NYC 9/11 Public Portal Document

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

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Method 8290 Blank Analysis Results

Client - ATC

Lab Sample ID	BLANK-1606	Matrix	WIPE
Filename	F20506B_02	Dilution	NA
Total Amount Extracted	1 m2	Extracted	04/30/2002
ICAL Date	05/04/2002	Analyzed	05/06/2002 20:44
CCal Filename(s)	F20506A_13 & F20506B_14	Injected By	MRO

Native Isomers	Conc ng/m2	EMPC ng/m2	LRL ng/m2		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	-----	0.0025	A	2,3,7,8-TCDF-13C	2.00	96
Total TCDF	ND	-----	0.0020		2,3,7,8-TCDD-13C	2.00	89
					1,2,3,7,8-PeCDF-13C	2.00	89
2,3,7,8-TCDD	ND	-----	0.0053	A	2,3,4,7,8-PeCDF-13C	2.00	89
Total TCDD	ND	-----	0.0020		1,2,3,7,8-PeCDD-13C	2.00	85
					1,2,3,4,7,8-HxCDF-13C	2.00	120
1,2,3,7,8-PeCDF	ND	-----	0.0100		1,2,3,6,7,8-HxCDF-13C	2.00	114
2,3,4,7,8-PeCDF	ND	-----	0.0100		2,3,4,6,7,8-HxCDF-13C	2.00	115
Total PeCDF	ND	-----	0.0100		1,2,3,7,8,9-HxCDF-13C	2.00	111
					1,2,3,4,7,8-HxCDD-13C	2.00	117
1,2,3,7,8-PeCDD	ND	-----	0.0100		1,2,3,6,7,8-HxCDD-13C	2.00	116
Total PeCDD	ND	-----	0.0100		1,2,3,4,6,7,8-HpCDF-13C	2.00	113
					1,2,3,4,7,8,9-HpCDF-13C	2.00	126
1,2,3,4,7,8-HxCDF	ND	-----	0.0100		1,2,3,4,6,7,8-HpCDD-13C	2.00	100
1,2,3,6,7,8-HxCDF	ND	-----	0.0100		OCDD-13C	4.00	117 *
2,3,4,6,7,8-HxCDF	ND	-----	0.0100				
1,2,3,7,8,9-HxCDF	ND	-----	0.0100		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	-----	0.0100		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	-----	0.0100		2,3,7,8-TCDD-37Cl4	0.20	95
1,2,3,6,7,8-HxCDD	ND	-----	0.0100				
1,2,3,7,8,9-HxCDD	ND	-----	0.0100				
Total HxCDD	ND	-----	0.0100				
1,2,3,4,6,7,8-HpCDF	ND	-----	0.0100		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	-----	0.0100		Equivalence: 0.00 ng/m2		
Total HpCDF	ND	-----	0.0100		(Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	ND	-----	0.0100				
Total HpCDD	ND	-----	0.0100				
OCDF	ND	-----	0.0200				
OCDD	ND	-----	0.0200				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
LRL = Lower Reporting Limit
J = Concentration detected is below the calibration range
P = Recovery outside of target range
A = Detection Limit based on signal-to-noise measurement

I = Interference
E = PCDE Interference
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....02-1056601

REPORT OF LABORATORY ANALYSIS

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Pace Analytical™

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Method 8290 Analysis Results

Client - ATC

Client's Sample ID	ATC-0416-234M-DX1		
Lab Sample ID	103481313		
Filename	F20506B_07		
Injected By	MRO		
Total Amount Extracted	1 m2	Matrix	WIPE
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/16/2002
ICAL Date	05/04/2002	Received	04/23/2002
CCal Filename(s)	F20506A_13 & F20506B_14	Extracted	04/30/2002
Method Blank ID	BLANK-1606	Analyzed	05/07/2002 00:49

Native Isomers	Conc ng/m2	EMPC ng/m2	LRL ng/m2		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	ND	-----	0.0029	A	2,3,7,8-TCDF-13C	2.00	79	
Total TCDF	0.0085	-----	0.0020	J	2,3,7,8-TCDD-13C	2.00	75	
					1,2,3,7,8-PeCDF-13C	2.00	69	
2,3,7,8-TCDD	ND	-----	0.0026	A	2,3,4,7,8-PeCDF-13C	2.00	68	
Total TCDD	0.0130	-----	0.0020		1,2,3,7,8-PeCDD-13C	2.00	66	
					1,2,3,4,7,8-HxCDF-13C	2.00	106	
1,2,3,7,8-PeCDF	ND	-----	0.0100		1,2,3,6,7,8-HxCDF-13C	2.00	100	
2,3,4,7,8-PeCDF	ND	-----	0.0100		2,3,4,6,7,8-HxCDF-13C	2.00	98	
Total PeCDF	ND	-----	0.0100		1,2,3,7,8,9-HxCDF-13C	2.00	91	
					1,2,3,4,7,8-HxCDD-13C	2.00	100	
1,2,3,7,8-PeCDD	ND	-----	0.0100		1,2,3,6,7,8-HxCDD-13C	2.00	92	
Total PeCDD	ND	-----	0.0100		1,2,3,4,6,7,8-HpCDF-13C	2.00	93	
					1,2,3,4,7,8,9-HpCDF-13C	2.00	90	
1,2,3,4,7,8-HxCDF	ND	-----	0.0100		1,2,3,4,6,7,8-HpCDD-13C	2.00	85	
1,2,3,6,7,8-HxCDF	ND	-----	0.0100		OCDD-13C	4.00	100	*
2,3,4,6,7,8-HxCDF	ND	-----	0.0100					
1,2,3,7,8,9-HxCDF	ND	-----	0.0100		1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	ND	-----	0.0100		1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	ND	-----	0.0100		2,3,7,8-TCDD-37Cl4	0.20	82	
1,2,3,6,7,8-HxCDD	ND	-----	0.0100					
1,2,3,7,8,9-HxCDD	ND	-----	0.0100					
Total HxCDD	ND	-----	0.0100					
1,2,3,4,6,7,8-HpCDF	ND	-----	0.0100		Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	0.0100		Equivalence: 0.00010 ng/m2			
Total HpCDF	ND	-----	0.0100		(Using ITE Factors)			
1,2,3,4,6,7,8-HpCDD	ND	-----	0.0100					
Total HpCDD	0.0100	-----	0.0100	J				
OCDF	ND	-----	0.0200					
OCDD	0.1000	-----	0.0200					

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
ND = Not Detected
NA = Not Applicable
NC = Not Calculated
* = See Discussion

Report No.....02-1056601

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Method 8290 Analysis Results

Client - ATC

Client's Sample ID	ATC-0416-234M-DX2		
Lab Sample ID	103481321		
Filename	F20506B_06		
Injected By	MRO		
Total Amount Extracted	1 m2	Matrix	WIPE
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/16/2002
ICAL Date	05/04/2002	Received	04/23/2002
CCal Filename(s)	F20506A_13 & F20506B_14	Extracted	04/30/2002
Method Blank ID	BLANK-1606	Analyzed	05/07/2002 00:00

Native Isomers	Conc ng/m2	EMPC ng/m2	LRL ng/m2		Internal Standards	ng's Added	Percent Recovery	
2,3,7,8-TCDF	ND	-----	0.0024	A	2,3,7,8-TCDF-13C	2.00	83	
Total TCDF	0.0097	-----	0.0020	J	2,3,7,8-TCDD-13C	2.00	77	
					1,2,3,7,8-PeCDF-13C	2.00	68	
2,3,7,8-TCDD	ND	-----	0.0038	A	2,3,4,7,8-PeCDF-13C	2.00	68	
Total TCDD	0.0077	-----	0.0020	J	1,2,3,7,8-PeCDD-13C	2.00	64	
					1,2,3,4,7,8-HxCDF-13C	2.00	112	
1,2,3,7,8-PeCDF	ND	-----	0.0100		1,2,3,6,7,8-HxCDF-13C	2.00	107	
2,3,4,7,8-PeCDF	ND	-----	0.0100		2,3,4,6,7,8-HxCDF-13C	2.00	105	
Total PeCDF	ND	-----	0.0100		1,2,3,7,8,9-HxCDF-13C	2.00	98	
					1,2,3,4,7,8-HxCDD-13C	2.00	107	
1,2,3,7,8-PeCDD	ND	-----	0.0100		1,2,3,6,7,8-HxCDD-13C	2.00	103	
Total PeCDD	ND	-----	0.0100		1,2,3,4,6,7,8-HpCDF-13C	2.00	100	
					1,2,3,4,7,8,9-HpCDF-13C	2.00	97	
1,2,3,4,7,8-HxCDF	ND	-----	0.0100		1,2,3,4,6,7,8-HpCDD-13C	2.00	90	
1,2,3,6,7,8-HxCDF	ND	-----	0.0100		OCDD-13C	4.00	110	*
2,3,4,6,7,8-HxCDF	ND	-----	0.0100					
1,2,3,7,8,9-HxCDF	ND	-----	0.0100		1,2,3,4-TCDD-13C	2.00	NA	
Total HxCDF	ND	-----	0.0100		1,2,3,7,8,9-HxCDD-13C	2.00	NA	
1,2,3,4,7,8-HxCDD	ND	-----	0.0100		2,3,7,8-TCDD-37Cl4	0.20	83	
1,2,3,6,7,8-HxCDD	ND	-----	0.0100					
1,2,3,7,8,9-HxCDD	ND	-----	0.0100					
Total HxCDD	ND	-----	0.0100					
1,2,3,4,6,7,8-HpCDF	ND	-----	0.0100		Total 2,3,7,8-TCDD			
1,2,3,4,7,8,9-HpCDF	ND	-----	0.0100		Equivalence: 0.000023 ng/m2			
Total HpCDF	ND	-----	0.0100		(Using ITE Factors)			
1,2,3,4,6,7,8-HpCDD	ND	-----	0.0100					
Total HpCDD	ND	-----	0.0100					
OCDF	ND	-----	0.0200					
OCDD	0.0230	-----	0.0200	J				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers)
EMPC = Estimated Maximum Possible Concentration
A = Detection Limit based on signal-to-noise measurement
J = Concentration detected is below the calibration range
B = Less than 10 times higher than method blank level
P = Recovery outside of target range
Nn = Value obtained from additional analysis

LRL = Lower Reporting Limit
I = Interference
E = PCDE Interference
S = Saturated signal
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Method 8290 Laboratory Control Spike Results

Client - ATC

Lab Sample ID	SPIKE-1623		
Filename	U20506A_01	Matrix	WIPE
Total Amount Extracted	1 m2	Dilution	NA
ICAL Date	04/16/2002	Extracted	04/30/2002
CCal Filename(s)	U20505B_16 & U20506A_15	Analyzed	05/06/2002 09:23
Method Blank ID	BLANK-1606	Injected By	CVS

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.21	104	2,3,7,8-TCDF-13C	2.00	64
				2,3,7,8-TCDD-13C	2.00	68
				1,2,3,7,8-PeCDF-13C	2.00	57
2,3,7,8-TCDD	0.20	0.19	96	2,3,4,7,8-PeCDF-13C	2.00	56
				1,2,3,7,8-PeCDD-13C	2.00	61
				1,2,3,4,7,8-HxCDF-13C	2.00	80
1,2,3,7,8-PeCDF	1.00	1.06	106	1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	1.00	1.05	105	2,3,4,6,7,8-HxCDF-13C	2.00	74
				1,2,3,7,8,9-HxCDF-13C	2.00	77
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	1.00	0.96	96	1,2,3,6,7,8-HxCDD-13C	2.00	75
				1,2,3,4,6,7,8-HpCDF-13C	2.00	74
				1,2,3,4,7,8,9-HpCDF-13C	2.00	77
1,2,3,4,7,8-HxCDF	1.00	1.01	101	1,2,3,4,6,7,8-HpCDD-13C	2.00	75
1,2,3,6,7,8-HxCDF	1.00	1.03	103	OCDD-13C	4.00	70
2,3,4,6,7,8-HxCDF	1.00	1.01	101			
1,2,3,7,8,9-HxCDF	1.00	0.98	98	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	0.96	96	2,3,7,8-TCDD-37Cl4	0.20	76
1,2,3,6,7,8-HxCDD	1.00	1.00	100			
1,2,3,7,8,9-HxCDD	1.00	0.99	99			
1,2,3,4,6,7,8-HpCDF	1.00	0.97	97			
1,2,3,4,7,8,9-HpCDF	1.00	0.96	96			
1,2,3,4,6,7,8-HpCDD	1.00	0.99	99			
OCDF	2.00	2.00	100			
OCDD	2.00	2.02	101			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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Method 8290 Laboratory Control Spike Results

Client - ATC

Lab Sample ID	SPIKE-DUP-1405		
Filename	U20506B_01	Matrix	WIPE
Total Amount Extracted	1 m2	Dilution	NA
ICAL Date	04/16/2002	Extracted	04/30/2002
CCal Filename(s)	U20506A_15 & U20506B_15	Analyzed	05/06/2002 21:42
Method Blank ID	BLANK-1606	Injected By	CVS

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.21	104	2,3,7,8-TCDF-13C	2.00	79
				2,3,7,8-TCDD-13C	2.00	83
				1,2,3,7,8-PeCDF-13C	2.00	80
2,3,7,8-TCDD	0.20	0.20	98	2,3,4,7,8-PeCDF-13C	2.00	78
				1,2,3,7,8-PeCDD-13C	2.00	82
				1,2,3,4,7,8-HxCDF-13C	2.00	98
1,2,3,7,8-PeCDF	1.00	1.05	105	1,2,3,6,7,8-HxCDF-13C	2.00	104
2,3,4,7,8-PeCDF	1.00	1.04	104	2,3,4,6,7,8-HxCDF-13C	2.00	98
				1,2,3,7,8,9-HxCDF-13C	2.00	98
				1,2,3,4,7,8-HxCDD-13C	2.00	95
1,2,3,7,8-PeCDD	1.00	0.96	96	1,2,3,6,7,8-HxCDD-13C	2.00	92
				1,2,3,4,6,7,8-HpCDF-13C	2.00	99
				1,2,3,4,7,8,9-HpCDF-13C	2.00	99
1,2,3,4,7,8-HxCDF	1.00	1.01	101	1,2,3,4,6,7,8-HpCDD-13C	2.00	99
1,2,3,6,7,8-HxCDF	1.00	1.07	107	OCDD-13C	4.00	101
2,3,4,6,7,8-HxCDF	1.00	1.01	101			
1,2,3,7,8,9-HxCDF	1.00	0.97	97	1,2,3,4-TCDD-13C	2.00	NA
				1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.00	1.00	100	2,3,7,8-TCDD-37Cl4	0.20	94
1,2,3,6,7,8-HxCDD	1.00	1.02	102			
1,2,3,7,8,9-HxCDD	1.00	1.06	106			
1,2,3,4,6,7,8-HpCDF	1.00	0.96	96			
1,2,3,4,7,8,9-HpCDF	1.00	0.94	94			
1,2,3,4,6,7,8-HpCDD	1.00	0.96	96			
OCDF	2.00	1.94	97			
OCDD	2.00	1.89	95			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
P = Recovery outside of target range
X = Background subtracted value
Nn = Value obtained from additional analysis
NA = Not Applicable
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SPIKE RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

Client..... ATC

SPIKE 1 ID..... SPIKE-1623
SPIKE 1 Filename..... U20506A_01
SPIKE 2 ID..... SPIKE DUP-1405
SPIKE 2 Filename..... U20506B_01

COMPOUND	SPIKE 1 REC,%	SPIKE 2 REC,%	RPD,%
2378-TCDF	104	104	0.0
2378-TCDD	96	98	2.1
12378-PeCDF	106	105	0.9
23478-PeCDF	105	104	1.0
12378-PeCDD	96	96	0.0
123478-HxCDF	101	101	0.0
123678-HxCDF	103	107	3.8
234678-HxCDF	101	101	0.0
123789-HxCDF	98	97	1.0
123478-HxCDD	96	100	4.1
123678-HxCDD	100	102	2.0
123789-HxCDD	99	106	6.8
1234678-HpCDF	97	96	1.0
1234789-HpCDF	96	94	2.1
1234678-HpCDD	99	96	3.1
OCDF	100	97	3.0
OCDD	101	95	6.1

REC = Percent Recovered
RPD = The difference between the two values divided by the average.
NA = Not Applicable

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