
payment
BMS
12/1/02*



PSC Analytical Services

4118 Pottsville Pike

Reading, PA 19605

phone: (610) 921-8833

fax: (610) 921-9667 or 921-8407

CHAIN OF CUSTODY

PSC Work Order #

0210002

Page 6 of 2

Report Results To:

PO #
Name
Company
Billing Address
City
State
ZIP
Telephone #
Fax #

Submit Invoice To:

Name
Company
Billing Address
City
State
ZIP
Telephone #
Fax #

Sampled by
Date
Sampling Location (Specify State)

REPORTING REQUIREMENTS (Circle all that apply)

Reduced Deliverables Package
Electronic Data Deliverables

Final Air Volume	Matrix Type	Sampling Info
Date	Time	
6N - D	Black	10/19/02
6N - D	Black	
5S - D	Black	
5S - D	Black	
5N - D	Black	
5N - D	Black	
4S - D	Black	
4S - D	Black	

(1) Relinquished by
(2) Received by
(3) Relinquished by
(4) Received by

Method of Delivery
PAS Courier
Client
US Mail
Other

JOB ID: 15-2296-000

ANALYSIS REQUESTED
Use attachments if necessary.
Please specify method requirements.

Preservatives Key	Preservatives (See above key; list all that apply)	Type (P=Plastic, G=Glass, A=Air)	Container Volume (Liter, etc)	Number of Containers
A = Ascorbic Acid				
C = HCl				
H = HNO3				
I = Ice				
N = NaOH				
O = Other				

(1) Relinquished by
(2) Received by
(3) Relinquished by
(4) Received by

Method of Delivery
PAS Courier
Client
US Mail
Other



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INDUSTRIAL HYGIENE

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•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 27-Nov-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100402

Lab ID: R02100402-01

Collection Date: 10/9/2002

Client Sample ID: 7S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02100402-02

Collection Date: 10/9/2002

Client Sample ID: 7S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02100402-03

Collection Date: 10/9/2002

Client Sample ID: 7N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02100402-04

Collection Date: 10/9/2002

Client Sample ID: 7N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02100402-05

Collection Date: 10/9/2002

Client Sample ID: 7N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



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INDUSTRIAL HYGIENE

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•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 27-Nov-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100402

Lab ID: R02100402-06

Collection Date: 10/9/2002

Client Sample ID: 6S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Lab ID: R02100402-07

Collection Date: 10/9/2002

Client Sample ID: 6S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Lab ID: R02100402-08

Collection Date: 10/9/2002

Client Sample ID: 6S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Lab ID: R02100402-09

Collection Date: 10/9/2002

Client Sample ID: 6N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Lab ID: R02100402-10

Collection Date: 10/9/2002

Client Sample ID: 6N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



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INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 27-Nov-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100402

Lab ID: R02100402-11

Collection Date: 10/9/2002

Client Sample ID: 6N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02100402-12

Collection Date: 10/9/2002

Client Sample ID: 6N-D-Blank

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02100402-13

Collection Date: 10/9/2002

Client Sample ID: 5S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02100402-14

Collection Date: 10/9/2002

Client Sample ID: 5S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Lab ID: R02100402-15

Collection Date: 10/9/2002

Client Sample ID: 5S-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS		SW8290				Analyst: SUB
TCDD/TCDF	See Attached				1	10/9/2002

Qualifiers:
BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range



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INDUSTRIAL HYGIENE

•EPA PA-00136
•AIHA ACCREDITATION NO. 100439
•NC DENR 599

ENVIRONMENTAL TESTING

•NY DOH/NELAC 10903
•PA DEP 06-353
•NJ DEP PA020
•CT DPH PH-0238

Date: 27-Nov-02

CLIENT: ATC Associates
Project: 15-22906-0002

Lab Order: R02100402

Lab ID: R02100402-16

Collection Date: 10/9/2002

Client Sample ID: 5N-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Lab ID: R02100402-17

Collection Date: 10/9/2002

Client Sample ID: 5N-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Lab ID: R02100402-18

Collection Date: 10/9/2002

Client Sample ID: 5N-D-F

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Lab ID: R02100402-19

Collection Date: 10/9/2002

Client Sample ID: 4S-D-W

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Lab ID: R02100402-20

Collection Date: 10/9/2002

Client Sample ID: 4S-D-H

Matrix: WIPE

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIOXINS AND FURANS TCDD/TCDF	See Attached	SW8290			1	10/9/2002

Analyst: SUB

Qualifiers:

BRL - Below Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

PSC Services Analytiques

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done.

There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of six weeks from date of reception or as per contract. This report may not be reproduced except in its entirety, without the written authorization of PSC Analytical Services. Reference material results are under control statistically unless otherwise specified (RM).

The enclosed guidelines and criterias are provided for information purposes only.

In case of disparity between the guidelines and criterias provided and the official version, these are the valid one.

Organic analyses are not corrected for extraction recovery standards except for PCDD/F and PCB's (congeners).

Batch and run dates for subcontracted analyses are reported only when available; if not, the date of reception of the certificate by fax is reported.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MENV or EPA methodologies.

See the confirmation analysis report in the appendix at the end of this report for the list of the methods used, and the list of parameters analyzed by subcontracting laboratories.

Please contact your project manager for additionnals informations.

NOTES:

- = not analyzed

< = less than Reported Detection Limit (RDL)

NA = Not Applicable

RDL = Reported Detection Limit

Solids data is based on dry weight (unless otherwise specified).

Comments:

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	01A	01A	01A
Lab No.:	039086 02	039086 02	039086 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.34	pg	2.1	0.21
2,3,7,8-Cl4DBD	0.24	"	<0.24	<0.24
1,2,3,7,8-Cl5DBF	0.53	"	<0.53	<0.026
2,3,4,7,8-Cl5DBF	0.46	"	<0.46	<0.23
1,2,3,7,8-Cl5DBD	0.49	"	<0.49	<0.24
1,2,3,4,7,8-Cl6DBF	0.54	"	<0.54	<0.054
1,2,3,6,7,8-Cl6DBF	0.51	"	<0.51	<0.051
2,3,4,6,7,8-Cl6DBF	0.59	"	<0.59	<0.059
1,2,3,7,8,9-Cl6DBF	0.64	"	<0.64	<0.064
1,2,3,4,7,8-Cl6DBD	0.59	"	<0.59	<0.059
1,2,3,6,7,8-Cl6DBD	0.55	"	<0.55	<0.055
1,2,3,7,8,9-Cl6DBD	0.53	"	<0.53	<0.053
1,2,3,4,6,7,8-Cl7DBF	2.0	"	<2.0	<0.020
1,2,3,4,7,8,9-Cl7DBF	3.7	"	<3.7	<0.037
1,2,3,4,6,7,8-Cl7DBD	0.81	"	<0.81	<0.0081
1,2,3,4,6,7,8,9-Cl8DBF	0.84	"	<0.84	<0.00084
1,2,3,4,6,7,8,9-Cl8DBD	5.6	"	<5.6	<0.0056

TEF	pg	0.21
MAX TEF	"	<1.4

ΣT4CDF	0.34	pg	4.3	4
ΣP5CDF	0.30	"	<0.30	0
ΣH6CDF	0.54	"	<0.54	0
ΣH7CDF	3.5	"	<3.5	0
OCDF	0.84	"	<0.84	0
ΣT4CDD	0.21	"	1.9	2
ΣP5CDD	0.49	"	2.2	3
ΣH6CDD	0.55	"	<0.55	0
ΣH7CDD	0.40	"	<0.40	0
OCDD	5.6	"	<5.6	0

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	98
2,3,7,8-T4CDD-13C12	90
1,2,3,7,8-P5CDF-13C12	79
1,2,3,7,8-P5CDD-13C12	72
1,2,3,6,7,8-H6CDF-13C12	56
1,2,3,6,7,8-H6CDD-13C12	71
1,2,3,4,6,7,8-H7CDF-13C12	39
1,2,3,4,6,7,8-H7CDD-13C12	75
OCDD-13C12	54

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	02A	02A	02A
Lab No.:	039087 02	039087 02	039087 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.25	pg	3.3	0.33
2,3,7,8-Cl4DBD	0.27	"	<0.27	<0.27
1,2,3,7,8-Cl5DBF	0.30	"	<0.30	<0.015
2,3,4,7,8-Cl5DBF	0.29	"	0.71	0.35
1,2,3,7,8-Cl5DBD	0.57	"	<0.57	<0.29
1,2,3,4,7,8-Cl6DBF	0.55	"	<0.55	<0.055
1,2,3,6,7,8-Cl6DBF	0.24	"	<0.24	<0.024
2,3,4,6,7,8-Cl6DBF	0.92	"	<0.92	<0.092
1,2,3,7,8,9-Cl6DBF	0.45	"	<0.45	<0.045
1,2,3,4,7,8-Cl6DBD	0.47	"	<0.47	<0.047
1,2,3,6,7,8-Cl6DBD	0.19	"	<0.19	<0.019
1,2,3,7,8,9-Cl6DBD	0.43	"	<0.43	<0.043
1,2,3,4,6,7,8-Cl7DBF	3.1	"	<3.1	<0.031
1,2,3,4,7,8,9-Cl7DBF	7.8	"	<7.8	<0.078
1,2,3,4,6,7,8-Cl7DBD	0.78	"	1.7	0.017
1,2,3,4,6,7,8,9-Cl8DBF	1.2	"	<1.2	<0.0012
1,2,3,4,6,7,8,9-Cl8DBD	7.9	"	<7.9	<0.0079

TEF	pg	0.70
MAX TEF	"	<1.7

ΣT4CDF	0.25	pg	11	8
ΣP5CDF	0.30	"	2.0	2
ΣH6CDF	0.38	"	<0.38	0
ΣH7CDF	7.3	"	<7.3	0
OCDF	1.2	"	<1.2	0
ΣT4CDD	0.52	"	9.5	2
ΣP5CDD	0.81	"	3.2	2
ΣH6CDD	0.44	"	<0.44	0
ΣH7CDD	0.78	"	3.2	2
OCDD	7.9	"	<7.9	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	88
2,3,7,8-T4CDD-13C12	81
1,2,3,7,8-P5CDF-13C12	75
1,2,3,7,8-P5CDD-13C12	69
1,2,3,6,7,8-H6CDF-13C12	97
1,2,3,6,7,8-H6CDD-13C12	89
1,2,3,4,6,7,8-H7CDF-13C12	90
1,2,3,4,6,7,8-H7CDD-13C12	82
OCDD-13C12	58

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	03A	03A	03A
Lab No.:	039088 02	039088 02	039088 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.13	pg	2.2	0.22
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.33	"	<0.33	<0.016
2,3,4,7,8-Cl5DBF	0.25	"	0.48	0.24
1,2,3,7,8-Cl5DBD	0.65	"	<0.65	<0.33
1,2,3,4,7,8-Cl6DBF	0.19	"	<0.19	<0.019
1,2,3,6,7,8-Cl6DBF	0.18	"	<0.18	<0.018
2,3,4,6,7,8-Cl6DBF	0.21	"	<0.21	<0.021
1,2,3,7,8,9-Cl6DBF	0.23	"	<0.23	<0.023
1,2,3,4,7,8-Cl6DBD	0.23	"	<0.23	<0.023
1,2,3,6,7,8-Cl6DBD	0.21	"	<0.21	<0.021
1,2,3,7,8,9-Cl6DBD	0.21	"	<0.21	<0.021
1,2,3,4,6,7,8-Cl7DBF	0.68	"	<0.68	<0.0068
1,2,3,4,7,8,9-Cl7DBF	1.5	"	<1.5	<0.015
1,2,3,4,6,7,8-Cl7DBD	0.21	"	0.44	0.0044
1,2,3,4,6,7,8,9-Cl8DBF	0.38	"	<0.38	<0.00038
1,2,3,4,6,7,8,9-Cl8DBD	0.27	"	3.0	0.0030

TEF	pg	0.46
MAX TEF	"	<1.3

ΣT4CDF	0.13	pg	5.5	6
ΣP5CDF	0.26	"	1.6	3
ΣH6CDF	0.19	"	<0.19	0
ΣH7CDF	1.4	"	<1.4	0
OCDF	0.38	"	<0.38	0
ΣT4CDD	0.37	"	3.9	2
ΣP5CDD	0.65	"	1.9	2
ΣH6CDD	0.21	"	<0.21	0
ΣH7CDD	0.21	"	0.44	1
OCDD	0.27	"	3.0	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	85
2,3,7,8-T4CDD-13C12	84
1,2,3,7,8-P5CDF-13C12	87
1,2,3,7,8-P5CDD-13C12	92
1,2,3,6,7,8-H6CDF-13C12	87
1,2,3,6,7,8-H6CDD-13C12	88
1,2,3,4,6,7,8-H7CDF-13C12	99
1,2,3,4,6,7,8-H7CDD-13C12	98
OCDD-13C12	78

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	04A	04A	04A
Lab No.:	039089 02	039089 02	039089 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.085	pg	3.6	0.36
2,3,7,8-Cl4DBD	0.26	"	0.33	0.33
1,2,3,7,8-Cl5DBF	0.49	"	0.64	0.032
2,3,4,7,8-Cl5DBF	0.47	"	<0.47	<0.24
1,2,3,7,8-Cl5DBD	0.38	"	<0.38	<0.19
1,2,3,4,7,8-Cl6DBF	0.42	"	<0.42	<0.042
1,2,3,6,7,8-Cl6DBF	0.39	"	<0.39	<0.039
2,3,4,6,7,8-Cl6DBF	0.46	"	<0.46	<0.046
1,2,3,7,8,9-Cl6DBF	0.49	"	<0.49	<0.049
1,2,3,4,7,8-Cl6DBD	0.30	"	<0.30	<0.030
1,2,3,6,7,8-Cl6DBD	0.44	"	0.66	0.066
1,2,3,7,8,9-Cl6DBD	0.42	"	0.71	0.071
1,2,3,4,6,7,8-Cl7DBF	7.8	"	<7.8	<0.078
1,2,3,4,7,8,9-Cl7DBF	6.3	"	<6.3	<0.063
1,2,3,4,6,7,8-Cl7DBD	1.1	"	6.1	0.061
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	1.4	"	37	0.037

TEF	pg	0.96
MAX TEF	"	<1.7

ΣT4CDF	0.085	pg	6.9	5
ΣP5CDF	0.49	"	2.3	3
ΣH6CDF	0.42	"	<0.42	0
ΣH7CDF	5.8	"	<5.8	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.26	"	11	7
ΣP5CDD	0.29	"	0.81	1
ΣH6CDD	0.44	"	2.9	3
ΣH7CDD	1.1	"	14	2
OCDD	1.4	"	37	1

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	89
2,3,7,8-T4CDD-13C12	85
1,2,3,7,8-P5CDF-13C12	72
1,2,3,7,8-P5CDD-13C12	67
1,2,3,6,7,8-H6CDF-13C12	76
1,2,3,6,7,8-H6CDD-13C12	82
1,2,3,4,6,7,8-H7CDF-13C12	59
1,2,3,4,6,7,8-H7CDD-13C12	79
OCDD-13C12	58

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	05A	05A	05A
Lab No.:	039090 02	039090 02	039090 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	3.1	pg	<3.1	<0.31
2,3,7,8-Cl4DBD	0.47	"	<0.47	<0.47
1,2,3,7,8-Cl5DBF	0.49	"	<0.49	<0.025
2,3,4,7,8-Cl5DBF	0.13	"	0.53	0.27
1,2,3,7,8-Cl5DBD	0.37	"	<0.37	<0.18
1,2,3,4,7,8-Cl6DBF	0.64	"	<0.64	<0.064
1,2,3,6,7,8-Cl6DBF	0.42	"	<0.42	<0.042
2,3,4,6,7,8-Cl6DBF	0.49	"	<0.49	<0.049
1,2,3,7,8,9-Cl6DBF	0.53	"	<0.53	<0.053
1,2,3,4,7,8-Cl6DBD	0.27	"	<0.27	<0.027
1,2,3,6,7,8-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,7,8,9-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,4,6,7,8-Cl7DBF	3.7	"	<3.7	<0.037
1,2,3,4,7,8,9-Cl7DBF	4.3	"	<4.3	<0.043
1,2,3,4,6,7,8-Cl7DBD	3.8	"	<3.8	<0.038
1,2,3,4,6,7,8,9-Cl8DBF	1.9	"	<1.9	<0.0019
1,2,3,4,6,7,8,9-Cl8DBD	1.9	"	34	0.034

TEF
MAX TEF

pg
"

0.30
<1.7

ΣT4CDF	0.14	pg	5.1	5
ΣP5CDF	0.13	"	0.53	1
ΣH6CDF	0.45	"	<0.45	0
ΣH7CDF	4.0	"	<4.0	0
OCDF	1.9	"	<1.9	0
ΣT4CDD	0.47	"	10	4
ΣP5CDD	0.37	"	2.6	1
ΣH6CDD	0.25	"	1.3	1
ΣH7CDD	0.64	"	4.7	1
OCDD	1.9	"	34	1

Surrogate Recoveries

%

2,3,7,8-T4CDF-13C12	91
2,3,7,8-T4CDD-13C12	88
1,2,3,7,8-P5CDF-13C12	75
1,2,3,7,8-P5CDD-13C12	70
1,2,3,6,7,8-H6CDF-13C12	96
1,2,3,6,7,8-H6CDD-13C12	89
1,2,3,4,6,7,8-H7CDF-13C12	85
1,2,3,4,6,7,8-H7CDD-13C12	77
OCDD-13C12	50

PSC Analytical Services
Certificate of Analysis

	R02100402	R02100402	R02100402
Client ID:	06A	06A	06A
Lab No.:	039091 02	039091 02	039091 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.22	pg	1.2	0.12
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.29	"	<0.29	<0.015
2,3,4,7,8-Cl5DBF	0.27	"	<0.27	<0.14
1,2,3,7,8-Cl5DBD	0.37	"	<0.37	<0.19
1,2,3,4,7,8-Cl6DBF	0.36	"	<0.36	<0.036
1,2,3,6,7,8-Cl6DBF	0.34	"	<0.34	<0.034
2,3,4,6,7,8-Cl6DBF	0.40	"	<0.40	<0.040
1,2,3,7,8,9-Cl6DBF	0.43	"	<0.43	<0.043
1,2,3,4,7,8-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,6,7,8-Cl6DBD	0.23	"	<0.23	<0.023
1,2,3,7,8,9-Cl6DBD	0.22	"	<0.22	<0.022
1,2,3,4,6,7,8-Cl7DBF	28	"	<28	<0.28
1,2,3,4,7,8,9-Cl7DBF	32	"	<32	<0.32
1,2,3,4,6,7,8-Cl7DBD	0.48	"	<0.48	<0.0048
1,2,3,4,6,7,8,9-Cl8DBF	0.44	"	<0.44	<0.00044
1,2,3,4,6,7,8,9-Cl8DBD	0.46	"	2.8	0.0028

TEF	pg	0.12
MAX TEF	"	<1.7

ΣT4CDF	0.22	pg	2.1	3
ΣP5CDF	0.29	"	<0.29	0
ΣH6CDF	0.36	"	<0.36	0
ΣH7CDF	30	"	<30	0
OCDF	0.44	"	<0.44	0
ΣT4CDD	0.37	"	<0.37	0
ΣP5CDD	0.37	"	0.49	1
ΣH6CDD	0.23	"	<0.23	0
ΣH7CDD	0.34	"	<0.34	0
OCDD	0.46	"	2.8	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	98
2,3,7,8-T4CDD-13C12	94
1,2,3,7,8-P5CDF-13C12	92
1,2,3,7,8-P5CDD-13C12	91
1,2,3,6,7,8-H6CDF-13C12	77
1,2,3,6,7,8-H6CDD-13C12	87
1,2,3,4,6,7,8-H7CDF-13C12	68
1,2,3,4,6,7,8-H7CDD-13C12	98
OCDD-13C12	76

PSC Analytical Services Certificate of Analysis

	R02100402	R02100402	R02100402
Client ID:	07A	07A	07A
Lab No.:	039092 02	039092 02	039092 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.31	pg	34	3.4
2,3,7,8-Cl4DBD	8.8	"	<8.8	<8.8
1,2,3,7,8-Cl5DBF	0.46	"	6.6	0.33
2,3,4,7,8-Cl5DBF	0.45	"	6.6	3.3
1,2,3,7,8-Cl5DBD	3.6	"	<3.6	<1.8
1,2,3,4,7,8-Cl6DBF	0.74	"	7.0	0.70
1,2,3,6,7,8-Cl6DBF	5.0	"	<5.0	<0.50
2,3,4,6,7,8-Cl6DBF	0.81	"	7.8	0.78
1,2,3,7,8,9-Cl6DBF	0.87	"	6.2	0.62
1,2,3,4,7,8-Cl6DBD	1.5	"	3.2	0.32
1,2,3,6,7,8-Cl6DBD	4.6	"	<4.6	<0.46
1,2,3,7,8,9-Cl6DBD	1.3	"	6.8	0.68
1,2,3,4,6,7,8-Cl7DBF	51	"	<51	<0.51
1,2,3,4,7,8,9-Cl7DBF	8.5	"	<8.5	<0.085
1,2,3,4,6,7,8-Cl7DBD	1.9	"	20	0.20
1,2,3,4,6,7,8,9-Cl8DBF	1.8	"	12	0.012
1,2,3,4,6,7,8,9-Cl8DBD	2.5	"	100	0.10

TEF	pg	10
MAX TEF	"	<23

ΣT4CDF	0.31	pg	150	13
ΣP5CDF	0.46	"	56	8
ΣH6CDF	0.74	"	28	4
ΣH7CDF	11	"	<11	0
OCDF	1.8	"	12	1
ΣT4CDD	0.55	"	170	10
ΣP5CDD	0.96	"	84	5
ΣH6CDD	1.4	"	54	5
ΣH7CDD	1.9	"	38	2
OCDD	2.5	"	100	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	91
2,3,7,8-T4CDD-13C12	88
1,2,3,7,8-P5CDF-13C12	69
1,2,3,7,8-P5CDD-13C12	62
1,2,3,6,7,8-H6CDF-13C12	88
1,2,3,6,7,8-H6CDD-13C12	83
1,2,3,4,6,7,8-H7CDF-13C12	65
1,2,3,4,6,7,8-H7CDD-13C12	67
OCDD-13C12	41

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	08A	08A	08A
Lab No.:	039093 02	039093 02	039093 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.18	pg	2.7	0.27
2,3,7,8-Cl4DBD	0.42	"	<0.42	<0.42
1,2,3,7,8-Cl5DBF	0.55	"	<0.55	<0.027
2,3,4,7,8-Cl5DBF	0.61	"	<0.61	<0.30
1,2,3,7,8-Cl5DBD	6.3	"	<6.3	<3.2
1,2,3,4,7,8-Cl6DBF	0.21	"	0.43	0.043
1,2,3,6,7,8-Cl6DBF	0.19	"	0.28	0.028
2,3,4,6,7,8-Cl6DBF	0.66	"	<0.66	<0.066
1,2,3,7,8,9-Cl6DBF	0.66	"	<0.66	<0.066
1,2,3,4,7,8-Cl6DBD	1.1	"	<1.1	<0.11
1,2,3,6,7,8-Cl6DBD	0.98	"	<0.98	<0.098
1,2,3,7,8,9-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,4,6,7,8-Cl7DBF	490	"	<490	<4.9
1,2,3,4,7,8,9-Cl7DBF	28	"	<28	<0.28
1,2,3,4,6,7,8-Cl7DBD	0.41	"	42	0.42
1,2,3,4,6,7,8,9-Cl8DBF	0.21	"	2.4	0.0024
1,2,3,4,6,7,8,9-Cl8DBD	0.48	"	430	0.43
	TEF	pg	1.2	
	MAX TEF	"	<11	
ΣT4CDF	0.18	pg	5.8	7
ΣP5CDF	0.50	"	0.70	1
ΣH6CDF	0.21	"	1.8	3
ΣH7CDF	26	"	<26	0
OCDF	0.21	"	2.4	1
ΣT4CDD	0.27	"	0.43	1
ΣP5CDD	6.3	"	6.4	1
ΣH6CDD	0.57	"	3.3	2
ΣH7CDD	0.41	"	75	2
OCDD	0.48	"	430	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			92	
1,2,3,7,8-P5CDF-13C12			93	
1,2,3,7,8-P5CDD-13C12			97	
1,2,3,6,7,8-H6CDF-13C12			86	
1,2,3,6,7,8-H6CDD-13C12			88	
1,2,3,4,6,7,8-H7CDF-13C12			99	
1,2,3,4,6,7,8-H7CDD-13C12			100	
OCDD-13C12			72	

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	09A	09A	09A
Lab No.:	039094 02	039094 02	039094 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.25	pg	1.8	0.18
2,3,7,8-Cl4DBD	0.44	"	<0.44	<0.44
1,2,3,7,8-Cl5DBF	0.59	"	<0.59	<0.030
2,3,4,7,8-Cl5DBF	0.48	"	<0.48	<0.24
1,2,3,7,8-Cl5DBD	0.64	"	<0.64	<0.32
1,2,3,4,7,8-Cl6DBF	0.67	"	<0.67	<0.067
1,2,3,6,7,8-Cl6DBF	0.30	"	<0.30	<0.030
2,3,4,6,7,8-Cl6DBF	0.25	"	0.35	0.035
1,2,3,7,8,9-Cl6DBF	0.28	"	<0.28	<0.028
1,2,3,4,7,8-Cl6DBD	0.63	"	<0.63	<0.063
1,2,3,6,7,8-Cl6DBD	0.43	"	<0.43	<0.043
1,2,3,7,8,9-Cl6DBD	0.42	"	<0.42	<0.042
1,2,3,4,6,7,8-Cl7DBF	1.5	"	<1.5	<0.015
1,2,3,4,7,8,9-Cl7DBF	1.1	"	<1.1	<0.011
1,2,3,4,6,7,8-Cl7DBD	0.45	"	<0.45	<0.0045
1,2,3,4,6,7,8,9-Cl8DBF	0.48	"	5.8	0.0058
1,2,3,4,6,7,8,9-Cl8DBD	3.0	"	<3.0	<0.0030

TEF	pg	0.22
MAX TEF	"	<1.6

ΣT4CDF	0.25	pg	3.9	5
ΣP5CDF	0.36	"	<0.36	0
ΣH6CDF	0.23	"	0.35	1
ΣH7CDF	1.1	"	<1.1	0
OCDF	0.48	"	5.8	1
ΣT4CDD	0.19	"	1.5	2
ΣP5CDD	0.64	"	<0.64	0
ΣH6CDD	0.43	"	<0.43	0
ΣH7CDD	0.28	"	<0.28	0
OCDD	3.0	"	<3.0	0

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	100
2,3,7,8-T4CDD-13C12	98
1,2,3,7,8-P5CDF-13C12	102
1,2,3,7,8-P5CDD-13C12	101
1,2,3,6,7,8-H6CDF-13C12	71
1,2,3,6,7,8-H6CDD-13C12	84
1,2,3,4,6,7,8-H7CDF-13C12	60
1,2,3,4,6,7,8-H7CDD-13C12	96
OCDD-13C12	67

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	10A	10A	10A
Lab No.:	039095 02	039095 02	039095 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.36	pg	3.4	0.34
2,3,7,8-Cl4DBD	1.0	"	<1.0	<1.0
1,2,3,7,8-Cl5DBF	0.23	"	0.63	0.031
2,3,4,7,8-Cl5DBF	0.22	"	0.84	0.42
1,2,3,7,8-Cl5DBD	0.23	"	<0.23	<0.12
1,2,3,4,7,8-Cl6DBF	0.21	"	0.89	0.089
1,2,3,6,7,8-Cl6DBF	0.19	"	0.60	0.060
2,3,4,6,7,8-Cl6DBF	0.75	"	<0.75	<0.075
1,2,3,7,8,9-Cl6DBF	0.24	"	<0.24	<0.024
1,2,3,4,7,8-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,6,7,8-Cl6DBD	0.24	"	<0.24	<0.024
1,2,3,7,8,9-Cl6DBD	0.23	"	0.38	0.038
1,2,3,4,6,7,8-Cl7DBF	3.3	"	<3.3	<0.033
1,2,3,4,7,8,9-Cl7DBF	0.81	"	<0.81	<0.0081
1,2,3,4,6,7,8-Cl7DBD	0.32	"	3.1	0.031
1,2,3,4,6,7,8,9-Cl8DBF	1.9	"	<1.9	<0.0019
1,2,3,4,6,7,8,9-Cl8DBD	0.97	"	23	0.023

TEF	pg	1.0
MAX TEF	"	<2.4

ΣT4CDF	0.36	pg	12	11
ΣP5CDF	0.23	"	5.1	6
ΣH6CDF	0.21	"	2.5	3
ΣH7CDF	1.7	"	<1.7	0
OCDF	1.9	"	<1.9	0
ΣT4CDD	0.21	"	15	6
ΣP5CDD	0.23	"	3.3	3
ΣH6CDD	0.24	"	1.2	2
ΣH7CDD	0.32	"	5.7	2
OCDD	0.97	"	23	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	90
2,3,7,8-T4CDD-13C12	87
1,2,3,7,8-P5CDF-13C12	94
1,2,3,7,8-P5CDD-13C12	96
1,2,3,6,7,8-H6CDF-13C12	85
1,2,3,6,7,8-H6CDD-13C12	85
1,2,3,4,6,7,8-H7CDF-13C12	91
1,2,3,4,6,7,8-H7CDD-13C12	88
OCDD-13C12	73

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	11A	11A	11A
Lab No.:	039096 02	039096 02	039096 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.41	pg	7.5	0.75
2,3,7,8-Cl4DBD	0.24	"	2.8	2.8
1,2,3,7,8-Cl5DBF	0.41	"	1.1	0.054
2,3,4,7,8-Cl5DBF	0.40	"	1.0	0.51
1,2,3,7,8-Cl5DBD	0.56	"	<0.56	<0.28
1,2,3,4,7,8-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,6,7,8-Cl6DBF	0.17	"	0.64	0.064
2,3,4,6,7,8-Cl6DBF	0.89	"	<0.89	<0.089
1,2,3,7,8,9-Cl6DBF	0.22	"	<0.22	<0.022
1,2,3,4,7,8-Cl6DBD	0.70	"	<0.70	<0.070
1,2,3,6,7,8-Cl6DBD	0.65	"	0.99	0.099
1,2,3,7,8,9-Cl6DBD	0.69	"	<0.69	<0.069
1,2,3,4,6,7,8-Cl7DBF	6.8	"	<6.8	<0.068
1,2,3,4,7,8,9-Cl7DBF	3.0	"	<3.0	<0.030
1,2,3,4,6,7,8-Cl7DBD	0.83	"	6.6	0.066
1,2,3,4,6,7,8,9-Cl8DBF	3.4	"	<3.4	<0.0034
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	59	0.059

TEF	pg	4.3
MAX TEF	"	<5.1

ΣT4CDF	0.41	pg	50	13
ΣP5CDF	0.41	"	11	7
ΣH6CDF	0.19	"	2.3	2
ΣH7CDF	2.8	"	<2.8	0
OCDF	3.4	"	<3.4	0
ΣT4CDD	0.24	"	23	6
ΣP5CDD	0.56	"	11	3
ΣH6CDD	0.65	"	0.99	1
ΣH7CDD	0.83	"	13	2
OCDD	1.3	"	59	1

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	50
2,3,7,8-T4CDD-13C12	88
1,2,3,7,8-P5CDF-13C12	51
1,2,3,7,8-P5CDD-13C12	52
1,2,3,6,7,8-H6CDF-13C12	43
1,2,3,6,7,8-H6CDD-13C12	44
1,2,3,4,6,7,8-H7CDF-13C12	46
1,2,3,4,6,7,8-H7CDD-13C12	45
OCDD-13C12	35

PSC Analytical Services
Certificate of Analysis

	R02100402	R02100402	R02100402
Client ID:	12A	12A	12A
Lab No.:	039097 02	039097 02	039097 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.17	pg	1.0	0.10
2,3,7,8-Cl4DBD	0.25	"	<0.25	<0.25
1,2,3,7,8-Cl5DBF	0.28	"	0.40	0.020
2,3,4,7,8-Cl5DBF	0.27	"	<0.27	<0.14
1,2,3,7,8-Cl5DBD	0.43	"	<0.43	<0.22
1,2,3,4,7,8-Cl6DBF	0.29	"	<0.29	<0.029
1,2,3,6,7,8-Cl6DBF	0.27	"	<0.27	<0.027
2,3,4,6,7,8-Cl6DBF	0.19	"	<0.19	<0.019
1,2,3,7,8,9-Cl6DBF	0.25	"	<0.25	<0.025
1,2,3,4,7,8-Cl6DBD	0.24	"	<0.24	<0.024
1,2,3,6,7,8-Cl6DBD	0.22	"	<0.22	<0.022
1,2,3,7,8,9-Cl6DBD	0.22	"	<0.22	<0.022
1,2,3,4,6,7,8-Cl7DBF	0.69	"	<0.69	<0.0069
1,2,3,4,7,8,9-Cl7DBF	1.3	"	<1.3	<0.013
1,2,3,4,6,7,8-Cl7DBD	1.1	"	<1.1	<0.011
1,2,3,4,6,7,8,9-Cl8DBF	0.41	"	<0.41	<0.00041
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	8.1	0.0081

TEF	pg	0.13
MAX TEF	"	<0.93

ΣT4CDF	0.17	pg	1.9	4
ΣP5CDF	0.28	"	0.40	1
ΣH6CDF	0.18	"	0.29	1
ΣH7CDF	1.2	"	0.31	1
OCDF	0.41	"	<0.41	0
ΣT4CDD	0.25	"	<0.25	0
ΣP5CDD	0.43	"	<0.43	0
ΣH6CDD	0.22	"	<0.22	0
ΣH7CDD	0.42	"	<0.42	0
OCDD	1.3	"	8.1	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	94
2,3,7,8-T4CDD-13C12	93
1,2,3,7,8-P5CDF-13C12	95
1,2,3,7,8-P5CDD-13C12	96
1,2,3,6,7,8-H6CDF-13C12	85
1,2,3,6,7,8-H6CDD-13C12	87
1,2,3,4,6,7,8-H7CDF-13C12	89
1,2,3,4,6,7,8-H7CDD-13C12	92
OCDD-13C12	72

PSC Analytical Services
Certificate of Analysis

	R02100402	R02100402	R02100402
Client ID:	13A	13A	13A
Lab No.:	039098 02	039098 02	039098 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.2	pg	<1.2	<0.12
2,3,7,8-Cl4DBD	0.31	"	<0.31	<0.31
1,2,3,7,8-Cl5DBF	0.50	"	<0.50	<0.025
2,3,4,7,8-Cl5DBF	0.45	"	<0.45	<0.23
1,2,3,7,8-Cl5DBD	0.42	"	<0.42	<0.21
1,2,3,4,7,8-Cl6DBF	0.27	"	0.46	0.046
1,2,3,6,7,8-Cl6DBF	0.25	"	<0.25	<0.025
2,3,4,6,7,8-Cl6DBF	0.29	"	<0.29	<0.029
1,2,3,7,8,9-Cl6DBF	0.32	"	<0.32	<0.032
1,2,3,4,7,8-Cl6DBD	0.51	"	<0.51	<0.051
1,2,3,6,7,8-Cl6DBD	0.47	"	<0.47	<0.047
1,2,3,7,8,9-Cl6DBD	0.46	"	<0.46	<0.046
1,2,3,4,6,7,8-Cl7DBF	0.80	"	<0.80	<0.0080
1,2,3,4,7,8,9-Cl7DBF	0.32	"	<0.32	<0.0032
1,2,3,4,6,7,8-Cl7DBD	0.28	"	0.41	0.0041
1,2,3,4,6,7,8,9-Cl8DBF	0.55	"	11	0.011
1,2,3,4,6,7,8,9-Cl8DBD	0.84	"	2.6	0.0026
	TEF	pg	0.064	
	MAX TEF	"	<1.2	
ΣT4CDF	0.17	pg	1.1	3
ΣP5CDF	0.50	"	<0.50	0
ΣH6CDF	0.27	"	0.86	2
ΣH7CDF	0.30	"	<0.30	0
OCDF	0.55	"	11	1
ΣT4CDD	0.31	"	<0.31	0
ΣP5CDD	0.42	"	<0.42	0
ΣH6CDD	0.47	"	<0.47	0
ΣH7CDD	0.28	"	0.41	1
OCDD	0.84	"	2.6	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			93	
1,2,3,7,8-P5CDF-13C12			95	
1,2,3,7,8-P5CDD-13C12			96	
1,2,3,6,7,8-H6CDF-13C12			90	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			103	
1,2,3,4,6,7,8-H7CDD-13C12			98	
OCDD-13C12			78	

PSC Analytical Services Certificate of Analysis

	R02100402	R02100402	R02100402
Client ID:	14A	14A	14A
Lab No.:	039099 02	039099 02	039099 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.27	pg	<0.27	<0.027
2,3,7,8-Cl4DBD	0.68	"	<0.68	<0.68
1,2,3,7,8-Cl5DBF	0.65	"	0.85	0.042
2,3,4,7,8-Cl5DBF	0.77	"	<0.77	<0.39
1,2,3,7,8-Cl5DBD	0.74	"	<0.74	<0.37
1,2,3,4,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,6,7,8-Cl6DBF	0.24	"	0.88	0.088
2,3,4,6,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,7,8,9-Cl6DBF	0.31	"	0.63	0.063
1,2,3,4,7,8-Cl6DBD	0.78	"	0.99	0.099
1,2,3,6,7,8-Cl6DBD	0.69	"	<0.69	<0.069
1,2,3,7,8,9-Cl6DBD	0.99	"	<0.99	<0.099
1,2,3,4,6,7,8-Cl7DBF	1.9	"	<1.9	<0.019
1,2,3,4,7,8,9-Cl7DBF	1.4	"	<1.4	<0.014
1,2,3,4,6,7,8-Cl7DBD	2.5	"	<2.5	<0.025
1,2,3,4,6,7,8,9-Cl8DBF	0.74	"	3.6	0.0037
1,2,3,4,6,7,8,9-Cl8DBD	1.4	"	23	0.023

TEF	pg	0.32
MAX TEF	"	<2.2

ΣT4CDF	0.27	pg	7.5	6
ΣP5CDF	0.65	"	0.85	1
ΣH6CDF	0.26	"	1.5	2
ΣH7CDF	1.3	"	<1.3	0
OCDF	0.74	"	3.6	1
ΣT4CDD	0.4	"	4.6	2
ΣP5CDD	0.74	"	<0.74	0
ΣH6CDD	0.72	"	0.99	1
ΣH7CDD	0.75	"	1.5	1
OCDD	1.4	"	23	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	88
2,3,7,8-T4CDD-13C12	87
1,2,3,7,8-P5CDF-13C12	76
1,2,3,7,8-P5CDD-13C12	72
1,2,3,6,7,8-H6CDF-13C12	91
1,2,3,6,7,8-H6CDD-13C12	89
1,2,3,4,6,7,8-H7CDF-13C12	92
1,2,3,4,6,7,8-H7CDD-13C12	84
OCDD-13C12	60

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	15A	15A	15A
Lab No.:	039100 02	039100 02	039100 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.22	pg	5.3	0.53
2,3,7,8-Cl4DBD	0.20	"	0.62	0.62
1,2,3,7,8-Cl5DBF	0.35	"	1.3	0.066
2,3,4,7,8-Cl5DBF	0.34	"	1.4	0.71
1,2,3,7,8-Cl5DBD	0.28	"	0.57	0.29
1,2,3,4,7,8-Cl6DBF	0.27	"	1.3	0.13
1,2,3,6,7,8-Cl6DBF	0.88	"	<0.88	<0.088
2,3,4,6,7,8-Cl6DBF	0.3	"	1.6	0.16
1,2,3,7,8,9-Cl6DBF	0.32	"	0.88	0.088
1,2,3,4,7,8-Cl6DBD	0.45	"	<0.45	<0.045
1,2,3,6,7,8-Cl6DBD	0.31	"	0.89	0.089
1,2,3,7,8,9-Cl6DBD	0.3	"	1.1	0.11
1,2,3,4,6,7,8-Cl7DBF	8.8	"	<8.8	<0.088
1,2,3,4,7,8,9-Cl7DBF	1.3	"	<1.3	<0.013
1,2,3,4,6,7,8-Cl7DBD	0.61	"	17	0.17
1,2,3,4,6,7,8,9-Cl8DBF	0.87	"	16	0.016
1,2,3,4,6,7,8,9-Cl8DBD	0.38	"	330	0.33

TEF	pg	3.3
MAX TEF	"	<3.5

ΣT4CDF	0.22	pg	14	9
ΣP5CDF	0.35	"	7.8	7
ΣH6CDF	0.27	"	5.5	5
ΣH7CDF	4.7	"	8.3	1
OCDF	0.87	"	16	1
ΣT4CDD	0.20	"	7.1	7
ΣP5CDD	0.28	"	7.7	4
ΣH6CDD	0.31	"	4.1	3
ΣH7CDD	0.61	"	34	2
OCDD	0.38	"	330	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	97
2,3,7,8-T4CDD-13C12	91
1,2,3,7,8-P5CDF-13C12	97
1,2,3,7,8-P5CDD-13C12	91
1,2,3,6,7,8-H6CDF-13C12	68
1,2,3,6,7,8-H6CDD-13C12	80
1,2,3,4,6,7,8-H7CDF-13C12	72
1,2,3,4,6,7,8-H7CDD-13C12	75
OCDD-13C12	76

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	16A	16A	16A
Lab No.:	039101 02	039101 02	039101 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.15	pg	1.5	0.15
2,3,7,8-Cl4DBD	0.35	"	<0.35	<0.35
1,2,3,7,8-Cl5DBF	0.51	"	<0.51	<0.026
2,3,4,7,8-Cl5DBF	0.43	"	<0.43	<0.21
1,2,3,7,8-Cl5DBD	0.55	"	<0.55	<0.28
1,2,3,4,7,8-Cl6DBF	0.34	"	<0.34	<0.034
1,2,3,6,7,8-Cl6DBF	0.32	"	<0.32	<0.032
2,3,4,6,7,8-Cl6DBF	0.37	"	<0.37	<0.037
1,2,3,7,8,9-Cl6DBF	0.41	"	<0.41	<0.041
1,2,3,4,7,8-Cl6DBD	0.30	"	<0.30	<0.030
1,2,3,6,7,8-Cl6DBD	0.28	"	<0.28	<0.028
1,2,3,7,8,9-Cl6DBD	0.27	"	<0.27	<0.027
1,2,3,4,6,7,8-Cl7DBF	54	"	<54	<0.54
1,2,3,4,7,8,9-Cl7DBF	62	"	<62	<0.62
1,2,3,4,6,7,8-Cl7DBD	0.73	"	<0.73	<0.0073
1,2,3,4,6,7,8,9-Cl8DBF	0.57	"	<0.57	<0.00057
1,2,3,4,6,7,8,9-Cl8DBD	0.43	"	3.5	0.0035

TEF	pg	0.16
MAX TEF	"	<2.4

ΣT4CDF	0.15	pg	3.4	6
ΣP5CDF	0.44	"	0.22	1
ΣH6CDF	0.34	"	<0.34	0
ΣH7CDF	58	"	<58	0
OCDF	0.57	"	<0.57	0
ΣT4CDD	0.22	"	1.3	3
ΣP5CDD	0.55	"	0.71	1
ΣH6CDD	0.28	"	<0.28	0
ΣH7CDD	0.73	"	<0.73	0
OCDD	0.43	"	3.5	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	101
2,3,7,8-T4CDD-13C12	94
1,2,3,7,8-P5CDF-13C12	99
1,2,3,7,8-P5CDD-13C12	93
1,2,3,6,7,8-H6CDF-13C12	64
1,2,3,6,7,8-H6CDD-13C12	77
1,2,3,4,6,7,8-H7CDF-13C12	65
1,2,3,4,6,7,8-H7CDD-13C12	84
OCDD-13C12	73

PSC Analytical Services Certificate of Analysis

	R02100402	R02100402	R02100402
Client ID:	17A	17A	17A
Lab No.:	039102 02	039102 02	039102 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.16	pg	2.6	0.26
2,3,7,8-Cl4DBD	0.68	"	<0.68	<0.68
1,2,3,7,8-Cl5DBF	0.67	"	<0.67	<0.033
2,3,4,7,8-Cl5DBF	0.50	"	<0.50	<0.25
1,2,3,7,8-Cl5DBD	0.22	"	<0.22	<0.11
1,2,3,4,7,8-Cl6DBF	0.33	"	<0.33	<0.033
1,2,3,6,7,8-Cl6DBF	0.28	"	<0.28	<0.028
2,3,4,6,7,8-Cl6DBF	0.38	"	<0.38	<0.038
1,2,3,7,8,9-Cl6DBF	0.26	"	<0.26	<0.026
1,2,3,4,7,8-Cl6DBD	0.099	"	<0.099	<0.0099
1,2,3,6,7,8-Cl6DBD	0.33	"	<0.33	<0.033
1,2,3,7,8,9-Cl6DBD	0.23	"	0.33	0.033
1,2,3,4,6,7,8-Cl7DBF	2.1	"	<2.1	<0.021
1,2,3,4,7,8,9-Cl7DBF	29	"	<29	<0.29
1,2,3,4,6,7,8-Cl7DBD	0.28	"	1.1	0.011
1,2,3,4,6,7,8,9-Cl8DBF	0.62	"	<0.62	<0.00062
1,2,3,4,6,7,8,9-Cl8DBD	0.58	"	9.4	0.0094

TEF	pg	0.32
MAX TEF	"	<1.9

ΣT4CDF	0.16	pg	11	12
ΣP5CDF	0.44	"	2.8	4
ΣH6CDF	0.22	"	0.56	1
ΣH7CDF	27	"	<27	0
OCDF	0.62	"	<0.62	0
ΣT4CDD	0.32	"	8.5	5
ΣP5CDD	0.55	"	3.5	2
ΣH6CDD	0.24	"	0.97	2
ΣH7CDD	0.28	"	2.6	2
OCDD	0.58	"	9.4	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	84
2,3,7,8-T4CDD-13C12	77
1,2,3,7,8-P5CDF-13C12	89
1,2,3,7,8-P5CDD-13C12	86
1,2,3,6,7,8-H6CDF-13C12	86
1,2,3,6,7,8-H6CDD-13C12	81
1,2,3,4,6,7,8-H7CDF-13C12	96
1,2,3,4,6,7,8-H7CDD-13C12	86
OCDD-13C12	78

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	18A	18A	18A
Lab No.:	039103 02	039103 02	039103 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.23	pg	2.8	0.28
2,3,7,8-Cl4DBD	0.32	"	<0.32	<0.32
1,2,3,7,8-Cl5DBF	0.26	"	0.61	0.031
2,3,4,7,8-Cl5DBF	0.25	"	0.59	0.29
1,2,3,7,8-Cl5DBD	0.49	"	<0.49	<0.25
1,2,3,4,7,8-Cl6DBF	0.68	"	<0.68	<0.068
1,2,3,6,7,8-Cl6DBF	0.46	"	<0.46	<0.046
2,3,4,6,7,8-Cl6DBF	0.54	"	<0.54	<0.054
1,2,3,7,8,9-Cl6DBF	0.58	"	<0.58	<0.058
1,2,3,4,7,8-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,6,7,8-Cl6DBD	0.23	"	0.27	0.027
1,2,3,7,8,9-Cl6DBD	0.36	"	<0.36	<0.036
1,2,3,4,6,7,8-Cl7DBF	4.2	"	<4.2	<0.042
1,2,3,4,7,8,9-Cl7DBF	46	"	<46	<0.46
1,2,3,4,6,7,8-Cl7DBD	0.46	"	4.1	0.041
1,2,3,4,6,7,8,9-Cl8DBF	0.71	"	2.6	0.0026
1,2,3,4,6,7,8,9-Cl8DBD	0.50	"	39	0.039

TEF	pg	0.71
MAX TEF	"	<2.1

ΣT4CDF	0.23	pg	9.1	10
ΣP5CDF	0.26	"	3.2	5
ΣH6CDF	0.50	"	<0.50	0
ΣH7CDF	43	"	<43	0
OCDF	0.71	"	2.6	1
ΣT4CDD	0.32	"	3.0	2
ΣP5CDD	0.49	"	0.91	1
ΣH6CDD	0.23	"	0.79	2
ΣH7CDD	0.46	"	7.9	2
OCDD	0.50	"	39	1

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	82
2,3,7,8-T4CDD-13C12	78
1,2,3,7,8-P5CDF-13C12	85
1,2,3,7,8-P5CDD-13C12	84
1,2,3,6,7,8-H6CDF-13C12	72
1,2,3,6,7,8-H6CDD-13C12	78
1,2,3,4,6,7,8-H7CDF-13C12	79
1,2,3,4,6,7,8-H7CDD-13C12	87
OCDD-13C12	77

PSC Analytical Services
Certificate of Analysis

	R02100402	R02100402	R02100402
Client ID:	19A	19A	19A
Lab No.:	039104 02	039104 02	039104 02
Date Sampled:	02/09/10	02/09/10	02/09/10
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.51	pg	2.9	0.29
2,3,7,8-Cl4DBD	0.72	"	1.4	1.4
1,2,3,7,8-Cl5DBF	0.65	"	2.1	0.10
2,3,4,7,8-Cl5DBF	2.5	"	<2.5	<1.3
1,2,3,7,8-Cl5DBD	0.79	"	1.7	0.85
1,2,3,4,7,8-Cl6DBF	2.6	"	<2.6	<0.26
1,2,3,6,7,8-Cl6DBF	0.56	"	2.4	0.24
2,3,4,6,7,8-Cl6DBF	0.65	"	5.3	0.53
1,2,3,7,8,9-Cl6DBF	0.71	"	3.8	0.38
1,2,3,4,7,8-Cl6DBD	2.3	"	<2.3	<0.23
1,2,3,6,7,8-Cl6DBD	0.68	"	2.6	0.26
1,2,3,7,8,9-Cl6DBD	3.8	"	<3.8	<0.38
1,2,3,4,6,7,8-Cl7DBF	4.6	"	<4.6	<0.046
1,2,3,4,7,8,9-Cl7DBF	2.4	"	4.3	0.043
1,2,3,4,6,7,8-Cl7DBD	1.1	"	4.0	0.040
1,2,3,4,6,7,8,9-Cl8DBF	0.68	"	7.0	0.0070
1,2,3,4,6,7,8,9-Cl8DBD	1.5	"	12	0.012

TEF	pg	4.2
MAX TEF	"	<6.4

ΣT4CDF	0.51	pg	2.9	1
ΣP5CDF	0.65	"	2.1	1
ΣH6CDF	0.60	"	12	3
ΣH7CDF	2.2	"	4.3	1
OCDF	0.68	"	7.0	1
ΣT4CDD	0.72	"	2.9	2
ΣP5CDD	0.79	"	1.7	1
ΣH6CDD	0.68	"	2.6	1
ΣH7CDD	1.1	"	4.0	1
OCDD	1.5	"	12	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	89
2,3,7,8-T4CDD-13C12	81
1,2,3,7,8-P5CDF-13C12	75
1,2,3,7,8-P5CDD-13C12	70
1,2,3,6,7,8-H6CDF-13C12	68
1,2,3,6,7,8-H6CDD-13C12	80
1,2,3,4,6,7,8-H7CDF-13C12	58
1,2,3,4,6,7,8-H7CDD-13C12	83
OCDD-13C12	64

**PSC Analytical Services
Certificate of Analysis**

	R02100402	R02100402	R02100402
Client ID:	20A	20A	20A
Lab No.:	039105 02	039105 02	039105 02
Date Sampled:	02/09/10	02/09/10	02/09/10
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.33	pg	0.94	0.094
2,3,7,8-Cl4DBD	0.38	"	<0.38	<0.38
1,2,3,7,8-Cl5DBF	0.45	"	<0.45	<0.022
2,3,4,7,8-Cl5DBF	0.43	"	<0.43	<0.21
1,2,3,7,8-Cl5DBD	1.1	"	<1.1	<0.53
1,2,3,4,7,8-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl6DBF	1.2	"	<1.2	<0.12
2,3,4,6,7,8-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,7,8,9-Cl6DBF	1.5	"	<1.5	<0.15
1,2,3,4,7,8-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,6,7,8-Cl6DBD	1.1	"	<1.1	<0.11
1,2,3,7,8,9-Cl6DBD	1.1	"	<1.1	<0.11
1,2,3,4,6,7,8-Cl7DBF	3.0	"	<3.0	<0.030
1,2,3,4,7,8,9-Cl7DBF	1.2	"	<1.2	<0.012
1,2,3,4,6,7,8-Cl7DBD	0.90	"	<0.90	<0.0090
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	3.1	"	<3.1	<0.0031

TEF	pg	0.094
MAX TEF	"	<2.2

ΣT4CDF	0.33	pg	0.94	1
ΣP5CDF	0.45	"	<0.45	0
ΣH6CDF	1.3	"	<1.3	0
ΣH7CDF	1.2	"	<1.2	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.34	"	<0.34	0
ΣP5CDD	1.1	"	<1.1	0
ΣH6CDD	1.1	"	<1.1	0
ΣH7CDD	0.90	"	<0.90	0
OCDD	3.1	"	<3.1	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	91
2,3,7,8-T4CDD-13C12	82
1,2,3,7,8-P5CDF-13C12	76
1,2,3,7,8-P5CDD-13C12	73
1,2,3,6,7,8-H6CDF-13C12	48
1,2,3,6,7,8-H6CDD-13C12	69
1,2,3,4,6,7,8-H7CDF-13C12	37
1,2,3,4,6,7,8-H7CDD-13C12	80
OCDD-13C12	60

PSC Analytical Services Laboratory Method Blanks

Component	RDL	Units	BLANK	TEF	# of Isomers	MR
Batch Code:			1030NZ01			
2,3,7,8-Cl4DBF	0.27	pg	0.55	0.055		99%
2,3,7,8-Cl4DBD	0.27	"	<0.27	<0.27		112%
1,2,3,7,8-Cl5DBF	0.62	"	<0.62	<0.031		111%
2,3,4,7,8-Cl5DBF	0.59	"	<0.59	<0.30		99%
1,2,3,7,8-Cl5DBD	0.53	"	<0.53	<0.27		98%
1,2,3,4,7,8-Cl6DBF	0.45	"	0.50	0.050		109%
1,2,3,6,7,8-Cl6DBF	0.42	"	<0.42	<0.042		102%
2,3,4,6,7,8-Cl6DBF	0.49	"	<0.49	<0.049		110%
1,2,3,7,8,9-Cl6DBF	0.53	"	<0.53	<0.053		112%
1,2,3,4,7,8-Cl6DBD	0.43	"	<0.43	<0.043		105%
1,2,3,6,7,8-Cl6DBD	0.40	"	<0.40	<0.040		105%
1,2,3,7,8,9-Cl6DBD	0.39	"	0.45	0.045		100%
1,2,3,4,6,7,8-Cl7DBF	0.99	"	<0.99	<0.0099		105%
1,2,3,4,7,8,9-Cl7DBF	0.62	"	<0.62	<0.0062		96%
1,2,3,4,6,7,8-Cl7DBD	0.58	"	<0.58	<0.0058		104%
1,2,3,4,6,7,8,9-Cl8DBF	0.74	"	2.0	0.0020		97%
1,2,3,4,6,7,8,9-Cl8DBD	3.7	"	<3.7	<0.0037		102%
FET		pg		0.15		
FET MAX		"		<1.3		
ΣT4CDF	0.27	pg	0.55		1	99%
ΣP5CDF	0.62	"	<0.62		0	105%
ΣH6CDF	0.45	"	0.50		1	108%
ΣH7CDF	0.39	"	<0.39		0	101%
OCDF	0.74	"	2.0		1	97%
ΣT4CDD	0.27	"	<0.27		0	112%
ΣP5CDD	0.53	"	<0.53		0	98%
ΣH6CDD	0.40	"	0.45		1	103%
ΣH7CDD	0.47	"	<0.47		0	104%
OCDD	3.7	"	<3.7		0	102%
Surrogate Recoveries		%				
2,3,7,8-T4CDF-13C12			93			
2,3,7,8-T4CDD-13C12			88			
1,2,3,7,8-P5CDF-13C12			78			
1,2,3,7,8-P5CDD-13C12			74			
1,2,3,6,7,8-H6CDF-13C12			90			
1,2,3,6,7,8-H6CDD-13C12			90			
1,2,3,4,6,7,8-H7CDF-13C12			78			
1,2,3,4,6,7,8-H7CDD-13C12			87			
OCDD-13C12			65			

**PSC Analytical Services
Laboratory Method Blanks**

Component	RDL	Units	BLANK	TEF	# of Isomers	MR
Batch Code:			1101NZ01			
2,3,7,8-Cl4DBF	0.12	pg	1.7	0.17		103%
2,3,7,8-Cl4DBD	0.26	"	<0.26	<0.26		114%
1,2,3,7,8-Cl5DBF	0.23	"	0.40	0.020		111%
2,3,4,7,8-Cl5DBF	0.47	"	<0.47	<0.24		92%
1,2,3,7,8-Cl5DBD	0.32	"	<0.32	<0.16		95%
1,2,3,4,7,8-Cl6DBF	0.21	"	<0.21	<0.021		95%
1,2,3,6,7,8-Cl6DBF	0.20	"	<0.20	<0.020		103%
2,3,4,6,7,8-Cl6DBF	0.59	"	<0.59	<0.059		168%
1,2,3,7,8,9-Cl6DBF	0.25	"	<0.25	<0.025		155%
1,2,3,4,7,8-Cl6DBD	0.39	"	<0.39	<0.039		85%
1,2,3,6,7,8-Cl6DBD	0.36	"	<0.36	<0.036		99%
1,2,3,7,8,9-Cl6DBD	0.56	"	<0.56	<0.056		130%
1,2,3,4,6,7,8-Cl7DBF	0.97	"	<0.97	<0.0098		103%
1,2,3,4,7,8,9-Cl7DBF	0.53	"	<0.53	<0.0053		141%
1,2,3,4,6,7,8-Cl7DBD	0.27	"	<0.27	<0.0027,		103%
1,2,3,4,6,7,8,9-Cl8DBF	0.69	"	<0.69	<0.0069		66%
1,2,3,4,6,7,8,9-Cl8DBD	0.29	"	2.3	0.0024		100%

FET
FET MAX

pg
"

0.19
<1.1

ΣT4CDF	0.14	pg	3.0		4	103%
ΣP5CDF	0.23	"	0.40		1	102%
ΣH6CDF	0.21	"	<0.21		0	130%
ΣH7CDF	0.49	"	<0.49		0	122%
OCDF	0.69	"	<0.69		0	66%
ΣT4CDD	0.26	"	0.27		1	114%
ΣP5CDD	0.32	"	0.48		1	95%
ΣH6CDD	0.36	"	<0.36		0	105%
ΣH7CDD	0.27	"	<0.27		0	103%
OCDD	0.29	"	2.3		1	100

Surrogate Recoveries

%

2,3,7,8-T4CDF-13C12	93
2,3,7,8-T4CDD-13C12	91
1,2,3,7,8-P5CDF-13C12	96
1,2,3,7,8-P5CDD-13C12	91
1,2,3,6,7,8-H6CDF-13C12	55
1,2,3,6,7,8-H6CDD-13C12	65
1,2,3,4,6,7,8-H7CDF-13C12	47
1,2,3,4,6,7,8-H7CDD-13C12	82
OCDD-13C12	69

**PSC Analytical Services
Laboratory Method Blanks**

Component	RDL	Units	BLANK	TEF	# of Isomers	MR
Batch Code:			1104NZ01			
2,3,7,8-Cl4DBF	0.12	pg	0.50	0.050		106%
2,3,7,8-Cl4DBD	0.22	"	<0.22	<0.22		117%
1,2,3,7,8-Cl5DBF	0.21	"	0.31	0.015		116%
2,3,4,7,8-Cl5DBF	0.15	"	<0.15	<0.076		97%
1,2,3,7,8-Cl5DBD	0.38	"	<0.38	<0.19		96%
1,2,3,4,7,8-Cl6DBF	0.13	"	<0.13	<0.013		114%
1,2,3,6,7,8-Cl6DBF	0.12	"	0.15	0.015		105%
2,3,4,6,7,8-Cl6DBF	0.14	"	<0.14	<0.014		116%
1,2,3,7,8,9-Cl6DBF	0.15	"	<0.15	<0.015		119%
1,2,3,4,7,8-Cl6DBD	0.094	"	<0.094	<0.0094		102%
1,2,3,6,7,8-Cl6DBD	0.13	"	0.18	0.018		99%
1,2,3,7,8,9-Cl6DBD	0.11	"	<0.11	<0.011		99%
1,2,3,4,6,7,8-Cl7DBF	0.81	"	<0.81	<0.0081		105%
1,2,3,4,7,8,9-Cl7DBF	0.62	"	<0.62	<0.0062		52%
1,2,3,4,6,7,8-Cl7DBD	0.20	"	2.0	0.020		102%
1,2,3,4,6,7,8,9-Cl8DBF	0.34	"	0.69	0.00069		125%
1,2,3,4,6,7,8,9-Cl8DBD	0.28	"	14	0.014		108%

FET
FET MAX

0.13
<0.70

ΣT4CDF	0.12	pg	0.50		1	106%
ΣP5CDF	0.21	"	0.31		1	107%
ΣH6CDF	0.13	"	0.15		1	114%
ΣH7CDF	0.58	"	<0.58		0	79%
OCDF	0.34	"	0.69		1	125%
ΣT4CDD	0.20	"	<0.20		0	117%
ΣP5CDD	0.38	"	<0.38		0	96%
ΣH6CDD	0.12	"	0.46		2	100%
ΣH7CDD	0.20	"	3.7		2	102%
OCDD	0.28	"	14		1	108%

Surrogate Recoveries

		%				
2,3,7,8-T4CDF-13C12			88			
2,3,7,8-T4CDD-13C12			80			
1,2,3,7,8-P5CDF-13C12			91			
1,2,3,7,8-P5CDD-13C12			85			
1,2,3,6,7,8-H6CDF-13C12			76			
1,2,3,6,7,8-H6CDD-13C12			80			
1,2,3,4,6,7,8-H7CDF-13C12			84			
1,2,3,4,6,7,8-H7CDD-13C12			96			
OCDD-13C12			74			

**PSC Analytical Services
Summary of Analysis Prep. Dates**

Batch Code:	1030NZ01	1101NZ01	1104NZ01	1104NZ01
2,3,7,8-CI4DBF etc.	039086 02	039092 02	039100 02	039104 02
	039087 02	039093 02	039101 02	039105 02
	039088 02	039094 02	039102 02	
	039089 02	039095 02	039103 02	
	039090 02	039096 02		
	039091 02	039097 02		
		039098 02		
		039099 02		
Date Analyzed:	11/17/2002	11/18/2002	11/19/2002	11/21/2002
Date Prepared:	10/30/2002	11/1/2002	11/4/2002	11/4/2002

Batch Code:	1030NZ01	1101NZ01	1104NZ01	1104NZ01
ΣT4CDF etc.	039086 02	039092 02	039100 02	039104 02
	039087 02	039093 02	039101 02	039105 02
	039088 02	039094 02	039102 02	
	039089 02	039095 02	039103 02	
	039090 02	039096 02		
	039091 02	039097 02		
		039098 02		
		039099 02		
Date Analyzed:	11/17/2002	11/18/2002	11/19/2002	11/21/2002
Date Prepared:	10/30/2002	11/1/2002	11/4/2002	11/4/2002

**Spreadsheets with
EPA Requested TEQ's**

PSC Analytical Services Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	01A	01A	01A
Lab No.:	039106 02	039106 02	039106 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.21	pg	2.6	0.26
2,3,7,8-Cl4DBD	0.52	"	<0.52	<0.52
1,2,3,7,8-Cl5DBF	0.62	"	<0.62	<0.031
2,3,4,7,8-Cl5DBF	0.41	"	<0.41	<0.20
1,2,3,7,8-Cl5DBD	0.48	"	<0.48	<0.24
1,2,3,4,7,8-Cl6DBF	0.57	"	<0.57	<0.057
1,2,3,6,7,8-Cl6DBF	0.53	"	<0.53	<0.053
2,3,4,6,7,8-Cl6DBF	0.62	"	<0.62	<0.062
1,2,3,7,8,9-Cl6DBF	0.68	"	<0.68	<0.068
1,2,3,4,7,8-Cl6DBD	0.39	"	<0.39	<0.039
1,2,3,6,7,8-Cl6DBD	0.36	"	<0.36	<0.036
1,2,3,7,8,9-Cl6DBD	0.35	"	<0.35	<0.035
1,2,3,4,6,7,8-Cl7DBF	7.4	"	<7.4	<0.074
1,2,3,4,7,8,9-Cl7DBF	8.5	"	<8.5	<0.085
1,2,3,4,6,7,8-Cl7DBD	0.64	"	1.7	0.017
1,2,3,4,6,7,8,9-Cl8DBF	0.42	"	1.5	0.0015
1,2,3,4,6,7,8,9-Cl8DBD	0.71	"	26	0.026
TEF		pg		0.31
EPA Requested TEQs		"	<	1.06
MAX TEF		"	<	1.8
Units Ng/m ²			<	0.11
ΣT4CDF	0.21	pg	10	8
ΣP5CDF	0.42	"	0.76	1
ΣH6CDF	0.57	"	<0.57	0
ΣH7CDF	7.9	"	<7.9	0
OCDF	0.42	"	1.5	1
ΣT4CDD	0.53	"	8.9	3
ΣP5CDD	0.48	"	<0.48	0
ΣH6CDD	0.36	"	<0.36	0
ΣH7CDD	0.64	"	3.2	2
OCDD	0.71	"	26	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			84	
2,3,7,8-T4CDD-13C12			76	
1,2,3,7,8-P5CDF-13C12			82	
1,2,3,7,8-P5CDD-13C12			85	
1,2,3,6,7,8-H6CDF-13C12			76	
1,2,3,6,7,8-H6CDD-13C12			75	
1,2,3,4,6,7,8-H7CDF-13C12			82	
1,2,3,4,6,7,8-H7CDD-13C12			93	
OCDD-13C12			75	

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**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	01A	01A	01A
Lab No.:	039106 02	039106 02	039106 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	02A	02A	02A
Lab No.:	039107 02	039107 02	039107 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.30	pg	0.40	0.040
2,3,7,8-Cl4DBD	0.38	"	<0.38	<0.38
1,2,3,7,8-Cl5DBF	0.54	"	<0.54	<0.027
2,3,4,7,8-Cl5DBF	0.52	"	<0.52	<0.26
1,2,3,7,8-Cl5DBD	0.66	"	<0.66	<0.33
1,2,3,4,7,8-Cl6DBF	0.39	"	<0.39	<0.039
1,2,3,6,7,8-Cl6DBF	0.36	"	<0.36	<0.036
2,3,4,6,7,8-Cl6DBF	0.42	"	<0.42	<0.042
1,2,3,7,8,9-Cl6DBF	0.46	"	<0.46	<0.046
1,2,3,4,7,8-Cl6DBD	0.28	"	<0.28	<0.028
1,2,3,6,7,8-Cl6DBD	0.26	"	<0.26	<0.026
1,2,3,7,8,9-Cl6DBD	0.26	"	<0.26	<0.026
1,2,3,4,6,7,8-Cl7DBF	110	"	<110	<1.1
1,2,3,4,7,8,9-Cl7DBF	130	"	<130	<1.3
1,2,3,4,6,7,8-Cl7DBD	0.68	"	<0.68	<0.0068
1,2,3,4,6,7,8,9-Cl8DBF	1.3	"	<1.3	<0.0013
1,2,3,4,6,7,8,9-Cl8DBD	0.50	"	1.3	0.0013
TEF		pg		0.042
EPA Requested TEQs		"	<	1.87
MAX TEF		"	<	3.7
Units Ng/m ²			<	0.19
ΣT4CDF	0.30	pg	0.40	1
ΣP5CDF	0.54	"	<0.54	0
ΣH6CDF	0.39	"	<0.39	0
ΣH7CDF	120	"	<120	0
OCDF	1.3	"	<1.3	0
ΣT4CDD	0.38	"	<0.38	0
ΣP5CDD	0.66	"	<0.66	0
ΣH6CDD	0.26	"	<0.26	0
ΣH7CDD	0.68	"	<0.68	0
OCDD	0.50	"	1.3	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			94	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			91	
1,2,3,7,8-P5CDD-13C12			96	
1,2,3,6,7,8-H6CDF-13C12			81	
1,2,3,6,7,8-H6CDD-13C12			84	
1,2,3,4,6,7,8-H7CDF-13C12			79	
1,2,3,4,6,7,8-H7CDD-13C12			92	
OCDD-13C12			76	

**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	02A	02A	02A
Lab No.:	039107 02	039107 02	039107 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	03A	03A	03A
Lab No.:	039108 02	039108 02	039108 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.38	pg	1.2	0.12
2,3,7,8-Cl4DBD	0.48	"	<0.48	<0.48
1,2,3,7,8-Cl5DBF	0.52	"	<0.52	<0.026
2,3,4,7,8-Cl5DBF	0.50	"	<0.50	<0.25
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.47	"	<0.47	<0.047
1,2,3,6,7,8-Cl6DBF	0.44	"	<0.44	<0.044
2,3,4,6,7,8-Cl6DBF	0.52	"	<0.52	<0.052
1,2,3,7,8,9-Cl6DBF	0.56	"	<0.56	<0.056
1,2,3,4,7,8-Cl6DBD	0.77	"	<0.77	<0.077
1,2,3,6,7,8-Cl6DBD	0.71	"	<0.71	<0.071
1,2,3,7,8,9-Cl6DBD	0.69	"	<0.69	<0.069
1,2,3,4,6,7,8-Cl7DBF	36	"	<36	<0.36
1,2,3,4,7,8,9-Cl7DBF	41	"	<41	<0.41
1,2,3,4,6,7,8-Cl7DBD	0.60	"	<0.60	<0.0060
1,2,3,4,6,7,8,9-Cl8DBF	0.62	"	<0.62	<0.00062
1,2,3,4,6,7,8,9-Cl8DBD	7.6	"	<7.6	<0.0076

TEF	pg		0.12
EPA Requested TEQs		<	1.21
MAX TEF	"	<	2.3
Units Ng/m²		<	0.12

ΣT4CDF	0.38	pg	1.2	1
ΣP5CDF	0.52	"	<0.52	0
ΣH6CDF	0.47	"	<0.47	0
ΣH7CDF	38	"	<38	0
OCDF	0.62	"	<0.62	0
ΣT4CDD	0.48	"	1.3	1
ΣP5CDD	0.54	"	<0.54	0
ΣH6CDD	0.71	"	<0.71	0
ΣH7CDD	0.52	"	<0.52	0
OCDD	7.6	"	<7.6	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	90
2,3,7,8-T4CDD-13C12	86
1,2,3,7,8-P5CDF-13C12	89
1,2,3,7,8-P5CDD-13C12	91
1,2,3,6,7,8-H6CDF-13C12	79
1,2,3,6,7,8-H6CDD-13C12	82
1,2,3,4,6,7,8-H7CDF-13C12	84
1,2,3,4,6,7,8-H7CDD-13C12	91
OCDD-13C12	79

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	R02100403	R02100403	R02100403
Client ID:	03A	03A	03A
Lab No.:	039108 02	039108 02	039108 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	04A	04A	04A
Lab No.:	039109 02	039109 02	039109 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.56	pg	<0.56	
2,3,7,8-Cl4DBD	6.0	"	<6.0	
1,2,3,7,8-Cl5DBF	1.3	"	<1.3	
2,3,4,7,8-Cl5DBF	1.2	"	<1.2	
1,2,3,7,8-Cl5DBD	1.5	"	<1.5	
1,2,3,4,7,8-Cl6DBF	1.1	"	<1.1	
1,2,3,6,7,8-Cl6DBF	0.99	"	<0.99	
2,3,4,6,7,8-Cl6DBF	1.2	"	2.1	0.21
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	2.3	"	<2.3	<0.23
1,2,3,6,7,8-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,7,8,9-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,4,6,7,8-Cl7DBF	22	"	<22	<0.22
1,2,3,4,7,8,9-Cl7DBF	14	"	<14	<0.14
1,2,3,4,6,7,8-Cl7DBD	2.1	"	9.0	0.090
1,2,3,4,6,7,8,9-Cl8DBF	2.2	"	6.4	0.0064
1,2,3,4,6,7,8,9-Cl8DBD	5.7	"	78	0.078
TEF		pg		0.38
EPA Requested TEQs		"	<	4.79
MAX TEF		"	<	9.2
Units Ng/m ²		"	<	0.48
ΣT4CDF	0.56	pg	29	11
ΣP5CDF	1.3	"	4.8	1
ΣH6CDF	1.2	"	12	2
ΣH7CDF	9.5	"	<9.5	0
OCDF	2.2	"	6.4	1
ΣT4CDD	1.3	"	31	5
ΣP5CDD	1.5	"	6.7	2
ΣH6CDD	2.1	"	<2.1	0
ΣH7CDD	2.1	"	9.7	2
OCDD	5.7	"	78	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			88	
2,3,7,8-T4CDD-13C12			72	
1,2,3,7,8-P5CDF-13C12			66	
1,2,3,7,8-P5CDD-13C12			50	
1,2,3,6,7,8-H6CDF-13C12			78	
1,2,3,6,7,8-H6CDD-13C12			70	
1,2,3,4,6,7,8-H7CDF-13C12			78	
1,2,3,4,6,7,8-H7CDD-13C12			72	
OCDD-13C12			60	

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**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	04A	04A	04A
Lab No.:	039109 02	039109 02	039109 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	05A	05A	05A
Lab No.:	039110 02	039110 02	039110 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.58	pg	<0.58	
2,3,7,8-Cl4DBD	0.34	"	0.38	
1,2,3,7,8-Cl5DBF	0.51	"	0.56	
2,3,4,7,8-Cl5DBF	0.49	"	<0.49	
1,2,3,7,8-Cl5DBD	0.46	"	<0.46	
1,2,3,4,7,8-Cl6DBF	0.72	"	<0.72	
1,2,3,6,7,8-Cl6DBF	0.30	"	<0.30	
2,3,4,6,7,8-Cl6DBF	0.45	"	<0.45	
1,2,3,7,8,9-Cl6DBF	0.62	"	<0.62	
1,2,3,4,7,8-Cl6DBD	0.60	"	<0.60	
1,2,3,6,7,8-Cl6DBD	0.55	"	<0.55	
1,2,3,7,8,9-Cl6DBD	0.54	"	<0.54	
1,2,3,4,6,7,8-Cl7DBF	1.8	"	<1.8	
1,2,3,4,7,8,9-Cl7DBF	1.2	"	<1.2	
1,2,3,4,6,7,8-Cl7DBD	0.74	"	<0.74	
1,2,3,4,6,7,8,9-Cl8DBF	0.87	"	1.2	
1,2,3,4,6,7,8,9-Cl8DBD	3.1	"	<3.1	
TEF		pg	0.41	
EPA Requested TEQs			< 0.91	
MAX TEF		"	< 1.4	
Units Ng/m ²			< 0.09	
ΣT4CDF	0.23	pg	<0.23	0
ΣP5CDF	0.51	"	0.56	1
ΣH6CDF	0.57	"	<0.57	0
ΣH7CDF	1.1	"	<1.1	0
OCDF	0.87	"	1.2	1
ΣT4CDD	0.34	"	0.38	1
ΣP5CDD	0.46	"	<0.46	0
ΣH6CDD	0.55	"	<0.55	0
ΣH7CDD	0.74	"	<0.74	0
OCDD	3.1	"	<3.1	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			94	
2,3,7,8-T4CDD-13C12			82	
1,2,3,7,8-P5CDF-13C12			80	
1,2,3,7,8-P5CDD-13C12			72	
1,2,3,6,7,8-H6CDF-13C12			58	
1,2,3,6,7,8-H6CDD-13C12			70	
1,2,3,4,6,7,8-H7CDF-13C12			48	
1,2,3,4,6,7,8-H7CDD-13C12			88	
OCDD-13C12			66	

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	R02100403	R02100403	R02100403
Client ID:	05A	05A	05A
Lab No.:	039110 02	039110 02	039110 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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PSC Analytical Services Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	06A	06A	06A
Lab No.:	039111 02	039111 02	039111 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.4	pg	<1.4	<0.14
2,3,7,8-Cl4DBD	0.94	"	<0.94	<0.94
1,2,3,7,8-Cl5DBF	1.5	"	<1.5	<0.073
2,3,4,7,8-Cl5DBF	1.4	"	<1.4	<0.70
1,2,3,7,8-Cl5DBD	1.4	"	<1.4	<0.68
1,2,3,4,7,8-Cl6DBF	2.5	"	<2.5	<0.25
1,2,3,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
2,3,4,6,7,8-Cl6DBF	2.7	"	<2.7	<0.27
1,2,3,7,8,9-Cl6DBF	3.0	"	<3.0	<0.30
1,2,3,4,7,8-Cl6DBD	3.9	"	<3.9	<0.39
1,2,3,6,7,8-Cl6DBD	3.6	"	<3.6	<0.36
1,2,3,7,8,9-Cl6DBD	3.5	"	<3.5	<0.35
1,2,3,4,6,7,8-Cl7DBF	96	"	<96	<0.96
1,2,3,4,7,8,9-Cl7DBF	110	"	<110	<1.1
1,2,3,4,6,7,8-Cl7DBD	3.7	"	<3.7	<0.037
1,2,3,4,6,7,8,9-Cl8DBF	3.0	"	<3.0	<0.0030
1,2,3,4,6,7,8,9-Cl8DBD	5.9	"	<5.9	<0.0060
TEF		pg	0	
EPA Requested TEQs		"	< 3.40	
MAX TEF		"	< 6.8	
Units Ng/m ²		"	< 0.34	
ΣT4CDF	0.76	pg	<0.76	0
ΣP5CDF	1.5	"	<1.5	0
ΣH6CDF	2.7	"	<2.7	0
ΣH7CDF	100	"	<100	0
OCDF	3.0	"	<3.0	0
ΣT4CDD	0.94	"	<0.94	0
ΣP5CDD	1.4	"	<1.4	0
ΣH6CDD	3.6	"	<3.6	0
ΣH7CDD	3.7	"	<3.7	0
OCDD	6.0	"	<6.0	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			108	
2,3,7,8-T4CDD-13C12			90	
1,2,3,7,8-P5CDF-13C12			70	
1,2,3,7,8-P5CDD-13C12			60	
1,2,3,6,7,8-H6CDF-13C12			66	
1,2,3,6,7,8-H6CDD-13C12			74	
1,2,3,4,6,7,8-H7CDF-13C12			48	
1,2,3,4,6,7,8-H7CDD-13C12			86	
OCDD-13C12			62	

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	R02100403	R02100403	R02100403
Client ID:	06A	06A	06A
Lab No.:	039111 02	039111 02	039111 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
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	R02100403	R02100403	R02100403
Client ID:	07A	07A	07A
Lab No.:	039112 02	039112 02	039112 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.65	pg	0.95	0.095
2,3,7,8-Cl4DBD	0.54	"	<0.54	<0.54
1,2,3,7,8-Cl5DBF	0.41	"	<0.41	<0.020
2,3,4,7,8-Cl5DBF	0.39	"	<0.39	<0.19
1,2,3,7,8-Cl5DBD	0.89	"	<0.89	<0.44
1,2,3,4,7,8-Cl6DBF	0.51	"	<0.51	<0.051
1,2,3,6,7,8-Cl6DBF	0.47	"	<0.47	<0.047
2,3,4,6,7,8-Cl6DBF	0.55	"	<0.55	<0.055
1,2,3,7,8,9-Cl6DBF	0.60	"	<0.60	<0.060
1,2,3,4,7,8-Cl6DBD	0.85	"	<0.85	<0.085
1,2,3,6,7,8-Cl6DBD	0.79	"	<0.79	<0.079
1,2,3,7,8,9-Cl6DBD	0.77	"	<0.77	<0.077
1,2,3,4,6,7,8-Cl7DBF	13	"	<13	<0.13
1,2,3,4,7,8,9-Cl7DBF	15	"	<15	<0.15
1,2,3,4,6,7,8-Cl7DBD	0.69	"	1.3	0.013
1,2,3,4,6,7,8,9-Cl8DBF	6.7	"	<6.7	<0.0067
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	11	0.011
TEF		pg	0.12	
EPA Requested TEQs		"	< 1.11	
MAX TEF		"	< 2.1	
Units Ng/m ²			< 0.11	
ΣT4CDF	0.65	pg	0.95	1
ΣP5CDF	0.41	"	<0.41	0
ΣH6CDF	0.55	"	<0.55	0
ΣH7CDF	14	"	<14	0
OCDF	6.7	"	<6.7	0
ΣT4CDD	0.54	"	<0.54	0
ΣP5CDD	0.89	"	<0.89	0
ΣH6CDD	0.79	"	<0.79	0
ΣH7CDD	0.69	"	2.3	2
OCDD	1.3	"	11	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			80	
1,2,3,7,8-P5CDF-13C12			80	
1,2,3,7,8-P5CDD-13C12			76	
1,2,3,6,7,8-H6CDF-13C12			76	
1,2,3,6,7,8-H6CDD-13C12			74	
1,2,3,4,6,7,8-H7CDF-13C12			90	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			82	

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Client ID:	07A	07A	07A
Lab No.:	039112 02	039112 02	039112 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	08A	08A	08A
Lab No.:	039113 02	039113 02	039113 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.7	pg	<1.7	
2,3,7,8-Cl4DBD	0.57	"	<0.57	
1,2,3,7,8-Cl5DBF	0.74	"	<0.74	
2,3,4,7,8-Cl5DBF	0.71	"	<0.71	
1,2,3,7,8-Cl5DBD	0.66	"	<0.66	
1,2,3,4,7,8-Cl6DBF	1.0	"	<1.0	
1,2,3,6,7,8-Cl6DBF	0.97	"	<0.97	
2,3,4,6,7,8-Cl6DBF	1.1	"	<1.1	
1,2,3,7,8,9-Cl6DBF	1.2	"	<1.2	
1,2,3,4,7,8-Cl6DBD	0.82	"	<0.82	
1,2,3,6,7,8-Cl6DBD	0.76	"	<0.76	
1,2,3,7,8,9-Cl6DBD	0.74	"	<0.74	
1,2,3,4,6,7,8-Cl7DBF	11	"	<11	
1,2,3,4,7,8,9-Cl7DBF	13	"	<13	
1,2,3,4,6,7,8-Cl7DBD	0.85	"	2.0	
1,2,3,4,6,7,8,9-Cl8DBF	0.72	"	1.6	
1,2,3,4,6,7,8,9-Cl8DBD	1.6	"	21	
TEF		pg	0.043	
EPA Requested TEQs		"	< 1.22	
MAX TEF		"	< 2.4	
Units Ng/m ²			< 0.12	
ΣT4CDF	0.53	pg	1.6	2
ΣP5CDF	0.74	"	<0.74	0
ΣH6CDF	1.1	"	<1.1	0
ΣH7CDF	12	"	<12	0
OCDF	0.72	"	1.6	1
ΣT4CDD	0.57	"	2.3	2
ΣP5CDD	0.66	"	<0.66	0
ΣH6CDD	0.76	"	<0.76	0
ΣH7CDD	0.85	"	4.0	2
OCDD	1.6	"	21	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			80	
1,2,3,7,8-P5CDF-13C12			84	
1,2,3,7,8-P5CDD-13C12			80	
1,2,3,6,7,8-H6CDF-13C12			58	
1,2,3,6,7,8-H6CDD-13C12			72	
1,2,3,4,6,7,8-H7CDF-13C12			54	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			84	

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	R02100403	R02100403	R02100403
Client ID:	08A	08A	08A
Lab No.:	039113 02	039113 02	039113 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	09A	09A	09A
Lab No.:	039114 02	039114 02	039114 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.48	pg	1.6	0.16
2,3,7,8-Cl4DBD	0.79	"	<0.79	<0.79
1,2,3,7,8-Cl5DBF	0.78	"	<0.78	<0.039
2,3,4,7,8-Cl5DBF	0.60	"	<0.60	<0.30
1,2,3,7,8-Cl5DBD	0.81	"	<0.81	<0.40
1,2,3,4,7,8-Cl6DBF	0.84	"	<0.84	<0.084
1,2,3,6,7,8-Cl6DBF	0.78	"	<0.78	<0.078
2,3,4,6,7,8-Cl6DBF	0.92	"	<0.92	<0.092
1,2,3,7,8,9-Cl6DBF	0.99	"	<0.99	<0.099
1,2,3,4,7,8-Cl6DBD	0.66	"	<0.66	<0.066
1,2,3,6,7,8-Cl6DBD	0.61	"	<0.61	<0.061
1,2,3,7,8,9-Cl6DBD	0.60	"	<0.60	<0.060
1,2,3,4,6,7,8-Cl7DBF	56	"	<56	<0.56
1,2,3,4,7,8,9-Cl7DBF	2.4	"	<2.4	<0.024
1,2,3,4,6,7,8-Cl7DBD	0.72	"	<0.72	<0.0072
1,2,3,4,6,7,8,9-Cl8DBF	1.3	"	<1.3	<0.0013
1,2,3,4,6,7,8,9-Cl8DBD	3.3	"	<3.3	<0.0033
TEF		pg		0.16
EPA Requested TEQs		"	<	1.48
MAX TEF		"	<	2.8
Units Ng/m ²			<	0.15
ΣT4CDF	0.48	pg	1.6	1
ΣP5CDF	0.63	"	<0.63	0
ΣH6CDF	0.92	"	<0.92	0
ΣH7CDF	60	"	<60	0
OCDF	1.3	"	<1.3	0
ΣT4CDD	0.79	"	<0.79	0
ΣP5CDD	0.81	"	<0.81	0
ΣH6CDD	0.61	"	<0.61	0
ΣH7CDD	0.59	"	<0.59	0
OCDD	3.3	"	<3.3	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			76	
1,2,3,7,8-P5CDF-13C12			84	
1,2,3,7,8-P5CDD-13C12			76	
1,2,3,6,7,8-H6CDF-13C12			52	
1,2,3,6,7,8-H6CDD-13C12			66	
1,2,3,4,6,7,8-H7CDF-13C12			44	
1,2,3,4,6,7,8-H7CDD-13C12			94	
OCDD-13C12			76	

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	R02100403	R02100403	R02100403
Client ID:	09A	09A	09A
Lab No.:	039114 02	039114 02	039114 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	10A	10A	10A
Lab No.:	039115 02	039115 02	039115 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.6	pg	<1.6	
2,3,7,8-Cl4DBD	1.1	"	<1.1	
1,2,3,7,8-Cl5DBF	1.7	"	<1.7	
2,3,4,7,8-Cl5DBF	1.6	"	<1.6	
1,2,3,7,8-Cl5DBD	1.5	"	<1.5	
1,2,3,4,7,8-Cl6DBF	1.3	"	<1.3	
1,2,3,6,7,8-Cl6DBF	1.2	"	<1.2	
2,3,4,6,7,8-Cl6DBF	1.4	"	<1.4	
1,2,3,7,8,9-Cl6DBF	1.6	"	<1.6	
1,2,3,4,7,8-Cl6DBD	2.3	"	<2.3	
1,2,3,6,7,8-Cl6DBD	2.2	"	<2.2	
1,2,3,7,8,9-Cl6DBD	2.1	"	<2.1	
1,2,3,4,6,7,8-Cl7DBF	130	"	<130	
1,2,3,4,7,8,9-Cl7DBF	160	"	<160	
1,2,3,4,6,7,8-Cl7DBD	6.4	"	<6.4	
1,2,3,4,6,7,8,9-Cl8DBF	4.3	"	<4.3	
1,2,3,4,6,7,8,9-Cl8DBD	2.2	"	13	
TEF		pg	0.013	
EPA Requested TEQs			< 3.56	
MAX TEF		"	< 7.1	
Units Ng/m ²			< 0.36	
ΣT4CDF	0.46	pg	2.0	2
ΣP5CDF	1.7	"	<1.7	0
ΣH6CDF	1.3	"	<1.3	0
ΣH7CDF	150	"	<150	0
OCDF	4.3	"	<4.3	0
ΣT4CDD	1.1	"	6.9	2
ΣP5CDD	1.5	"	<1.5	0
ΣH6CDD	2.2	"	<2.2	0
ΣH7CDD	6.4	"	<6.4	0
OCDD	2.2	"	13	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			94	
2,3,7,8-T4CDD-13C12			66	
1,2,3,7,8-P5CDF-13C12			64	
1,2,3,7,8-P5CDD-13C12			50	
1,2,3,6,7,8-H6CDF-13C12			102	
1,2,3,6,7,8-H6CDD-13C12			78	
1,2,3,4,6,7,8-H7CDF-13C12			100	
1,2,3,4,6,7,8-H7CDD-13C12			82	
OCDD-13C12			60	

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	R02100403	R02100403	R02100403
Client ID:	10A	10A	10A
Lab No.:	039115 02	039115 02	039115 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	11A	11A	11A
Lab No.:	039116 02	039116 02	039116 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.79	pg	2.6	0.26
2,3,7,8-Cl4DBD	1.4	"	<1.4	<1.4
1,2,3,7,8-Cl5DBF	0.78	"	<0.78	<0.039
2,3,4,7,8-Cl5DBF	0.48	"	<0.48	<0.24
1,2,3,7,8-Cl5DBD	1.9	"	<1.9	<0.95
1,2,3,4,7,8-Cl6DBF	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBF	1.9	"	<1.9	<0.19
2,3,4,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
1,2,3,7,8,9-Cl6DBF	2.5	"	<2.5	<0.25
1,2,3,4,7,8-Cl6DBD	1.7	"	<1.7	<0.17
1,2,3,6,7,8-Cl6DBD	1.6	"	<1.6	<0.16
1,2,3,7,8,9-Cl6DBD	1.5	"	<1.5	<0.15
1,2,3,4,6,7,8-Cl7DBF	170	"	<170	<1.7
1,2,3,4,7,8,9-Cl7DBF	200	"	<200	<2.0
1,2,3,4,6,7,8-Cl7DBD	2.1	"	5.8	0.058
1,2,3,4,6,7,8,9-Cl8DBF	6.7	"	<6.7	<0.0067
1,2,3,4,6,7,8,9-Cl8DBD	1.5	"	54	0.054

TEF	pg		0.37
EPA Requested TEQs		<	4.24
MAX TEF	"	<	8.1
Units Ng/m²		<	0.42

ΣT4CDF	0.79	pg	3.9	2
ΣP5CDF	0.50	"	<0.50	0
ΣH6CDF	2.1	"	<2.1	0
ΣH7CDF	180	"	<180	0
OCDF	6.7	"	<6.7	0
ΣT4CDD	1.4	"	<1.4	0
ΣP5CDD	1.9	"	<1.9	0
ΣH6CDD	1.6	"	<1.6	0
ΣH7CDD	2.1	"	12	2
OCDD	1.5	"	54	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	96
2,3,7,8-T4CDD-13C12	76
1,2,3,7,8-P5CDF-13C12	74
1,2,3,7,8-P5CDD-13C12	60
1,2,3,6,7,8-H6CDF-13C12	44
1,2,3,6,7,8-H6CDD-13C12	60
1,2,3,4,6,7,8-H7CDF-13C12	36
1,2,3,4,6,7,8-H7CDD-13C12	80
OCDD-13C12	64

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**PSC Analytical Services
Certificate of Analysis**

	R02100403	R02100403	R02100403
Client ID:	11A	11A	11A
Lab No.:	039116 02	039116 02	039116 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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PSC Analytical Services Certificate of Analysis

	R02100403	R02100403	R02100403
Client ID:	12A	12A	12A
Lab No.:	039117 02	039117 02	039117 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.99	pg	2.2	0.22
2,3,7,8-Cl4DBD	1.3	"	<1.3	<1.3
1,2,3,7,8-Cl5DBF	0.99	"	<0.99	<0.049
2,3,4,7,8-Cl5DBF	0.95	"	<0.95	<0.48
1,2,3,7,8-Cl5DBD	2.5	"	<2.5	<1.2
1,2,3,4,7,8-Cl6DBF	2.2	"	<2.2	<0.22
1,2,3,6,7,8-Cl6DBF	2.1	"	<2.1	<0.21
2,3,4,6,7,8-Cl6DBF	2.4	"	<2.4	<0.24
1,2,3,7,8,9-Cl6DBF	2.6	"	<2.6	<0.26
1,2,3,4,7,8-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,6,7,8-Cl6DBD	1.8	"	<1.8	<0.18
1,2,3,7,8,9-Cl6DBD	1.7	"	<1.7	<0.17
1,2,3,4,6,7,8-Cl7DBF	250	"	<250	<2.5
1,2,3,4,7,8,9-Cl7DBF	290	"	<290	<2.9
1,2,3,4,6,7,8-Cl7DBD	3.5	"	<3.5	<0.035
1,2,3,4,6,7,8,9-Cl8DBF	3.7	"	20	0.020
1,2,3,4,6,7,8,9-Cl8DBD	3.9	"	7.3	0.0073
TEF		pg		0.24
EPA Requested TEQs		"	<	5.12
MAX TEF		"	<	10
Units Ng/m ²		"	<	0.51
ΣT4CDF	0.99	pg	2.2	1
ΣP5CDF	0.99	"	<0.99	0
ΣH6CDF	2.2	"	<2.2	0
ΣH7CDF	270	"	<270	0
OCDF	3.7	"	20	1
ΣT4CDD	1.7	"	5.8	2
ΣP5CDD	2.5	"	<2.5	0
ΣH6CDD	1.8	"	<1.8	0
ΣH7CDD	3.5	"	<3.5	0
OCDD	3.9	"	7.3	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			88	
2,3,7,8-T4CDD-13C12			70	
1,2,3,7,8-P5CDF-13C12			64	
1,2,3,7,8-P5CDD-13C12			52	
1,2,3,6,7,8-H6CDF-13C12			76	
1,2,3,6,7,8-H6CDD-13C12			78	
1,2,3,4,6,7,8-H7CDF-13C12			62	
1,2,3,4,6,7,8-H7CDD-13C12			84	
OCDD-13C12			58	

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**PSC Analytical Services
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	R02100403	R02100403	R02100403
Client ID:	12A	12A	12A
Lab No.:	039117 02	039117 02	039117 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	13A	13A	13A
Lab No.:	039118 02	039118 02	039118 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.29	pg	1.8	0.18
2,3,7,8-Cl4DBD	0.30	"	0.72	0.72
1,2,3,7,8-Cl5DBF	0.55	"	0.71	0.035
2,3,4,7,8-Cl5DBF	0.55	"	<0.55	<0.27
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.28	"	0.44	0.044
1,2,3,6,7,8-Cl6DBF	0.26	"	<0.26	<0.026
2,3,4,6,7,8-Cl6DBF	0.31	"	<0.31	<0.031
1,2,3,7,8,9-Cl6DBF	0.37	"	<0.37	<0.037
1,2,3,4,7,8-Cl6DBD	0.59	"	<0.59	<0.059
1,2,3,6,7,8-Cl6DBD	0.55	"	<0.55	<0.055
1,2,3,7,8,9-Cl6DBD	0.54	"	<0.54	<0.054
1,2,3,4,6,7,8-Cl7DBF	13	"	<13	<0.13
1,2,3,4,7,8,9-Cl7DBF	14	"	<14	<0.14
1,2,3,4,6,7,8-Cl7DBD	0.43	"	0.68	0.0068
1,2,3,4,6,7,8,9-Cl8DBF	0.83	"	<0.83	<0.00083
1,2,3,4,6,7,8,9-Cl8DBD	0.42	"	4.1	0.0041
TEF		pg		0.99
EPA Requested TEQs		"	<	1.55
MAX TEF		"	<	2.1
Units Ng/m ²		"	<	0.15
ΣT4CDF	0.29	pg	2.9	3
ΣP5CDF	0.55	"	1.3	2
ΣH6CDF	0.31	"	0.44	1
ΣH7CDF	14	"	<14	0
OCDF	0.83	"	<0.83	0
ΣT4CDD	0.30	"	3.3	3
ΣP5CDD	0.54	"	2.4	3
ΣH6CDD	0.55	"	<0.55	0
ΣH7CDD	0.43	"	0.68	1
OCDD	0.42	"	4.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			102	
2,3,7,8-T4CDD-13C12			84	
1,2,3,7,8-P5CDF-13C12			89	
1,2,3,7,8-P5CDD-13C12			84	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			81	
1,2,3,4,6,7,8-H7CDF-13C12			101	
1,2,3,4,6,7,8-H7CDD-13C12			95	
OCDD-13C12			80	

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	R02100403	R02100403	R02100403
Client ID:	13A	13A	13A
Lab No.:	039118 02	039118 02	039118 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
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	R02100403	R02100403	R02100403
Client ID:	14A	14A	14A
Lab No.:	039119 02	039119 02	039119 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.34	pg	7.0	0.70
2,3,7,8-Cl4DBD	0.92	"	2.7	2.7
1,2,3,7,8-Cl5DBF	0.78	"	<0.78	<0.039
2,3,4,7,8-Cl5DBF	1.7	"	<1.7	<0.83
1,2,3,7,8-Cl5DBD	1.8	"	<1.8	<0.92
1,2,3,4,7,8-Cl6DBF	0.82	"	<0.82	<0.082
1,2,3,6,7,8-Cl6DBF	0.76	"	<0.76	<0.076
2,3,4,6,7,8-Cl6DBF	0.89	"	<0.89	<0.089
1,2,3,7,8,9-Cl6DBF	0.37	"	<0.37	<0.037
1,2,3,4,7,8-Cl6DBD	2.0	"	<2.0	<0.20
1,2,3,6,7,8-Cl6DBD	1.8	"	<1.8	<0.18
1,2,3,7,8,9-Cl6DBD	1.8	"	<1.8	<0.18
1,2,3,4,6,7,8-Cl7DBF	110	"	<110	<1.1
1,2,3,4,7,8,9-Cl7DBF	130	"	<130	<1.3
1,2,3,4,6,7,8-Cl7DBD	6.1	"	<6.1	<0.061
1,2,3,4,6,7,8,9-Cl8DBF	11	"	<11	<0.011
1,2,3,4,6,7,8,9-Cl8DBD	39	"	<39	<0.039

TEF	pg		3.4
EPA Requested TEQs		<	6.00
MAX TEF	"	<	8.6
Units Ng/m²		<	0.60

ΣT4CDF	0.34	pg	24	9
ΣP5CDF	0.79	"	4.0	2
ΣH6CDF	0.89	"	<0.89	0
ΣH7CDF	120	"	<120	0
OCDF	11	"	<11	0
ΣT4CDD	0.92	"	22	5
ΣP5CDD	1.8	"	9.9	1
ΣH6CDD	1.8	"	39	1
ΣH7CDD	5.4	"	<5.4	0
OCDD	39	"	<39	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	86
2,3,7,8-T4CDD-13C12	61
1,2,3,7,8-P5CDF-13C12	47
1,2,3,7,8-P5CDD-13C12	36
1,2,3,6,7,8-H6CDF-13C12	91
1,2,3,6,7,8-H6CDD-13C12	56
1,2,3,4,6,7,8-H7CDF-13C12	66
1,2,3,4,6,7,8-H7CDD-13C12	44
OCDD-13C12	30

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	R02100403	R02100403	R02100403
Client ID:	14A	14A	14A
Lab No.:	039119 02	039119 02	039119 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	15A	15A	15A
Lab No.:	039120 02	039120 02	039120 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.38	pg	2.1	0.21
2,3,7,8-Cl4DBD	0.60	"	<0.60	<0.60
1,2,3,7,8-Cl5DBF	0.91	"	0.94	0.047
2,3,4,7,8-Cl5DBF	0.87	"	<0.87	<0.44
1,2,3,7,8-Cl5DBD	1.1	"	<1.1	<0.56
1,2,3,4,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,6,7,8-Cl6DBF	1.0	"	<1.0	<0.10
2,3,4,6,7,8-Cl6DBF	1.2	"	<1.2	<0.12
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	1.5	"	<1.5	<0.15
1,2,3,6,7,8-Cl6DBD	1.4	"	<1.4	<0.14
1,2,3,7,8,9-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,4,6,7,8-Cl7DBF	69	"	<69	<0.69
1,2,3,4,7,8,9-Cl7DBF	79	"	<79	<0.79
1,2,3,4,6,7,8-Cl7DBD	2.1	"	<2.1	<0.021
1,2,3,4,6,7,8,9-Cl8DBF	3.5	"	<3.5	<0.0035
1,2,3,4,6,7,8,9-Cl8DBD	5.6	"	<5.6	<0.0056

TEF	pg		0.25
EPA Requested TEQs		<	2.23
MAX TEF	"	<	4.2
Units Ng/m²		<	0.22

ΣT4CDF	0.38	pg	3.2	3
ΣP5CDF	0.91	"	0.94	1
ΣH6CDF	1.2	"	<1.2	0
ΣH7CDF	74	"	<74	0
OCDF	3.5	"	<3.5	0
ΣT4CDD	0.6	"	3.9	2
ΣP5CDD	1.1	"	<1.1	0
ΣH6CDD	1.4	"	<1.4	0
ΣH7CDD	2.1	"	<2.1	0
OCDD	5.6	"	<5.6	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	91
2,3,7,8-T4CDD-13C12	75
1,2,3,7,8-P5CDF-13C12	63
1,2,3,7,8-P5CDD-13C12	45
1,2,3,6,7,8-H6CDF-13C12	103
1,2,3,6,7,8-H6CDD-13C12	81
1,2,3,4,6,7,8-H7CDF-13C12	82
1,2,3,4,6,7,8-H7CDD-13C12	82
OCDD-13C12	57

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	R02100403	R02100403	R02100403
Client ID:	15A	15A	15A
Lab No.:	039120 02	039120 02	039120 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	16A	16A	16A
Lab No.:	039121 02	039121 02	039121 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	3.4	pg	<3.4	<0.34
2,3,7,8-Cl4DBD	0.50	"	<0.50	<0.50
1,2,3,7,8-Cl5DBF	0.48	"	0.52	0.026
2,3,4,7,8-Cl5DBF	0.76	"	<0.76	<0.38
1,2,3,7,8-Cl5DBD	0.91	"	<0.91	<0.46
1,2,3,4,7,8-Cl6DBF	0.57	"	1.2	0.12
1,2,3,6,7,8-Cl6DBF	0.64	"	<0.64	<0.064
2,3,4,6,7,8-Cl6DBF	0.34	"	<0.34	<0.034
1,2,3,7,8,9-Cl6DBF	0.37	"	<0.37	<0.037
1,2,3,4,7,8-Cl6DBD	0.97	"	<0.97	<0.097
1,2,3,6,7,8-Cl6DBD	0.90	"	<0.90	<0.090
1,2,3,7,8,9-Cl6DBD	0.88	"	<0.88	<0.088
1,2,3,4,6,7,8-Cl7DBF	30	"	<30	<0.30
1,2,3,4,7,8,9-Cl7DBF	3.9	"	<3.9	<0.039
1,2,3,4,6,7,8-Cl7DBD	3.0	"	<3.0	<0.030
1,2,3,4,6,7,8,9-Cl8DBF	3.8	"	37	0.037
1,2,3,4,6,7,8,9-Cl8DBD	11	"	<11	<0.011
TEF		pg		0.18
EPA Requested TEQs		"	<	1.44
MAX TEF		"	<	2.7
Units Ng/m ²			<	0.14
ΣT4CDF	0.31	pg	9.5	6
ΣP5CDF	0.48	"	3.8	3
ΣH6CDF	0.62	"	1.2	1
ΣH7CDF	32	"	<32	0
OCDF	3.8	"	37	1
ΣT4CDD	0.49	"	12	5
ΣP5CDD	1.1	"	1.6	1
ΣH6CDD	0.90	"	<0.90	0
ΣH7CDD	1.6	"	2.5	1
OCDD	11	"	<11	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			98	
2,3,7,8-T4CDD-13C12			82	
1,2,3,7,8-P5CDF-13C12			73	
1,2,3,7,8-P5CDD-13C12			58	
1,2,3,6,7,8-H6CDF-13C12			119	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			96	
1,2,3,4,6,7,8-H7CDD-13C12			74	
OCDD-13C12			51	

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	R02100403	R02100403	R02100403
Client ID:	16A	16A	16A
Lab No.:	039121 02	039121 02	039121 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	17A	17A	17A
Lab No.:	039122 02	039122 02	039122 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	2.2	pg	<2.2	<0.22
2,3,7,8-Cl4DBD	0.51	"	<0.51	<0.51
1,2,3,7,8-Cl5DBF	0.74	"	<0.74	<0.037
2,3,4,7,8-Cl5DBF	0.75	"	<0.75	<0.37
1,2,3,7,8-Cl5DBD	1.3	"	<1.3	<0.65
1,2,3,4,7,8-Cl6DBF	1.7	"	<1.7	<0.17
1,2,3,6,7,8-Cl6DBF	1.6	"	<1.6	<0.16
2,3,4,6,7,8-Cl6DBF	1.9	"	<1.9	<0.19
1,2,3,7,8,9-Cl6DBF	2.1	"	<2.1	<0.21
1,2,3,4,7,8-Cl6DBD	1.6	"	<1.6	<0.16
1,2,3,6,7,8-Cl6DBD	1.5	"	<1.5	<0.15
1,2,3,7,8,9-Cl6DBD	1.4	"	<1.4	<0.14
1,2,3,4,6,7,8-Cl7DBF	2.7	"	<2.7	<0.027
1,2,3,4,7,8,9-Cl7DBF	2.9	"	<2.9	<0.029
1,2,3,4,6,7,8-Cl7DBD	1.6	"	4.3	0.043
1,2,3,4,6,7,8,9-Cl8DBF	3.2	"	<3.2	<0.0033
1,2,3,4,6,7,8,9-Cl8DBD	5.8	"	36	0.036
TEF		pg		0.079
EPA Requested TEQs			<	1.59
MAX TEF		"	<	3.1
Units Ng/m ²			<	0.16
ΣT4CDF	0.36	pg	4.7	4
ΣP5CDF	0.77	"	<0.77	0
ΣH6CDF	1.9	"	<1.9	0
ΣH7CDF	100	"	<100	0
OCDF	3.2	"	<3.2	0
ΣT4CDD	0.51	"	1.8	1
ΣP5CDD	1.3	"	<1.3	0
ΣH6CDD	1.5	"	<1.5	0
ΣH7CDD	1.6	"	4.3	1
OCDD	5.8	"	36	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			90	
2,3,7,8-T4CDD-13C12			77	
1,2,3,7,8-P5CDF-13C12			69	
1,2,3,7,8-P5CDD-13C12			53	
1,2,3,6,7,8-H6CDF-13C12			49	
1,2,3,6,7,8-H6CDD-13C12			52	
1,2,3,4,6,7,8-H7CDF-13C12			36	
1,2,3,4,6,7,8-H7CDD-13C12			59	
OCDD-13C12			50	

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	R02100403	R02100403	R02100403
Client ID:	17A	17A	17A
Lab No.:	039122 02	039122 02	039122 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100403	R02100403	R02100403
Client ID:	18A	18A	18A
Lab No.:	039123 02	039123 02	039123 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.45	pg	1.3	0.13
2,3,7,8-Cl4DBD	0.55	"	0.91	0.91
1,2,3,7,8-Cl5DBF	0.56	"	1.2	0.058
2,3,4,7,8-Cl5DBF	0.54	"	0.92	0.46
1,2,3,7,8-Cl5DBD	0.74	"	<0.74	<0.37
1,2,3,4,7,8-Cl6DBF	0.57	"	<0.57	<0.057
1,2,3,6,7,8-Cl6DBF	0.53	"	0.71	0.071
2,3,4,6,7,8-Cl6DBF	0.62	"	1.1	0.11
1,2,3,7,8,9-Cl6DBF	0.67	"	<0.67	<0.067
1,2,3,4,7,8-Cl6DBD	1.7	"	<1.7	<0.17
1,2,3,6,7,8-Cl6DBD	1.5	"	<1.5	<0.15
1,2,3,7,8,9-Cl6DBD	1.4	"	<1.4	<0.14
1,2,3,4,6,7,8-Cl7DBF	67	"	<67	<0.67
1,2,3,4,7,8,9-Cl7DBF	77	"	<77	<0.77
1,2,3,4,6,7,8-Cl7DBD	1.2	"	<1.2	<0.012
1,2,3,4,6,7,8,9-Cl8DBF	12	"	<12	<0.012
1,2,3,4,6,7,8,9-Cl8DBD	1.2	"	3.4	0.0034
TEF		pg		1.7
EPA Requested TEQs		"	<	2.95
MAX TEF		"	<	4.2
Units Ng/m ²		"	<	0.30
ΣT4CDF	0.45	pg	1.3	1
ΣP5CDF	0.56	"	2.1	2
ΣH6CDF	0.62	"	1.8	2
ΣH7CDF	72	"	<72	0
OCDF	12	"	<12	0
ΣT4CDD	0.55	"	0.91	1
ΣP5CDD	0.74	"	<0.74	0
ΣH6CDD	0.80	"	<0.80	0
ΣH7CDD	1.2	"	<1.2	0
OCDD	1.2	"	3.4	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			85	
2,3,7,8-T4CDD-13C12			70	
1,2,3,7,8-P5CDF-13C12			67	
1,2,3,7,8-P5CDD-13C12			59	
1,2,3,6,7,8-H6CDF-13C12			99	
1,2,3,6,7,8-H6CDD-13C12			79	
1,2,3,4,6,7,8-H7CDF-13C12			98	
1,2,3,4,6,7,8-H7CDD-13C12			84	
OCDD-13C12			69	

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	R02100403	R02100403	R02100403
Client ID:	18A	18A	18A
Lab No.:	039123 02	039123 02	039123 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component

RDL

Units

TEF

of Isomers

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	R02100402	R02100402	R02100402
Client ID:	01A	01A	01A
Lab No.:	039086 02	039086 02	039086 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.34	pg	2.1	0.21
2,3,7,8-Cl4DBD	0.24	"	<0.24	
1,2,3,7,8-Cl5DBF	0.53	"	<0.53	<0.026
2,3,4,7,8-Cl5DBF	0.46	"	<0.46	<0.23
1,2,3,7,8-Cl5DBD	0.49	"	<0.49	<0.24
1,2,3,4,7,8-Cl6DBF	0.54	"	<0.54	<0.054
1,2,3,6,7,8-Cl6DBF	0.51	"	<0.51	<0.051
2,3,4,6,7,8-Cl6DBF	0.59	"	<0.59	<0.059
1,2,3,7,8,9-Cl6DBF	0.64	"	<0.64	<0.064
1,2,3,4,7,8-Cl6DBD	0.59	"	<0.59	<0.059
1,2,3,6,7,8-Cl6DBD	0.55	"	<0.55	<0.055
1,2,3,7,8,9-Cl6DBD	0.53	"	<0.53	<0.053
1,2,3,4,6,7,8-Cl7DBF	2.0	"	<2.0	<0.020
1,2,3,4,7,8,9-Cl7DBF	3.7	"	<3.7	<0.037
1,2,3,4,6,7,8-Cl7DBD	0.81	"	<0.81	<0.0081
1,2,3,4,6,7,8,9-Cl8DBF	0.84	"	<0.84	<0.00084
1,2,3,4,6,7,8,9-Cl8DBD	5.6	"	<5.6	<0.0056
TEF		pg		0.21
EPA Requested TEQ			<	0.81
MAX TEF		"	<	1.4
Units Ng/m ²			<	0.08
ΣT4CDF	0.34	pg	4.3	4
ΣP5CDF	0.30	"	<0.30	0
ΣH6CDF	0.54	"	<0.54	0
ΣH7CDF	3.5	"	<3.5	0
OCDF	0.84	"	<0.84	0
ΣT4CDD	0.21	"	1.9	2
ΣP5CDD	0.49	"	2.2	3
ΣH6CDD	0.55	"	<0.55	0
ΣH7CDD	0.40	"	<0.40	0
OCDD	5.6	"	<5.6	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			98	
2,3,7,8-T4CDD-13C12			90	
1,2,3,7,8-P5CDF-13C12			79	
1,2,3,7,8-P5CDD-13C12			72	
1,2,3,6,7,8-H6CDF-13C12			56	
1,2,3,6,7,8-H6CDD-13C12			71	
1,2,3,4,6,7,8-H7CDF-13C12			39	
1,2,3,4,6,7,8-H7CDD-13C12			75	
OCDD-13C12			54	

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	R02100402	R02100402	R02100402
Client ID:	02A	02A	02A
Lab No.:	039087 02	039087 02	039087 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.25	pg	3.3	0.33
2,3,7,8-Cl4DBD	0.27	"	<0.27	
1,2,3,7,8-Cl5DBF	0.30	"	<0.30	<0.015
2,3,4,7,8-Cl5DBF	0.29	"	0.71	0.35
1,2,3,7,8-Cl5DBD	0.57	"	<0.57	<0.29
1,2,3,4,7,8-Cl6DBF	0.55	"	<0.55	<0.055
1,2,3,6,7,8-Cl6DBF	0.24	"	<0.24	<0.024
2,3,4,6,7,8-Cl6DBF	0.92	"	<0.92	<0.092
1,2,3,7,8,9-Cl6DBF	0.45	"	<0.45	<0.045
1,2,3,4,7,8-Cl6DBD	0.47	"	<0.47	<0.047
1,2,3,6,7,8-Cl6DBD	0.19	"	<0.19	<0.019
1,2,3,7,8,9-Cl6DBD	0.43	"	<0.43	<0.043
1,2,3,4,6,7,8-Cl7DBF	3.1	"	<3.1	<0.031
1,2,3,4,7,8,9-Cl7DBF	7.8	"	<7.8	<0.078
1,2,3,4,6,7,8-Cl7DBD	0.78	"	1.7	0.017
1,2,3,4,6,7,8,9-Cl8DBF	1.2	"	<1.2	<0.0012
1,2,3,4,6,7,8,9-Cl8DBD	7.9	"	<7.9	<0.0079
TEF		pg		0.70
EPA Requested TEQ		"	<	1.20
MAX TEF		"	<	1.7
Units Ng/m ²			<	0.12
ΣT4CDF	0.25	pg	11	8
ΣP5CDF	0.30	"	2.0	2
ΣH6CDF	0.38	"	<0.38	0
ΣH7CDF	7.3	"	<7.3	0
OCDF	1.2	"	<1.2	0
ΣT4CDD	0.52	"	9.5	2
ΣP5CDD	0.81	"	3.2	2
ΣH6CDD	0.44	"	<0.44	0
ΣH7CDD	0.78	"	3.2	2
OCDD	7.9	"	<7.9	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			88	
2,3,7,8-T4CDD-13C12			81	
1,2,3,7,8-P5CDF-13C12			75	
1,2,3,7,8-P5CDD-13C12			69	
1,2,3,6,7,8-H6CDF-13C12			97	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			90	
1,2,3,4,6,7,8-H7CDD-13C12			82	
OCDD-13C12			58	

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	R02100402	R02100402	R02100402
Client ID:	03A	03A	03A
Lab No.:	039088 02	039088 02	039088 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.13	pg	2.2	0.22
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.33	"	<0.33	<0.016
2,3,4,7,8-Cl5DBF	0.25	"	0.48	0.24
1,2,3,7,8-Cl5DBD	0.65	"	<0.65	<0.33
1,2,3,4,7,8-Cl6DBF	0.19	"	<0.19	<0.019
1,2,3,6,7,8-Cl6DBF	0.18	"	<0.18	<0.018
2,3,4,6,7,8-Cl6DBF	0.21	"	<0.21	<0.021
1,2,3,7,8,9-Cl6DBF	0.23	"	<0.23	<0.023
1,2,3,4,7,8-Cl6DBD	0.23	"	<0.23	<0.023
1,2,3,6,7,8-Cl6DBD	0.21	"	<0.21	<0.021
1,2,3,7,8,9-Cl6DBD	0.21	"	<0.21	<0.021
1,2,3,4,6,7,8-Cl7DBF	0.68	"	<0.68	<0.0068
1,2,3,4,7,8,9-Cl7DBF	1.5	"	<1.5	<0.015
1,2,3,4,6,7,8-Cl7DBD	0.21	"	0.44	0.0044
1,2,3,4,6,7,8,9-Cl8DBF	0.38	"	<0.38	<0.00038
1,2,3,4,6,7,8,9-Cl8DBD	0.27	"	3.0	0.0030
TEF		pg	0.46	
EPA Requested TEQ			<	0.88
MAX TEF		"	<	1.3
Units Ng/m ²			<	0.09
ΣT4CDF	0.13	pg	5.5	6
ΣP5CDF	0.26	"	1.6	3
ΣH6CDF	0.19	"	<0.19	0
ΣH7CDF	1.4	"	<1.4	0
OCDF	0.38	"	<0.38	0
ΣT4CDD	0.37	"	3.9	2
ΣP5CDD	0.65	"	1.9	2
ΣH6CDD	0.21	"	<0.21	0
ΣH7CDD	0.21	"	0.44	1
OCDD	0.27	"	3.0	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			85	
2,3,7,8-T4CDD-13C12			84	
1,2,3,7,8-P5CDF-13C12			87	
1,2,3,7,8-P5CDD-13C12			92	
1,2,3,6,7,8-H6CDF-13C12			87	
1,2,3,6,7,8-H6CDD-13C12			88	
1,2,3,4,6,7,8-H7CDF-13C12			99	
1,2,3,4,6,7,8-H7CDD-13C12			98	
OCDD-13C12			78	

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	R02100402	R02100402	R02100402
Client ID:	04A	04A	04A
Lab No.:	039089 02	039089 02	039089 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.085	pg	3.6	0.36
2,3,7,8-Cl4DBD	0.26	"	0.33	0.33
1,2,3,7,8-Cl5DBF	0.49	"	0.64	0.032
2,3,4,7,8-Cl5DBF	0.47	"	<0.47	<0.24
1,2,3,7,8-Cl5DBD	0.38	"	<0.38	<0.19
1,2,3,4,7,8-Cl6DBF	0.42	"	<0.42	<0.042
1,2,3,6,7,8-Cl6DBF	0.39	"	<0.39	<0.039
2,3,4,6,7,8-Cl6DBF	0.46	"	<0.46	<0.046
1,2,3,7,8,9-Cl6DBF	0.49	"	<0.49	<0.049
1,2,3,4,7,8-Cl6DBD	0.30	"	<0.30	<0.030
1,2,3,6,7,8-Cl6DBD	0.44	"	0.66	0.066
1,2,3,7,8,9-Cl6DBD	0.42	"	0.71	0.071
1,2,3,4,6,7,8-Cl7DBF	7.8	"	<7.8	<0.078
1,2,3,4,7,8,9-Cl7DBF	6.3	"	<6.3	<0.063
1,2,3,4,6,7,8-Cl7DBD	1.1	"	6.1	0.061
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	1.4	"	37	0.037
		TEF	pg	0.96
		EPA Requested TEQ	<	1.33
		MAX TEF	<	1.7
		Units Ng/m ²	<	0.13
Surrogate Recoveries				
ΣT4CDF	0.085	pg	6.9	5
ΣP5CDF	0.49	"	2.3	3
ΣH6CDF	0.42	"	<0.42	0
ΣH7CDF	5.8	"	<5.8	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.26	"	11	7
ΣP5CDD	0.29	"	0.81	1
ΣH6CDD	0.44	"	2.9	3
ΣH7CDD	1.1	"	14	2
OCDD	1.4	"	37	1
		%		
2,3,7,8-T4CDF-13C12			89	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			72	
1,2,3,7,8-P5CDD-13C12			67	
1,2,3,6,7,8-H6CDF-13C12			76	
1,2,3,6,7,8-H6CDD-13C12			82	
1,2,3,4,6,7,8-H7CDF-13C12			59	
1,2,3,4,6,7,8-H7CDD-13C12			79	
OCDD-13C12			58	

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	R02100402	R02100402	R02100402
Client ID:	05A	05A	05A
Lab No.:	039090 02	039090 02	039090 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	3.1	pg	<3.1	<0.31
2,3,7,8-Cl4DBD	0.47	"	<0.47	<0.47
1,2,3,7,8-Cl5DBF	0.49	"	<0.49	<0.025
2,3,4,7,8-Cl5DBF	0.13	"	0.53	0.27
1,2,3,7,8-Cl5DBD	0.37	"	<0.37	<0.18
1,2,3,4,7,8-Cl6DBF	0.64	"	<0.64	<0.064
1,2,3,6,7,8-Cl6DBF	0.42	"	<0.42	<0.042
2,3,4,6,7,8-Cl6DBF	0.49	"	<0.49	<0.049
1,2,3,7,8,9-Cl6DBF	0.53	"	<0.53	<0.053
1,2,3,4,7,8-Cl6DBD	0.27	"	<0.27	<0.027
1,2,3,6,7,8-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,7,8,9-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,4,6,7,8-Cl7DBF	3.7	"	<3.7	<0.037
1,2,3,4,7,8,9-Cl7DBF	4.3	"	<4.3	<0.043
1,2,3,4,6,7,8-Cl7DBD	3.8	"	<3.8	<0.038
1,2,3,4,6,7,8,9-Cl8DBF	1.9	"	<1.9	<0.0019
1,2,3,4,6,7,8,9-Cl8DBD	1.9	"	34	0.034
TEF		pg		0.30
EPA Requested TEQ		"	<	1.00
MAX TEF		"	<	1.7
Units Ng/m ²			<	0.10
ΣT4CDF	0.14	pg	5.1	5
ΣP5CDF	0.13	"	0.53	1
ΣH6CDF	0.45	"	<0.45	0
ΣH7CDF	4.0	"	<4.0	0
OCDF	1.9	"	<1.9	0
ΣT4CDD	0.47	"	10	4
ΣP5CDD	0.37	"	2.6	1
ΣH6CDD	0.25	"	1.3	1
ΣH7CDD	0.64	"	4.7	1
OCDD	1.9	"	34	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			91	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			75	
1,2,3,7,8-P5CDD-13C12			70	
1,2,3,6,7,8-H6CDF-13C12			96	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			85	
1,2,3,4,6,7,8-H7CDD-13C12			77	
OCDD-13C12			50	

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	R02100402	R02100402	R02100402
Client ID:	06A	06A	06A
Lab No.:	039091 02	039091 02	039091 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.22	pg	1.2	0.12
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.29	"	<0.29	<0.015
2,3,4,7,8-Cl5DBF	0.27	"	<0.27	<0.14
1,2,3,7,8-Cl5DBD	0.37	"	<0.37	<0.19
1,2,3,4,7,8-Cl6DBF	0.36	"	<0.36	<0.036
1,2,3,6,7,8-Cl6DBF	0.34	"	<0.34	<0.034
2,3,4,6,7,8-Cl6DBF	0.40	"	<0.40	<0.040
1,2,3,7,8,9-Cl6DBF	0.43	"	<0.43	<0.043
1,2,3,4,7,8-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,6,7,8-Cl6DBD	0.23	"	<0.23	<0.023
1,2,3,7,8,9-Cl6DBD	0.22	"	<0.22	<0.022
1,2,3,4,6,7,8-Cl7DBF	28	"	<28	<0.28
1,2,3,4,7,8,9-Cl7DBF	32	"	<32	<0.32
1,2,3,4,6,7,8-Cl7DBD	0.48	"	<0.48	<0.0048
1,2,3,4,6,7,8,9-Cl8DBF	0.44	"	<0.44	<0.00044
1,2,3,4,6,7,8,9-Cl8DBD	0.46	"	2.8	0.0028

TEF	pg		0.12
EPA Requested TEQ		<	0.91
MAX TEF	"	<	1.7
Units Ng/m ²		<	0.09

ΣT4CDF	0.22	pg	2.1	3
ΣP5CDF	0.29	"	<0.29	0
ΣH6CDF	0.36	"	<0.36	0
ΣH7CDF	30	"	<30	0
OCDF	0.44	"	<0.44	0
ΣT4CDD	0.37	"	<0.37	0
ΣP5CDD	0.37	"	0.49	1
ΣH6CDD	0.23	"	<0.23	0
ΣH7CDD	0.34	"	<0.34	0
OCDD	0.46	"	2.8	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	98
2,3,7,8-T4CDD-13C12	94
1,2,3,7,8-P5CDF-13C12	92
1,2,3,7,8-P5CDD-13C12	91
1,2,3,6,7,8-H6CDF-13C12	77
1,2,3,6,7,8-H6CDD-13C12	87
1,2,3,4,6,7,8-H7CDF-13C12	68
1,2,3,4,6,7,8-H7CDD-13C12	98
OCDD-13C12	76

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	R02100402	R02100402	R02100402
Client ID:	07A	07A	07A
Lab No.:	039092 02	039092 02	039092 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.31	pg	34	3.4
2,3,7,8-Cl4DBD	8.8	"	<8.8	<8.8
1,2,3,7,8-Cl5DBF	0.46	"	6.6	0.33
2,3,4,7,8-Cl5DBF	0.45	"	6.6	3.3
1,2,3,7,8-Cl5DBD	3.6	"	<3.6	<1.8
1,2,3,4,7,8-Cl6DBF	0.74	"	7.0	0.70
1,2,3,6,7,8-Cl6DBF	5.0	"	<5.0	<0.50
2,3,4,6,7,8-Cl6DBF	0.81	"	7.8	0.78
1,2,3,7,8,9-Cl6DBF	0.87	"	6.2	0.62
1,2,3,4,7,8-Cl6DBD	1.5	"	3.2	0.32
1,2,3,6,7,8-Cl6DBD	4.6	"	<4.6	<0.46
1,2,3,7,8,9-Cl6DBD	1.3	"	6.8	0.68
1,2,3,4,6,7,8-Cl7DBF	51	"	<51	<0.51
1,2,3,4,7,8,9-Cl7DBF	8.5	"	<8.5	<0.085
1,2,3,4,6,7,8-Cl7DBD	1.9	"	20	0.20
1,2,3,4,6,7,8,9-Cl8DBF	1.8	"	12	0.012
1,2,3,4,6,7,8,9-Cl8DBD	2.5	"	100	0.10
TEF		pg		10
EPA Requested TEQ		"	<	16.50
MAX TEF		"	<	23
Units Ng/m ²			<	1.65
ΣT4CDF	0.31	pg	150	13
ΣP5CDF	0.46	"	56	8
ΣH6CDF	0.74	"	28	4
ΣH7CDF	11	"	<11	0
OCDF	1.8	"	12	1
ΣT4CDD	0.55	"	170	10
ΣP5CDD	0.96	"	84	5
ΣH6CDD	1.4	"	54	5
ΣH7CDD	1.9	"	38	2
OCDD	2.5	"	100	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			91	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			69	
1,2,3,7,8-P5CDD-13C12			62	
1,2,3,6,7,8-H6CDF-13C12			88	
1,2,3,6,7,8-H6CDD-13C12			83	
1,2,3,4,6,7,8-H7CDF-13C12			65	
1,2,3,4,6,7,8-H7CDD-13C12			67	
OCDD-13C12			41	

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	R02100402	R02100402	R02100402
Client ID:	08A	08A	08A
Lab No.:	039093 02	039093 02	039093 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.18	pg	2.7	0.27
2,3,7,8-Cl4DBD	0.42	"	<0.42	<0.42
1,2,3,7,8-Cl5DBF	0.55	"	<0.55	<0.027
2,3,4,7,8-Cl5DBF	0.61	"	<0.61	<0.30
1,2,3,7,8-Cl5DBD	6.3	"	<6.3	<3.2
1,2,3,4,7,8-Cl6DBF	0.21	"	0.43	0.043
1,2,3,6,7,8-Cl6DBF	0.19	"	0.28	0.028
2,3,4,6,7,8-Cl6DBF	0.66	"	<0.66	<0.066
1,2,3,7,8,9-Cl6DBF	0.66	"	<0.66	<0.066
1,2,3,4,7,8-Cl6DBD	1.1	"	<1.1	<0.11
1,2,3,6,7,8-Cl6DBD	0.98	"	<0.98	<0.098
1,2,3,7,8,9-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,4,6,7,8-Cl7DBF	490	"	<490	<4.9
1,2,3,4,7,8,9-Cl7DBF	28	"	<28	<0.28
1,2,3,4,6,7,8-Cl7DBD	0.41	"	42	0.42
1,2,3,4,6,7,8,9-Cl8DBF	0.21	"	2.4	0.0024
1,2,3,4,6,7,8,9-Cl8DBD	0.48	"	430	0.43

TEF	pg		1.2
EPA Requested TEQ		<	6.10
MAX TEF	"	<	11
Units Ng/m²		<	0.61

ΣT4CDF	0.18	pg	5.8	7
ΣP5CDF	0.50	"	0.70	1
ΣH6CDF	0.21	"	1.8	3
ΣH7CDF	26	"	<26	0
OCDF	0.21	"	2.4	1
ΣT4CDD	0.27	"	0.43	1
ΣP5CDD	6.3	"	6.4	1
ΣH6CDD	0.57	"	3.3	2
ΣH7CDD	0.41	"	75	2
OCDD	0.48	"	430	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	92
2,3,7,8-T4CDD-13C12	92
1,2,3,7,8-P5CDF-13C12	93
1,2,3,7,8-P5CDD-13C12	97
1,2,3,6,7,8-H6CDF-13C12	86
1,2,3,6,7,8-H6CDD-13C12	88
1,2,3,4,6,7,8-H7CDF-13C12	99
1,2,3,4,6,7,8-H7CDD-13C12	100
OCDD-13C12	72

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	R02100402	R02100402	R02100402
Client ID:	09A	09A	09A
Lab No.:	039094 02	039094 02	039094 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.25	pg	1.8	0.18
2,3,7,8-Cl4DBD	0.44	"	<0.44	<0.44
1,2,3,7,8-Cl5DBF	0.59	"	<0.59	<0.030
2,3,4,7,8-Cl5DBF	0.48	"	<0.48	<0.24
1,2,3,7,8-Cl5DBD	0.64	"	<0.64	<0.32
1,2,3,4,7,8-Cl6DBF	0.67	"	<0.67	<0.067
1,2,3,6,7,8-Cl6DBF	0.30	"	<0.30	<0.030
2,3,4,6,7,8-Cl6DBF	0.25	"	0.35	0.035
1,2,3,7,8,9-Cl6DBF	0.28	"	<0.28	<0.028
1,2,3,4,7,8-Cl6DBD	0.63	"	<0.63	<0.063
1,2,3,6,7,8-Cl6DBD	0.43	"	<0.43	<0.043
1,2,3,7,8,9-Cl6DBD	0.42	"	<0.42	<0.042
1,2,3,4,6,7,8-Cl7DBF	1.5	"	<1.5	<0.015
1,2,3,4,7,8,9-Cl7DBF	1.1	"	<1.1	<0.011
1,2,3,4,6,7,8-Cl7DBD	0.45	"	<0.45	<0.0045
1,2,3,4,6,7,8,9-Cl8DBF	0.48	"	5.8	0.0058
1,2,3,4,6,7,8,9-Cl8DBD	3.0	"	<3.0	<0.0030

TEF	pg	0.22
EPA Requested TEQ	<	0.91
MAX TEF	<	1.6
Units Ng/m ²	<	0.09

ΣT4CDF	0.25	pg	3.9	5
ΣP5CDF	0.36	"	<0.36	0
ΣH6CDF	0.23	"	0.35	1
ΣH7CDF	1.1	"	<1.1	0
OCDF	0.48	"	5.8	1
ΣT4CDD	0.19	"	1.5	2
ΣP5CDD	0.64	"	<0.64	0
ΣH6CDD	0.43	"	<0.43	0
ΣH7CDD	0.28	"	<0.28	0
OCDD	3.0	"	<3.0	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	100
2,3,7,8-T4CDD-13C12	98
1,2,3,7,8-P5CDF-13C12	102
1,2,3,7,8-P5CDD-13C12	101
1,2,3,6,7,8-H6CDF-13C12	71
1,2,3,6,7,8-H6CDD-13C12	84
1,2,3,4,6,7,8-H7CDF-13C12	60
1,2,3,4,6,7,8-H7CDD-13C12	96
OCDD-13C12	67

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	R02100402	R02100402	R02100402
Client ID:	10A	10A	10A
Lab No.:	039095 02	039095 02	039095 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.36	pg	3.4	0.34
2,3,7,8-Cl4DBD	1.0	"	<1.0	<1.0
1,2,3,7,8-Cl5DBF	0.23	"	0.63	0.031
2,3,4,7,8-Cl5DBF	0.22	"	0.84	0.42
1,2,3,7,8-Cl5DBD	0.23	"	<0.23	<0.12
1,2,3,4,7,8-Cl6DBF	0.21	"	0.89	0.089
1,2,3,6,7,8-Cl6DBF	0.19	"	0.60	0.060
2,3,4,6,7,8-Cl6DBF	0.75	"	<0.75	<0.075
1,2,3,7,8,9-Cl6DBF	0.24	"	<0.24	<0.024
1,2,3,4,7,8-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,6,7,8-Cl6DBD	0.24	"	<0.24	<0.024
1,2,3,7,8,9-Cl6DBD	0.23	"	0.38	0.038
1,2,3,4,6,7,8-Cl7DBF	3.3	"	<3.3	<0.033
1,2,3,4,7,8,9-Cl7DBF	0.81	"	<0.81	<0.0081
1,2,3,4,6,7,8-Cl7DBD	0.32	"	3.1	0.031
1,2,3,4,6,7,8,9-Cl8DBF	1.9	"	<1.9	<0.0019
1,2,3,4,6,7,8,9-Cl8DBD	0.97	"	23	0.023
TEF		pg		1.0
EPA Requested TEQ		"	<	1.70
MAX TEF		"	<	2.4
Units Ng/m ²		"	<	0.17
ΣT4CDF	0.36	pg	12	11
ΣP5CDF	0.23	"	5.1	6
ΣH6CDF	0.21	"	2.5	3
ΣH7CDF	1.7	"	<1.7	0
OCDF	1.9	"	<1.9	0
ΣT4CDD	0.21	"	15	6
ΣP5CDD	0.23	"	3.3	3
ΣH6CDD	0.24	"	1.2	2
ΣH7CDD	0.32	"	5.7	2
OCDD	0.97	"	23	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			90	
2,3,7,8-T4CDD-13C12			87	
1,2,3,7,8-P5CDF-13C12			94	
1,2,3,7,8-P5CDD-13C12			96	
1,2,3,6,7,8-H6CDF-13C12			85	
1,2,3,6,7,8-H6CDD-13C12			85	
1,2,3,4,6,7,8-H7CDF-13C12			91	
1,2,3,4,6,7,8-H7CDD-13C12			88	
OCDD-13C12			73	

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	R02100402	R02100402	R02100402
Client ID:	11A	11A	11A
Lab No.:	039096 02	039096 02	039096 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.41	pg	7.5	0.75
2,3,7,8-Cl4DBD	0.24	"	2.8	2.8
1,2,3,7,8-Cl5DBF	0.41	"	1.1	0.054
2,3,4,7,8-Cl5DBF	0.40	"	1.0	0.51
1,2,3,7,8-Cl5DBD	0.56	"	<0.56	<0.28
1,2,3,4,7,8-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,6,7,8-Cl6DBF	0.17	"	0.64	0.064
2,3,4,6,7,8-Cl6DBF	0.89	"	<0.89	<0.089
1,2,3,7,8,9-Cl6DBF	0.22	"	<0.22	<0.022
1,2,3,4,7,8-Cl6DBD	0.70	"	<0.70	<0.070
1,2,3,6,7,8-Cl6DBD	0.65	"	0.99	0.099
1,2,3,7,8,9-Cl6DBD	0.69	"	<0.69	<0.069
1,2,3,4,6,7,8-Cl7DBF	6.8	"	<6.8	<0.068
1,2,3,4,7,8,9-Cl7DBF	3.0	"	<3.0	<0.030
1,2,3,4,6,7,8-Cl7DBD	0.83	"	6.6	0.066
1,2,3,4,6,7,8,9-Cl8DBF	3.4	"	<3.4	<0.0034
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	59	0.059
TEF		pg	4.3	
EPA Requested TEQ		"	< 4.70	
MAX TEF		"	< 5.1	
Units Ng/m ²		"	< 0.47	
ΣT4CDF	0.41	pg	50	13
ΣP5CDF	0.41	"	11	7
ΣH6CDF	0.19	"	2.3	2
ΣH7CDF	2.8	"	<2.8	0
OCDF	3.4	"	<3.4	0
ΣT4CDD	0.24	"	23	6
ΣP5CDD	0.56	"	11	3
ΣH6CDD	0.65	"	0.99	1
ΣH7CDD	0.83	"	13	2
OCDD	1.3	"	59	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			50	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			51	
1,2,3,7,8-P5CDD-13C12			52	
1,2,3,6,7,8-H6CDF-13C12			43	
1,2,3,6,7,8-H6CDD-13C12			44	
1,2,3,4,6,7,8-H7CDF-13C12			46	
1,2,3,4,6,7,8-H7CDD-13C12			45	
OCDD-13C12			35	

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	R02100402	R02100402	R02100402
Client ID:	12A	12A	12A
Lab No.:	039097 02	039097 02	039097 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.17	pg	1.0	0.10
2,3,7,8-Cl4DBD	0.25	"	<0.25	<0.25
1,2,3,7,8-Cl5DBF	0.28	"	0.40	0.020
2,3,4,7,8-Cl5DBF	0.27	"	<0.27	<0.14
1,2,3,7,8-Cl5DBD	0.43	"	<0.43	<0.22
1,2,3,4,7,8-Cl6DBF	0.29	"	<0.29	<0.029
1,2,3,6,7,8-Cl6DBF	0.27	"	<0.27	<0.027
2,3,4,6,7,8-Cl6DBF	0.19	"	<0.19	<0.019
1,2,3,7,8,9-Cl6DBF	0.25	"	<0.25	<0.025
1,2,3,4,7,8-Cl6DBD	0.24	"	<0.24	<0.024
1,2,3,6,7,8-Cl6DBD	0.22	"	<0.22	<0.022
1,2,3,7,8,9-Cl6DBD	0.22	"	<0.22	<0.022
1,2,3,4,6,7,8-Cl7DBF	0.69	"	<0.69	<0.0069
1,2,3,4,7,8,9-Cl7DBF	1.3	"	<1.3	<0.013
1,2,3,4,6,7,8-Cl7DBD	1.1	"	<1.1	<0.011
1,2,3,4,6,7,8,9-Cl8DBF	0.41	"	<0.41	<0.00041
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	8.1	0.0081
TEF		pg		0.13
EPA Requested TEQ		"	<	0.53
MAX TEF		"	<	0.93
Units Ng/m ²		"	<	0.05
ΣT4CDF	0.17	pg	1.9	4
ΣP5CDF	0.28	"	0.40	1
ΣH6CDF	0.18	"	0.29	1
ΣH7CDF	1.2	"	0.31	1
OCDF	0.41	"	<0.41	0
ΣT4CDD	0.25	"	<0.25	0
ΣP5CDD	0.43	"	<0.43	0
ΣH6CDD	0.22	"	<0.22	0
ΣH7CDD	0.42	"	<0.42	0
OCDD	1.3	"	8.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			94	
2,3,7,8-T4CDD-13C12			93	
1,2,3,7,8-P5CDF-13C12			95	
1,2,3,7,8-P5CDD-13C12			96	
1,2,3,6,7,8-H6CDF-13C12			85	
1,2,3,6,7,8-H6CDD-13C12			87	
1,2,3,4,6,7,8-H7CDF-13C12			89	
1,2,3,4,6,7,8-H7CDD-13C12			92	
OCDD-13C12			72	

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	R02100402	R02100402	R02100402
Client ID:	13A	13A	13A
Lab No.:	039098 02	039098 02	039098 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.2	pg	<1.2	
2,3,7,8-Cl4DBD	0.31	"	<0.31	
1,2,3,7,8-Cl5DBF	0.50	"	<0.50	
2,3,4,7,8-Cl5DBF	0.45	"	<0.45	
1,2,3,7,8-Cl5DBD	0.42	"	<0.42	
1,2,3,4,7,8-Cl6DBF	0.27	"	0.46	0.046
1,2,3,6,7,8-Cl6DBF	0.25	"	<0.25	<0.025
2,3,4,6,7,8-Cl6DBF	0.29	"	<0.29	<0.029
1,2,3,7,8,9-Cl6DBF	0.32	"	<0.32	<0.032
1,2,3,4,7,8-Cl6DBD	0.51	"	<0.51	<0.051
1,2,3,6,7,8-Cl6DBD	0.47	"	<0.47	<0.047
1,2,3,7,8,9-Cl6DBD	0.46	"	<0.46	<0.046
1,2,3,4,6,7,8-Cl7DBF	0.80	"	<0.80	<0.0080
1,2,3,4,7,8,9-Cl7DBF	0.32	"	<0.32	<0.0032
1,2,3,4,6,7,8-Cl7DBD	0.28	"	0.41	0.0041
1,2,3,4,6,7,8,9-Cl8DBF	0.55	"	11	0.011
1,2,3,4,6,7,8,9-Cl8DBD	0.84	"	2.6	0.0026
TEF		pg		0.064
EPA Requested TEQ		"	<	0.63
MAX TEF		"	<	1.2
Units Ng/m ²			<	0.06
ΣT4CDF	0.17	pg	1.1	3
ΣP5CDF	0.50	"	<0.50	0
ΣH6CDF	0.27	"	0.86	2
ΣH7CDF	0.30	"	<0.30	0
OCDF	0.55	"	11	1
ΣT4CDD	0.31	"	<0.31	0
ΣP5CDD	0.42	"	<0.42	0
ΣH6CDD	0.47	"	<0.47	0
ΣH7CDD	0.28	"	0.41	1
OCDD	0.84	"	2.6	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			93	
1,2,3,7,8-P5CDF-13C12			95	
1,2,3,7,8-P5CDD-13C12			96	
1,2,3,6,7,8-H6CDF-13C12			90	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			103	
1,2,3,4,6,7,8-H7CDD-13C12			98	
OCDD-13C12			78	

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	R02100402	R02100402	R02100402
Client ID:	14A	14A	14A
Lab No.:	039099 02	039099 02	039099 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.27	pg	<0.27	<0.027
2,3,7,8-Cl4DBD	0.68	"	<0.68	<0.68
1,2,3,7,8-Cl5DBF	0.65	"	0.85	0.042
2,3,4,7,8-Cl5DBF	0.77	"	<0.77	<0.39
1,2,3,7,8-Cl5DBD	0.74	"	<0.74	<0.37
1,2,3,4,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,6,7,8-Cl6DBF	0.24	"	0.88	0.088
2,3,4,6,7,8-Cl6DBF	1.1	"	<1.1	<0.11
1,2,3,7,8,9-Cl6DBF	0.31	"	0.63	0.063
1,2,3,4,7,8-Cl6DBD	0.78	"	0.99	0.099
1,2,3,6,7,8-Cl6DBD	0.69	"	<0.69	<0.069
1,2,3,7,8,9-Cl6DBD	0.99	"	<0.99	<0.099
1,2,3,4,6,7,8-Cl7DBF	1.9	"	<1.9	<0.019
1,2,3,4,7,8,9-Cl7DBF	1.4	"	<1.4	<0.014
1,2,3,4,6,7,8-Cl7DBD	2.5	"	<2.5	<0.025
1,2,3,4,6,7,8,9-Cl8DBF	0.74	"	3.6	0.0037
1,2,3,4,6,7,8,9-Cl8DBD	1.4	"	23	0.023
TEF		pg		0.32
EPA Requested TEQ		"	<	1.26
MAX TEF		"	<	2.2
Units Ng/m ²			<	0.13
ΣT4CDF	0.27	pg	7.5	6
ΣP5CDF	0.65	"	0.85	1
ΣH6CDF	0.26	"	1.5	2
ΣH7CDF	1.3	"	<1.3	0
OCDF	0.74	"	3.6	1
ΣT4CDD	0.4	"	4.6	2
ΣP5CDD	0.74	"	<0.74	0
ΣH6CDD	0.72	"	0.99	1
ΣH7CDD	0.75	"	1.5	1
OCDD	1.4	"	23	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			88	
2,3,7,8-T4CDD-13C12			87	
1,2,3,7,8-P5CDF-13C12			76	
1,2,3,7,8-P5CDD-13C12			72	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			92	
1,2,3,4,6,7,8-H7CDD-13C12			84	
OCDD-13C12			60	

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	R02100402	R02100402	R02100402
Client ID:	15A	15A	15A
Lab No.:	039100 02	039100 02	039100 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.22	pg	5.3	0.53
2,3,7,8-Cl4DBD	0.20	"	0.62	0.62
1,2,3,7,8-Cl5DBF	0.35	"	1.3	0.066
2,3,4,7,8-Cl5DBF	0.34	"	1.4	0.71
1,2,3,7,8-Cl5DBD	0.28	"	0.57	0.29
1,2,3,4,7,8-Cl6DBF	0.27	"	1.3	0.13
1,2,3,6,7,8-Cl6DBF	0.88	"	<0.88	<0.088
2,3,4,6,7,8-Cl6DBF	0.3	"	1.6	0.16
1,2,3,7,8,9-Cl6DBF	0.32	"	0.88	0.088
1,2,3,4,7,8-Cl6DBD	0.45	"	<0.45	<0.045
1,2,3,6,7,8-Cl6DBD	0.31	"	0.89	0.089
1,2,3,7,8,9-Cl6DBD	0.3	"	1.1	0.11
1,2,3,4,6,7,8-Cl7DBF	8.8	"	<8.8	<0.088
1,2,3,4,7,8,9-Cl7DBF	1.3	"	<1.3	<0.013
1,2,3,4,6,7,8-Cl7DBD	0.61	"	17	0.17
1,2,3,4,6,7,8,9-Cl8DBF	0.87	"	16	0.016
1,2,3,4,6,7,8,9-Cl8DBD	0.38	"	330	0.33
TEF		pg		3.3
EPA Requested TEQ		"	<	3.40
MAX TEF		"	<	3.5
Units Ng/m ²			<	0.34
ΣT4CDF	0.22	pg	14	9
ΣP5CDF	0.35	"	7.8	7
ΣH6CDF	0.27	"	5.5	5
ΣH7CDF	4.7	"	8.3	1
OCDF	0.87	"	16	1
ΣT4CDD	0.20	"	7.1	7
ΣP5CDD	0.28	"	7.7	4
ΣH6CDD	0.31	"	4.1	3
ΣH7CDD	0.61	"	34	2
OCDD	0.38	"	330	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			97	
2,3,7,8-T4CDD-13C12			91	
1,2,3,7,8-P5CDF-13C12			97	
1,2,3,7,8-P5CDD-13C12			91	
1,2,3,6,7,8-H6CDF-13C12			68	
1,2,3,6,7,8-H6CDD-13C12			80	
1,2,3,4,6,7,8-H7CDF-13C12			72	
1,2,3,4,6,7,8-H7CDD-13C12			75	
OCDD-13C12			76	

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	R02100402	R02100402	R02100402
Client ID:	16A	16A	16A
Lab No.:	039101 02	039101 02	039101 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.15	pg	1.5	0.15
2,3,7,8-Cl4DBD	0.35	"	<0.35	<0.35
1,2,3,7,8-Cl5DBF	0.51	"	<0.51	<0.026
2,3,4,7,8-Cl5DBF	0.43	"	<0.43	<0.21
1,2,3,7,8-Cl5DBD	0.55	"	<0.55	<0.28
1,2,3,4,7,8-Cl6DBF	0.34	"	<0.34	<0.034
1,2,3,6,7,8-Cl6DBF	0.32	"	<0.32	<0.032
2,3,4,6,7,8-Cl6DBF	0.37	"	<0.37	<0.037
1,2,3,7,8,9-Cl6DBF	0.41	"	<0.41	<0.041
1,2,3,4,7,8-Cl6DBD	0.30	"	<0.30	<0.030
1,2,3,6,7,8-Cl6DBD	0.28	"	<0.28	<0.028
1,2,3,7,8,9-Cl6DBD	0.27	"	<0.27	<0.027
1,2,3,4,6,7,8-Cl7DBF	54	"	<54	<0.54
1,2,3,4,7,8,9-Cl7DBF	62	"	<62	<0.62
1,2,3,4,6,7,8-Cl7DBD	0.73	"	<0.73	<0.0073
1,2,3,4,6,7,8,9-Cl8DBF	0.57	"	<0.57	<0.00057
1,2,3,4,6,7,8,9-Cl8DBD	0.43	"	3.5	0.0035

TEF	pg	0.16
EPA Requested TEQ	<	1.28
MAX TEF	<	2.4
Units Ng/m ²	<	0.13

ΣT4CDF	0.15	pg	3.4	6
ΣP5CDF	0.44	"	0.22	1
ΣH6CDF	0.34	"	<0.34	0
ΣH7CDF	58	"	<58	0
OCDF	0.57	"	<0.57	0
ΣT4CDD	0.22	"	1.3	3
ΣP5CDD	0.55	"	0.71	1
ΣH6CDD	0.28	"	<0.28	0
ΣH7CDD	0.73	"	<0.73	0
OCDD	0.43	"	3.5	1

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	101
2,3,7,8-T4CDD-13C12	94
1,2,3,7,8-P5CDF-13C12	99
1,2,3,7,8-P5CDD-13C12	93
1,2,3,6,7,8-H6CDF-13C12	64
1,2,3,6,7,8-H6CDD-13C12	77
1,2,3,4,6,7,8-H7CDF-13C12	65
1,2,3,4,6,7,8-H7CDD-13C12	84
OCDD-13C12	73

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	R02100402	R02100402	R02100402
Client ID:	17A	17A	17A
Lab No.:	039102 02	039102 02	039102 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.16	pg	2.6	0.26
2,3,7,8-Cl4DBD	0.68	"	<0.68	<0.68
1,2,3,7,8-Cl5DBF	0.67	"	<0.67	<0.033
2,3,4,7,8-Cl5DBF	0.50	"	<0.50	<0.25
1,2,3,7,8-Cl5DBD	0.22	"	<0.22	<0.11
1,2,3,4,7,8-Cl6DBF	0.33	"	<0.33	<0.033
1,2,3,6,7,8-Cl6DBF	0.28	"	<0.28	<0.028
2,3,4,6,7,8-Cl6DBF	0.38	"	<0.38	<0.038
1,2,3,7,8,9-Cl6DBF	0.26	"	<0.26	<0.026
1,2,3,4,7,8-Cl6DBD	0.099	"	<0.099	<0.0099
1,2,3,6,7,8-Cl6DBD	0.33	"	<0.33	<0.033
1,2,3,7,8,9-Cl6DBD	0.23	"	0.33	0.033
1,2,3,4,6,7,8-Cl7DBF	2.1	"	<2.1	<0.021
1,2,3,4,7,8,9-Cl7DBF	29	"	<29	<0.29
1,2,3,4,6,7,8-Cl7DBD	0.28	"	1.1	0.011
1,2,3,4,6,7,8,9-Cl8DBF	0.62	"	<0.62	<0.00062
1,2,3,4,6,7,8,9-Cl8DBD	0.58	"	9.4	0.0094

TEF	pg		0.32
EPA Requested TEQ		<	1.11
MAX TEF	"	<	1.9
Units Ng/m ²		<	0.11

ΣT4CDF	0.16	pg	11	12
ΣP5CDF	0.44	"	2.8	4
ΣH6CDF	0.22	"	0.56	1
ΣH7CDF	27	"	<27	0
OCDF	0.62	"	<0.62	0
ΣT4CDD	0.32	"	8.5	5
ΣP5CDD	0.55	"	3.5	2
ΣH6CDD	0.24	"	0.97	2
ΣH7CDD	0.28	"	2.6	2
OCDD	0.58	"	9.4	1

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	84
2,3,7,8-T4CDD-13C12	77
1,2,3,7,8-P5CDF-13C12	89
1,2,3,7,8-P5CDD-13C12	86
1,2,3,6,7,8-H6CDF-13C12	86
1,2,3,6,7,8-H6CDD-13C12	81
1,2,3,4,6,7,8-H7CDF-13C12	96
1,2,3,4,6,7,8-H7CDD-13C12	86
OCDD-13C12	78

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	R02100402	R02100402	R02100402
Client ID:	18A	18A	18A
Lab No.:	039103 02	039103 02	039103 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.23	pg	2.8	0.28
2,3,7,8-Cl4DBD	0.32	"	<0.32	<0.32
1,2,3,7,8-Cl5DBF	0.26	"	0.61	0.031
2,3,4,7,8-Cl5DBF	0.25	"	0.59	0.29
1,2,3,7,8-Cl5DBD	0.49	"	<0.49	<0.25
1,2,3,4,7,8-Cl6DBF	0.68	"	<0.68	<0.068
1,2,3,6,7,8-Cl6DBF	0.46	"	<0.46	<0.046
2,3,4,6,7,8-Cl6DBF	0.54	"	<0.54	<0.054
1,2,3,7,8,9-Cl6DBF	0.58	"	<0.58	<0.058
1,2,3,4,7,8-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,6,7,8-Cl6DBD	0.23	"	0.27	0.027
1,2,3,7,8,9-Cl6DBD	0.36	"	<0.36	<0.036
1,2,3,4,6,7,8-Cl7DBF	4.2	"	<4.2	<0.042
1,2,3,4,7,8,9-Cl7DBF	46	"	<46	<0.46
1,2,3,4,6,7,8-Cl7DBD	0.46	"	4.1	0.041
1,2,3,4,6,7,8,9-Cl8DBF	0.71	"	2.6	0.0026
1,2,3,4,6,7,8,9-Cl8DBD	0.50	"	39	0.039
TEF		pg		0.71
EPA Requested TEQ		"	<	1.41
MAX TEF		"	<	2.1
Units Ng/m ²		"	<	0.14
ΣT4CDF	0.23	pg	9.1	10
ΣP5CDF	0.26	"	3.2	5
ΣH6CDF	0.50	"	<0.50	0
ΣH7CDF	43	"	<43	0
OCDF	0.71	"	2.6	1
ΣT4CDD	0.32	"	3.0	2
ΣP5CDD	0.49	"	0.91	1
ΣH6CDD	0.23	"	0.79	2
ΣH7CDD	0.46	"	7.9	2
OCDD	0.50	"	39	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			82	
2,3,7,8-T4CDD-13C12			78	
1,2,3,7,8-P5CDF-13C12			85	
1,2,3,7,8-P5CDD-13C12			84	
1,2,3,6,7,8-H6CDF-13C12			72	
1,2,3,6,7,8-H6CDD-13C12			78	
1,2,3,4,6,7,8-H7CDF-13C12			79	
1,2,3,4,6,7,8-H7CDD-13C12			87	
OCDD-13C12			77	

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	R02100402	R02100402	R02100402
Client ID:	19A	19A	19A
Lab No.:	039104 02	039104 02	039104 02
Date Sampled:	02/09/10	02/09/10	02/09/10
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.51	pg	2.9	0.29
2,3,7,8-Cl4DBD	0.72	"	1.4	1.4
1,2,3,7,8-Cl5DBF	0.65	"	2.1	0.10
2,3,4,7,8-Cl5DBF	2.5	"	<2.5	<1.3
1,2,3,7,8-Cl5DBD	0.79	"	1.7	0.85
1,2,3,4,7,8-Cl6DBF	2.6	"	<2.6	<0.26
1,2,3,6,7,8-Cl6DBF	0.56	"	2.4	0.24
2,3,4,6,7,8-Cl6DBF	0.65	"	5.3	0.53
1,2,3,7,8,9-Cl6DBF	0.71	"	3.8	0.38
1,2,3,4,7,8-Cl6DBD	2.3	"	<2.3	<0.23
1,2,3,6,7,8-Cl6DBD	0.68	"	2.6	0.26
1,2,3,7,8,9-Cl6DBD	3.8	"	<3.8	<0.38
1,2,3,4,6,7,8-Cl7DBF	4.6	"	<4.6	<0.046
1,2,3,4,7,8,9-Cl7DBF	2.4	"	4.3	0.043
1,2,3,4,6,7,8-Cl7DBD	1.1	"	4.0	0.040
1,2,3,4,6,7,8,9-Cl8DBF	0.68	"	7.0	0.0070
1,2,3,4,6,7,8,9-Cl8DBD	1.5	"	12	0.012
TEF		pg		4.2
EPA Requested TEQ		"	<	5.30
MAX TEF		"	<	6.4
Units Ng/m ²		"	<	0.53
ΣT4CDF	0.51	pg	2.9	1
ΣP5CDF	0.65	"	2.1	1
ΣH6CDF	0.60	"	12	3
ΣH7CDF	2.2	"	4.3	1
OCDF	0.68	"	7.0	1
ΣT4CDD	0.72	"	2.9	2
ΣP5CDD	0.79	"	1.7	1
ΣH6CDD	0.68	"	2.6	1
ΣH7CDD	1.1	"	4.0	1
OCDD	1.5	"	12	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			89	
2,3,7,8-T4CDD-13C12			81	
1,2,3,7,8-P5CDF-13C12			75	
1,2,3,7,8-P5CDD-13C12			70	
1,2,3,6,7,8-H6CDF-13C12			68	
1,2,3,6,7,8-H6CDD-13C12			80	
1,2,3,4,6,7,8-H7CDF-13C12			58	
1,2,3,4,6,7,8-H7CDD-13C12			83	
OCDD-13C12			64	

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	R02100402	R02100402	R02100402
Client ID:	20A	20A	20A
Lab No.:	039105 02	039105 02	039105 02
Date Sampled:	02/09/10	02/09/10	02/09/10
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.33	pg	0.94	0.094
2,3,7,8-Cl4DBD	0.38	"	<0.38	<0.38
1,2,3,7,8-Cl5DBF	0.45	"	<0.45	<0.022
2,3,4,7,8-Cl5DBF	0.43	"	<0.43	<0.21
1,2,3,7,8-Cl5DBD	1.1	"	<1.1	<0.53
1,2,3,4,7,8-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl6DBF	1.2	"	<1.2	<0.12
2,3,4,6,7,8-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,7,8,9-Cl6DBF	1.5	"	<1.5	<0.15
1,2,3,4,7,8-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,6,7,8-Cl6DBD	1.1	"	<1.1	<0.11
1,2,3,7,8,9-Cl6DBD	1.1	"	<1.1	<0.11
1,2,3,4,6,7,8-Cl7DBF	3.0	"	<3.0	<0.030
1,2,3,4,7,8,9-Cl7DBF	1.2	"	<1.2	<0.012
1,2,3,4,6,7,8-Cl7DBD	0.90	"	<0.90	<0.0090
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	3.1	"	<3.1	<0.0031

TEF	pg	0.094
EPA Requested TEQ	<	1.15
MAX TEF	<	2.2
Units Ng/m ²	<	0.11

ΣT4CDF	0.33	pg	0.94	1
ΣP5CDF	0.45	"	<0.45	0
ΣH6CDF	1.3	"	<1.3	0
ΣH7CDF	1.2	"	<1.2	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.34	"	<0.34	0
ΣP5CDD	1.1	"	<1.1	0
ΣH6CDD	1.1	"	<1.1	0
ΣH7CDD	0.90	"	<0.90	0
OCDD	3.1	"	<3.1	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	91
2,3,7,8-T4CDD-13C12	82
1,2,3,7,8-P5CDF-13C12	76
1,2,3,7,8-P5CDD-13C12	73
1,2,3,6,7,8-H6CDF-13C12	48
1,2,3,6,7,8-H6CDD-13C12	69
1,2,3,4,6,7,8-H7CDF-13C12	37
1,2,3,4,6,7,8-H7CDD-13C12	80
OCDD-13C12	60

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file # =R02100402 TEQ Report
Revision No. 0

**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	01A	01A	01A
Lab No.:	039066 02	039066 02	039066 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.55	pg	<0.55	<0.055
2,3,7,8-Cl4DBD	0.40	"	<0.40	<0.40
1,2,3,7,8-Cl5DBF	0.55	"	<0.55	<0.028
2,3,4,7,8-Cl5DBF	0.35	"	0.46	0.23
1,2,3,7,8-Cl5DBD	0.42	"	<0.42	<0.21
1,2,3,4,7,8-Cl6DBF	0.15	"	<0.15	<0.015
1,2,3,6,7,8-Cl6DBF	0.14	"	<0.14	<0.014
2,3,4,6,7,8-Cl6DBF	0.16	"	0.49	0.049
1,2,3,7,8,9-Cl6DBF	0.18	"	<0.18	<0.018
1,2,3,4,7,8-Cl6DBD	0.26	"	<0.26	<0.026
1,2,3,6,7,8-Cl6DBD	0.24	"	<0.24	<0.024
1,2,3,7,8,9-Cl6DBD	0.23	"	<0.23	<0.023
1,2,3,4,6,7,8-Cl7DBF	10	"	<10	<0.10
1,2,3,4,7,8,9-Cl7DBF	12	"	<12	<0.12
1,2,3,4,6,7,8-Cl7DBD	0.56	"	0.79	0.0079
1,2,3,4,6,7,8,9-Cl8DBF	0.46	"	5.4	0.0054
1,2,3,4,6,7,8,9-Cl8DBD	0.61	"	5.1	0.0051
TEF		pg		0.30
EPA Requested TEQ			<	0.80
MAX TEF		"	<	1.3
Units Ng/m ²			<	0.08
ΣT4CDF	0.20	pg	1.9	3
ΣP5CDF	0.42	"	0.94	2
ΣH6CDF	0.15	"	0.49	1
ΣH7CDF	11	"	<11	0
OCDF	0.46	"	5.4	1
ΣT4CDD	0.40	"	1.8	2
ΣP5CDD	0.42	"	0.52	1
ΣH6CDD	0.24	"	<0.24	0
ΣH7CDD	0.56	"	0.79	1
OCDD	0.61	"	5.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			98	
2,3,7,8-T4CDD-13C12			87	
1,2,3,7,8-P5CDF-13C12			106	
1,2,3,7,8-P5CDD-13C12			102	
1,2,3,6,7,8-H6CDF-13C12			84	
1,2,3,6,7,8-H6CDD-13C12			86	
1,2,3,4,6,7,8-H7CDF-13C12			100	
1,2,3,4,6,7,8-H7CDD-13C12			79	
OCDD-13C12			79	

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	01A	01A	01A
Lab No.:	039066 02	039066 02	039066 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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PSC Analytical Services Certificate of Analysis

	R02100401	R02100401	R02100401
Client ID:	02A	02A	02A
Lab No.:	039067 02	039067 02	039067 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	3.8	pg	12	1.2
2,3,7,8-Cl4DBD	3.1	"	<3.1	<3.1
1,2,3,7,8-Cl5DBF	4.0	"	<4.0	<0.20
2,3,4,7,8-Cl5DBF	3.8	"	<3.8	<1.9
1,2,3,7,8-Cl5DBD	3.6	"	<3.6	<1.8
1,2,3,4,7,8-Cl6DBF	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBF	2.0	"	<2.0	<0.20
2,3,4,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
1,2,3,7,8,9-Cl6DBF	2.5	"	<2.5	<0.25
1,2,3,4,7,8-Cl6DBD	3.7	"	<3.7	<0.37
1,2,3,6,7,8-Cl6DBD	4.1	"	<4.1	<0.41
1,2,3,7,8,9-Cl6DBD	3.3	"	<3.3	<0.33
1,2,3,4,6,7,8-Cl7DBF	7.2	"	<7.2	<0.072
1,2,3,4,7,8,9-Cl7DBF	5.3	"	<5.3	<0.053
1,2,3,4,6,7,8-Cl7DBD	4.6	"	10	0.10
1,2,3,4,6,7,8,9-Cl8DBF	8.7	"	33	0.033
1,2,3,4,6,7,8,9-Cl8DBD	7.8	"	59	0.059
TEF		pg		1.4
EPA Requested TEQ		"	<	6.20
MAX TEF		"	<	11
Units Ng/m ²		"	<	0.62
ΣT4CDF	3.8	pg	12	1
ΣP5CDF	4.0	"	<4.0	0
ΣH6CDF	2.1	"	<2.1	0
ΣH7CDF	4.9	"	<4.9	0
OCDF	8.7	"	33	1
ΣT4CDD	3.1	"	<3.1	0
ΣP5CDD	3.6	"	<3.6	0
ΣH6CDD	3.4	"	<3.4	0
ΣH7CDD	4.6	"	22	2
OCDD	7.8	"	59	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			82	
2,3,7,8-T4CDD-13C12			83	
1,2,3,7,8-P5CDF-13C12			87	
1,2,3,7,8-P5CDD-13C12			88	
1,2,3,6,7,8-H6CDF-13C12			93	
1,2,3,6,7,8-H6CDD-13C12			85	
1,2,3,4,6,7,8-H7CDF-13C12			113	
1,2,3,4,6,7,8-H7CDD-13C12			105	
OCDD-13C12			76	

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**PSC Analytical Services
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	R02100401	R02100401	R02100401
Client ID:	02A	02A	02A
Lab No.:	039067 02	039067 02	039067 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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file # =R02100401 TEQ Report
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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	03A	03A	03A
Lab No.:	039068 02	039068 02	039068 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.82	pg	4.6	0.46
2,3,7,8-Cl4DBD	1.3	"	<1.3	<1.3
1,2,3,7,8-Cl5DBF	2.0	"	<2.0	<0.10
2,3,4,7,8-Cl5DBF	1.9	"	<1.9	<0.97
1,2,3,7,8-Cl5DBD	2.7	"	<2.7	<1.3
1,2,3,4,7,8-Cl6DBF	2.5	"	<2.5	<0.25
1,2,3,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
2,3,4,6,7,8-Cl6DBF	2.7	"	<2.7	<0.27
1,2,3,7,8,9-Cl6DBF	2.9	"	<2.9	<0.29
1,2,3,4,7,8-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,7,8,9-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,4,6,7,8-Cl7DBF	2.3	"	<2.3	<0.023
1,2,3,4,7,8,9-Cl7DBF	2.7	"	<2.7	<0.027
1,2,3,4,6,7,8-Cl7DBD	3.4	"	<3.4	<0.034
1,2,3,4,6,7,8,9-Cl8DBF	3.3	"	12	0.012
1,2,3,4,6,7,8,9-Cl8DBD	2.9	"	21	0.021
TEF		pg		0.50
EPA Requested TEQ		"	<	3.20
MAX TEF		"	<	5.9
Units Ng/m ²		"	<	0.32
ΣT4CDF	0.82	pg	4.6	1
ΣP5CDF	2.0	"	<2.0	0
ΣH6CDF	2.5	"	<2.5	0
ΣH7CDF	2.5	"	<2.5	0
OCDF	3.3	"	12	1
ΣT4CDD	1.3	"	<1.3	0
ΣP5CDD	2.7	"	<2.7	0
ΣH6CDD	1.9	"	<1.9	0
ΣH7CDD	3.4	"	<3.4	0
OCDD	2.9	"	21	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			90	
1,2,3,7,8-P5CDF-13C12			94	
1,2,3,7,8-P5CDD-13C12			88	
1,2,3,6,7,8-H6CDF-13C12			92	
1,2,3,6,7,8-H6CDD-13C12			92	
1,2,3,4,6,7,8-H7CDF-13C12			104	
1,2,3,4,6,7,8-H7CDD-13C12			109	
OCDD-13C12			82	

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**PSC Analytical Services
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	R02100401	R02100401	R02100401
Client ID:	03A	03A	03A
Lab No.:	039068 02	039068 02	039068 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	04A	04A	04A
Lab No.:	039069 02	039069 02	039069 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	4.2	pg	<4.2	<0.42
2,3,7,8-Cl4DBD	3.6	"	<3.6	<3.6
1,2,3,7,8-Cl5DBF	5.4	"	<5.4	<0.27
2,3,4,7,8-Cl5DBF	5.2	"	<5.2	<2.6
1,2,3,7,8-Cl5DBD	6.2	"	<6.2	<3.1
1,2,3,4,7,8-Cl6DBF	4.8	"	<4.8	<0.48
1,2,3,6,7,8-Cl6DBF	4.5	"	<4.5	<0.45
2,3,4,6,7,8-Cl6DBF	5.2	"	<5.2	<0.52
1,2,3,7,8,9-Cl6DBF	5.6	"	<5.6	<0.56
1,2,3,4,7,8-Cl6DBD	3.1	"	<3.1	<0.31
1,2,3,6,7,8-Cl6DBD	2.8	"	<2.8	<0.28
1,2,3,7,8,9-Cl6DBD	2.8	"	<2.8	<0.28
1,2,3,4,6,7,8-Cl7DBF	130	"	<130	<1.3
1,2,3,4,7,8,9-Cl7DBF	150	"	<150	<1.5
1,2,3,4,6,7,8-Cl7DBD	2.7	"	<2.7	<0.027
1,2,3,4,6,7,8,9-Cl8DBF	8.8	"	<8.8	<0.0088
1,2,3,4,6,7,8,9-Cl8DBD	11	"	<11	<0.011
TEF		pg	0	
EPA Requested TEQ		"	< 8.00	
MAX TEF		"	< 16	
Units Ng/m ²		"	< 0.80	
ΣT4CDF	4.2	pg	<4.2	0
ΣP5CDF	5.4	"	<5.4	0
ΣH6CDF	4.8	"	<4.8	0
ΣH7CDF	140	"	<140	0
OCDF	8.8	"	<8.8	0
ΣT4CDD	3.6	"	<3.6	0
ΣP5CDD	6.2	"	<6.2	0
ΣH6CDD	2.8	"	<2.8	0
ΣH7CDD	2.7	"	<2.7	0
OCDD	11	"	<11	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			99	
2,3,7,8-T4CDD-13C12			92	
1,2,3,7,8-P5CDF-13C12			91	
1,2,3,7,8-P5CDD-13C12			83	
1,2,3,6,7,8-H6CDF-13C12			94	
1,2,3,6,7,8-H6CDD-13C12			93	
1,2,3,4,6,7,8-H7CDF-13C12			101	
1,2,3,4,6,7,8-H7CDD-13C12			99	
OCDD-13C12			79	

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Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	04A	04A	04A
Lab No.:	039069 02	039069 02	039069 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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	R02100401	R02100401	R02100401
Client ID:	05A	05A	05A
Lab No.:	039070 02	039070 02	039070 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	2.8	pg	<2.8	
2,3,7,8-Cl4DBD	4.6	"	<4.6	
1,2,3,7,8-Cl5DBF	4.3	"	<4.3	
2,3,4,7,8-Cl5DBF	4.1	"	<4.1	
1,2,3,7,8-Cl5DBD	3.7	"	<3.7	
1,2,3,4,7,8-Cl6DBF	2.4	"	<2.4	
1,2,3,6,7,8-Cl6DBF	2.2	"	<2.2	
2,3,4,6,7,8-Cl6DBF	2.6	"	<2.6	
1,2,3,7,8,9-Cl6DBF	2.8	"	<2.8	
1,2,3,4,7,8-Cl6DBD	4.5	"	<4.5	
1,2,3,6,7,8-Cl6DBD	4.1	"	<4.1	
1,2,3,7,8,9-Cl6DBD	4.0	"	<4.0	
1,2,3,4,6,7,8-Cl7DBF	47	"	<47	
1,2,3,4,7,8,9-Cl7DBF	54	"	<54	
1,2,3,4,6,7,8-Cl7DBD	4.3	"	<4.3	
1,2,3,4,6,7,8,9-Cl8DBF	4.2	"	<4.2	
1,2,3,4,6,7,8,9-Cl8DBD	2.1	"	<2.1	
TEF		pg	0	
EPA Requested TEQ			< 6.00	
MAX TEF		"	< 12	
Units Ng/m ²			< 0.60	
ΣT4CDF	2.7	pg	<2.7	0
ΣP5CDF	4.3	"	<4.3	0
ΣH6CDF	2.4	"	<2.4	0
ΣH7CDF	50	"	<50	0
OCDF	4.2	"	<4.2	0
ΣT4CDD	4.6	"	<4.6	0
ΣP5CDD	3.7	"	<3.7	0
ΣH6CDD	4.1	"	<4.1	0
ΣH7CDD	4.3	"	<4.3	0
OCDD	2.1	"	<2.1	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			85	
2,3,7,8-T4CDD-13C12			81	
1,2,3,7,8-P5CDF-13C12			89	
1,2,3,7,8-P5CDD-13C12			85	
1,2,3,6,7,8-H6CDF-13C12			86	
1,2,3,6,7,8-H6CDD-13C12			82	
1,2,3,4,6,7,8-H7CDF-13C12			97	
1,2,3,4,6,7,8-H7CDD-13C12			99	
OCDD-13C12			79	

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Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	05A	05A	05A
Lab No.:	039070 02	039070 02	039070 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component

RDL

Units

TEF

of Isomers

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	R02100401	R02100401	R02100401
Client ID:	06A	06A	06A
Lab No.:	039071 02	039071 02	039071 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	3.1	pg	<3.1	<0.31
2,3,7,8-Cl4DBD	3.1	"	<3.1	<3.1
1,2,3,7,8-Cl5DBF	4.3	"	<4.3	<0.22
2,3,4,7,8-Cl5DBF	4.2	"	<4.2	<2.1
1,2,3,7,8-Cl5DBD	4.1	"	<4.1	<2.0
1,2,3,4,7,8-Cl6DBF	2.9	"	<2.9	<0.29
1,2,3,6,7,8-Cl6DBF	2.7	"	<2.7	<0.27
2,3,4,6,7,8-Cl6DBF	3.1	"	<3.1	<0.31
1,2,3,7,8,9-Cl6DBF	3.4	"	<3.4	<0.34
1,2,3,4,7,8-Cl6DBD	4.7	"	<4.7	<0.47
1,2,3,6,7,8-Cl6DBD	4.3	"	<4.3	<0.43
1,2,3,7,8,9-Cl6DBD	4.2	"	<4.2	<0.42
1,2,3,4,6,7,8-Cl7DBF	51	"	<51	<0.51
1,2,3,4,7,8,9-Cl7DBF	59	"	<59	<0.59
1,2,3,4,6,7,8-Cl7DBD	6.3	"	<6.3	<0.063
1,2,3,4,6,7,8,9-Cl8DBF	3.3	"	19	0.019
1,2,3,4,6,7,8,9-Cl8DBD	9.4	"	24	0.024
TEF		pg		0.043
EPA Requested TEQ		"	<	6.02
MAX TEF		"	<	12
Units Ng/m ²		"	<	0.60
ΣT4CDF	3.1	pg	<3.1	0
ΣP5CDF	4.3	"	<4.3	0
ΣH6CDF	2.9	"	<2.9	0
ΣH7CDF	55	"	<55	0
OCDF	3.3	"	19	1
ΣT4CDD	3.1	"	<3.1	0
ΣP5CDD	4.1	"	<4.1	0
ΣH6CDD	4.3	"	<4.3	0
ΣH7CDD	6.3	"	<6.3	0
OCDD	9.4	"	24	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			89	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			91	
1,2,3,7,8-P5CDD-13C12			92	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			86	
1,2,3,4,6,7,8-H7CDF-13C12			101	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			78	

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	06A	06A	06A
Lab No.:	039071 02	039071 02	039071 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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PSC Analytical Services
Certificate of Analysis

	R02100401	R02100401	R02100401
Client ID:	07A	07A	07A
Lab No.:	039072 02	039072 02	039072 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	2.5	pg	<2.5	<0.25
2,3,7,8-Cl4DBD	2.9	"	<2.9	<0.25
1,2,3,7,8-Cl5DBF	1.9	"	<1.9	<0.095
2,3,4,7,8-Cl5DBF	1.8	"	<1.8	<0.92
1,2,3,7,8-Cl5DBD	3.4	"	<3.4	<1.7
1,2,3,4,7,8-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,6,7,8-Cl6DBF	1.3	"	<1.3	<0.13
2,3,4,6,7,8-Cl6DBF	1.5	"	<1.5	<0.15
1,2,3,7,8,9-Cl6DBF	1.7	"	<1.7	<0.17
1,2,3,4,7,8-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,7,8,9-Cl6DBD	1.9	"	<1.9	<0.19
1,2,3,4,6,7,8-Cl7DBF	40	"	<40	<0.40
1,2,3,4,7,8,9-Cl7DBF	46	"	<46	<0.46
1,2,3,4,6,7,8-Cl7DBD	2.2	"	<2.2	<0.022
1,2,3,4,6,7,8,9-Cl8DBF	8.8	"	<8.8	<0.0088
1,2,3,4,6,7,8,9-Cl8DBD	7.7	"	<7.7	<0.0077
TEF		pg	0	
EPA Requested TEQ		"	< 3.95	
MAX TEF		"	< 7.9	
Units Ng/m ²		"	< 0.40	
ΣT4CDF	2.0	pg	<2.0	0
ΣP5CDF	1.9	"	<1.9	0
ΣH6CDF	1.4	"	<1.4	0
ΣH7CDF	43	"	<43	0
OCDF	8.8	"	<8.8	0
ΣT4CDD	2.9	"	<2.9	0
ΣP5CDD	3.4	"	<3.4	0
ΣH6CDD	1.9	"	<1.9	0
ΣH7CDD	2.2	"	<2.2	0
OCDD	7.7	"	<7.7	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			87	
2,3,7,8-T4CDD-13C12			92	
1,2,3,7,8-P5CDF-13C12			94	
1,2,3,7,8-P5CDD-13C12			97	
1,2,3,6,7,8-H6CDF-13C12			85	
1,2,3,6,7,8-H6CDD-13C12			83	
1,2,3,4,6,7,8-H7CDF-13C12			95	
1,2,3,4,6,7,8-H7CDD-13C12			89	
OCDD-13C12			79	

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	07A	07A	07A
Lab No.:	039072 02	039072 02	039072 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component

RDL

Units

TEF

of Isomers

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	08A	08A	08A
Lab No.:	039073 02	039073 02	039073 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.32	pg	3.2	0.32
2,3,7,8-Cl4DBD	1.4	"	<1.4	<1.4
1,2,3,7,8-Cl5DBF	2.0	"	<2.0	<0.10
2,3,4,7,8-Cl5DBF	2.7	"	<2.7	<1.3
1,2,3,7,8-Cl5DBD	1.7	"	<1.7	<0.84
1,2,3,4,7,8-Cl6DBF	0.47	"	2.7	0.27
1,2,3,6,7,8-Cl6DBF	2.7	"	<2.7	<0.27
2,3,4,6,7,8-Cl6DBF	0.51	"	3.7	0.37
1,2,3,7,8,9-Cl6DBF	0.55	"	4.4	0.44
1,2,3,4,7,8-Cl6DBD	2.5	"	<2.5	<0.25
1,2,3,6,7,8-Cl6DBD	3.3	"	<3.3	<0.33
1,2,3,7,8,9-Cl6DBD	0.57	"	3.3	0.33
1,2,3,4,6,7,8-Cl7DBF	0.61	"	3.7	0.037
1,2,3,4,7,8,9-Cl7DBF	4.9	"	<4.9	<0.049
1,2,3,4,6,7,8-Cl7DBD	1.3	"	5.1	0.051
1,2,3,4,6,7,8,9-Cl8DBF	14	"	<14	<0.014
1,2,3,4,6,7,8,9-Cl8DBD	1.8	"	16	0.016

TEF	pg		1.8
EPA Requested TEQ		<	4.10
MAX TEF	"	<	6.4
Units Ng/m²		<	0.41

ΣT4CDF	0.32	pg	4.5	3
ΣP5CDF	0.46	"	<0.46	0
ΣH6CDF	0.47	"	11	3
ΣH7CDF	0.66	"	3.7	1
OCDF	14	"	<14	0
ΣT4CDD	0.52	"	<0.52	0
ΣP5CDD	0.55	"	1.8	2
ΣH6CDD	0.58	"	3.3	1
ΣH7CDD	1.3	"	5.1	1
OCDD	1.8	"	16	1

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	91
2,3,7,8-T4CDD-13C12	87
1,2,3,7,8-P5CDF-13C12	78
1,2,3,7,8-P5CDD-13C12	75
1,2,3,6,7,8-H6CDF-13C12	93
1,2,3,6,7,8-H6CDD-13C12	89
1,2,3,4,6,7,8-H7CDF-13C12	89
1,2,3,4,6,7,8-H7CDD-13C12	84
OCDD-13C12	65

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Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	08A	08A	08A
Lab No.:	039073 02	039073 02	039073 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	09A	09A	09A
Lab No.:	039074 02	039074 02	039074 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.24	pg	4.2	0.42
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.54	"	0.89	0.044
2,3,4,7,8-Cl5DBF	0.52	"	0.92	0.46
1,2,3,7,8-Cl5DBD	0.34	"	<0.34	<0.17
1,2,3,4,7,8-Cl6DBF	0.78	"	<0.78	<0.078
1,2,3,6,7,8-Cl6DBF	0.22	"	0.45	0.045
2,3,4,6,7,8-Cl6DBF	0.44	"	<0.44	<0.044
1,2,3,7,8,9-Cl6DBF	0.28	"	<0.28	<0.028
1,2,3,4,7,8-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,6,7,8-Cl6DBD	0.24	"	0.44	0.044
1,2,3,7,8,9-Cl6DBD	0.40	"	<0.40	<0.040
1,2,3,4,6,7,8-Cl7DBF	3.0	"	<3.0	<0.030
1,2,3,4,7,8,9-Cl7DBF	0.43	"	<0.43	<0.0043
1,2,3,4,6,7,8-Cl7DBD	0.30	"	2.3	0.023
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	0.31	"	17	0.017
TEF		pg		1.1
EPA Requested TEQ		"	<	1.50
MAX TEF		"	<	1.9
Units Ng/m ²		"	<	0.15
ΣT4CDF	0.24	pg	16	10
ΣP5CDF	0.54	"	4.2	5
ΣH6CDF	0.26	"	1.3	2
ΣH7CDF	0.59	"	<0.59	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.25	"	11	5
ΣP5CDD	0.38	"	5.8	3
ΣH6CDD	0.24	"	0.44	1
ΣH7CDD	0.30	"	4.2	2
OCDD	0.31	"	17	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			92	
1,2,3,7,8-P5CDD-13C12			87	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			90	
1,2,3,4,6,7,8-H7CDF-13C12			99	
1,2,3,4,6,7,8-H7CDD-13C12			103	
OCDD-13C12			86	

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	R02100401	R02100401	R02100401
Client ID:	09A	09A	09A
Lab No.:	039074 02	039074 02	039074 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	10A	10A	10A
Lab No.:	039075 02	039075 02	039075 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.27	pg	1.5	0.15
2,3,7,8-Cl4DBD	0.36	"	<0.36	
1,2,3,7,8-Cl5DBF	0.43	"	<0.43	<0.022
2,3,4,7,8-Cl5DBF	0.37	"	<0.37	<0.18
1,2,3,7,8-Cl5DBD	0.43	"	<0.43	<0.22
1,2,3,4,7,8-Cl6DBF	0.38	"	<0.38	<0.038
1,2,3,6,7,8-Cl6DBF	0.35	"	<0.35	<0.035
2,3,4,6,7,8-Cl6DBF	0.42	"	<0.42	<0.042
1,2,3,7,8,9-Cl6DBF	0.31	"	<0.31	<0.031
1,2,3,4,7,8-Cl6DBD	0.51	"	<0.51	<0.051
1,2,3,6,7,8-Cl6DBD	0.48	"	<0.48	<0.048
1,2,3,7,8,9-Cl6DBD	0.51	"	<0.51	<0.051
1,2,3,4,6,7,8-Cl7DBF	0.68	"	<0.68	<0.0068
1,2,3,4,7,8,9-Cl7DBF	0.44	"	<0.44	<0.0044
1,2,3,4,6,7,8-Cl7DBD	0.49	"	0.76	0.0076
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	0.62	"	6.6	0.0066
TEF		pg		0.16
EPA Requested TEQ			<	0.68
MAX TEF		"	<	1.2
Units Ng/m ²			<	0.07
ΣT4CDF	0.27	pg	2.2	2
ΣP5CDF	0.38	"	<0.38	0
ΣH6CDF	0.26	"	<0.26	0
ΣH7CDF	0.54	"	<0.54	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.32	"	<0.32	0
ΣP5CDD	0.43	"	<0.43	0
ΣH6CDD	0.48	"	<0.48	0
ΣH7CDD	0.49	"	0.76	1
OCDD	0.62	"	6.6	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			99	
2,3,7,8-T4CDD-13C12			97	
1,2,3,7,8-P5CDF-13C12			99	
1,2,3,7,8-P5CDD-13C12			97	
1,2,3,6,7,8-H6CDF-13C12			86	
1,2,3,6,7,8-H6CDD-13C12			90	
1,2,3,4,6,7,8-H7CDF-13C12			88	
1,2,3,4,6,7,8-H7CDD-13C12			101	
OCDD-13C12			80	

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	10A	10A	10A
Lab No.:	039075 02	039075 02	039075 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	11A	11A	11A
Lab No.:	039076 02	039076 02	039076 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.25	pg	5.3	0.53
2,3,7,8-Cl4DBD	1.4	"	<1.4	<1.4
1,2,3,7,8-Cl5DBF	0.55	"	1.2	0.060
2,3,4,7,8-Cl5DBF	0.53	"	0.94	0.47
1,2,3,7,8-Cl5DBD	0.46	"	0.62	0.31
1,2,3,4,7,8-Cl6DBF	0.31	"	1.4	0.14
1,2,3,6,7,8-Cl6DBF	0.61	"	<0.61	<0.061
2,3,4,6,7,8-Cl6DBF	0.33	"	0.96	0.096
1,2,3,7,8,9-Cl6DBF	0.36	"	<0.36	<0.036
1,2,3,4,7,8-Cl6DBD	0.27	"	<0.27	<0.027
1,2,3,6,7,8-Cl6DBD	0.45	"	<0.45	<0.045
1,2,3,7,8,9-Cl6DBD	0.35	"	0.54	0.054
1,2,3,4,6,7,8-Cl7DBF	3.2	"	<3.2	<0.032
1,2,3,4,7,8,9-Cl7DBF	5.2	"	<5.2	<0.052
1,2,3,4,6,7,8-Cl7DBD	3.5	"	<3.5	<0.035
1,2,3,4,6,7,8,9-Cl8DBF	2.4	"	<2.4	<0.0024
1,2,3,4,6,7,8,9-Cl8DBD	0.7	"	29	0.029
TEF		pg		1.7
EPA Requested TEQ		"	<	2.55
MAX TEF		"	<	3.4
Units Ng/m ²			<	0.26
ΣT4CDF	0.25	pg	15	8
ΣP5CDF	0.55	"	3.8	3
ΣH6CDF	0.31	"	2.4	2
ΣH7CDF	4.8	"	<4.8	0
OCDF	2.4	"	<2.4	0
ΣT4CDD	0.61	"	10	4
ΣP5CDD	0.46	"	8.9	5
ΣH6CDD	0.36	"	1.7	2
ΣH7CDD	0.96	"	3.4	1
OCDD	0.7	"	29	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			99	
2,3,7,8-T4CDD-13C12			91	
1,2,3,7,8-P5CDF-13C12			96	
1,2,3,7,8-P5CDD-13C12			93	
1,2,3,6,7,8-H6CDF-13C12			78	
1,2,3,6,7,8-H6CDD-13C12			86	
1,2,3,4,6,7,8-H7CDF-13C12			76	
1,2,3,4,6,7,8-H7CDD-13C12			97	
OCDD-13C12			80	

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Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	11A	11A	11A
Lab No.:	039076 02	039076 02	039076 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component

RDL

Units

TEF

of Isomers

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Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	12A	12A	12A
Lab No.:	039077 02	039077 02	039077 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.3	pg	<1.3	
2,3,7,8-Cl4DBD	0.39	"	<0.39	
1,2,3,7,8-Cl5DBF	0.67	"	<0.67	
2,3,4,7,8-Cl5DBF	0.64	"	<0.64	
1,2,3,7,8-Cl5DBD	0.50	"	<0.50	
1,2,3,4,7,8-Cl6DBF	0.35	"	<0.35	
1,2,3,6,7,8-Cl6DBF	0.33	"	<0.33	
2,3,4,6,7,8-Cl6DBF	0.39	"	<0.39	
1,2,3,7,8,9-Cl6DBF	0.42	"	<0.42	
1,2,3,4,7,8-Cl6DBD	0.64	"	<0.64	
1,2,3,6,7,8-Cl6DBD	0.59	"	<0.59	
1,2,3,7,8,9-Cl6DBD	0.58	"	<0.58	
1,2,3,4,6,7,8-Cl7DBF	55	"	<55	
1,2,3,4,7,8,9-Cl7DBF	55	"	<55	
1,2,3,4,6,7,8-Cl7DBD	0.70	"	<0.70	
1,2,3,4,6,7,8,9-Cl8DBF	0.87	"	<0.87	
1,2,3,4,6,7,8,9-Cl8DBD	4.4	"	<4.4	
TEF		pg	0	
EPA Requested TEQ		"	< 1.30	
MAX TEF		"	< 2.6	
Units Ng/m ²		"	< 0.13	
ΣT4CDF	0.42	pg	<0.42	0
ΣP5CDF	0.67	"	<0.67	0
ΣH6CDF	0.35	"	<0.35	0
ΣH7CDF	59	"	<59	0
OCDF	0.87	"	<0.87	0
ΣT4CDD	0.39	"	<0.39	0
ΣP5CDD	0.50	"	<0.50	0
ΣH6CDD	0.59	"	<0.59	0
ΣH7CDD	0.70	"	<0.70	0
OCDD	4.4	"	<4.4	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			100	
2,3,7,8-T4CDD-13C12			98	
1,2,3,7,8-P5CDF-13C12			95	
1,2,3,7,8-P5CDD-13C12			92	
1,2,3,6,7,8-H6CDF-13C12			68	
1,2,3,6,7,8-H6CDD-13C12			83	
1,2,3,4,6,7,8-H7CDF-13C12			62	
1,2,3,4,6,7,8-H7CDD-13C12			97	
OCDD-13C12			76	

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Revision No. 0

**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	12A	12A	12A
Lab No.:	039077 02	039077 02	039077 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	13A	13A	13A
Lab No.:	039078 02	039078 02	039078 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.0	pg	<1.0	<0.10
2,3,7,8-Cl4DBD	0.36	"	0.53	0.53
1,2,3,7,8-Cl5DBF	0.70	"	<0.70	<0.035
2,3,4,7,8-Cl5DBF	0.67	"	<0.67	<0.34
1,2,3,7,8-Cl5DBD	0.66	"	<0.66	<0.33
1,2,3,4,7,8-Cl6DBF	0.85	"	<0.85	<0.085
1,2,3,6,7,8-Cl6DBF	0.79	"	<0.79	<0.079
2,3,4,6,7,8-Cl6DBF	0.92	"	<0.92	<0.092
1,2,3,7,8,9-Cl6DBF	1.00	"	<1.00	<0.100
1,2,3,4,7,8-Cl6DBD	0.73	"	<0.73	<0.073
1,2,3,6,7,8-Cl6DBD	0.68	"	<0.68	<0.068
1,2,3,7,8,9-Cl6DBD	0.66	"	<0.66	<0.066
1,2,3,4,6,7,8-Cl7DBF	2.6	"	<2.6	<0.026
1,2,3,4,7,8,9-Cl7DBF	61	"	<61	<0.61
1,2,3,4,6,7,8-Cl7DBD	0.31	"	<0.31	<0.0031
1,2,3,4,6,7,8,9-Cl8DBF	0.82	"	<0.82	<0.00082
1,2,3,4,6,7,8,9-Cl8DBD	0.82	"	2.1	0.0021
TEF		pg		0.53
EPA Requested TEQ		"	<	1.52
MAX TEF		"	<	2.5
Units Ng/m ²		"	<	0.15
ΣT4CDF	0.26	pg	<0.26	0
ΣP5CDF	0.70	"	<0.70	0
ΣH6CDF	0.85	"	<0.85	0
ΣH7CDF	57	"	<57	0
OCDF	0.82	"	<0.82	0
ΣT4CDD	0.36	"	0.53	1
ΣP5CDD	0.66	"	<0.66	0
ΣH6CDD	0.68	"	<0.68	0
ΣH7CDD	0.46	"	<0.46	0
OCDD	0.82	"	2.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			99	
2,3,7,8-T4CDD-13C12			94	
1,2,3,7,8-P5CDF-13C12			99	
1,2,3,7,8-P5CDD-13C12			95	
1,2,3,6,7,8-H6CDF-13C12			59	
1,2,3,6,7,8-H6CDD-13C12			78	
1,2,3,4,6,7,8-H7CDF-13C12			50	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			79	

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Revision No. 0

**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	13A	13A	13A
Lab No.:	039078 02	039078 02	039078 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component

RDL

Units

TEF

of Isomers

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	14A	14A	14A
Lab No.:	039079 02	039079 02	039079 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.39	pg	2.4	0.24
2,3,7,8-Cl4DBD	0.62	"	<0.62	<0.62
1,2,3,7,8-Cl5DBF	0.57	"	<0.57	<0.029
2,3,4,7,8-Cl5DBF	0.52	"	<0.52	<0.26
1,2,3,7,8-Cl5DBD	0.91	"	<0.91	<0.46
1,2,3,4,7,8-Cl6DBF	0.46	"	<0.46	<0.046
1,2,3,6,7,8-Cl6DBF	0.63	"	<0.63	<0.063
2,3,4,6,7,8-Cl6DBF	0.74	"	<0.74	<0.074
1,2,3,7,8,9-Cl6DBF	0.80	"	<0.80	<0.080
1,2,3,4,7,8-Cl6DBD	0.96	"	<0.96	<0.096
1,2,3,6,7,8-Cl6DBD	0.89	"	<0.89	<0.089
1,2,3,7,8,9-Cl6DBD	0.87	"	<0.87	<0.087
1,2,3,4,6,7,8-Cl7DBF	0.76	"	<0.76	<0.0076
1,2,3,4,7,8,9-Cl7DBF	7.4	"	<7.4	<0.074
1,2,3,4,6,7,8-Cl7DBD	1.5	"	<1.5	<0.015
1,2,3,4,6,7,8,9-Cl8DBF	0.86	"	1.6	0.0016
1,2,3,4,6,7,8,9-Cl8DBD	1.3	"	6.6	0.0066
TEF		pg		0.24
EPA Requested TEQ			<	1.22
MAX TEF		"	<	2.2
Units Ng/m ²			<	0.12
ΣT4CDF	0.39	pg	5.4	5
ΣP5CDF	0.54	"	<0.54	0
ΣH6CDF	0.68	"	<0.68	0
ΣH7CDF	6.9	"	<6.9	0
OCDF	0.86	"	1.6	1
ΣT4CDD	0.62	"	2.0	1
ΣP5CDD	0.91	"	1.7	1
ΣH6CDD	0.89	"	<0.89	0
ΣH7CDD	1.0	"	<1.0	0
OCDD	1.3	"	6.6	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			93	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			76	
1,2,3,7,8-P5CDD-13C12			69	
1,2,3,6,7,8-H6CDF-13C12			92	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			88	
1,2,3,4,6,7,8-H7CDD-13C12			84	
OCDD-13C12			62	

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Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	14A	14A	14A
Lab No.:	039079 02	039079 02	039079 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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PSC Analytical Services
Certificate of Analysis

	R02100401	R02100401	R02100401
Client ID:	15A	15A	15A
Lab No.:	039080 02	039080 02	039080 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	4.4	pg	<4.4	<0.44
2,3,7,8-Cl4DBD	0.56	"	<0.56	<0.56
1,2,3,7,8-Cl5DBF	0.54	"	<0.54	<0.027
2,3,4,7,8-Cl5DBF	0.52	"	<0.52	<0.26
1,2,3,7,8-Cl5DBD	0.73	"	<0.73	<0.36
1,2,3,4,7,8-Cl6DBF	1.6	"	<1.6	<0.16
1,2,3,6,7,8-Cl6DBF	0.25	"	<0.25	<0.025
2,3,4,6,7,8-Cl6DBF	0.94	"	<0.94	<0.094
1,2,3,7,8,9-Cl6DBF	0.60	"	<0.60	<0.060
1,2,3,4,7,8-Cl6DBD	0.96	"	<0.96	<0.096
1,2,3,6,7,8-Cl6DBD	0.89	"	<0.89	<0.089
1,2,3,7,8,9-Cl6DBD	0.87	"	<0.87	<0.087
1,2,3,4,6,7,8-Cl7DBF	3.4	"	<3.4	<0.034
1,2,3,4,7,8,9-Cl7DBF	20	"	<20	<0.20
1,2,3,4,6,7,8-Cl7DBD	2.6	"	<2.6	<0.026
1,2,3,4,6,7,8,9-Cl8DBF	2.4	"	<2.4	<0.0024
1,2,3,4,6,7,8,9-Cl8DBD	24	"	<24	<0.024
TEF		pg	0	
EPA Requested TEQ		"	< 1.25	
MAX TEF		"	< 2.5	
Units Ng/m ²		"	< 0.13	
ΣT4CDF	0.38	pg	7.4	5
ΣP5CDF	0.54	"	<0.54	0
ΣH6CDF	0.55	"	<0.55	0
ΣH7CDF	19	"	<19	0
OCDF	2.4	"	<2.4	0
ΣT4CDD	0.42	"	8.5	2
ΣP5CDD	0.73	"	3.2	2
ΣH6CDD	0.89	"	5.5	1
ΣH7CDD	1.3	"	<1.3	0
OCDD	24	"	<24	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			101	
2,3,7,8-T4CDD-13C12			89	
1,2,3,7,8-P5CDF-13C12			82	
1,2,3,7,8-P5CDD-13C12			72	
1,2,3,6,7,8-H6CDF-13C12			96	
1,2,3,6,7,8-H6CDD-13C12			95	
1,2,3,4,6,7,8-H7CDF-13C12			84	
1,2,3,4,6,7,8-H7CDD-13C12			87	
OCDD-13C12			63	

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	15A	15A	15A
Lab No.:	039080 02	039080 02	039080 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Certificate of Analysis

	R02100401	R02100401	R02100401
Client ID:	16A	16A	16A
Lab No.:	039081 02	039081 02	039081 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.15	pg	1.8	0.18
2,3,7,8-Cl4DBD	0.33	"	<0.33	<0.33
1,2,3,7,8-Cl5DBF	0.37	"	<0.37	<0.18
2,3,4,7,8-Cl5DBF	0.35	"	<0.35	<0.18
1,2,3,7,8-Cl5DBD	0.81	"	<0.81	<0.41
1,2,3,4,7,8-Cl6DBF	0.28	"	<0.28	<0.028
1,2,3,6,7,8-Cl6DBF	0.22	"	<0.22	<0.022
2,3,4,6,7,8-Cl6DBF	0.17	"	<0.17	<0.017
1,2,3,7,8,9-Cl6DBF	0.32	"	<0.32	<0.032
1,2,3,4,7,8-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,6,7,8-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,7,8,9-Cl6DBD	0.29	"	<0.29	<0.029
1,2,3,4,6,7,8-Cl7DBF	1.2	"	<1.2	<0.012
1,2,3,4,7,8,9-Cl7DBF	17	"	<17	<0.17
1,2,3,4,6,7,8-Cl7DBD	0.43	"	0.58	0.0058
1,2,3,4,6,7,8,9-Cl8DBF	0.58	"	<0.58	<0.00058
1,2,3,4,6,7,8,9-Cl8DBD	0.56	"	3.1	0.0031
TEF		pg		0.19
EPA Requested TEQ			<	0.85
MAX TEF		"	<	1.5
Units Ng/m ²			<	0.08
ΣT4CDF	0.15	pg	4.2	5
ΣP5CDF	0.37	"	<0.37	0
ΣH6CDF	0.30	"	<0.30	0
ΣH7CDF	16	"	<16	0
OCDF	0.58	"	<0.58	0
ΣT4CDD	0.33	"	4.3	2
ΣP5CDD	0.81	"	1.1	1
ΣH6CDD	0.30	"	<0.30	0
ΣH7CDD	0.43	"	0.58	1
OCDD	0.56	"	3.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			93	
2,3,7,8-T4CDD-13C12			93	
1,2,3,7,8-P5CDF-13C12			94	
1,2,3,7,8-P5CDD-13C12			92	
1,2,3,6,7,8-H6CDF-13C12			93	
1,2,3,6,7,8-H6CDD-13C12			94	
1,2,3,4,6,7,8-H7CDF-13C12			105	
1,2,3,4,6,7,8-H7CDD-13C12			105	
OCDD-13C12			83	

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	16A	16A	16A
Lab No.:	039081 02	039081 02	039081 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component

RDL

Units

TEF

of Isomers

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	R02100401	R02100401	R02100401
Client ID:	17A	17A	17A
Lab No.:	039082 02	039082 02	039082 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RD	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.8	pg	<1.8	<0.18
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37
1,2,3,7,8-Cl5DBF	0.33	"	<0.33	<0.016
2,3,4,7,8-Cl5DBF	0.25	"	<0.25	<0.12
1,2,3,7,8-Cl5DBD	0.41	"	<0.41	<0.21
1,2,3,4,7,8-Cl6DBF	0.44	"	<0.44	<0.044
1,2,3,6,7,8-Cl6DBF	0.12	"	<0.12	<0.012
2,3,4,6,7,8-Cl6DBF	0.45	"	<0.45	<0.045
1,2,3,7,8,9-Cl6DBF	0.49	"	<0.49	<0.049
1,2,3,4,7,8-Cl6DBD	0.61	"	<0.61	<0.061
1,2,3,6,7,8-Cl6DBD	0.56	"	<0.56	<0.056
1,2,3,7,8,9-Cl6DBD	0.55	"	<0.55	<0.055
1,2,3,4,6,7,8-Cl7DBF	1.3	"	<1.3	<0.013
1,2,3,4,7,8,9-Cl7DBF	3.2	"	<3.2	<0.032
1,2,3,4,6,7,8-Cl7DBD	2.9	"	<2.9	<0.029
1,2,3,4,6,7,8,9-Cl8DBF	0.71	"	2.8	0.0028
1,2,3,4,6,7,8,9-Cl8DBD	0.69	"	29	0.029
TEF		pg		0.032
EPA Requested TEQ		"	<	0.67
MAX TEF		"	<	1.3
Units Ng/m ²		"	<	0.07
ΣT4CDF	0.20	pg	2.2	4
ΣP5CDF	0.41	"	<0.41	0
ΣH6CDF	0.41	"	<0.41	0
ΣH7CDF	3.0	"	<3.0	0
OCDF	0.71	"	2.8	1
ΣT4CDD	0.37	"	3.0	2
ΣP5CDD	0.41	"	1.7	2
ΣH6CDD	0.56	"	<0.56	0
ΣH7CDD	1.1	"	2.2	1
OCDD	0.69	"	29	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			90	
2,3,7,8-T4CDD-13C12			87	
1,2,3,7,8-P5CDF-13C12			76	
1,2,3,7,8-P5CDD-13C12			72	
1,2,3,6,7,8-H6CDF-13C12			91	
1,2,3,6,7,8-H6CDD-13C12			85	
1,2,3,4,6,7,8-H7CDF-13C12			88	
1,2,3,4,6,7,8-H7CDD-13C12			86	
OCDD-13C12			64	

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	R02100401	R02100401	R02100401
Client ID:	17A	17A	17A
Lab No.:	039082 02	039082 02	039082 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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PSC Analytical Services Certificate of Analysis

	R02100401	R02100401	R02100401
Client ID:	18A	18A	18A
Lab No.:	039083 02	039083 02	039083 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.18	pg	2.0	0.20
2,3,7,8-Cl4DBD	0.25	"	<0.25	<0.25
1,2,3,7,8-Cl5DBF	0.24	"	0.36	0.018
2,3,4,7,8-Cl5DBF	0.31	"	<0.31	<0.15
1,2,3,7,8-Cl5DBD	0.44	"	<0.44	<0.22
1,2,3,4,7,8-Cl6DBF	0.34	"	<0.34	<0.034
1,2,3,6,7,8-Cl6DBF	0.18	"	0.19	0.019
2,3,4,6,7,8-Cl6DBF	0.21	"	<0.21	<0.021
1,2,3,7,8,9-Cl6DBF	0.22	"	<0.22	<0.022
1,2,3,4,7,8-Cl6DBD	0.14	"	<0.14	<0.014
1,2,3,6,7,8-Cl6DBD	0.13	"	<0.13	<0.013
1,2,3,7,8,9-Cl6DBD	0.13	"	<0.13	<0.013
1,2,3,4,6,7,8-Cl7DBF	1.2	"	<1.2	<0.012
1,2,3,4,7,8,9-Cl7DBF	0.81	"	<0.81	<0.0081
1,2,3,4,6,7,8-Cl7DBD	0.15	"	1.1	0.011
1,2,3,4,6,7,8,9-Cl8DBF	0.98	"	<0.98	<0.00098
1,2,3,4,6,7,8,9-Cl8DBD	0.59	"	11	0.011
TEF		pg		0.26
EPA Requested TEQ		"	<	0.63
MAX TEF		"	<	1.0
Units Ng/m ²		"	<	0.06
ΣT4CDF	0.18	pg	4.9	6
ΣP5CDF	0.24	"	1.7	3
ΣH6CDF	0.19	"	0.61	2
ΣH7CDF	0.75	"	<0.75	0
OCDF	0.98	"	<0.98	0
ΣT4CDD	0.27	"	4.9	3
ΣP5CDD	0.44	"	2.8	3
ΣH6CDD	0.13	"	0.37	1
ΣH7CDD	0.15	"	2.4	2
OCDD	0.59	"	11	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			84	
2,3,7,8-T4CDD-13C12			79	
1,2,3,7,8-P5CDF-13C12			85	
1,2,3,7,8-P5CDD-13C12			89	
1,2,3,6,7,8-H6CDF-13C12			79	
1,2,3,6,7,8-H6CDD-13C12			82	
1,2,3,4,6,7,8-H7CDF-13C12			92	
1,2,3,4,6,7,8-H7CDD-13C12			93	
OCDD-13C12			78	

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Revision No. 0

**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	18A	18A	18A
Lab No.:	039083 02	039083 02	039083 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component

RDL

Units

TEF

of Isomers

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file # =R02100401 TEQ Report
Revision No. 0

PSC Analytical Services Certificate of Analysis

	R02100401	R02100401	R02100401
Client ID:	19A	19A	19A
Lab No.:	039084 02	039084 02	039084 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	14	pg	<14	<1.4
2,3,7,8-Cl4DBD	71	"	<71	<71
1,2,3,7,8-Cl5DBF	13	"	<13	<0.67
2,3,4,7,8-Cl5DBF	13	"	<13	<6.5
1,2,3,7,8-Cl5DBD	27	"	<27	<14
1,2,3,4,7,8-Cl6DBF	10	"	<10	<1.0
1,2,3,6,7,8-Cl6DBF	9.5	"	<9.5	<0.95
2,3,4,6,7,8-Cl6DBF	11	"	<11	<1.1
1,2,3,7,8,9-Cl6DBF	12	"	<12	<1.2
1,2,3,4,7,8-Cl6DBD	17	"	<17	<1.7
1,2,3,6,7,8-Cl6DBD	15	"	<15	<1.5
1,2,3,7,8,9-Cl6DBD	15	"	<15	<1.5
1,2,3,4,6,7,8-Cl7DBF	200	"	<200	<2.0
1,2,3,4,7,8,9-Cl7DBF	200	"	<200	<2.0
1,2,3,4,6,7,8-Cl7DBD	17	"	<17	<0.17
1,2,3,4,6,7,8,9-Cl8DBF	38	"	<38	<0.038
1,2,3,4,6,7,8,9-Cl8DBD	250	"	<250	<0.25
TEF		pg	0	
EPA Requested TEQ			< 55.00	
MAX TEF		"	< 110	
Units Ng/m ²			< 5.50	
ΣT4CDF	14	pg	<14	0
ΣP5CDF	13	"	<13	0
ΣH6CDF	10	"	<10	0
ΣH7CDF	220	"	<220	0
OCDF	38	"	<38	0
ΣT4CDD	71	"	<71	0
ΣP5CDD	27	"	<27	0
ΣH6CDD	15	"	<15	0
ΣH7CDD	17	"	<17	0
OCDD	250	"	<250	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			113	
2,3,7,8-T4CDD-13C12			102	
1,2,3,7,8-P5CDF-13C12			111	
1,2,3,7,8-P5CDD-13C12			112	
1,2,3,6,7,8-H6CDF-13C12			85	
1,2,3,6,7,8-H6CDD-13C12			85	
1,2,3,4,6,7,8-H7CDF-13C12			96	
1,2,3,4,6,7,8-H7CDD-13C12			96	
OCDD-13C12			94	

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**PSC Analytical Services
Certificate of Analysis**

	R02100401	R02100401	R02100401
Client ID:	19A	19A	19A
Lab No.:	039084 02	039084 02	039084 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component

RDL

Units

TEF

of Isomers

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	R02100401	R02100401	R02100401
Client ID:	20A	20A	20A
Lab No.:	039085 02	039085 02	039085 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.14	pg	2.4	0.24
2,3,7,8-Cl4DBD	0.42	"	<0.42	<0.42
1,2,3,7,8-Cl5DBF	0.49	"	<0.49	<0.025
2,3,4,7,8-Cl5DBF	0.41	"	<0.41	<0.21
1,2,3,7,8-Cl5DBD	0.51	"	<0.51	<0.25
1,2,3,4,7,8-Cl6DBF	0.26	"	<0.26	<0.026
1,2,3,6,7,8-Cl6DBF	0.24	"	<0.24	<0.024
2,3,4,6,7,8-Cl6DBF	0.28	"	<0.28	<0.028
1,2,3,7,8,9-Cl6DBF	0.31	"	<0.31	<0.031
1,2,3,4,7,8-Cl6DBD	0.28	"	<0.28	<0.028
1,2,3,6,7,8-Cl6DBD	0.26	"	<0.26	<0.026
1,2,3,7,8,9-Cl6DBD	0.25	"	<0.25	<0.025
1,2,3,4,6,7,8-Cl7DBF	0.81	"	<0.81	<0.0081
1,2,3,4,7,8,9-Cl7DBF	0.88	"	<0.88	<0.0088
1,2,3,4,6,7,8-Cl7DBD	0.66	"	<0.66	<0.0066
1,2,3,4,6,7,8,9-Cl8DBF	1.0	"	<1.0	<0.0010
1,2,3,4,6,7,8,9-Cl8DBD	2.8	"	<2.8	<0.0028
TEF		pg	0.24	
EPA Requested TEQ			< 0.82	
MAX TEF		"	< 1.4	
Units Ng/m ²			< 0.08	
ΣT4CDF	0.14	pg	4.9	5
ΣP5CDF	0.49	"	0.51	1
ΣH6CDF	0.26	"	<0.26	0
ΣH7CDF	0.82	"	<0.82	0
OCDF	1.0	"	<1.0	0
ΣT4CDD	0.42	"	0.89	1
ΣP5CDD	0.51	"	0.84	1
ΣH6CDD	0.26	"	<0.26	0
ΣH7CDD	0.37	"	<0.37	0
OCDD	2.8	"	<2.8	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			93	
2,3,7,8-T4CDD-13C12			92	
1,2,3,7,8-P5CDF-13C12			73	
1,2,3,7,8-P5CDD-13C12			66	
1,2,3,6,7,8-H6CDF-13C12			74	
1,2,3,6,7,8-H6CDD-13C12			83	
1,2,3,4,6,7,8-H7CDF-13C12			55	
1,2,3,4,6,7,8-H7CDD-13C12			78	
OCDD-13C12			54	

**PSC Analytical Services
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	R02100401	R02100401	R02100401
Client ID:	20A	20A	20A
Lab No.:	039085 02	039085 02	039085 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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**PSC Analytical Services
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	R02100400	R02100400	R02100400
Client ID:	01A	01A	01A
Lab No.:	039046 02	039046 02	039046 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.09	pg	1.6	0.16
2,3,7,8-Cl4DBD	0.19	"	1.1	1.1
1,2,3,7,8-Cl5DBF	0.21	"	1.2	0.062
2,3,4,7,8-Cl5DBF	0.21	"	1.1	0.57
1,2,3,7,8-Cl5DBD	0.14	"	0.89	0.44
1,2,3,4,7,8-Cl6DBF	0.59	"	1.9	0.19
1,2,3,6,7,8-Cl6DBF	2.2	"	<2.2	<0.22
2,3,4,6,7,8-Cl6DBF	0.67	"	6.3	0.63
1,2,3,7,8,9-Cl6DBF	0.74	"	5.8	0.58
1,2,3,4,7,8-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl6DBD	0.25	"	1.8	0.18
1,2,3,7,8,9-Cl6DBD	0.25	"	2.6	0.26
1,2,3,4,6,7,8-Cl7DBF	4.8	"	<4.8	<0.048
1,2,3,4,7,8,9-Cl7DBF	0.7	"	6.4	0.064
1,2,3,4,6,7,8-Cl7DBD	2.5	"	<2.5	<0.025
1,2,3,4,6,7,8,9-Cl8DBF	0.27	"	5.7	0.0057
1,2,3,4,6,7,8,9-Cl8DBD	0.24	"	9.3	0.0093
TEF		pg		4.2
EPA Requested TEQ		"	<	4.45
MAX TEF		"	<	4.7
Units Ng/m ²				0.45
ΣT4CDF	0.09	pg	2.4	4
ΣP5CDF	0.21	"	2.3	2
ΣH6CDF	0.67	"	14	3
ΣH7CDF	0.68	"	6.4	1
OCDF	0.27	"	5.7	1
ΣT4CDD	0.19	"	1.1	1
ΣP5CDD	0.14	"	0.89	1
ΣH6CDD	0.25	"	4.5	2
ΣH7CDD	0.24	"	0.46	1
OCDD	0.24	"	9.3	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			92	
2,3,7,8-T4CDD-13C12			78	
1,2,3,7,8-P5CDF-13C12			73	
1,2,3,7,8-P5CDD-13C12			64	
1,2,3,6,7,8-H6CDF-13C12			25	
1,2,3,6,7,8-H6CDD-13C12			56	
1,2,3,4,6,7,8-H7CDF-13C12			22	
1,2,3,4,6,7,8-H7CDD-13C12			69	
OCDD-13C12			61	

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	R02100400	R02100400	R02100400
Client ID:	02A	02A	02A
Lab No.:	039047 02	039047 02	039047 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.33	pg	3.2	0.32
2,3,7,8-Cl4DBD	0.61	"	<0.61	<0.61
1,2,3,7,8-Cl5DBF	1.00	"	<1.00	<0.050
2,3,4,7,8-Cl5DBF	0.22	"	0.82	0.41
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.60	"	<0.60	<0.060
1,2,3,6,7,8-Cl6DBF	0.63	"	<0.63	<0.063
2,3,4,6,7,8-Cl6DBF	0.67	"	0.96	0.096
1,2,3,7,8,9-Cl6DBF	0.99	"	<0.99	<0.099
1,2,3,4,7,8-Cl6DBD	0.41	"	<0.41	<0.041
1,2,3,6,7,8-Cl6DBD	0.39	"	<0.39	<0.039
1,2,3,7,8,9-Cl6DBD	1.4	"	<1.4	<0.14
1,2,3,4,6,7,8-Cl7DBF	8.0	"	<8.0	<0.080
1,2,3,4,7,8,9-Cl7DBF	2.1	"	<2.1	<0.021
1,2,3,4,6,7,8-Cl7DBD	0.87	"	1.9	0.019
1,2,3,4,6,7,8,9-Cl8DBF	0.5	"	11	0.011
1,2,3,4,6,7,8,9-Cl8DBD	0.63	"	9.1	0.0092
TEF		pg		0.87
EPA Requested TEQ		"	<	1.59
MAX TEF		"	<	2.3
Units Ng/m ²				0.16
ΣT4CDF	0.33	pg	3.8	2
ΣP5CDF	0.22	"	0.82	1
ΣH6CDF	0.67	"	0.96	1
ΣH7CDF	1.6	"	<1.6	0
OCDF	0.5	"	11	1
ΣT4CDD	0.34	"	4.4	2
ΣP5CDD	0.93	"	2.6	1
ΣH6CDD	0.41	"	<0.41	0
ΣH7CDD	0.87	"	1.9	1
OCDD	0.63	"	9.1	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			98	
2,3,7,8-T4CDD-13C12			79	
1,2,3,7,8-P5CDF-13C12			74	
1,2,3,7,8-P5CDD-13C12			65	
1,2,3,6,7,8-H6CDF-13C12			76	
1,2,3,6,7,8-H6CDD-13C12			83	
1,2,3,4,6,7,8-H7CDF-13C12			48	
1,2,3,4,6,7,8-H7CDD-13C12			67	
OCDD-13C12			49	

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	R02100400	R02100400	R02100400
Client ID:	03A	03A	03A
Lab No.:	039048 02	039048 02	039048 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.13	pg	5.4	0.54
2,3,7,8-Cl4DBD	0.18	"	1.8	1.8
1,2,3,7,8-Cl5DBF	0.13	"	1.5	0.074
2,3,4,7,8-Cl5DBF	0.12	"	1.7	0.84
1,2,3,7,8-Cl5DBD	0.27	"	0.44	0.22
1,2,3,4,7,8-Cl6DBF	0.15	"	<0.15	<0.015
1,2,3,6,7,8-Cl6DBF	1.5	"	<1.5	<0.15
2,3,4,6,7,8-Cl6DBF	0.17	"	2.2	0.22
1,2,3,7,8,9-Cl6DBF	0.19	"	0.32	0.032
1,2,3,4,7,8-Cl6DBD	0.19	"	<0.19	<0.019
1,2,3,6,7,8-Cl6DBD	0.58	"	<0.58	<0.058
1,2,3,7,8,9-Cl6DBD	0.13	"	0.95	0.095
1,2,3,4,6,7,8-Cl7DBF	11	"	<11	<0.11
1,2,3,4,7,8,9-Cl7DBF	13	"	<13	<0.13
1,2,3,4,6,7,8-Cl7DBD	0.16	"	3.2	0.032
1,2,3,4,6,7,8,9-Cl8DBF	0.78	"	<0.78	<0.00078
1,2,3,4,6,7,8,9-Cl8DBD	0.19	"	16	0.016
TEF		pg		3.8
EPA Requested TEQ		"	<	4.05
MAX TEF		"	<	4.3
Units Ng/m ²				0.41
ΣT4CDF	0.13	pg	13	7
ΣP5CDF	0.13	"	5.9	6
ΣH6CDF	0.17	"	2.5	2
ΣH7CDF	13	"	<13	0
OCDF	0.78	"	<0.78	0
ΣT4CDD	0.18	"	7.1	5
ΣP5CDD	0.27	"	9.3	8
ΣH6CDD	0.13	"	9.9	4
ΣH7CDD	0.16	"	7.2	2
OCDD	0.19	"	16	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			159	
2,3,7,8-T4CDD-13C12			133	
1,2,3,7,8-P5CDF-13C12			161	
1,2,3,7,8-P5CDD-13C12			166	
1,2,3,6,7,8-H6CDF-13C12			49	
1,2,3,6,7,8-H6CDD-13C12			75	
1,2,3,4,6,7,8-H7CDF-13C12			37	
1,2,3,4,6,7,8-H7CDD-13C12			95	
OCDD-13C12			77	

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	R02100400	R02100400	R02100400
Client ID:	04A	04A	04A
Lab No.:	039049 02	039049 02	039049 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.21	pg	5.0	0.50
2,3,7,8-Cl4DBD	0.13	"	1.6	1.6
1,2,3,7,8-Cl5DBF	0.89	"	<0.89	<0.045
2,3,4,7,8-Cl5DBF	0.79	"	<0.79	<0.39
1,2,3,7,8-Cl5DBD	0.33	"	<0.33	<0.17
1,2,3,4,7,8-Cl6DBF	0.23	"	1.2	0.12
1,2,3,6,7,8-Cl6DBF	0.71	"	<0.71	<0.071
2,3,4,6,7,8-Cl6DBF	0.26	"	1.4	0.14
1,2,3,7,8,9-Cl6DBF	0.29	"	<0.29	<0.029
1,2,3,4,7,8-Cl6DBD	0.21	"	<0.21	<0.021
1,2,3,6,7,8-Cl6DBD	0.20	"	<0.20	<0.020
1,2,3,7,8,9-Cl6DBD	0.2	"	0.69	0.069
1,2,3,4,6,7,8-Cl7DBF	11	"	<11	<0.11
1,2,3,4,7,8,9-Cl7DBF	140	"	<140	<1.4
1,2,3,4,6,7,8-Cl7DBD	0.11	"	3.4	0.034
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	0.2	"	24	0.024
TEF		pg		2.5
EPA Requested TEQ		"	<	3.60
MAX TEF		"	<	4.7
Units Ng/m ²				0.36
ΣT4CDF	0.21	pg	17	9
ΣP5CDF	0.15	"	3.1	5
ΣH6CDF	0.23	"	2.5	2
ΣH7CDF	140	"	<140	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.13	"	8.6	9
ΣP5CDD	0.66	"	4.2	4
ΣH6CDD	0.21	"	1.6	2
ΣH7CDD	0.11	"	6.8	2
OCDD	0.2	"	24	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			71	
2,3,7,8-T4CDD-13C12			93	
1,2,3,7,8-P5CDF-13C12			112	
1,2,3,7,8-P5CDD-13C12			107	
1,2,3,6,7,8-H6CDF-13C12			30	
1,2,3,6,7,8-H6CDD-13C12			73	
1,2,3,4,6,7,8-H7CDF-13C12			13	
1,2,3,4,6,7,8-H7CDD-13C12			85	
OCDD-13C12			76	

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	R02100400	R02100400	R02100400
Client ID:	05A	05A	05A
Lab No.:	039050 02	039050 02	039050 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.33	pg	1.8	0.18
2,3,7,8-Cl4DBD	0.13	"	<0.13	<0.13
1,2,3,7,8-Cl5DBF	0.36	"	<0.36	<0.18
2,3,4,7,8-Cl5DBF	0.2	"	0.35	0.18
1,2,3,7,8-Cl5DBD	0.66	"	<0.66	<0.33
1,2,3,4,7,8-Cl6DBF	0.31	"	<0.31	<0.031
1,2,3,6,7,8-Cl6DBF	0.31	"	<0.31	<0.031
2,3,4,6,7,8-Cl6DBF	0.35	"	0.42	0.042
1,2,3,7,8,9-Cl6DBF	0.39	"	<0.39	<0.039
1,2,3,4,7,8-Cl6DBD	0.21	"	<0.21	<0.021
1,2,3,6,7,8-Cl6DBD	0.20	"	<0.20	<0.020
1,2,3,7,8,9-Cl6DBD	0.20	"	<0.20	<0.020
1,2,3,4,6,7,8-Cl7DBF	89	"	<89	<0.89
1,2,3,4,7,8,9-Cl7DBF	36	"	<36	<0.36
1,2,3,4,6,7,8-Cl7DBD	0.53	"	<0.53	<0.0053
1,2,3,4,6,7,8,9-Cl8DBF	5.6	"	<5.6	<0.0056
1,2,3,4,6,7,8,9-Cl8DBD	0.3	"	2.7	0.0027
TEF		pg		0.40
EPA Requested TEQ		"	<	1.35
MAX TEF		"	<	2.3
Units Ng/m ²				0.14
ΣT4CDF	0.33	pg	3.6	4
ΣP5CDF	0.21	"	0.35	1
ΣH6CDF	0.35	"	0.42	1
ΣH7CDF	99	"	<99	0
OCDF	5.6	"	<5.6	0
ΣT4CDD	0.13	"	0.90	2
ΣP5CDD	0.66	"	0.69	1
ΣH6CDD	0.21	"	<0.21	0
ΣH7CDD	0.19	"	<0.19	0
OCDD	0.3	"	2.7	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			134	
2,3,7,8-T4CDD-13C12			129	
1,2,3,7,8-P5CDF-13C12			120	
1,2,3,7,8-P5CDD-13C12			114	
1,2,3,6,7,8-H6CDF-13C12			50	
1,2,3,6,7,8-H6CDD-13C12			91	
1,2,3,4,6,7,8-H7CDF-13C12			29	
1,2,3,4,6,7,8-H7CDD-13C12			98	
OCDD-13C12			92	

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	R02100400	R02100400	R02100400
Client ID:	06A	06A	06A
Lab No.:	039051 02	039051 02	039051 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.13	pg	7.9	0.79
2,3,7,8-Cl4DBD	1.4	"	<1.4	<1.4
1,2,3,7,8-Cl5DBF	0.21	"	1.5	0.076
2,3,4,7,8-Cl5DBF	0.2	"	2.2	1.1
1,2,3,7,8-Cl5DBD	0.89	"	0.65	0.33
1,2,3,4,7,8-Cl6DBF	0.12	"	1.4	0.14
1,2,3,6,7,8-Cl6DBF	0.12	"	1.1	0.11
2,3,4,6,7,8-Cl6DBF	0.13	"	1.6	0.16
1,2,3,7,8,9-Cl6DBF	0.39	"	<0.39	<0.039
1,2,3,4,7,8-Cl6DBD	0.16	"	0.75	0.075
1,2,3,6,7,8-Cl6DBD	0.75	"	<0.75	<0.075
1,2,3,7,8,9-Cl6DBD	0.15	"	1.1	0.11
1,2,3,4,6,7,8-Cl7DBF	9.0	"	<9.0	<0.090
1,2,3,4,7,8,9-Cl7DBF	17	"	<17	<0.17
1,2,3,4,6,7,8-Cl7DBD	0.14	"	2.6	0.026
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	1.9	0.0019
1,2,3,4,6,7,8,9-Cl8DBD	0.47	"	11	0.011
TEF		pg		2.9
EPA Requested TEQ		"	<	3.80
MAX TEF		"	<	4.7
Units Ng/m ²				0.38
ΣT4CDF	0.13	pg	23	10
ΣP5CDF	0.21	"	12	7
ΣH6CDF	0.12	"	4.1	3
ΣH7CDF	25	"	<25	0
OCDF	1.1	"	1.9	1
ΣT4CDD	0.25	"	12	7
ΣP5CDD	0.89	"	12	4
ΣH6CDD	0.15	"	13	6
ΣH7CDD	0.14	"	2.6	1
OCDD	0.47	"	11	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			96	
2,3,7,8-T4CDD-13C12			88	
1,2,3,7,8-P5CDF-13C12			93	
1,2,3,7,8-P5CDD-13C12			98	
1,2,3,6,7,8-H6CDF-13C12			66	
1,2,3,6,7,8-H6CDD-13C12			88	
1,2,3,4,6,7,8-H7CDF-13C12			73	
1,2,3,4,6,7,8-H7CDD-13C12			86	
OCDD-13C12			77	

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	R02100400	R02100400	R02100400
Client ID:	07A	07A	07A
Lab No.:	039052 02	039052 02	039052 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.13	pg	2.1	0.21
2,3,7,8-Cl4DBD	0.48	"	<0.48	
1,2,3,7,8-Cl5DBF	0.26	"	0.69	0.035
2,3,4,7,8-Cl5DBF	0.25	"	0.55	0.28
1,2,3,7,8-Cl5DBD	1.2	"	<1.2	<0.61
1,2,3,4,7,8-Cl6DBF	0.66	"	<0.66	<0.066
1,2,3,6,7,8-Cl6DBF	0.28	"	0.82	0.082
2,3,4,6,7,8-Cl6DBF	0.32	"	0.70	0.070
1,2,3,7,8,9-Cl6DBF	0.36	"	<0.36	<0.036
1,2,3,4,7,8-Cl6DBD	0.18	"	<0.18	<0.018
1,2,3,6,7,8-Cl6DBD	0.17	"	<0.17	<0.017
1,2,3,7,8,9-Cl6DBD	0.42	"	<0.42	<0.042
1,2,3,4,6,7,8-Cl7DBF	22	"	<22	<0.22
1,2,3,4,7,8,9-Cl7DBF	19	"	<19	<0.19
1,2,3,4,6,7,8-Cl7DBD	0.31	"	1.3	0.013
1,2,3,4,6,7,8,9-Cl8DBF	0.25	"	6.3	0.0063
1,2,3,4,6,7,8,9-Cl8DBD	0.4	"	8.7	0.0087
TEF		pg		0.70
EPA Requested TEQ			<	1.55
MAX TEF		"	<	2.4
Units Ng/m ²				0.16
ΣT4CDF	0.13	pg	4.4	5
ΣP5CDF	0.26	"	1.8	3
ΣH6CDF	0.32	"	1.9	3
ΣH7CDF	20	"	<20	0
OCDF	0.25	"	6.3	1
ΣT4CDD	0.22	"	0.43	1
ΣP5CDD	1	"	1.3	2
ΣH6CDD	0.17	"	<0.17	0
ΣH7CDD	0.31	"	2.6	2
OCDD	0.4	"	8.7	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			108	
2,3,7,8-T4CDD-13C12			95	
1,2,3,7,8-P5CDF-13C12			105	
1,2,3,7,8-P5CDD-13C12			111	
1,2,3,6,7,8-H6CDF-13C12			70	
1,2,3,6,7,8-H6CDD-13C12			89	
1,2,3,4,6,7,8-H7CDF-13C12			60	
1,2,3,4,6,7,8-H7CDD-13C12			86	
OCDD-13C12			76	

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	R02100400	R02100400	R02100400
Client ID:	08A	08A	08A
Lab No.:	039053 02	039053 02	039053 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.6	pg	<1.6	<0.16
2,3,7,8-Cl4DBD	0.36	"	<0.36	<0.36
1,2,3,7,8-Cl5DBF	0.32	"	0.65	0.033
2,3,4,7,8-Cl5DBF	0.31	"	<0.31	<0.16
1,2,3,7,8-Cl5DBD	0.41	"	<0.41	<0.20
1,2,3,4,7,8-Cl6DBF	0.55	"	<0.55	<0.055
1,2,3,6,7,8-Cl6DBF	0.55	"	<0.55	<0.055
2,3,4,6,7,8-Cl6DBF	0.63	"	<0.63	<0.063
1,2,3,7,8,9-Cl6DBF	0.70	"	<0.70	<0.070
1,2,3,4,7,8-Cl6DBD	0.45	"	<0.45	<0.045
1,2,3,6,7,8-Cl6DBD	0.43	"	<0.43	<0.043
1,2,3,7,8,9-Cl6DBD	0.42	"	<0.42	<0.042
1,2,3,4,6,7,8-Cl7DBF	16	"	<16	<0.16
1,2,3,4,7,8,9-Cl7DBF	18	"	<18	<0.18
1,2,3,4,6,7,8-Cl7DBD	1.3	"	<1.3	<0.013
1,2,3,4,6,7,8,9-Cl8DBF	1.1	"	<1.1	<0.0011
1,2,3,4,6,7,8,9-Cl8DBD	3.9	"	<3.9	<0.0039
TEF		pg		0.033
EPA Requested TEQ		"	<	0.82
MAX TEF		"	<	1.6
Units Ng/m ²				0.08
ΣT4CDF	0.27	pg	<0.27	0
ΣP5CDF	0.32	"	0.65	1
ΣH6CDF	0.63	"	<0.63	0
ΣH7CDF	17	"	<17	0
OCDF	1.1	"	<1.1	0
ΣT4CDD	0.36	"	<0.36	0
ΣP5CDD	0.41	"	0.63	1
ΣH6CDD	0.45	"	<0.45	0
ΣH7CDD	1.3	"	<1.3	0
OCDD	3.9	"	<3.9	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			86	
2,3,7,8-T4CDD-13C12			82	
1,2,3,7,8-P5CDF-13C12			71	
1,2,3,7,8-P5CDD-13C12			65	
1,2,3,6,7,8-H6CDF-13C12			48	
1,2,3,6,7,8-H6CDD-13C12			75	
1,2,3,4,6,7,8-H7CDF-13C12			47	
1,2,3,4,6,7,8-H7CDD-13C12			82	
OCDD-13C12			67	

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	R02100400	R02100400	R02100400
Client ID:	09A	09A	09A
Lab No.:	039054 02	039054 02	039054 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.32	pg	3.1	0.31
2,3,7,8-Cl4DBD	0.78	"	<0.78	
1,2,3,7,8-Cl5DBF	0.31	"	<0.31	<0.015
2,3,4,7,8-Cl5DBF	0.24	"	0.69	0.35
1,2,3,7,8-Cl5DBD	0.81	"	<0.81	<0.41
1,2,3,4,7,8-Cl6DBF	1.0	"	<1.0	<0.10
1,2,3,6,7,8-Cl6DBF	1.0	"	<1.0	<0.10
2,3,4,6,7,8-Cl6DBF	1.2	"	<1.2	<0.12
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	0.53	"	<0.53	<0.053
1,2,3,6,7,8-Cl6DBD	0.50	"	<0.50	<0.050
1,2,3,7,8,9-Cl6DBD	0.49	"	<0.49	<0.049
1,2,3,4,6,7,8-Cl7DBF	14	"	<14	<0.14
1,2,3,4,7,8,9-Cl7DBF	1.4	"	<1.4	<0.014
1,2,3,4,6,7,8-Cl7DBD	1.0	"	2.5	0.025
1,2,3,4,6,7,8,9-Cl8DBF	0.86	"	4.2	0.0042
1,2,3,4,6,7,8,9-Cl8DBD	1.0	"	30	0.030
TEF		pg		0.71
EPA Requested TEQ		"	<	1.71
MAX TEF		"	<	2.7
Units Ng/m ²				0.17
ΣT4CDF	0.32	pg	6.8	5
ΣP5CDF	0.31	"	1.3	2
ΣH6CDF	1.0	"	<1.0	0
ΣH7CDF	16	"	<16	0
OCDF	0.86	"	4.2	1
ΣT4CDD	0.53	"	0.70	1
ΣP5CDD	0.81	"	<0.81	0
ΣH6CDD	0.53	"	3.5	1
ΣH7CDD	1.0	"	5.5	2
OCDD	1.0	"	30	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			97	
2,3,7,8-T4CDD-13C12			77	
1,2,3,7,8-P5CDF-13C12			73	
1,2,3,7,8-P5CDD-13C12			64	
1,2,3,6,7,8-H6CDF-13C12			69	
1,2,3,6,7,8-H6CDD-13C12			80	
1,2,3,4,6,7,8-H7CDF-13C12			59	
1,2,3,4,6,7,8-H7CDD-13C12			76	
OCDD-13C12			52	

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	R02100400	R02100400	R02100400
Client ID:	10A	10A	10A
Lab No.:	039055 02	039055 02	039055 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.14	pg	1.7	0.17
2,3,7,8-Cl4DBD	0.47	"	<0.47	<0.47
1,2,3,7,8-Cl5DBF	0.14	"	0.72	0.036
2,3,4,7,8-Cl5DBF	0.14	"	1.1	0.55
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.21	"	2.0	0.20
1,2,3,6,7,8-Cl6DBF	1.9	"	<1.9	<0.19
2,3,4,6,7,8-Cl6DBF	0.24	"	2.4	0.24
1,2,3,7,8,9-Cl6DBF	2.3	"	<2.3	<0.23
1,2,3,4,7,8-Cl6DBD	0.31	"	1.3	0.13
1,2,3,6,7,8-Cl6DBD	0.29	"	1.4	0.14
1,2,3,7,8,9-Cl6DBD	0.28	"	2.0	0.20
1,2,3,4,6,7,8-Cl7DBF	6.2	"	<6.2	<0.062
1,2,3,4,7,8,9-Cl7DBF	3.3	"	<3.3	<0.033
1,2,3,4,6,7,8-Cl7DBD	0.34	"	1.9	0.019
1,2,3,4,6,7,8,9-Cl8DBF	0.98	"	4.2	0.0042
1,2,3,4,6,7,8,9-Cl8DBD	0.66	"	12	0.012
TEF		pg	1.7	
EPA Requested TEQ			<	2.35
MAX TEF		"	<	3.0
Units Ng/m ²				0.24
ΣT4CDF	0.14	pg	2.5	2
ΣP5CDF	0.14	"	3.8	6
ΣH6CDF	0.24	"	7.3	5
ΣH7CDF	26	"	<26	0
OCDF	0.98	"	4.2	1
ΣT4CDD	0.13	"	1.7	3
ΣP5CDD	0.60	"	<0.60	0
ΣH6CDD	0.31	"	6.2	5
ΣH7CDD	0.34	"	3.8	2
OCDD	0.66	"	12	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			110	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			77	
1,2,3,7,8-P5CDD-13C12			60	
1,2,3,6,7,8-H6CDF-13C12			59	
1,2,3,6,7,8-H6CDD-13C12			80	
1,2,3,4,6,7,8-H7CDF-13C12			51	
1,2,3,4,6,7,8-H7CDD-13C12			90	
OCDD-13C12			73	

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	R02100400	R02100400	R02100400
Client ID:	11A	11A	11A
Lab No.:	039056 02	039056 02	039056 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.8	pg	2.6	0.26
2,3,7,8-Cl4DBD	1.3	"	<1.3	
1,2,3,7,8-Cl5DBF	2.0	"	<2.0	<0.098
2,3,4,7,8-Cl5DBF	1.9	"	<1.9	<0.95
1,2,3,7,8-Cl5DBD	2.2	"	<2.2	<1.1
1,2,3,4,7,8-Cl6DBF	1.0	"	<1.0	<0.10
1,2,3,6,7,8-Cl6DBF	1.0	"	<1.0	<0.10
2,3,4,6,7,8-Cl6DBF	1.2	"	<1.2	<0.12
1,2,3,7,8,9-Cl6DBF	1.3	"	<1.3	<0.13
1,2,3,4,7,8-Cl6DBD	2.1	"	<2.1	<0.21
1,2,3,6,7,8-Cl6DBD	2.0	"	<2.0	<0.20
1,2,3,7,8,9-Cl6DBD	2.0	"	<2.0	<0.20
1,2,3,4,6,7,8-Cl7DBF	1.8	"	<1.8	<0.018
1,2,3,4,7,8,9-Cl7DBF	4.8	"	<4.8	<0.048
1,2,3,4,6,7,8-Cl7DBD	2.7	"	<2.7	<0.027
1,2,3,4,6,7,8,9-Cl8DBF	2.8	"	<2.8	<0.0028
1,2,3,4,6,7,8,9-Cl8DBD	4.7	"	5.0	0.0050
TEF		pg		0.27
EPA Requested TEQ			<	2.59
MAX TEF		"	<	4.9
Units Ng/m ²				0.26
ΣT4CDF	1.8	pg	2.6	1
ΣP5CDF	2.0	"	<2.0	0
ΣH6CDF	1.2	"	<1.2	0
ΣH7CDF	2.0	"	<2.0	0
OCDF	2.8	"	<2.8	0
ΣT4CDD	1.3	"	<1.3	0
ΣP5CDD	2.2	"	<2.2	0
ΣH6CDD	2.1	"	<2.1	0
ΣH7CDD	2.7	"	<2.7	0
OCDD	4.7	"	5.0	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			91	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			58	
1,2,3,7,8-P5CDD-13C12			65	
1,2,3,6,7,8-H6CDF-13C12			89	
1,2,3,6,7,8-H6CDD-13C12			69	
1,2,3,4,6,7,8-H7CDF-13C12			61	
1,2,3,4,6,7,8-H7CDD-13C12			64	
OCDD-13C12			93	

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	R02100400	R02100400	R02100400
Client ID:	12A	12A	12A
Lab No.:	039057 02	039057 02	039057 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.2	pg	<1.2	
2,3,7,8-Cl4DBD	3.1	"	<3.1	
1,2,3,7,8-Cl5DBF	2.3	"	<2.3	
2,3,4,7,8-Cl5DBF	2.2	"	<2.2	
1,2,3,7,8-Cl5DBD	2.5	"	<2.5	
1,2,3,4,7,8-Cl6DBF	2.6	"	<2.6	
1,2,3,6,7,8-Cl6DBF	16	"	<16	
2,3,4,6,7,8-Cl6DBF	80	"	<80	
1,2,3,7,8,9-Cl6DBF	3.2	"	<3.2	
1,2,3,4,7,8-Cl6DBD	61	"	<61	
1,2,3,6,7,8-Cl6DBD	6.0	"	<6.0	
1,2,3,7,8,9-Cl6DBD	5.9	"	<5.9	
1,2,3,4,6,7,8-Cl7DBF	5.6	"	<5.6	
1,2,3,4,7,8,9-Cl7DBF	6.4	"	<6.4	
1,2,3,4,6,7,8-Cl7DBD	3.5	"	<3.5	
1,2,3,4,6,7,8,9-Cl8DBF	3.2	"	5.4	
1,2,3,4,6,7,8,9-Cl8DBD	3.0	"	<3.0	
TEF		pg	0.0054	
EPA Requested TEQ			< 11.50	
MAX TEF		"	< 23	
Units Ng/m ²			1.15	
ΣT4CDF	1.2	pg	<1.2	0
ΣP5CDF	2.3	"	<2.3	0
ΣH6CDF	2.6	"	<2.6	0
ΣH7CDF	6.2	"	<6.2	0
OCDF	3.2	"	5.4	1
ΣT4CDD	3.1	"	<3.1	0
ΣP5CDD	2.5	"	<2.5	0
ΣH6CDD	290	"	<290	0
ΣH7CDD	3.5	"	<3.5	0
OCDD	3.0	"	<3.0	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			76	
2,3,7,8-T4CDD-13C12			84	
1,2,3,7,8-P5CDF-13C12			51	
1,2,3,7,8-P5CDD-13C12			46	
1,2,3,6,7,8-H6CDF-13C12			68	
1,2,3,6,7,8-H6CDD-13C12			69	
1,2,3,4,6,7,8-H7CDF-13C12			60	
1,2,3,4,6,7,8-H7CDD-13C12			61	
OCDD-13C12			117	

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	R02100400	R02100400	R02100400
Client ID:	13A	13A	13A
Lab No.:	039058 02	039058 02	039058 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.3	pg	<1.3	
2,3,7,8-Cl4DBD	1.1	"	<1.1	
1,2,3,7,8-Cl5DBF	0.99	"	<0.99	
2,3,4,7,8-Cl5DBF	0.96	"	<0.96	
1,2,3,7,8-Cl5DBD	3.8	"	<3.8	
1,2,3,4,7,8-Cl6DBF	1.5	"	<1.5	
1,2,3,6,7,8-Cl6DBF	1.4	"	<1.4	
2,3,4,6,7,8-Cl6DBF	1.6	"	<1.6	
1,2,3,7,8,9-Cl6DBF	1.8	"	<1.8	
1,2,3,4,7,8-Cl6DBD	0.59	"	<0.59	
1,2,3,6,7,8-Cl6DBD	0.56	"	<0.56	
1,2,3,7,8,9-Cl6DBD	0.54	"	<0.54	
1,2,3,4,6,7,8-Cl7DBF	5.2	"	<5.2	
1,2,3,4,7,8,9-Cl7DBF	6.0	"	<6.0	
1,2,3,4,6,7,8-Cl7DBD	1.2	"	<1.2	
1,2,3,4,6,7,8,9-Cl8DBF	1.3	"	<1.3	
1,2,3,4,6,7,8,9-Cl8DBD	0.85	"	4.5	
TEF		pg	0.0045	
EPA Requested TEQ		"	< 2.30	
MAX TEF		"	< 4.6	
Units Ng/m ²			0.23	
ΣT4CDF	1.3	pg	<1.3	0
ΣP5CDF	0.99	"	<0.99	0
ΣH6CDF	1.5	"	<1.5	0
ΣH7CDF	5.8	"	<5.8	0
OCDF	1.3	"	<1.3	0
ΣT4CDD	1.1	"	1.9	1
ΣP5CDD	3.8	"	<3.8	0
ΣH6CDD	0.56	"	<0.56	0
ΣH7CDD	1.2	"	<1.2	0
OCDD	0.85	"	4.5	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			80	
2,3,7,8-T4CDD-13C12			83	
1,2,3,7,8-P5CDF-13C12			69	
1,2,3,7,8-P5CDD-13C12			67	
1,2,3,6,7,8-H6CDF-13C12			77	
1,2,3,6,7,8-H6CDD-13C12			90	
1,2,3,4,6,7,8-H7CDF-13C12			88	
1,2,3,4,6,7,8-H7CDD-13C12			99	
OCDD-13C12			94	

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	R02100400	R02100400	R02100400
Client ID:	14A	14A	14A
Lab No.:	039059 02	039059 02	039059 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.1	pg	<1.1	
2,3,7,8-Cl4DBD	1.1	"	<1.1	
1,2,3,7,8-Cl5DBF	1.2	"	<0.061	
2,3,4,7,8-Cl5DBF	1.2	"	<0.59	
1,2,3,7,8-Cl5DBD	1.4	"	<0.72	
1,2,3,4,7,8-Cl6DBF	1.0	"	<0.10	
1,2,3,6,7,8-Cl6DBF	1.0	"	<0.10	
2,3,4,6,7,8-Cl6DBF	1.1	"	<0.11	
1,2,3,7,8,9-Cl6DBF	1.3	"	<0.13	
1,2,3,4,7,8-Cl6DBD	1.2	"	<0.12	
1,2,3,6,7,8-Cl6DBD	1.1	"	<0.11	
1,2,3,7,8,9-Cl6DBD	1.1	"	<0.11	
1,2,3,4,6,7,8-Cl7DBF	1.2	"	<0.012	
1,2,3,4,7,8,9-Cl7DBF	1.4	"	<0.014	
1,2,3,4,6,7,8-Cl7DBD	1.2	"	<0.012	
1,2,3,4,6,7,8,9-Cl8DBF	2.1	"	<0.0021	
1,2,3,4,6,7,8,9-Cl8DBD	4.3	"	<0.0043	
TEF		pg	0	
EPA Requested TEQ		"	< 1.70	
MAX TEF		"	< 3.4	
Units Ng/m ²			0.17	
ΣT4CDF	1.1	pg	<1.1	0
ΣP5CDF	1.2	"	<1.2	0
ΣH6CDF	1.0	"	<1.0	0
ΣH7CDF	1.4	"	<1.4	0
OCDF	2.1	"	<2.1	0
ΣT4CDD	1.1	"	<1.1	0
ΣP5CDD	1.4	"	<1.4	0
ΣH6CDD	1.1	"	<1.1	0
ΣH7CDD	1.2	"	<1.2	0
OCDD	4.3	"	<4.3	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			84	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			70	
1,2,3,7,8-P5CDD-13C12			79	
1,2,3,6,7,8-H6CDF-13C12			77	
1,2,3,6,7,8-H6CDD-13C12			90	
1,2,3,4,6,7,8-H7CDF-13C12			87	
1,2,3,4,6,7,8-H7CDD-13C12			98	
OCDD-13C12			87	

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	R02100400	R02100400	R02100400
Client ID:	15A	15A	15A
Lab No.:	039060 02	039060 02	039060 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	1.0	pg	1.9	0.19
2,3,7,8-Cl4DBD	2.0	"	<2.0	<2.0
1,2,3,7,8-Cl5DBF	1.7	"	<1.7	<0.087
2,3,4,7,8-Cl5DBF	1.7	"	<1.7	<0.84
1,2,3,7,8-Cl5DBD	1.5	"	<1.5	<0.77
1,2,3,4,7,8-Cl6DBF	1.4	"	<1.4	<0.14
1,2,3,6,7,8-Cl6DBF	1.4	"	<1.4	<0.14
2,3,4,6,7,8-Cl6DBF	1.6	"	<1.6	<0.16
1,2,3,7,8,9-Cl6DBF	1.7	"	<1.7	<0.17
1,2,3,4,7,8-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,7,8,9-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,4,6,7,8-Cl7DBF	2.8	"	<2.8	<0.028
1,2,3,4,7,8,9-Cl7DBF	3.2	"	<3.2	<0.032
1,2,3,4,6,7,8-Cl7DBD	1.4	"	<1.4	<0.014
1,2,3,4,6,7,8,9-Cl8DBF	1.6	"	2.0	0.0020
1,2,3,4,6,7,8,9-Cl8DBD	1.9	"	11	0.011
TEF		pg		0.21
EPA Requested TEQ		"	<	2.56
MAX TEF		"	<	4.9
Units Ng/m ²				0.26
ΣT4CDF	1.0	pg	1.9	1
ΣP5CDF	1.7	"	<1.7	0
ΣH6CDF	1.6	"	<1.6	0
ΣH7CDF	3.1	"	<3.1	0
OCDF	1.6	"	2.0	1
ΣT4CDD	2.0	"	<2.0	0
ΣP5CDD	1.5	"	<1.5	0
ΣH6CDD	1.3	"	<1.3	0
ΣH7CDD	1.4	"	<1.4	0
OCDD	1.9	"	11	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			66	
2,3,7,8-T4CDD-13C12			79	
1,2,3,7,8-P5CDF-13C12			59	
1,2,3,7,8-P5CDD-13C12			67	
1,2,3,6,7,8-H6CDF-13C12			48	
1,2,3,6,7,8-H6CDD-13C12			65	
1,2,3,4,6,7,8-H7CDF-13C12			44	
1,2,3,4,6,7,8-H7CDD-13C12			81	
OCDD-13C12			182	

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	R02100400	R02100400	R02100400
Client ID:	16A	16A	16A
Lab No.:	039061 02	039061 02	039061 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	12	pg	<12	<1.2
2,3,7,8-Cl4DBD	1.4	"	13	13
1,2,3,7,8-Cl5DBF	1.1	"	<1.1	<0.056
2,3,4,7,8-Cl5DBF	1.1	"	2.3	1.1
1,2,3,7,8-Cl5DBD	1.2	"	<1.2	<0.59
1,2,3,4,7,8-Cl6DBF	3.5	"	<3.5	<0.35
1,2,3,6,7,8-Cl6DBF	1.4	"	<1.4	<0.14
2,3,4,6,7,8-Cl6DBF	1.6	"	<1.6	<0.16
1,2,3,7,8,9-Cl6DBF	1.8	"	<1.8	<0.18
1,2,3,4,7,8-Cl6DBD	1.3	"	<1.3	<0.13
1,2,3,6,7,8-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,7,8,9-Cl6DBD	1.2	"	<1.2	<0.12
1,2,3,4,6,7,8-Cl7DBF	1.6	"	<1.6	<0.017
1,2,3,4,7,8,9-Cl7DBF	1.9	"	<1.9	<0.019
1,2,3,4,6,7,8-Cl7DBD	2.0	"	12	0.12
1,2,3,4,6,7,8,9-Cl8DBF	5.4	"	<5.4	<0.0054
1,2,3,4,6,7,8,9-Cl8DBD	1.7	"	110	0.11

TEF	pg		15
EPA Requested TEQ		<	16.50
MAX TEF	"	<	18
Units Ng/m²			1.65

ΣT4CDF	0.82	pg	16	4
ΣP5CDF	1.1	"	11	4
ΣH6CDF	1.4	"	<1.4	0
ΣH7CDF	1.8	"	<1.8	0
OCDF	5.4	"	<5.4	0
ΣT4CDD	1.4	"	58	5
ΣP5CDD	1.2	"	21	3
ΣH6CDD	1.2	"	22	2
ΣH7CDD	2.0	"	25	2
OCDD	1.7	"	110	1

Surrogate Recoveries

	%
2,3,7,8-T4CDF-13C12	74
2,3,7,8-T4CDD-13C12	40
1,2,3,7,8-P5CDF-13C12	64
1,2,3,7,8-P5CDD-13C12	68
1,2,3,6,7,8-H6CDF-13C12	54
1,2,3,6,7,8-H6CDD-13C12	70
1,2,3,4,6,7,8-H7CDF-13C12	49
1,2,3,4,6,7,8-H7CDD-13C12	78
OCDD-13C12	105

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	R02100400	R02100400	R02100400
Client ID:	17A	17A	17A
Lab No.:	039062 02	039062 02	039062 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.89	pg	<0.89	
2,3,7,8-Cl4DBD	1.5	"	<1.5	
1,2,3,7,8-Cl5DBF	1.2	"	<0.060	
2,3,4,7,8-Cl5DBF	1.2	"	<0.58	
1,2,3,7,8-Cl5DBD	1.9	"	<0.96	
1,2,3,4,7,8-Cl6DBF	1.1	"	<0.11	
1,2,3,6,7,8-Cl6DBF	1.1	"	<0.11	
2,3,4,6,7,8-Cl6DBF	1.3	"	<0.13	
1,2,3,7,8,9-Cl6DBF	1.4	"	<0.14	
1,2,3,4,7,8-Cl6DBD	2.5	"	<0.25	
1,2,3,6,7,8-Cl6DBD	2.4	"	<0.24	
1,2,3,7,8,9-Cl6DBD	2.3	"	<0.23	
1,2,3,4,6,7,8-Cl7DBF	2.7	"	<0.027	
1,2,3,4,7,8,9-Cl7DBF	3.1	"	<0.031	
1,2,3,4,6,7,8-Cl7DBD	1.4	"	<0.014	
1,2,3,4,6,7,8,9-Cl8DBF	3.4	"	<0.0034	
1,2,3,4,6,7,8,9-Cl8DBD	5.4	"	<0.0054	
TEF		pg	0	
EPA Requested TEQ			< 2.25	
MAX TEF		"	< 4.5	
Units Ng/m ²			0.23	
ΣT4CDF	0.89	pg	<0.89	0
ΣP5CDF	1.2	"	<1.2	0
ΣH6CDF	1.3	"	<1.3	0
ΣH7CDF	3.0	"	<3.0	0
OCDF	3.4	"	<3.4	0
ΣT4CDD	1.5	"	<1.5	0
ΣP5CDD	1.9	"	<1.9	0
ΣH6CDD	2.5	"	<2.5	0
ΣH7CDD	1.4	"	<1.4	0
OCDD	5.4	"	<5.4	0
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			69	
2,3,7,8-T4CDD-13C12			73	
1,2,3,7,8-P5CDF-13C12			49	
1,2,3,7,8-P5CDD-13C12			51	
1,2,3,6,7,8-H6CDF-13C12			75	
1,2,3,6,7,8-H6CDD-13C12			80	
1,2,3,4,6,7,8-H7CDF-13C12			57	
1,2,3,4,6,7,8-H7CDD-13C12			71	
OCDD-13C12			50	

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	R02100400	R02100400	R02100400
Client ID:	18A	18A	18A
Lab No.:	039063 02	039063 02	039063 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	4.7	pg	<4.7	<0.47
2,3,7,8-Cl4DBD	0.72	"	<0.72	<0.72
1,2,3,7,8-Cl5DBF	0.40	"	<0.40	<0.020
2,3,4,7,8-Cl5DBF	0.36	"	1.2	0.58
1,2,3,7,8-Cl5DBD	1.1	"	<1.1	<0.55
1,2,3,4,7,8-Cl6DBF	1.9	"	<1.9	<0.19
1,2,3,6,7,8-Cl6DBF	1.5	"	<1.5	<0.15
2,3,4,6,7,8-Cl6DBF	2.3	"	<2.3	<0.23
1,2,3,7,8,9-Cl6DBF	0.64	"	2.2	0.22
1,2,3,4,7,8-Cl6DBD	0.81	"	<0.81	<0.081
1,2,3,6,7,8-Cl6DBD	1.7	"	<1.7	<0.17
1,2,3,7,8,9-Cl6DBD	0.73	"	2.3	0.23
1,2,3,4,6,7,8-Cl7DBF	3.7	"	<3.7	<0.037
1,2,3,4,7,8,9-Cl7DBF	2.7	"	<2.7	<0.027
1,2,3,4,6,7,8-Cl7DBD	4.4	"	<4.4	<0.044
1,2,3,4,6,7,8,9-Cl8DBF	1.4	"	11	0.011
1,2,3,4,6,7,8,9-Cl8DBD	2.8	"	22	0.022
TEF		pg		1.1
EPA Requested TEQ			<	2.40
MAX TEF		"	<	3.7
Units Ng/m ²				0.24
ΣT4CDF	0.27	pg	11	9
ΣP5CDF	0.4	"	2.7	2
ΣH6CDF	0.59	"	2.2	1
ΣH7CDF	5.9	"	<5.9	0
OCDF	1.4	"	11	1
ΣT4CDD	0.47	"	23	3
ΣP5CDD	1.1	"	3.3	1
ΣH6CDD	0.75	"	2.3	1
ΣH7CDD	0.20	"	<0.20	0
OCDD	2.8	"	22	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			94	
2,3,7,8-T4CDD-13C12			85	
1,2,3,7,8-P5CDF-13C12			79	
1,2,3,7,8-P5CDD-13C12			68	
1,2,3,6,7,8-H6CDF-13C12			95	
1,2,3,6,7,8-H6CDD-13C12			71	
1,2,3,4,6,7,8-H7CDF-13C12			81	
1,2,3,4,6,7,8-H7CDD-13C12			67	
OCDD-13C12			47	

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	R02100400	R02100400	R02100400
Client ID:	19A	19A	19A
Lab No.:	039064 02	039064 02	039064 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units	TEF	# of Isomers
Dioxins and furans				
2,3,7,8-Cl4DBF	0.58	pg	7.5	0.75
2,3,7,8-Cl4DBD	0.49	"	1.5	1.5
1,2,3,7,8-Cl5DBF	0.33	"	1.0	0.051
2,3,4,7,8-Cl5DBF	0.77	"	<0.77	<0.39
1,2,3,7,8-Cl5DBD	0.54	"	<0.54	<0.27
1,2,3,4,7,8-Cl6DBF	0.19	"	1.1	0.11
1,2,3,6,7,8-Cl6DBF	0.18	"	0.58	0.058
2,3,4,6,7,8-Cl6DBF	0.21	"	<0.21	<0.021
1,2,3,7,8,9-Cl6DBF	0.23	"	<0.23	<0.023
1,2,3,4,7,8-Cl6DBD	0.35	"	<0.35	<0.035
1,2,3,6,7,8-Cl6DBD	0.33	"	<0.33	<0.033
1,2,3,7,8,9-Cl6DBD	0.32	"	<0.32	<0.032
1,2,3,4,6,7,8-Cl7DBF	4.3	"	<4.3	<0.043
1,2,3,4,7,8,9-Cl7DBF	3.0	"	<3.0	<0.030
1,2,3,4,6,7,8-Cl7DBD	0.52	"	8.7	0.087
1,2,3,4,6,7,8,9-Cl8DBF	1.7	"	1.9	0.0019
1,2,3,4,6,7,8,9-Cl8DBD	0.64	"	26	0.026
TEF		pg		2.6
EPA Requested TEQ			<	3.05
MAX TEF		"	<	3.5
Units Ng/m ²				0.31
ΣT4CDF	0.58	pg	39	11
ΣP5CDF	0.33	"	7.8	4
ΣH6CDF	0.21	"	4.0	4
ΣH7CDF	2.8	"	<2.8	0
OCDF	1.7	"	1.9	1
ΣT4CDD	0.49	"	30	7
ΣP5CDD	0.54	"	10	4
ΣH6CDD	0.33	"	5.6	3
ΣH7CDD	0.52	"	18	2
OCDD	0.64	"	26	1
Surrogate Recoveries		%		
2,3,7,8-T4CDF-13C12			89	
2,3,7,8-T4CDD-13C12			76	
1,2,3,7,8-P5CDF-13C12			94	
1,2,3,7,8-P5CDD-13C12			93	
1,2,3,6,7,8-H6CDF-13C12			84	
1,2,3,6,7,8-H6CDD-13C12			87	
1,2,3,4,6,7,8-H7CDF-13C12			98	
1,2,3,4,6,7,8-H7CDD-13C12			42	
OCDD-13C12			83	

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**PSC Analytical Services
Certificate of Analysis**

	R02100400	R02100400	R02100400
Client ID:	20A	20A	20A
Lab No.:	039065 02	039065 02	039065 02
Date Sampled:	02/10/09	02/10/09	02/10/09
Matrix:			

Component	RDL	Units		TEF	# of Isomers
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Dioxins and furans

2,3,7,8-Cl4DBF	0.20	pg	0.72	0.072	
2,3,7,8-Cl4DBD	0.37	"	<0.37	<0.37	
1,2,3,7,8-Cl5DBF	0.53	"	<0.53	<0.026	
2,3,4,7,8-Cl5DBF	0.51	"	<0.51	<0.25	
1,2,3,7,8-Cl5DBD	0.33	"	<0.33	<0.16	
1,2,3,4,7,8-Cl6DBF	0.12	"	<0.12	<0.012	
1,2,3,6,7,8-Cl6DBF	0.11	"	<0.11	<0.011	
2,3,4,6,7,8-Cl6DBF	0.13	"	<0.13	<0.013	
1,2,3,7,8,9-Cl6DBF	0.14	"	<0.14	<0.014	
1,2,3,4,7,8-Cl6DBD	0.32	"	<0.32	<0.032	
1,2,3,6,7,8-Cl6DBD	0.30	"	<0.30	<0.030	
1,2,3,7,8,9-Cl6DBD	0.29	"	<0.29	<0.029	
1,2,3,4,6,7,8-Cl7DBF	11	"	<11	<0.11	
1,2,3,4,7,8,9-Cl7DBF	13	"	<13	<0.13	
1,2,3,4,6,7,8-Cl7DBD	0.32	"	<0.32	<0.0032	
1,2,3,4,6,7,8,9-Cl8DBF	0.29	"	8.7	0.0087	
1,2,3,4,6,7,8,9-Cl8DBD	1.7	"	<1.7	<0.0017	

TEF	pg		0.081
EPA Requested TEQ		<	0.69
MAX TEF	"	<	1.3
Units Ng/m²			0.07

ΣT4CDF	0.20	pg	0.72	1
ΣP5CDF	0.53	"	<0.53	0
ΣH6CDF	0.15	"	<0.15	0
ΣH7CDF	12	"	<12	0
OCDF	0.29	"	8.7	1
ΣT4CDD	0.37	"	<0.37	0
ΣP5CDD	0.33	"	<0.33	0
ΣH6CDD	0.30	"	<0.30	0
ΣH7CDD	0.32	"	<0.32	0
OCDD	1.7	"	<1.7	0

Surrogate Recoveries

2,3,7,8-T4CDF-13C12	95
2,3,7,8-T4CDD-13C12	86
1,2,3,7,8-P5CDF-13C12	97
1,2,3,7,8-P5CDD-13C12	93
1,2,3,6,7,8-H6CDF-13C12	89
1,2,3,6,7,8-H6CDD-13C12	90
1,2,3,4,6,7,8-H7CDF-13C12	101
1,2,3,4,6,7,8-H7CDD-13C12	55
OCDD-13C12	83

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