Memorandum

To: *Jennifer LaPalma, EPA Region 2*
Elizabeth Franklin, USACE

From: *Frank Tsang and Scott Kirchner*

Date: *June 17, 2014*

Subject: *2013 High Volume Chemical Water Column Split Sample Data Comparison for the Lower Passaic River Study Area*

At the request of the United State Environmental Protection Agency (EPA) and the United States Army Corps of Engineers (USACE), CDM Federal Programs Corporation (CDM Smith) collected oversight split samples as part of the Lower Passaic River (LPR) Restoration Project remedial investigation conducted by the Cooperating Parties Group (CPG). This memorandum presents the comparison of the EPA oversight team's split sample results to the CPG's sample results and discusses the differences in the data pairs. In this document, samples are referred to as either CPG samples or EPA split samples for clarity.

The split sample comparison of the 2013 High Volume Chemical Water Column for the Lower Passaic River consisted of two individual samples with multiple components for a total of six sample pairs (4 polyurethane foam (PUF) absorption cartridges and 2 particulate filter samples) evaluated for dioxins/furans, and polychlorinated biphenyls (PCBs). The PUF sample IDs contain either a BM01 or BM02 in the name, and the particulate (filter) sample IDs contain a BP01 in the name. All data are presented on a pictogram per sample basis (pg).

Oversight Program

Oversight was conducted in accordance with the Final Quality Assurance Project Plan (QAPP), Addendum No. 11, Chemical Water Column Monitoring Study / High Volume Chemical Data Collection for the Lower Passaic River Study Area. Due to sampling equipment limitations the split samples were collected as co-located sample pairs not traditional split samples. A summary of field oversight activities presented in the October 17, *2013 CPG Oversight of Chemical Water Column Monitoring High Volume Events Lower Passaic River Restoration Project* Memorandum.

Data Comparison Methodology

The CPG and EPA split sample data were evaluated for potential differences using the relative percent difference (RPD) calculation. The RPD was calculated for all result pairs where the concentration of the CPG result was greater than five times the associated CPG reporting limit. This is a deviation from the project QAPP which cites the use of five times the CPG quantitation limit as the cut off for evaluating

results pairs. Based on the data presented by the CPG; the reporting limit is the more appropriate value to use since it is the value reported for non-detect results and is often a factor of ten or more less than the associated quantitation limit.

Relative Percent Difference Calculation: The RPD is used to compare the results precision (how close the results are to each other) and is expressed as the absolute difference (ABS) between concentrations for detected data pairs, divided by the average concentration of the result pair concentrations. In the equation below the R represents results. Equation:

$$\%\ RPD = ABS\left(\frac{(R_{CPG} - R_{EPA})}{\left(\frac{(R_{CPG} + R_{EPA})}{2}\right)}\right)(100)$$

Tables 1a and 1b contain the data results presented and reviewed. The calculated RPD is presented for sample result pairs where the concentration exceeds five times the reporting limit. The column labeled "CPG result > 5xRL test (1=yes)" is used to identify those results that are greater than five times the reporting limit (RL) and therefore meet the criteria for the RPD evaluation. A "1" in this column indicates that this criterion has been satisfied. A "0" in this column indicates that the CPG result was not greater than the RL therefore an RPD is not calculated. The RPD results that exceed the project QAPP data quality objective of a 40 percent (%) criterion are highlighted in red.

Summary of Results

Dioxins/Furans

The 2,3,7,8 substituted dioxin/furan compounds were evaluated. There were 12 result pairs that met the five times RL evaluation criteria for the PUF samples, seven (58%) of these exceeded the RPD criteria. There were 32 result pairs that met the evaluation criteria for the particulate filter samples, sixteen (50%) of these exceeded the RPD criteria.

Polychlorinated Biphenyls

All 209 congeners were evaluated. There were 322 result pairs that met the five times RL evaluation criteria for the PUF samples, 15 (4.6%) of these exceeded the RPD criteria. There were 266 result pairs that met the evaluation criteria for the particulate filter samples; 230 (86%) of these exceeded the RPD criteria.

Split Sample Comparison Evaluation and Recommendation

It is not reasonable to draw a conclusion related to bias with such a limited number of split samples coupled with the fact that the samples were collocated and not true split samples. The results of the dioxin/furan split sample PUF comparison are reasonable given the low number of detected results and relatively low compound concentrations. It is expected that contaminants in the dissolved phase would be more evenly distributed within the water column than the particulate phase. The PUF results for the PCBs more clearly illustrate this where there is good agreement between the split sample pairs.

While it is generally expected that particulate split data would be more variable, as seen with the PCB data, the dioxin/furan results of split sample 13C-CE05-T102-BP01 are highly comparable while 12C-CE05-T102-BP01 are highly variable. This disparity in the two particulate split sample pairs for dioxin/furan analysis clearly demonstrates the limitation on assigning any bias to these data.

Overall the results from the split samples are reasonable and there is no clear indication of bias between the data sets. It is recommended that the number of split samples be increased to at least five split samples to provide a more robust data set for statistical evaluation. It is also recommended that the acceptable limit for RPD be increased from 40% to 85% (an RPD of 85% represent a 2.5 times difference between a result pair) for the particulate split sample evaluation. A 2.5 times difference is sample results represents a level of significant difference for the more heterogeneous nature of the particulate matrix.

Attachments

Table 1a – High Volume Chemical Water Column Study Dioxin/Furan Split Sample Comparison
Table 1b – High Volume Chemical Water Column Study PCB Split Sample Comparison

Table 1a
Lower Passaic River
High Volume Chemical Water Column Study
Dioxin/Furan Split Sample Comparison

Sample ID	12I-CE05-T102-BM01			12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.68	1.68	UJ	6.11	J		0
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.768	6.68	J	8.03	J	18.35%	1
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.534	0.534	U	4.4	J		0
1,2,3,4,7,8-Hexachlorodibenzofuran	0.372	0.494	EMPC-J	4.52	J		0
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.639	0.639	UJ	4.27	J		0
1,2,3,6,7,8-Hexachlorodibenzofuran	0.339	0.339	U	4.15	EMPC-J		0
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.619	0.619	U	4.25	J		0
1,2,3,7,8,9-Hexachlorodibenzofuran	0.477	0.477	U	3.66	EMPC-J		0
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.703	0.839	EMPC-J	5.57	J		0
1,2,3,7,8-Pentachlorodibenzofuran	0.425	0.425	U	4.69	J		0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.634	0.634	U	4.44	J		0
2,3,4,6,7,8-Hexachlorodibenzofuran	0.353	0.353	U	4.11	J		0
2,3,4,7,8-Pentachlorodibenzofuran	0.387	0.818	EMPC-J	4.33	J		0
2,3,7,8-Tetrachlorodibenzofuran	0.463	1.31	EMPC-J	8.53			0
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.533	8.69		11		23.46%	1
Octachlorodibenzofuran	4.4	4.4	U	7.08	J		0
Octachlorodibenzo-p-dioxin	1.36	36.2	J	24.6	BJ	38.16%	1

Table 1a
Lower Passaic River
High Volume Chemical Water Column Study
Dioxin/Furan Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	>5xRL test (1=yes)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.09	1.09	UJ	0.923	J		0
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	1.86	1.86	U	3.53	J		0
1,2,3,4,7,8,9-Heptachlorodibenzofuran	0.499	0.499	U	0.673	U		0
1,2,3,4,7,8-Hexachlorodibenzofuran	0.326	0.326	U	0.673	U		0
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	0.49	0.49	UJ	0.673	U		0
1,2,3,6,7,8-Hexachlorodibenzofuran	0.316	0.316	U	0.673	U		0
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	0.483	0.483	U	0.673	U		0
1,2,3,7,8,9-Hexachlorodibenzofuran	0.417	0.417	U	0.673	U		0
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	0.532	0.948	J	1.2	J		0
1,2,3,7,8-Pentachlorodibenzofuran	0.47	0.47	U	0.673	U		0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	0.584	0.584	U	0.673	UG		0
2,3,4,6,7,8-Hexachlorodibenzofuran	0.319	0.319	U	0.673	U		0
2,3,4,7,8-Pentachlorodibenzofuran	0.415	0.415	U	0.673	U		0
2,3,7,8-Tetrachlorodibenzofuran	0.454	0.454	U	6.55			0
2,3,7,8-Tetrachlorodibenzo-p-dioxin	3.76	3.76	J	4.47	EMPC-J		0
Octachlorodibenzofuran	2.01	2.01	U	689	J		0
Octachlorodibenzo-p-dioxin	12.6	12.6	U	18.3	BJ		0

Table 1a
Lower Passaic River
High Volume Chemical Water Column Study
Dioxin/Furan Split Sample Comparison

Sample ID	12I-CE05-T102-BP01			12C-CE05-T102-BP01-C		Split Result Evaluation	
Sample location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	>5xRL test (1=yes)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.08	926	J	1860		67.05%	1
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	2.38	1300		1840		34.39%	1
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.55	49.4		68.2		31.97%	1
1,2,3,4,7,8-Hexachlorodibenzofuran	1.42	212		403		62.11%	1
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	1.55	14	J	26.5		61.73%	1
1,2,3,6,7,8-Hexachlorodibenzofuran	1.33	59.3		104		54.75%	1
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	1.48	47.5		89		60.81%	1
1,2,3,7,8,9-Hexachlorodibenzofuran	1.85	1.85	U	2.89	J		0
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	1.73	30.1		75.3		85.77%	1
1,2,3,7,8-Pentachlorodibenzofuran	1.29	20.9	J	39.6		61.82%	1
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1.21	9.76	J	21		73.08%	1
2,3,4,6,7,8-Hexachlorodibenzofuran	1.45	40.9		51.8		23.52%	1
2,3,4,7,8-Pentachlorodibenzofuran	1.24	62.3		68.4		9.33%	1
2,3,7,8-Tetrachlorodibenzofuran	0.899	49.7		508		164.35%	1
2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.548	499		934		60.71%	1
Octachlorodibenzofuran	7.36	6020		2830		72.09%	1
Octachlorodibenzo-p-dioxin	12	15700		23800	B	41.01%	1

Table 1a
Lower Passaic River
High Volume Chemical Water Column Study
Dioxin/Furan Split Sample Comparison

Sample ID	13C-CE05-T102-BM01			13C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	>5xRL test (1=yes)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	0.869	4.78	J	28.4	B	142.37%	1
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	2.39	24.5	J	2120	B	195.43%	1
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.07	1.07	U	6.08	J		0
1,2,3,4,7,8-Hexachlorodibenzofuran	1.13	3.66	J	17			0
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	1.45	1.45	U	25.3			0
1,2,3,6,7,8-Hexachlorodibenzofuran	1.08	1.31	J	4.58	J		0
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	1.58	1.58	U	199			0
1,2,3,7,8,9-Hexachlorodibenzofuran	1.26	1.26	U	0.676	U		0
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	1.58	1.58	U	186			0
1,2,3,7,8-Pentachlorodibenzofuran	1.11	1.58	EMPC-J	10.7	J		0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1.79	1.79	U	33.8			0
2,3,4,6,7,8-Hexachlorodibenzofuran	1.06	1.82	J	3.24	J		0
2,3,4,7,8-Pentachlorodibenzofuran	1	6.29	J	9.89	J	44.50%	1
2,3,7,8-Tetrachlorodibenzofuran	1.44	14.4		152		165.38%	1
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1.6	134		394		98.48%	1
Octachlorodibenzofuran	2.21	2.21	U	13.2	BJ		0
Octachlorodibenzo-p-dioxin	2.61	343		3560	BJ	164.85%	1

Table 1a
Lower Passaic River
High Volume Chemical Water Column Study
Dioxin/Furan Split Sample Comparison

Sample ID	13C-CE05-T102-BM02			13C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	>5xRL test (1=yes)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	1.1	3.94	J	28.4	B		0
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	1.95	11.3	J	2120	B	197.88%	1
1,2,3,4,7,8,9-Heptachlorodibenzofuran	1.56	1.56	U	1.43	EMPC-J		0
1,2,3,4,7,8-Hexachlorodibenzofuran	1.2	1.67	J	2.16	J		0
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	1.51	1.51	U	0.672	U		0
1,2,3,6,7,8-Hexachlorodibenzofuran	1.12	1.12	U	1.13	EMPC-J		0
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	1.71	1.71	U	1.49	J		0
1,2,3,7,8,9-Hexachlorodibenzofuran	1.38	1.38	U	0.672	U		0
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	1.77	1.77	U	1.82	J		0
1,2,3,7,8-Pentachlorodibenzofuran	1.21	1.21	U	0.855	EMPC-J		0
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	1.55	1.55	U	0.672	U		0
2,3,4,6,7,8-Hexachlorodibenzofuran	1.16	1.19	J	0.987	J		0
2,3,4,7,8-Pentachlorodibenzofuran	1.11	2.82	J	2	J		0
2,3,7,8-Tetrachlorodibenzofuran	1.24	4.39	J	30.5			0
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1.43	50.3		45.8		9.37%	1
Octachlorodibenzofuran	1.77	1.77	U	2.38	BEMPC-J		0
Octachlorodibenzo-p-dioxin	2.1	76.1		114	B	39.87%	1

Table 1a
Lower Passaic River
High Volume Chemical Water Column Study
Dioxin/Furan Split Sample Comparison

Sample ID	13C-CE05-T102-BP01			13C-CE05-T102-BP01-SS-C		Split Result Evaluation	
Sample location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	>5xRL test (1=yes)
1,2,3,4,6,7,8-Heptachlorodibenzofuran	2.63	1110		1860		50.51%	1
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	2.13	1650		1840		10.89%	1
1,2,3,4,7,8,9-Heptachlorodibenzofuran	3.06	53.1		68.2		24.90%	1
1,2,3,4,7,8-Hexachlorodibenzofuran	2.62	237		403		51.88%	1
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	2.85	21.6	J	26.5		20.37%	1
1,2,3,6,7,8-Hexachlorodibenzofuran	2.36	66.7		104		43.70%	1
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	2.71	76.5		89		15.11%	1
1,2,3,7,8,9-Hexachlorodibenzofuran	2.8	2.8	U	2.89	J		0
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	2.85	51.7		75.3		37.17%	1
1,2,3,7,8-Pentachlorodibenzofuran	2.08	28.9		39.6		31.24%	1
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	2.15	18	J	21		15.38%	1
2,3,4,6,7,8-Hexachlorodibenzofuran	2.66	60.6		51.8		15.66%	1
2,3,4,7,8-Pentachlorodibenzofuran	1.84	85.9		68.4		22.68%	1
2,3,7,8-Tetrachlorodibenzofuran	1.49	61		508		157.12%	1
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1.61	1000		934		6.83%	1
Octachlorodibenzofuran	2.74	1920		2830		38.32%	1
Octachlorodibenzo-p-dioxin	2.36	20100		23800	B	16.86%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM01			12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Chlorobiphenyl; 2- (PCB 1)	4.35	834		859.00	BD	2.95%	1
Chlorobiphenyl; 3- (PCB 2)	54.9	54.9	U	76.80	BD		0
Chlorobiphenyl; 4- (PCB 3)	147	147	U	191.00	BD		0
Decachlorobiphenyl (PCB 209)	8.73	15.6		12.00	B		0
Dichlorobiphenyl; 2,2'- (PCB 4)	27.7	7510		8320	B	10.23%	1
Dichlorobiphenyl; 2,3- (PCB 5)	25.1	41.3	J	44.60			0
Dichlorobiphenyl; 2,3'- (PCB 6)	25.2	1080	J	1170.00		8.00%	1
Dichlorobiphenyl; 2,4- (PCB 7)	23.5	106	J	132.00			0
Dichlorobiphenyl; 2,4'- (PCB 8)	24.5	2750	J	2880.00	B	4.62%	1
Dichlorobiphenyl; 2,5- (PCB 9)	26.8	238	J	232.00		2.55%	1
Dichlorobiphenyl; 2,6- (PCB 10)	18	422		395.00		6.61%	1
Dichlorobiphenyl; 3,3'- (PCB 11)	2320	2320	UJ	2990.00	B		0
Dichlorobiphenyl; 3,4- (PCB 12)	25	526	JC12	681.00	C	25.68%	1
Dichlorobiphenyl; 3,4'- (PCB 13)			C12		C12		
Dichlorobiphenyl; 3,5- (PCB 14)	21.2	21.2	U	7.19			0
Dichlorobiphenyl; 4,4'- (PCB 15)	24.4	2840	J	3660.00	B	25.23%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',5- (PCB 170)	174	174	U	121.00	B		0
Heptachlorobiphenyl; 2,2',3,3',4,4',6- (PCB 171)	51.7	51.7	UC171	46.20	C		0
Heptachlorobiphenyl; 2,2',3,3',4,5,5'- (PCB 172)	10.2	32.8		25.30			0
Heptachlorobiphenyl; 2,2',3,3',4,5,6- (PCB 173)			C171		C171		
Heptachlorobiphenyl; 2,2',3,3',4,5,6'- (PCB 174)	232	232	U	197.00			0
Heptachlorobiphenyl; 2,2',3,3',4,5',6- (PCB 175)	9.29	9.29	U	10.90			0
Heptachlorobiphenyl; 2,2',3,3',4',5,6- (PCB 177)	106	106	U	108.00			0
Heptachlorobiphenyl; 2,2',3,3',4,6,6'- (PCB 176)	4.6	27.6		31.70		13.83%	1
Heptachlorobiphenyl; 2,2',3,3',5,5',6- (PCB 178)	6.69	61.5		54.70		11.70%	1
Heptachlorobiphenyl; 2,2',3,3',5,6,6'- (PCB 179)	4.99	120		127.00		5.67%	1
Heptachlorobiphenyl; 2,2',3,4,4',5,5'- (PCB 180)	412	412	UC180	321.00	CB		0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM01			12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Heptachlorobiphenyl; 2,2',3,4,4',5,6- (PCB 181)	8.91	8.91	U	1.69	J		0
Heptachlorobiphenyl; 2,2',3,4,4',5,6'- (PCB 182)	8.48	8.48	U	7.28			0
Heptachlorobiphenyl; 2,2',3,4,4',5',6- (PCB 183)	8.3	142		143.00	C	0.70%	1
Heptachlorobiphenyl; 2,2',3,4,4',6,6'- (PCB 184)	5.14	5.14	U	4.26	J		0
Heptachlorobiphenyl; 2,2',3,4,5,5',6- (PCB 185)	8.99	8.99	U		C183		0
Heptachlorobiphenyl; 2,2',3,4',5,5',6- (PCB 187)	8.78	298		298.00	B	0.00%	1
Heptachlorobiphenyl; 2,2',3,4,5,6,6'- (PCB 186)	4.86	4.86	U	0.68	U		0
Heptachlorobiphenyl; 2,2',3,4',5,6,6'- (PCB 188)	4.58	4.58	U	6.45			0
Heptachlorobiphenyl; 2,3,3',4,4',5,5'- (PCB 189)	4.93	8.21	J	9.69	B		0
Heptachlorobiphenyl; 2,3,3',4,4',5,6- (PCB 190)	7.52	40.5		24.10		50.77%	1
Heptachlorobiphenyl; 2,3,3',4,4',5',6- (PCB 191)	7.46	7.46	U	6.99			0
Heptachlorobiphenyl; 2,3,3',4,5,5',6- (PCB 192)	7.76	7.76	U	0.72	U		0
Heptachlorobiphenyl; 2,3,3',4',5,5',6- (PCB 193)			C180		C180		
Hexachlorobiphenyl; 2,2',3,3',4,4'- (PCB 128)	7.43	198	C128	199.00	C	0.50%	1
Hexachlorobiphenyl; 2,2',3,3',4,5- (PCB 129)	5.94	1640	C129	1650.00	CB	0.61%	1
Hexachlorobiphenyl; 2,2',3,3',4,5'- (PCB 130)	7.13	94.4		101.00		6.76%	1
Hexachlorobiphenyl; 2,2',3,3',4,6- (PCB 131)	6.96	23.6	EMPC-J	29.10			0
Hexachlorobiphenyl; 2,2',3,3',4,6'- (PCB 132)	6.65	616		721.00	B	15.71%	1
Hexachlorobiphenyl; 2,2',3,3',5,5'- (PCB 133)	6.53	6.53	U	33.90			0
Hexachlorobiphenyl; 2,2',3,3',5,6- (PCB 134)	7.64	135		135.00	C	0.00%	1
Hexachlorobiphenyl; 2,2',3,3',5,6'- (PCB 135)	6.16	854	C135	1070.00	CB	22.45%	1
Hexachlorobiphenyl; 2,2',3,3',6,6'- (PCB 136)	4.23	368		414.00		11.76%	1
Hexachlorobiphenyl; 2,2',3,4,4',5- (PCB 137)	5.5	47.6		70.80		39.19%	1
Hexachlorobiphenyl; 2,2',3,4,4',5'- (PCB 138)			C129		C129		
Hexachlorobiphenyl; 2,2',3,4,4',6- (PCB 139)	5.84	36.6	C139	38.30	C	4.54%	1
Hexachlorobiphenyl; 2,2',3,4,4',6'- (PCB 140)			C139		C139		
Hexachlorobiphenyl; 2,2',3,4,5,5'- (PCB 141)	6.62	326		313.00		4.07%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM01			12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 2,2',3,4',5,5'- (PCB 146)	5.8	262		322.00	B	20.55%	1
Hexachlorobiphenyl; 2,2',3,4,5,6- (PCB 142)	6.81	6.81	U	3.22	U		0
Hexachlorobiphenyl; 2,2',3,4,5,6'- (PCB 143)	6.1	6.1	U		C134		0
Hexachlorobiphenyl; 2,2',3,4,5',6- (PCB 144)	5.94	97.7		112.00		13.64%	1
Hexachlorobiphenyl; 2,2',3,4',5,6- (PCB 147)	5.95	1800	C147	2310.00	CB	24.82%	1
Hexachlorobiphenyl; 2,2',3,4',5,6'- (PCB 148)	5.9	5.9	U	12.50			0
Hexachlorobiphenyl; 2,2',3,4',5',6- (PCB 149)			C147		C147		
Hexachlorobiphenyl; 2,2',3,4,6,6'- (PCB 145)	4.13	4.13	U	0.92	U		0
Hexachlorobiphenyl; 2,2',3,4',6,6'- (PCB 150)	3.9	3.9	U	15.90			0
Hexachlorobiphenyl; 2,2',3,5,5',6- (PCB 151)			C135		C135		
Hexachlorobiphenyl; 2,2',3,5,6,6'- (PCB 152)	3.97	3.97	U	13.00			0
Hexachlorobiphenyl; 2,2',4,4',5,5'- (PCB 153)	4.69	1350	C153	1600.00	CB	16.95%	1
Hexachlorobiphenyl; 2,2',4,4',5',6- (PCB 154)	5.34	59.3			C135		1
Hexachlorobiphenyl; 2,2',4,4',6,6'- (PCB 155)	3.96	3.96	U	24.70	B		0
Hexachlorobiphenyl; 2,3,3',4,4',5- (PCB 156)	9.35	131	C156	117.00	CB	11.29%	1
Hexachlorobiphenyl; 2,3,3',4,4',5'- (PCB 157)			C156		C156		
Hexachlorobiphenyl; 2,3,3',4,4',6- (PCB 158)	4.61	147		157.00		6.58%	1
Hexachlorobiphenyl; 2,3,3',4,5,5'- (PCB 159)	6.39	6.39	U	9.12			0
Hexachlorobiphenyl; 2,3,3',4',5,5'- (PCB 162)	6.14	12.8		13.40	EMPC-J		0
Hexachlorobiphenyl; 2,3,3',4,5,6- (PCB 160)	4.98	4.98	U		C129		0
Hexachlorobiphenyl; 2,3,3',4,5',6- (PCB 161)	4.81	4.81	U	2.19	U		0
Hexachlorobiphenyl; 2,3,3',4',5,6- (PCB 163)			C129		C129		
Hexachlorobiphenyl; 2,3,3',4',5',6- (PCB 164)	5.16	130		127.00		2.33%	1
Hexachlorobiphenyl; 2,3,3',5,5',6- (PCB 165)	5.28	5.28	U	2.54	U		0
Hexachlorobiphenyl; 2,3',4,4',5,5'- (PCB 167)	6.59	42.4		45.70		7.49%	1
Hexachlorobiphenyl; 2,3,4,4',5,6- (PCB 166)			C128		C128		
Hexachlorobiphenyl; 2,3',4,4',5',6- (PCB 168)			C153		C153		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM01			12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 3,3',4,4',5,5'- (PCB 169)	8.87	8.87	U	4.55	U		0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6- (PCB 206)	10.1	35.7		21.10			0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,6,6'- (PCB 207)	7.12	7.12	U	3.49	J		0
Nonachlorobiphenyl; 2,2',3,3',4,5,5',6,6'- (PCB 208)	7.18	10.5		13.00			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,5'- (PCB 194)	94.8	94.8	U	31.90			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,6- (PCB 195)	10.6	40.8		13.50			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,6'- (PCB 196)	42.2	42.2	U	23.90			0
Octachlorobiphenyl; 2,2',3,3',4,4',6,6'- (PCB 197)	5.53	5.53	U	9.03	CEMPC-J		0
Octachlorobiphenyl; 2,2',3,3',4,5,5',6- (PCB 198)	81.2	81.2	UC198	56.60	C		0
Octachlorobiphenyl; 2,2',3,3',4,5,5',6'- (PCB 199)			C198		C198		
Octachlorobiphenyl; 2,2',3,3',4,5,6,6'- (PCB 200)	6.63	6.63	U		C197		0
Octachlorobiphenyl; 2,2',3,3',4,5',6,6'- (PCB 201)	5.96	10.4	EMPC-J	9.40			0
Octachlorobiphenyl; 2,2',3,3',5,5',6,6'- (PCB 202)	6.22	17.8		25.00			0
Octachlorobiphenyl; 2,2',3,4,4',5,5',6- (PCB 203)	52	52	U	32.50			0
Octachlorobiphenyl; 2,2',3,4,4',5,6,6'- (PCB 204)	6.35	6.35	U	0.67	U		0
Octachlorobiphenyl; 2,3,3',4,4',5,5',6- (PCB 205)	8.04	8.04	U	6.59			0
Pentachlorobiphenyl; 2,2',3,3',4- (PCB 82)	18.2	531		591.00		10.70%	1
Pentachlorobiphenyl; 2,2',3,3',5- (PCB 83)	17.5	238		3080.00	CB	171.31%	1
Pentachlorobiphenyl; 2,2',3,3',6- (PCB 84)	16.9	1770		2150.00	B	19.39%	1
Pentachlorobiphenyl; 2,2',3,4,4'- (PCB 85)	12.9	12.9	UC85	810.00	CB		0
Pentachlorobiphenyl; 2,2',3,4,5- (PCB 86)	12.9	2890	C86	3600.00	CB	21.88%	1
Pentachlorobiphenyl; 2,2',3,4,5'- (PCB 87)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4',5- (PCB 90)	13.1	4720	C90	5670.00	CB	18.29%	1
Pentachlorobiphenyl; 2,2',3',4,5- (PCB 97)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4,6- (PCB 88)	17	17	U	1170.00	C		0
Pentachlorobiphenyl; 2,2',3,4,6'- (PCB 89)	15.9	93.6		103.00		9.56%	1
Pentachlorobiphenyl; 2,2',3,4',6- (PCB 91)	12.5	803			C88		1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM01			12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,2',3',4,6- (PCB 98)	14.2	14.2	U		C93		0
Pentachlorobiphenyl; 2,2',3,5,5'- (PCB 92)	15.4	968		1180.00		19.74%	1
Pentachlorobiphenyl; 2,2',3,5,6- (PCB 93)	14.3	383	C93	7350.00	CB	180.19%	1
Pentachlorobiphenyl; 2,2',3,5,6'- (PCB 94)	15.6	140		186.00		28.22%	1
Pentachlorobiphenyl; 2,2',3,5',6- (PCB 95)	14.7	5240			C93		1
Pentachlorobiphenyl; 2,2',3,6,6'- (PCB 96)	5.7	143		148.00		3.44%	1
Pentachlorobiphenyl; 2,2',4,4',5- (PCB 99)	14.5	2330			C83		1
Pentachlorobiphenyl; 2,2',4,4',6- (PCB 100)			C93		C93		
Pentachlorobiphenyl; 2,2',4,5,5'- (PCB 101)			C90		C90		
Pentachlorobiphenyl; 2,2',4,5,6'- (PCB 102)	14.5	390			C93		1
Pentachlorobiphenyl; 2,2',4,5',6- (PCB 103)	13.6	187		224.00		18.00%	1
Pentachlorobiphenyl; 2,2',4,6,6'- (PCB 104)	5.37	75.3		81.40		7.79%	1
Pentachlorobiphenyl; 2,3,3',4,4'- (PCB 105)	12.5	914	J	978.00	B	6.77%	1
Pentachlorobiphenyl; 2,3,3',4,5- (PCB 106)	12.6	12.6	U	3.44	U		0
Pentachlorobiphenyl; 2,3,3',4',5- (PCB 107)	12.1	102	C107	106.00	C	3.85%	1
Pentachlorobiphenyl; 2,3,3',4,5'- (PCB 108)			C86		C86		
Pentachlorobiphenyl; 2',3,3',4,5- (PCB 122)	12.2	33.9		36.40			0
Pentachlorobiphenyl; 2,3,3',4,6- (PCB 109)	10.9	181		190.00		4.85%	1
Pentachlorobiphenyl; 2,3,3',4',6- (PCB 110)	12.3	5090		5650.00	CB	10.43%	1
Pentachlorobiphenyl; 2,3,3',5,5'- (PCB 111)	11	11	U	3.29	J		0
Pentachlorobiphenyl; 2,3,3',5,6- (PCB 112)	11.1	11.1	U	6.34			0
Pentachlorobiphenyl; 2,3,3',5',6- (PCB 113)			C90		C90		
Pentachlorobiphenyl; 2,3,4,4',5- (PCB 114)	11.6	54		67.90			0
Pentachlorobiphenyl; 2,3',4,4',5- (PCB 118)	10.8	2200	J	2570.00	B	15.51%	1
Pentachlorobiphenyl; 2',3,4,4',5- (PCB 123)	12.3	42.3		57.30			0
Pentachlorobiphenyl; 2,3,4,4',6- (PCB 115)	11.3	11.3	U		C110		0
Pentachlorobiphenyl; 2,3',4,4',6- (PCB 119)			C86		C86		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID		12I-CE05-T102-BM01		12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location		12I-CE05-T102		13C-CE05-T102			
Unit		pg		pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,3',4,5,5'- (PCB 120)	11	11	U	12.10			0
Pentachlorobiphenyl; 2',3,4,5,5'- (PCB 124)			C107		C107		
Pentachlorobiphenyl; 2,3,4,5,6- (PCB 116)			C85		C85		
Pentachlorobiphenyl; 2,3,4',5,6- (PCB 117)	12	636			C85		1
Pentachlorobiphenyl; 2,3',4,5',6- (PCB 121)	10.7	10.7	U	7.63			0
Pentachlorobiphenyl; 2',3,4,5,6'- (PCB 125)			C86		C86		
Pentachlorobiphenyl; 3,3',4,4',5- (PCB 126)	7.79	7.79	U	10.60			0
Pentachlorobiphenyl; 3,3',4,5,5'- (PCB 127)	12.5	12.5	U	3.55	U		0
Tetrachlorobiphenyl; 2,2',3,3'- (PCB 40)	6.55	5970	C40	8380.00	CB	33.59%	1
Tetrachlorobiphenyl; 2,2',3,4- (PCB 41)	7.5	612			C40		1
Tetrachlorobiphenyl; 2,2',3,4'- (PCB 42)	7.02	3210		3960.00	B	20.92%	1
Tetrachlorobiphenyl; 2,2',3,5- (PCB 43)	8.08	508		606.00		17.59%	1
Tetrachlorobiphenyl; 2,2',3,5'- (PCB 44)	6.14	15100	C44	18700.00	CB	21.30%	1
Tetrachlorobiphenyl; 2,2',3,6- (PCB 45)	7.9	2410		7830.00	CB	105.86%	1
Tetrachlorobiphenyl; 2,2',3,6'- (PCB 46)	7.77	1190		1460.00		20.38%	1
Tetrachlorobiphenyl; 2,2',4,4'- (PCB 47)			C44		C44		
Tetrachlorobiphenyl; 2,2',4,5- (PCB 48)	6.47	2140		2710.00	B	23.51%	1
Tetrachlorobiphenyl; 2,2',4,5'- (PCB 49)	5.41	8720	C49	11200.00	CB	24.90%	1
Tetrachlorobiphenyl; 2,2',4,6- (PCB 50)	6.36	4280	C50	5170.00	CB	18.84%	1
Tetrachlorobiphenyl; 2,2',4,6'- (PCB 51)	5.88	3810			C45		1
Tetrachlorobiphenyl; 2,2',5,5'- (PCB 52)	6.63	16400		18500.00	B	12.03%	1
Tetrachlorobiphenyl; 2,2',5,6'- (PCB 53)			C50		C50		
Tetrachlorobiphenyl; 2,2',6,6'- (PCB 54)	4.89	761		778.00	B	2.21%	1
Tetrachlorobiphenyl; 2,3,3',4- (PCB 55)	7.64	7.64	U	100.00			0
Tetrachlorobiphenyl; 2,3,3',4'- (PCB 56)	7.85	2710		3290.00	B	19.33%	1
Tetrachlorobiphenyl; 2,3,3',5- (PCB 57)	7.27	37.3		46.30		21.53%	1
Tetrachlorobiphenyl; 2,3,3',5'- (PCB 58)	7.25	25.7		32.70			0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM01			12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Tetrachlorobiphenyl; 2,3,3',6- (PCB 59)	4.82	1120	C59	1480.00	C	27.69%	1
Tetrachlorobiphenyl; 2,3,4,4'- (PCB 60)	7.73	932		1110.00	B	17.43%	1
Tetrachlorobiphenyl; 2,3',4,4'- (PCB 66)	7.77	5640		6140.00	B	8.49%	1
Tetrachlorobiphenyl; 2,3,4,5- (PCB 61)	7.25	10300	C61	12500.00	CB	19.30%	1
Tetrachlorobiphenyl; 2,3,4',5- (PCB 63)	6.8	262		316.00		18.69%	1
Tetrachlorobiphenyl; 2,3',4,5- (PCB 67)	7.15	251		284.00		12.34%	1
Tetrachlorobiphenyl; 2,3',4,5'- (PCB 68)	6.49	78.6		110.00	B	33.30%	1
Tetrachlorobiphenyl; 2,3',4',5- (PCB 70)			C61		C61		
Tetrachlorobiphenyl; 2',3,4,5- (PCB 76)			C61		C61		
Tetrachlorobiphenyl; 2,3,4,6- (PCB 62)			C59		C59		
Tetrachlorobiphenyl; 2,3,4',6- (PCB 64)	4.59	4280		5730.00	B	28.97%	1
Tetrachlorobiphenyl; 2,3',4,6- (PCB 69)			C49		C49		
Tetrachlorobiphenyl; 2,3',4',6- (PCB 71)			C40		C40		
Tetrachlorobiphenyl; 2,3',5,5'- (PCB 72)	7.08	101		113.00		11.21%	1
Tetrachlorobiphenyl; 2,3,5,6- (PCB 65)			C44		C44		
Tetrachlorobiphenyl; 2,3',5',6- (PCB 73)	4.86	119		118.00		0.84%	1
Tetrachlorobiphenyl; 2,4,4',5- (PCB 74)			C61		C61		
Tetrachlorobiphenyl; 2,4,4',6- (PCB 75)			C59		C59		
Tetrachlorobiphenyl; 3,3',4,4'- (PCB 77)	8.64	343	J	387.00	B	12.05%	1
Tetrachlorobiphenyl; 3,3',4,5- (PCB 78)	8.19	8.19	U	4.12	U		0
Tetrachlorobiphenyl; 3,3',4,5'- (PCB 79)	6.98	48.3		64.40		28.57%	1
Tetrachlorobiphenyl; 3,3',5,5'- (PCB 80)	6.71	6.71	U	3.88	U		0
Tetrachlorobiphenyl; 3,4,4',5- (PCB 81)	8.2	8.2	U	15.90	B		0
Trichlorobiphenyl; 2,2',3- (PCB 16)	8.89	5560		6020.00	B	7.94%	1
Trichlorobiphenyl; 2,2',4- (PCB 17)	6.73	6870		7390.00	B	7.29%	1
Trichlorobiphenyl; 2,2',5- (PCB 18)	5.87	13900	C18	14900.00	CB	6.94%	1
Trichlorobiphenyl; 2,2',6- (PCB 19)	7.88	3280		3470.00	B	5.63%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM01			12C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Trichlorobiphenyl; 2,3,3'- (PCB 20)	9.83	14900	C20	16400.00	CB	9.58%	1
Trichlorobiphenyl; 2,3,4- (PCB 21)	9.65	3690	C21	4280.00	CB	14.81%	1
Trichlorobiphenyl; 2,3,4'- (PCB 22)	10.5	4230		4910.00	B	14.88%	1
Trichlorobiphenyl; 2,3',4- (PCB 25)	9.71	2100		2110.00	B	0.48%	1
Trichlorobiphenyl; 2',3,4- (PCB 33)			C21		C21		
Trichlorobiphenyl; 2,3,5- (PCB 23)	9.73	9.73	U	20.30	B		0
Trichlorobiphenyl; 2,3',5- (PCB 26)	9.61	3000	C26	3450.00	CB	13.95%	1
Trichlorobiphenyl; 2',3,5- (PCB 34)	9.81	104		122.00	B	15.93%	1
Trichlorobiphenyl; 2,3,6- (PCB 24)	5.35	210		221.00		5.10%	1
Trichlorobiphenyl; 2,3',6- (PCB 27)	5.12	1760		1800.00		2.25%	1
Trichlorobiphenyl; 2,4,4'- (PCB 28)			C20		C20		
Trichlorobiphenyl; 2,4,5- (PCB 29)			C26		C26		
Trichlorobiphenyl; 2,4',5- (PCB 31)	9.43	11800		13200.00	B	11.20%	1
Trichlorobiphenyl; 2,4,6- (PCB 30)			C18		C18		
Trichlorobiphenyl; 2,4',6- (PCB 32)	4.92	6100		6100.00	B	0.00%	1
Trichlorobiphenyl; 3,3',4- (PCB 35)	10.9	193		219.00		12.62%	1
Trichlorobiphenyl; 3,3',5- (PCB 36)	9.75	9.75	U	16.60			0
Trichlorobiphenyl; 3,4,4'- (PCB 37)	12.5	2280		2320.00	B	1.74%	1
Trichlorobiphenyl; 3,4,5- (PCB 38)	10.5	10.5	U	20.00			0
Trichlorobiphenyl; 3,4',5- (PCB 39)	9.45	9.45	U	105.00			0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Chlorobiphenyl; 2- (PCB 1)	351	351	U	370.00	B		0
Chlorobiphenyl; 3- (PCB 2)	33.7	33.7	U	40.90	B		0
Chlorobiphenyl; 4- (PCB 3)	66.2	66.2	U	85.30	B		0
Decachlorobiphenyl (PCB 209)	11.1	11.1	U	5.31	BJ		0
Dichlorobiphenyl; 2,2'- (PCB 4)	33.2	2590		2850.00	B	9.56%	1
Dichlorobiphenyl; 2,3- (PCB 5)	34.9	34.9	U	16.40			0
Dichlorobiphenyl; 2,3'- (PCB 6)	387	387	U	394.00			0
Dichlorobiphenyl; 2,4- (PCB 7)	32.7	45.1		50.10			0
Dichlorobiphenyl; 2,4'- (PCB 8)	979	979	U	947.00	B		0
Dichlorobiphenyl; 2,5- (PCB 9)	68.7	68.7	U	81.40			0
Dichlorobiphenyl; 2,6- (PCB 10)	21.6	153		134.00		13.24%	1
Dichlorobiphenyl; 3,3'- (PCB 11)	1060	1060	U	1160.00	B		0
Dichlorobiphenyl; 3,4- (PCB 12)	34.7	172	EMPC-JC12	231.00	C		0
Dichlorobiphenyl; 3,4'- (PCB 13)			C12		C12		
Dichlorobiphenyl; 3,5- (PCB 14)	29.5	29.5	U	3.29	J		0
Dichlorobiphenyl; 4,4'- (PCB 15)	33.8	920		1140.00	B	21.36%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',5- (PCB 170)	105	105	U	77.10	B		0
Heptachlorobiphenyl; 2,2',3,3',4,4',6- (PCB 171)	32.4	32.4	UC171	21.90	CEMPC-J		0
Heptachlorobiphenyl; 2,2',3,3',4,5,5'- (PCB 172)	10.2	18.3		17.50			0
Heptachlorobiphenyl; 2,2',3,3',4,5,6- (PCB 173)			C171		C171		
Heptachlorobiphenyl; 2,2',3,3',4,5,6'- (PCB 174)	148	148	U	84.10			0
Heptachlorobiphenyl; 2,2',3,3',4,5',6- (PCB 175)	9.31	9.31	U	5.39			0
Heptachlorobiphenyl; 2,2',3,3',4',5,6- (PCB 177)	64.2	64.2	U	48.00			0
Heptachlorobiphenyl; 2,2',3,3',4,6,6'- (PCB 176)	5.02	15.3	EMPC-J	18.20			0
Heptachlorobiphenyl; 2,2',3,3',5,5',6- (PCB 178)	7.3	30.1		30.60			0
Heptachlorobiphenyl; 2,2',3,3',5,6,6'- (PCB 179)	74	74	U	69.60			0
Heptachlorobiphenyl; 2,2',3,4,4',5,5'- (PCB 180)	250	250	UC180	203.00	CB		0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Heptachlorobiphenyl; 2,2',3,4,4',5,6- (PCB 181)	8.93	8.93	U	0.82	U		0
Heptachlorobiphenyl; 2,2',3,4,4',5,6'- (PCB 182)	8.5	8.5	U	0.84	J		0
Heptachlorobiphenyl; 2,2',3,4,4',5',6- (PCB 183)	80.7	80.7	U	67.00	C		0
Heptachlorobiphenyl; 2,2',3,4,4',6,6'- (PCB 184)	5.61	5.61	U	1.63	EMPC-J		0
Heptachlorobiphenyl; 2,2',3,4,5,5',6- (PCB 185)	9.02	9.02	U		C183		0
Heptachlorobiphenyl; 2,2',3,4',5,5',6- (PCB 187)	174	174	U	144.00	B		0
Heptachlorobiphenyl; 2,2',3,4,5,6,6'- (PCB 186)	5.31	5.31	U	0.67	U		0
Heptachlorobiphenyl; 2,2',3,4',5,6,6'- (PCB 188)	5	5	U	0.91	EMPC-J		0
Heptachlorobiphenyl; 2,3,3',4,4',5,5'- (PCB 189)	6.13	6.13	U	2.77	BJ		0
Heptachlorobiphenyl; 2,3,3',4,4',5,6- (PCB 190)	8.23	25.1		17.60			0
Heptachlorobiphenyl; 2,3,3',4,4',5',6- (PCB 191)	7.48	7.48	U	4.20	J		0
Heptachlorobiphenyl; 2,3,3',4,5,5',6- (PCB 192)	7.78	7.78	U	0.70	U		0
Heptachlorobiphenyl; 2,3,3',4',5,5',6- (PCB 193)			C180		C180		
Hexachlorobiphenyl; 2,2',3,3',4,4'- (PCB 128)	8.37	97.4	C128	106.00	C	8.46%	1
Hexachlorobiphenyl; 2,2',3,3',4,5- (PCB 129)	7.33	865	C129	953.00	CB	9.68%	1
Hexachlorobiphenyl; 2,2',3,3',4,5'- (PCB 130)	8.81	48.6		64.40		27.96%	1
Hexachlorobiphenyl; 2,2',3,3',4,6- (PCB 131)	8.6	8.6	U	16.00			0
Hexachlorobiphenyl; 2,2',3,3',4,6'- (PCB 132)	8.21	299		382.00	B	24.38%	1
Hexachlorobiphenyl; 2,2',3,3',5,5'- (PCB 133)	8.07	8.07	U	19.90			0
Hexachlorobiphenyl; 2,2',3,3',5,6- (PCB 134)	9.44	60.1		77.20	C	24.91%	1
Hexachlorobiphenyl; 2,2',3,3',5,6'- (PCB 135)	7.61	379	C135	564.00	CB	39.24%	1
Hexachlorobiphenyl; 2,2',3,3',6,6'- (PCB 136)	6.1	166		202.00		19.57%	1
Hexachlorobiphenyl; 2,2',3,4,4',5- (PCB 137)	6.79	6.79	U	38.30			0
Hexachlorobiphenyl; 2,2',3,4,4',5'- (PCB 138)			C129		C129		
Hexachlorobiphenyl; 2,2',3,4,4',6- (PCB 139)	7.22	20	C139	20.50	C		0
Hexachlorobiphenyl; 2,2',3,4,4',6'- (PCB 140)			C139		C139		
Hexachlorobiphenyl; 2,2',3,4,5,5'- (PCB 141)	8.18	165		175.00		5.88%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 2,2',3,4',5,5'- (PCB 146)	7.17	117		173.00	B	38.62%	1
Hexachlorobiphenyl; 2,2',3,4,5,6- (PCB 142)	8.41	8.41	U	2.29	U		0
Hexachlorobiphenyl; 2,2',3,4,5,6'- (PCB 143)	7.54	7.54	U		C134		0
Hexachlorobiphenyl; 2,2',3,4,5',6- (PCB 144)	7.34	44.8		62.60		33.15%	1
Hexachlorobiphenyl; 2,2',3,4',5,6- (PCB 147)	7.36	861	C147	1140.00	CB	27.89%	1
Hexachlorobiphenyl; 2,2',3,4',5,6'- (PCB 148)	7.29	7.29	U	5.16	J		0
Hexachlorobiphenyl; 2,2',3,4',5',6- (PCB 149)			C147		C147		
Hexachlorobiphenyl; 2,2',3,4,6,6'- (PCB 145)	5.96	5.96	U	0.67	U		0
Hexachlorobiphenyl; 2,2',3,4',6,6'- (PCB 150)	5.63	5.63	U	7.32			0
Hexachlorobiphenyl; 2,2',3,5,5',6- (PCB 151)			C135		C135		
Hexachlorobiphenyl; 2,2',3,5,6,6'- (PCB 152)	5.73	5.73	U	6.10			0
Hexachlorobiphenyl; 2,2',4,4',5,5'- (PCB 153)	5.79	691	C153	885.00	CB	24.62%	1
Hexachlorobiphenyl; 2,2',4,4',5',6- (PCB 154)	6.6	6.6	U		C135		0
Hexachlorobiphenyl; 2,2',4,4',6,6'- (PCB 155)	5.72	11.2		8.93	B		0
Hexachlorobiphenyl; 2,3,3',4,4',5- (PCB 156)	10.8	75.1	C156	62.70	CB	18.00%	1
Hexachlorobiphenyl; 2,3,3',4,4',5'- (PCB 157)			C156		C156		
Hexachlorobiphenyl; 2,3,3',4,4',6- (PCB 158)	5.7	77.8		88.90		13.32%	1
Hexachlorobiphenyl; 2,3,3',4,5,5'- (PCB 159)	7.2	7.2	U	2.87	J		0
Hexachlorobiphenyl; 2,3,3',4',5,5'- (PCB 162)	6.91	6.91	U	9.05	EMPC-J		0
Hexachlorobiphenyl; 2,3,3',4,5,6- (PCB 160)	6.16	6.16	U		C129		0
Hexachlorobiphenyl; 2,3,3',4,5',6- (PCB 161)	5.94	5.94	U	1.56	U		0
Hexachlorobiphenyl; 2,3,3',4',5,6- (PCB 163)			C129		C129		
Hexachlorobiphenyl; 2,3,3',4',5',6- (PCB 164)	6.38	86.4		74.00		15.46%	1
Hexachlorobiphenyl; 2,3,3',5,5',6- (PCB 165)	6.52	6.52	U	1.80	U		0
Hexachlorobiphenyl; 2,3',4,4',5,5'- (PCB 167)	7.42	23.7	EMPC-J	20.70			0
Hexachlorobiphenyl; 2,3,4,4',5,6- (PCB 166)			C128		C128		
Hexachlorobiphenyl; 2,3',4,4',5',6- (PCB 168)			C153		C153		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 3,3',4,4',5,5'- (PCB 169)	9.4	9.4	U	1.24	U		0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6- (PCB 206)	13.9	13.9	U	10.60			0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,6,6'- (PCB 207)	8.79	8.79	U	2.49	EMPC-J		0
Nonachlorobiphenyl; 2,2',3,3',4,5,5',6,6'- (PCB 208)	8.86	8.86	U	5.68			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,5'- (PCB 194)	50.8	50.8	U	27.80			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,6- (PCB 195)	12.2	23.8		11.70			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,6'- (PCB 196)	18.9	18.9	U	19.40			0
Octachlorobiphenyl; 2,2',3,3',4,4',6,6'- (PCB 197)	5.98	5.98	U	7.38	C		0
Octachlorobiphenyl; 2,2',3,3',4,5,5',6- (PCB 198)	51.7	51.7	UC198	49.80	C		0
Octachlorobiphenyl; 2,2',3,3',4,5,5',6'- (PCB 199)			C198		C198		
Octachlorobiphenyl; 2,2',3,3',4,5,6,6'- (PCB 200)	7.17	7.17	U		C197		0
Octachlorobiphenyl; 2,2',3,3',4,5',6,6'- (PCB 201)	6.45	6.45	U	6.62	EMPC-J		0
Octachlorobiphenyl; 2,2',3,3',5,5',6,6'- (PCB 202)	6.73	14.6		10.70			0
Octachlorobiphenyl; 2,2',3,4,4',5,5',6- (PCB 203)	34.3	34.3	U	27.50			0
Octachlorobiphenyl; 2,2',3,4,4',5,6,6'- (PCB 204)	6.87	6.87	U	0.67	U		0
Octachlorobiphenyl; 2,3,3',4,4',5,5',6- (PCB 205)	9.25	9.25	U	1.88	J		0
Pentachlorobiphenyl; 2,2',3,3',4- (PCB 82)	19.8	220		240.00	BJ	8.70%	1
Pentachlorobiphenyl; 2,2',3,3',5- (PCB 83)	19.1	108		1280.00	CB	168.88%	1
Pentachlorobiphenyl; 2,2',3,3',6- (PCB 84)	18.4	661		788.00	B	17.53%	1
Pentachlorobiphenyl; 2,2',3,4,4'- (PCB 85)	14	300	C85	340.00	CB	12.50%	1
Pentachlorobiphenyl; 2,2',3,4,5- (PCB 86)	14.1	1180	C86	1420.00	CB	18.46%	1
Pentachlorobiphenyl; 2,2',3,4,5'- (PCB 87)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4',5- (PCB 90)	14.3	1920	C90	2230.00	CB	14.94%	1
Pentachlorobiphenyl; 2,2',3',4,5- (PCB 97)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4,6- (PCB 88)	18.5	18.5	U	457.00	C		0
Pentachlorobiphenyl; 2,2',3,4,6'- (PCB 89)	17.3	32.9		39.80			0
Pentachlorobiphenyl; 2,2',3,4',6- (PCB 91)	13.6	305			C88		1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,2',3',4,6- (PCB 98)	15.5	15.5	U		C93		0
Pentachlorobiphenyl; 2,2',3,5,5'- (PCB 92)	16.8	403		458.00		12.78%	1
Pentachlorobiphenyl; 2,2',3,5,6- (PCB 93)	15.6	148	C93	2760.00	CB	179.64%	1
Pentachlorobiphenyl; 2,2',3,5,6'- (PCB 94)	16.9	55.4		67.20			0
Pentachlorobiphenyl; 2,2',3,5',6- (PCB 95)	16	1940			C93		1
Pentachlorobiphenyl; 2,2',3,6,6'- (PCB 96)	5.7	54.3		50.20		7.85%	1
Pentachlorobiphenyl; 2,2',4,4',5- (PCB 99)	15.8	948			C83		1
Pentachlorobiphenyl; 2,2',4,4',6- (PCB 100)			C93		C93		
Pentachlorobiphenyl; 2,2',4,5,5'- (PCB 101)			C90		C90		
Pentachlorobiphenyl; 2,2',4,5,6'- (PCB 102)	15.8	164			C93		1
Pentachlorobiphenyl; 2,2',4,5',6- (PCB 103)	14.8	71.6		81.20			0
Pentachlorobiphenyl; 2,2',4,6,6'- (PCB 104)	5.37	30.8		28.20		8.81%	1
Pentachlorobiphenyl; 2,3,3',4,4'- (PCB 105)	13	402		454.00	B	12.15%	1
Pentachlorobiphenyl; 2,3,3',4,5- (PCB 106)	13.7	13.7	U	2.13	U		0
Pentachlorobiphenyl; 2,3,3',4',5- (PCB 107)	13.2	49.2	C107	47.30	C		0
Pentachlorobiphenyl; 2,3,3',4,5'- (PCB 108)			C86		C86		
Pentachlorobiphenyl; 2',3,3',4,5- (PCB 122)	14.4	14.4	U	16.10			0
Pentachlorobiphenyl; 2,3,3',4,6- (PCB 109)	11.9	85.2		86.00		0.93%	1
Pentachlorobiphenyl; 2,3,3',4',6- (PCB 110)	13.4	2080		2300.00	CB	10.05%	1
Pentachlorobiphenyl; 2,3,3',5,5'- (PCB 111)	11.9	11.9	U	1.77	EMPC-J		0
Pentachlorobiphenyl; 2,3,3',5,6- (PCB 112)	12.1	12.1	U	3.87	J		0
Pentachlorobiphenyl; 2,3,3',5',6- (PCB 113)			C90		C90		
Pentachlorobiphenyl; 2,3,4,4',5- (PCB 114)	13.7	13.7	U	28.60			0
Pentachlorobiphenyl; 2,3',4,4',5- (PCB 118)	11	948		1140.00	B	18.39%	1
Pentachlorobiphenyl; 2',3,4,4',5- (PCB 123)	13.4	21.1		16.10			0
Pentachlorobiphenyl; 2,3,4,4',6- (PCB 115)	12.3	12.3	U		C110		0
Pentachlorobiphenyl; 2,3',4,4',6- (PCB 119)			C86		C86		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,3',4,5,5'- (PCB 120)	11.9	11.9	U	4.73	J		0
Pentachlorobiphenyl; 2',3,4,5,5'- (PCB 124)			C107		C107		
Pentachlorobiphenyl; 2,3,4,5,6- (PCB 116)			C85		C85		
Pentachlorobiphenyl; 2,3,4',5,6- (PCB 117)	13.1	13.1	U		C85		0
Pentachlorobiphenyl; 2,3',4,5',6- (PCB 121)	11.7	11.7	U	3.18	J		0
Pentachlorobiphenyl; 2',3,4,5,6'- (PCB 125)			C86		C86		
Pentachlorobiphenyl; 3,3',4,4',5- (PCB 126)	8.77	8.77	U	2.83	U		0
Pentachlorobiphenyl; 3,3',4,5,5'- (PCB 127)	12.9	12.9	U	2.20	U		0
Tetrachlorobiphenyl; 2,2',3,3'- (PCB 40)	9.41	2130	C40	2860.00	CB	29.26%	1
Tetrachlorobiphenyl; 2,2',3,4- (PCB 41)	10.8	186			C40		1
Tetrachlorobiphenyl; 2,2',3,4'- (PCB 42)	10.1	1130		1350.00	B	17.74%	1
Tetrachlorobiphenyl; 2,2',3,5- (PCB 43)	11.6	11.6	U	204.00			0
Tetrachlorobiphenyl; 2,2',3,5'- (PCB 44)	8.83	5370	C44	6280.00	CB	15.62%	1
Tetrachlorobiphenyl; 2,2',3,6- (PCB 45)	11.4	886		2520.00	CB	95.95%	1
Tetrachlorobiphenyl; 2,2',3,6'- (PCB 46)	11.2	392		475.00		19.15%	1
Tetrachlorobiphenyl; 2,2',4,4'- (PCB 47)			C44		C44		
Tetrachlorobiphenyl; 2,2',4,5- (PCB 48)	9.3	763		915.00	B	18.12%	1
Tetrachlorobiphenyl; 2,2',4,5'- (PCB 49)	7.78	3120	C49	3770.00	CB	18.87%	1
Tetrachlorobiphenyl; 2,2',4,6- (PCB 50)	9.15	1440	C50	1650.00	CB	13.59%	1
Tetrachlorobiphenyl; 2,2',4,6'- (PCB 51)	8.45	1260			C45		1
Tetrachlorobiphenyl; 2,2',5,5'- (PCB 52)	9.53	5790		6100.00	B	5.21%	1
Tetrachlorobiphenyl; 2,2',5,6'- (PCB 53)			C50		C50		
Tetrachlorobiphenyl; 2,2',6,6'- (PCB 54)	4.51	250		247.00	B	1.21%	1
Tetrachlorobiphenyl; 2,3,3',4- (PCB 55)	8.77	8.77	U	32.40			0
Tetrachlorobiphenyl; 2,3,3',4'- (PCB 56)	9.02	1040		1210.00	B	15.11%	1
Tetrachlorobiphenyl; 2,3,3',5- (PCB 57)	8.35	8.35	U	18.90			0
Tetrachlorobiphenyl; 2,3,3',5'- (PCB 58)	8.32	8.32	U	12.30			0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Tetrachlorobiphenyl; 2,3,3',6- (PCB 59)	6.92	415	C59	493.00	C	17.18%	1
Tetrachlorobiphenyl; 2,3,4,4'- (PCB 60)	8.87	349		403.00	B	14.36%	1
Tetrachlorobiphenyl; 2,3',4,4'- (PCB 66)	8.92	2120		2260.00	B	6.39%	1
Tetrachlorobiphenyl; 2,3,4,5- (PCB 61)	8.32	3850	C61	4710.00	CB	20.09%	1
Tetrachlorobiphenyl; 2,3,4',5- (PCB 63)	7.81	99.4		119.00		17.95%	1
Tetrachlorobiphenyl; 2,3',4,5- (PCB 67)	8.21	82.5	EMPC-J	104.00		23.06%	1
Tetrachlorobiphenyl; 2,3',4,5'- (PCB 68)	7.46	7.46	U	45.70	B		0
Tetrachlorobiphenyl; 2,3',4',5- (PCB 70)			C61		C61		
Tetrachlorobiphenyl; 2',3,4,5- (PCB 76)			C61		C61		
Tetrachlorobiphenyl; 2,3,4,6- (PCB 62)			C59		C59		
Tetrachlorobiphenyl; 2,3,4',6- (PCB 64)	6.6	1500		1940.00	B	25.58%	1
Tetrachlorobiphenyl; 2,3',4,6- (PCB 69)			C49		C49		
Tetrachlorobiphenyl; 2,3',4',6- (PCB 71)			C40		C40		
Tetrachlorobiphenyl; 2,3',5,5'- (PCB 72)	8.13	8.13	U	39.60			0
Tetrachlorobiphenyl; 2,3,5,6- (PCB 65)			C44		C44		
Tetrachlorobiphenyl; 2,3',5',6- (PCB 73)	6.99	6.99	U	39.10			0
Tetrachlorobiphenyl; 2,4,4',5- (PCB 74)			C61		C61		
Tetrachlorobiphenyl; 2,4,4',6- (PCB 75)			C59		C59		
Tetrachlorobiphenyl; 3,3',4,4'- (PCB 77)	9.57	124		147.00	B	16.97%	1
Tetrachlorobiphenyl; 3,3',4,5- (PCB 78)	9.4	9.4	U	3.28	U		0
Tetrachlorobiphenyl; 3,3',4,5'- (PCB 79)	8.01	8.01	U	24.10			0
Tetrachlorobiphenyl; 3,3',5,5'- (PCB 80)	7.71	7.71	U	3.10	U		0
Tetrachlorobiphenyl; 3,4,4',5- (PCB 81)	9.41	9.41	U	4.98	BJ		0
Trichlorobiphenyl; 2,2',3- (PCB 16)	12.9	1770		1950.00	B	9.68%	1
Trichlorobiphenyl; 2,2',4- (PCB 17)	9.75	2190		2390.00	B	8.73%	1
Trichlorobiphenyl; 2,2',5- (PCB 18)	8.5	4410	C18	4280.00	CB	2.99%	1
Trichlorobiphenyl; 2,2',6- (PCB 19)	11.4	996		1150.00	B	14.35%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BM02			12C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Trichlorobiphenyl; 2,3,3'- (PCB 20)	8.75	4960	C20	5490.00	CB	10.14%	1
Trichlorobiphenyl; 2,3,4- (PCB 21)	8.58	1230	C21	1460.00	CB	17.10%	1
Trichlorobiphenyl; 2,3,4'- (PCB 22)	9.38	1400		1600.00	B	13.33%	1
Trichlorobiphenyl; 2,3',4- (PCB 25)	8.63	712		722.00	B	1.39%	1
Trichlorobiphenyl; 2',3,4- (PCB 33)			C21		C21		
Trichlorobiphenyl; 2,3,5- (PCB 23)	8.65	8.65	U	5.39	BJ		0
Trichlorobiphenyl; 2,3',5- (PCB 26)	8.55	1010	C26	1140.00	CB	12.09%	1
Trichlorobiphenyl; 2',3,5- (PCB 34)	8.72	32.8		39.80	B		0
Trichlorobiphenyl; 2,3,6- (PCB 24)	7.74	59.2		65.90		10.71%	1
Trichlorobiphenyl; 2,3',6- (PCB 27)	7.41	574		587.00		2.24%	1
Trichlorobiphenyl; 2,4,4'- (PCB 28)			C20		C20		
Trichlorobiphenyl; 2,4,5- (PCB 29)			C26		C26		
Trichlorobiphenyl; 2,4',5- (PCB 31)	8.39	3970		4300.00	B	7.98%	1
Trichlorobiphenyl; 2,4,6- (PCB 30)			C18		C18		
Trichlorobiphenyl; 2,4',6- (PCB 32)	7.12	1950		1990.00	B	2.03%	1
Trichlorobiphenyl; 3,3',4- (PCB 35)	9.69	67		77.40		14.40%	1
Trichlorobiphenyl; 3,3',5- (PCB 36)	8.67	8.67	U	5.65			0
Trichlorobiphenyl; 3,4,4'- (PCB 37)	11.2	777		781.00	B	0.51%	1
Trichlorobiphenyl; 3,4,5- (PCB 38)	9.35	9.35	U	5.39			0
Trichlorobiphenyl; 3,4',5- (PCB 39)	8.4	8.4	U	36.40			0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BP01			12C-CE05-T102-BP01-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Chlorobiphenyl; 2- (PCB 1)	7.64	3460		4230.00		20.03%	1
Chlorobiphenyl; 3- (PCB 2)	7.35	919		1340.00		37.27%	1
Chlorobiphenyl; 4- (PCB 3)	7.33	2710		3600.00	B	28.21%	1
Decachlorobiphenyl (PCB 209)	19.9	12200		13200.00	B	7.87%	1
Dichlorobiphenyl; 2,2'- (PCB 4)	38.8	6980		8820.00		23.29%	1
Dichlorobiphenyl; 2,3- (PCB 5)	24.4	162		186.00		13.79%	1
Dichlorobiphenyl; 2,3'- (PCB 6)	24.4	4320		5210.00		18.68%	1
Dichlorobiphenyl; 2,4- (PCB 7)	22.8	437		576.00		27.44%	1
Dichlorobiphenyl; 2,4'- (PCB 8)	23.8	14600		16700.00		13.42%	1
Dichlorobiphenyl; 2,5- (PCB 9)	25.9	710		773.00		8.50%	1
Dichlorobiphenyl; 2,6- (PCB 10)	25.2	660		786.00		17.43%	1
Dichlorobiphenyl; 3,3'- (PCB 11)	24.3	13400		17700.00	B	27.65%	1
Dichlorobiphenyl; 3,4- (PCB 12)	24.2	4810	C12	6970.00	C	36.67%	1
Dichlorobiphenyl; 3,4'- (PCB 13)			C12		C12		
Dichlorobiphenyl; 3,5- (PCB 14)	20.6	20.6	U	29.30			0
Dichlorobiphenyl; 4,4'- (PCB 15)	23.6	30400		48900.00	B	46.66%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',5- (PCB 170)	19.7	16100		31100.00		63.56%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',6- (PCB 171)	18.6	5340	C171	9240.00		53.50%	1
Heptachlorobiphenyl; 2,2',3,3',4,5,5'- (PCB 172)	18.5	2890		5260.00		58.16%	1
Heptachlorobiphenyl; 2,2',3,3',4,5,6- (PCB 173)			C171		C171		
Heptachlorobiphenyl; 2,2',3,3',4,5,6'- (PCB 174)	18.7	19500		32800.00		50.86%	1
Heptachlorobiphenyl; 2,2',3,3',4,5',6- (PCB 175)	16.8	861		1490.00		53.51%	1
Heptachlorobiphenyl; 2,2',3,3',4',5,6- (PCB 177)	18.5	10800		18500.00		52.56%	1
Heptachlorobiphenyl; 2,2',3,3',4,6,6'- (PCB 176)	7.5	2140		4370.00		68.51%	1
Heptachlorobiphenyl; 2,2',3,3',5,5',6- (PCB 178)	10.9	3550		7500.00		71.49%	1
Heptachlorobiphenyl; 2,2',3,3',5,6,6'- (PCB 179)	8.13	8180		14900.00		58.23%	1
Heptachlorobiphenyl; 2,2',3,4,4',5,5'- (PCB 180)	14.6	35900	C180	74500.00		69.93%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BP01			12C-CE05-T102-BP01-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Heptachlorobiphenyl; 2,2',3,4,4',5,6- (PCB 181)	16.2	16.2	U	321.00			0
Heptachlorobiphenyl; 2,2',3,4,4',5,6'- (PCB 182)	15.4	150		271.00		57.48%	1
Heptachlorobiphenyl; 2,2',3,4,4',5',6- (PCB 183)	15.1	10800		22600.00		70.66%	1
Heptachlorobiphenyl; 2,2',3,4,4',6,6'- (PCB 184)	8.37	103	EMPC-J	216.00		70.85%	1
Heptachlorobiphenyl; 2,2',3,4,5,5',6- (PCB 185)	16.3	1370			C183		1
Heptachlorobiphenyl; 2,2',3,4',5,5',6- (PCB 187)	15.9	24100		47000.00		64.42%	1
Heptachlorobiphenyl; 2,2',3,4,5,6,6'- (PCB 186)	7.92	7.92	U	12.50			0
Heptachlorobiphenyl; 2,2',3,4',5,6,6'- (PCB 188)	7.45	104		236.00		77.65%	1
Heptachlorobiphenyl; 2,3,3',4,4',5,5'- (PCB 189)	17.5	597		1320.00		75.43%	1
Heptachlorobiphenyl; 2,3,3',4,4',5,6- (PCB 190)	14.1	3160		5960.00		61.40%	1
Heptachlorobiphenyl; 2,3,3',4,4',5',6- (PCB 191)	13.5	636		1150.00		57.56%	1
Heptachlorobiphenyl; 2,3,3',4,5,5',6- (PCB 192)	14.1	14.1	U	12.00	U	16.09%	0
Heptachlorobiphenyl; 2,3,3',4',5,5',6- (PCB 193)			C180		C180		
Hexachlorobiphenyl; 2,2',3,3',4,4'- (PCB 128)	67.8	11300	C128	24200.00	C	72.68%	1
Hexachlorobiphenyl; 2,2',3,3',4,5- (PCB 129)	11.4	73600	C129	151000.00	C	68.92%	1
Hexachlorobiphenyl; 2,2',3,3',4,5'- (PCB 130)	13.7	4410		9170.00		70.10%	1
Hexachlorobiphenyl; 2,2',3,3',4,6- (PCB 131)	13.4	1030		1840.00		56.45%	1
Hexachlorobiphenyl; 2,2',3,3',4,6'- (PCB 132)	12.8	23800		49200.00		69.59%	1
Hexachlorobiphenyl; 2,2',3,3',5,5'- (PCB 133)	12.5	1210		2450.00		67.76%	1
Hexachlorobiphenyl; 2,2',3,3',5,6- (PCB 134)	14.7	4510		7590.00	C	50.91%	1
Hexachlorobiphenyl; 2,2',3,3',5,6'- (PCB 135)	11.8	24700	C135	49000.00	C	65.94%	1
Hexachlorobiphenyl; 2,2',3,3',6,6'- (PCB 136)	7.32	8770		17900.00		68.47%	1
Hexachlorobiphenyl; 2,2',3,4,4',5- (PCB 137)	10.5	2430		7670.00		103.76%	1
Hexachlorobiphenyl; 2,2',3,4,4',5'- (PCB 138)			C129		C129		
Hexachlorobiphenyl; 2,2',3,4,4',6- (PCB 139)	11.2	1380	C139	2850.00	C	69.50%	1
Hexachlorobiphenyl; 2,2',3,4,4',6'- (PCB 140)			C139		C139		
Hexachlorobiphenyl; 2,2',3,4,5,5'- (PCB 141)	12.7	12800		26200.00		68.72%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BP01			12C-CE05-T102-BP01-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 2,2',3,4',5,5'- (PCB 146)	11.1	10300		22100.00		72.84%	1
Hexachlorobiphenyl; 2,2',3,4,5,6- (PCB 142)	13.1	13.1	U	254.00	U		0
Hexachlorobiphenyl; 2,2',3,4,5,6'- (PCB 143)	11.7	11.7	U		C134		0
Hexachlorobiphenyl; 2,2',3,4,5',6- (PCB 144)	11.4	3160		6220.00		65.25%	1
Hexachlorobiphenyl; 2,2',3,4',5,6- (PCB 147)	11.4	58600	C147	121000.00	C	69.49%	1
Hexachlorobiphenyl; 2,2',3,4',5,6'- (PCB 148)	11.3	305		584.00		62.77%	1
Hexachlorobiphenyl; 2,2',3,4',5',6- (PCB 149)			C147		C147		
Hexachlorobiphenyl; 2,2',3,4,6,6'- (PCB 145)	7.15	31		54.50			0
Hexachlorobiphenyl; 2,2',3,4',6,6'- (PCB 150)	6.75	318		814.00		87.63%	1
Hexachlorobiphenyl; 2,2',3,5,5',6- (PCB 151)			C135		C135		
Hexachlorobiphenyl; 2,2',3,5,6,6'- (PCB 152)	6.88	246		510.00		69.84%	1
Hexachlorobiphenyl; 2,2',4,4',5,5'- (PCB 153)	8.99	55400	C153	132000.00	C	81.75%	1
Hexachlorobiphenyl; 2,2',4,4',5',6- (PCB 154)	10.3	1870			C135		1
Hexachlorobiphenyl; 2,2',4,4',6,6'- (PCB 155)	6.85	648		1210.00		60.50%	1
Hexachlorobiphenyl; 2,3,3',4,4',5- (PCB 156)	72.5	8960	C156	14800.00	C	49.16%	1
Hexachlorobiphenyl; 2,3,3',4,4',5'- (PCB 157)			C156		C156		
Hexachlorobiphenyl; 2,3,3',4,4',6- (PCB 158)	8.85	6960		14700.00		71.47%	1
Hexachlorobiphenyl; 2,3,3',4,5,5'- (PCB 159)	58.3	58.3	U	1410.00			0
Hexachlorobiphenyl; 2,3,3',4',5,5'- (PCB 162)	55.9	55.9	U	1340.00	EMPC-J		0
Hexachlorobiphenyl; 2,3,3',4,5,6- (PCB 160)	9.56	9.56	U		C129		0
Hexachlorobiphenyl; 2,3,3',4,5',6- (PCB 161)	9.23	9.23	U	175.00	U		0
Hexachlorobiphenyl; 2,3,3',4',5,6- (PCB 163)			C129		C129		
Hexachlorobiphenyl; 2,3,3',4',5',6- (PCB 164)	9.91	5590		10000.00		56.57%	1
Hexachlorobiphenyl; 2,3,3',5,5',6- (PCB 165)	10.1	10.1	U	199.00	U		0
Hexachlorobiphenyl; 2,3',4,4',5,5'- (PCB 167)	60	2820		5010.00		55.94%	1
Hexachlorobiphenyl; 2,3,4,4',5,6- (PCB 166)			C128		C128		
Hexachlorobiphenyl; 2,3',4,4',5',6- (PCB 168)			C153		C153		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BP01			12C-CE05-T102-BP01-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 3,3',4,4',5,5'- (PCB 169)	83.2	83.2	U	161.00	U		0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6- (PCB 206)	21.8	7400		16400.00		75.63%	1
Nonachlorobiphenyl; 2,2',3,3',4,4',5,6,6'- (PCB 207)	14.7	908		2060.00		77.63%	1
Nonachlorobiphenyl; 2,2',3,3',4,5,5',6,6'- (PCB 208)	14.8	2840		6330.00		76.12%	1
Octachlorobiphenyl; 2,2',3,3',4,4',5,5'- (PCB 194)	29.5	10100		20400.00		67.54%	1
Octachlorobiphenyl; 2,2',3,3',4,4',5,6- (PCB 195)	31.4	4120		7660.00		60.10%	1
Octachlorobiphenyl; 2,2',3,3',4,4',5,6'- (PCB 196)	15.3	4510		10600.00		80.61%	1
Octachlorobiphenyl; 2,2',3,3',4,4',6,6'- (PCB 197)	10.2	308		2930.00	C	161.95%	1
Octachlorobiphenyl; 2,2',3,3',4,5,5',6- (PCB 198)	16	11800	C198	25200.00	C	72.43%	1
Octachlorobiphenyl; 2,2',3,3',4,5,5',6'- (PCB 199)			C198		C198		
Octachlorobiphenyl; 2,2',3,3',4,5,6,6'- (PCB 200)	12.3	1360			C197		1
Octachlorobiphenyl; 2,2',3,3',4,5',6,6'- (PCB 201)	11	1510		2900.00		63.04%	1
Octachlorobiphenyl; 2,2',3,3',5,5',6,6'- (PCB 202)	11.5	3060		6400.00		70.61%	1
Octachlorobiphenyl; 2,2',3,4,4',5,5',6- (PCB 203)	14.8	6970		16200.00		79.67%	1
Octachlorobiphenyl; 2,2',3,4,4',5,6,6'- (PCB 204)	11.8	30.7		67.60			0
Octachlorobiphenyl; 2,3,3',4,4',5,5',6- (PCB 205)	23.9	504		1010.00		66.84%	1
Pentachlorobiphenyl; 2,2',3,3',4- (PCB 82)	16.8	9920		15200.00		42.04%	1
Pentachlorobiphenyl; 2,2',3,3',5- (PCB 83)	16.2	3770		84800.00	C	182.97%	1
Pentachlorobiphenyl; 2,2',3,3',6- (PCB 84)	15.6	21100		34200.00		47.38%	1
Pentachlorobiphenyl; 2,2',3,4,4'- (PCB 85)	11.9	12000	C85	23500.00	C	64.79%	1
Pentachlorobiphenyl; 2,2',3,4,5- (PCB 86)	11.9	50100	C86	87700.00	C	54.57%	1
Pentachlorobiphenyl; 2,2',3,4,5'- (PCB 87)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4',5- (PCB 90)	12.1	74100	C90	128000.00	CB	53.34%	1
Pentachlorobiphenyl; 2,2',3',4,5- (PCB 97)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4,6- (PCB 88)	15.6	15.6	U	21500.00	C		0
Pentachlorobiphenyl; 2,2',3,4,6'- (PCB 89)	14.7	1120		1850.00		49.16%	1
Pentachlorobiphenyl; 2,2',3,4',6- (PCB 91)	11.5	11100			C88		1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BP01			12C-CE05-T102-BP01-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,2',3',4,6- (PCB 98)	13.1	13.1	U		C93		0
Pentachlorobiphenyl; 2,2',3,5,5'- (PCB 92)	14.2	14500		23500.00		47.37%	1
Pentachlorobiphenyl; 2,2',3,5,6- (PCB 93)	13.2	4770	C93	108000.00	CB	183.08%	1
Pentachlorobiphenyl; 2,2',3,5,6'- (PCB 94)	14.3	1370		2460.00		56.92%	1
Pentachlorobiphenyl; 2,2',3,5',6- (PCB 95)	13.6	55600	J		C93		1
Pentachlorobiphenyl; 2,2',3,6,6'- (PCB 96)	7.4	1000		1570.00		44.36%	1
Pentachlorobiphenyl; 2,2',4,4',5- (PCB 99)	13.4	41200	J		C83		1
Pentachlorobiphenyl; 2,2',4,4',6- (PCB 100)			C93		C93		
Pentachlorobiphenyl; 2,2',4,5,5'- (PCB 101)			C90		C90		
Pentachlorobiphenyl; 2,2',4,5,6'- (PCB 102)	13.4	4520			C93		1
Pentachlorobiphenyl; 2,2',4,5',6- (PCB 103)	12.5	1930		3220.00		50.10%	1
Pentachlorobiphenyl; 2,2',4,6,6'- (PCB 104)	6.97	586		972.00		49.55%	1
Pentachlorobiphenyl; 2,3,3',4,4'- (PCB 105)	11.8	27900		51300.00		59.09%	1
Pentachlorobiphenyl; 2,3,3',4,5- (PCB 106)	11.6	11.6	U	74.00	U		0
Pentachlorobiphenyl; 2,3,3',4',5- (PCB 107)	11.2	2600	C107	4540.00	C	54.34%	1
Pentachlorobiphenyl; 2,3,3',4,5'- (PCB 108)			C86		C86		
Pentachlorobiphenyl; 2',3,3',4,5- (PCB 122)	12.3	912		1610.00		55.35%	1
Pentachlorobiphenyl; 2,3,3',4,6- (PCB 109)	10.1	4700		8270.00		55.05%	1
Pentachlorobiphenyl; 2,3,3',4',6- (PCB 110)	11.3	89600	J	140000.00	CB	43.90%	1
Pentachlorobiphenyl; 2,3,3',5,5'- (PCB 111)	10.1	74.4		104.00		33.18%	1
Pentachlorobiphenyl; 2,3,3',5,6- (PCB 112)	10.3	10.3	U	31.20	U		0
Pentachlorobiphenyl; 2,3,3',5',6- (PCB 113)			C90		C90		
Pentachlorobiphenyl; 2,3,4,4',5- (PCB 114)	11.7	1610		2920.00		57.84%	1
Pentachlorobiphenyl; 2,3',4,4',5- (PCB 118)	9.97	61300	J	117000.00	B	62.48%	1
Pentachlorobiphenyl; 2',3,4,4',5- (PCB 123)	11.3	1210		2100.00		53.78%	1
Pentachlorobiphenyl; 2,3,4,4',6- (PCB 115)	10.4	10.4	U		C110		0
Pentachlorobiphenyl; 2,3',4,4',6- (PCB 119)			C86		C86		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BP01			12C-CE05-T102-BP01-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,3',4,5,5'- (PCB 120)	10.1	256		456.00		56.18%	1
Pentachlorobiphenyl; 2',3,4,5,5'- (PCB 124)			C107		C107		
Pentachlorobiphenyl; 2,3,4,5,6- (PCB 116)			C85		C85		
Pentachlorobiphenyl; 2,3,4',5,6- (PCB 117)	11.1	1540			C85		1
Pentachlorobiphenyl; 2,3',4,5',6- (PCB 121)	9.91	82.1		137.00		50.11%	1
Pentachlorobiphenyl; 2',3,4,5,6'- (PCB 125)			C86		C86		
Pentachlorobiphenyl; 3,3',4,4',5- (PCB 126)	28.5	249		462.00		59.92%	1
Pentachlorobiphenyl; 3,3',4,5,5'- (PCB 127)	11.7	11.7	U	379.00			0
Tetrachlorobiphenyl; 2,2',3,3'- (PCB 40)	18.4	31500	C40	58100.00	CB	59.38%	1
Tetrachlorobiphenyl; 2,2',3,4- (PCB 41)	21.1	3220			C40		1
Tetrachlorobiphenyl; 2,2',3,4'- (PCB 42)	19.8	18000		30200.00		50.62%	1
Tetrachlorobiphenyl; 2,2',3,5- (PCB 43)	22.8	2920		3850.00		27.47%	1
Tetrachlorobiphenyl; 2,2',3,5'- (PCB 44)	17.3	78200	C44	131000.00	CB	50.48%	1
Tetrachlorobiphenyl; 2,2',3,6- (PCB 45)	22.2	8030		34200.00	C	123.94%	1
Tetrachlorobiphenyl; 2,2',3,6'- (PCB 46)	21.9	3650		5940.00		47.76%	1
Tetrachlorobiphenyl; 2,2',4,4'- (PCB 47)			C44		C44		
Tetrachlorobiphenyl; 2,2',4,5- (PCB 48)	18.2	10200		17100.00		50.55%	1
Tetrachlorobiphenyl; 2,2',4,5'- (PCB 49)	15.2	44000	C49	80100.00	CB	58.18%	1
Tetrachlorobiphenyl; 2,2',4,6- (PCB 50)	17.9	11800	C50	19400.00	C	48.72%	1
Tetrachlorobiphenyl; 2,2',4,6'- (PCB 51)	16.5	12200			C45		1
Tetrachlorobiphenyl; 2,2',5,5'- (PCB 52)	18.7	75800	J	117000.00	B	42.74%	1
Tetrachlorobiphenyl; 2,2',5,6'- (PCB 53)			C50		C50		
Tetrachlorobiphenyl; 2,2',6,6'- (PCB 54)	6.52	1390		1920.00		32.02%	1
Tetrachlorobiphenyl; 2,3,3',4- (PCB 55)	41.1	700		1080.00		42.70%	1
Tetrachlorobiphenyl; 2,3,3',4'- (PCB 56)	42.3	28300		46300.00		48.26%	1
Tetrachlorobiphenyl; 2,3,3',5- (PCB 57)	39.1	315		490.00		43.48%	1
Tetrachlorobiphenyl; 2,3,3',5'- (PCB 58)	39	232		340.00		37.76%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	12I-CE05-T102-BP01			12C-CE05-T102-BP01-C		Split Result Evaluation	
Sample Location	12I-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Tetrachlorobiphenyl; 2,3,3',6- (PCB 59)	13.6	5410	C59	9750.00	C	57.26%	1
Tetrachlorobiphenyl; 2,3,4,4'- (PCB 60)	41.6	10600		17300.00		48.03%	1
Tetrachlorobiphenyl; 2,3',4,4'- (PCB 66)	41.8	62700	J	97000.00	B	42.96%	1
Tetrachlorobiphenyl; 2,3,4,5- (PCB 61)	39	99700	C61	157000.00	CB	44.64%	1
Tetrachlorobiphenyl; 2,3,4',5- (PCB 63)	36.6	2400		4050.00		51.16%	1
Tetrachlorobiphenyl; 2,3',4,5- (PCB 67)	38.5	2180		3400.00		43.73%	1
Tetrachlorobiphenyl; 2,3',4,5'- (PCB 68)	34.9	720		1330.00		59.51%	1
Tetrachlorobiphenyl; 2,3',4',5- (PCB 70)			C61		C61		
Tetrachlorobiphenyl; 2',3,4,5- (PCB 76)			C61		C61		
Tetrachlorobiphenyl; 2,3,4,6- (PCB 62)			C59		C59		
Tetrachlorobiphenyl; 2,3,4',6- (PCB 64)	12.9	24500		43700.00	B	56.30%	1
Tetrachlorobiphenyl; 2,3',4,6- (PCB 69)			C49		C49		
Tetrachlorobiphenyl; 2,3',4',6- (PCB 71)			C40		C40		
Tetrachlorobiphenyl; 2,3',5,5'- (PCB 72)	38.1	790		1330.00		50.94%	1
Tetrachlorobiphenyl; 2,3,5,6- (PCB 65)			C44		C44		
Tetrachlorobiphenyl; 2,3',5',6- (PCB 73)	13.7	13.7	U	632.00			0
Tetrachlorobiphenyl; 2,4,4',5- (PCB 74)			C61		C61		
Tetrachlorobiphenyl; 2,4,4',6- (PCB 75)			C59		C59		
Tetrachlorobiphenyl; 3,3',4,4'- (PCB 77)	45.1	9020		17200.00		62.40%	1
Tetrachlorobiphenyl; 3,3',4,5- (PCB 78)	44.1	44.1	U	49.30	U		0
Tetrachlorobiphenyl; 3,3',4,5'- (PCB 79)	37.5	562		1500.00		90.98%	1
Tetrachlorobiphenyl; 3,3',5,5'- (PCB 80)	36.1	36.1	U	47.00	U		0
Tetrachlorobiphenyl; 3,4,4',5- (PCB 81)	44.1	227		333.00	EMPC-J	37.86%	1
Trichlorobiphenyl; 2,2',3- (PCB 16)	12.1	9310		11800.00		23.59%	1
Trichlorobiphenyl; 2,2',4- (PCB 17)	9.17	13400		19700.00	B	38.07%	1
Trichlorobiphenyl; 2,2',5- (PCB 18)	7.99	22100	C18	29400.00	CB	28.35%	1
Trichlorobiphenyl; 2,2',6- (PCB 19)	10.7	2970		4160.00		33.38%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID Sample Location Unit	12I-CE05-T102-BP01 12I-CE05-T102 pg			12C-CE05-T102-BP01-C 13C-CE05-T102 pg		Split Result Evaluation	
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Trichlorobiphenyl; 2,3,3'- (PCB 20)	14.9	69200	C20	104000.00	CB	40.18%	1
Trichlorobiphenyl; 2,3,4- (PCB 21)	14.7	16900	C21	21300.00	CB	23.04%	1
Trichlorobiphenyl; 2,3,4'- (PCB 22)	16	17200		23800.00	B	32.20%	1
Trichlorobiphenyl; 2,3',4- (PCB 25)	14.8	8500		11300.00		28.28%	1
Trichlorobiphenyl; 2',3,4- (PCB 33)			C21		C21		
Trichlorobiphenyl; 2,3,5- (PCB 23)	14.8	32.9		52.10			0
Trichlorobiphenyl; 2,3',5- (PCB 26)	14.6	11900	C26	17600.00	C	38.64%	1
Trichlorobiphenyl; 2',3,5- (PCB 34)	14.9	356		526.00		38.55%	1
Trichlorobiphenyl; 2,3,6- (PCB 24)	7.28	297		428.00		36.14%	1
Trichlorobiphenyl; 2,3',6- (PCB 27)	6.97	3130		4670.00		39.49%	1
Trichlorobiphenyl; 2,4,4'- (PCB 28)			C20		C20		
Trichlorobiphenyl; 2,4,5- (PCB 29)			C26		C26		
Trichlorobiphenyl; 2,4',5- (PCB 31)	14.3	48400	J	67000.00	B	32.24%	1
Trichlorobiphenyl; 2,4,6- (PCB 30)			C18		C18		
Trichlorobiphenyl; 2,4',6- (PCB 32)	6.7	10900		15400.00	B	34.22%	1
Trichlorobiphenyl; 3,3',4- (PCB 35)	16.6	2450		3610.00		38.28%	1
Trichlorobiphenyl; 3,3',5- (PCB 36)	14.8	91.8		106.00		14.36%	1
Trichlorobiphenyl; 3,4,4'- (PCB 37)	19.1	27400		40600.00	B	38.82%	1
Trichlorobiphenyl; 3,4,5- (PCB 38)	16	16	U	157.00			0
Trichlorobiphenyl; 3,4',5- (PCB 39)	14.4	360		750.00		70.27%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM01		13C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102		13C-CE05-T102			
Unit	pg		pg			
Chemical Name	CPG Reporting Limit	Result Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Chlorobiphenyl; 2- (PCB 1)	10	5470	5430.00	B	0.73%	1
Chlorobiphenyl; 3- (PCB 2)	514	514 U	639	B		0
Chlorobiphenyl; 4- (PCB 3)	11.4	1120	1340.00	B	17.89%	1
Decachlorobiphenyl (PCB 209)	27.7	37.6	44.30	B		0
Dichlorobiphenyl; 2,2'- (PCB 4)	35.8	53300 J	51100.00		4.21%	1
Dichlorobiphenyl; 2,3- (PCB 5)	32	532 J	535.00		0.56%	1
Dichlorobiphenyl; 2,3'- (PCB 6)	31.9	12900 J	13400.00		3.80%	1
Dichlorobiphenyl; 2,4- (PCB 7)	29.8	1200 J	1260.00		4.88%	1
Dichlorobiphenyl; 2,4'- (PCB 8)	30.8	35900 J	34800.00	B	3.11%	1
Dichlorobiphenyl; 2,5- (PCB 9)	33.1	2390 J	2190.00		8.73%	1
Dichlorobiphenyl; 2,6- (PCB 10)	22.5	2550	2030.00		22.71%	1
Dichlorobiphenyl; 3,3'- (PCB 11)	34.8	17000 J	22700.00	B	28.72%	1
Dichlorobiphenyl; 3,4- (PCB 12)	35.1	5400 JC12	7080.00	C	26.92%	1
Dichlorobiphenyl; 3,4'- (PCB 13)		C12		C12		
Dichlorobiphenyl; 3,5- (PCB 14)	27.8	27.8 U	36.40			0
Dichlorobiphenyl; 4,4'- (PCB 15)	39.6	32200 J	28100.00		13.60%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',5- (PCB 170)	32	1330	1380.00	B	3.69%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',6- (PCB 171)	32	676 C171	610.00	C	10.26%	1
Heptachlorobiphenyl; 2,2',3,3',4,5,5'- (PCB 172)	31.6	319	313.00		1.90%	1
Heptachlorobiphenyl; 2,2',3,3',4,5,6- (PCB 173)		C171		C171		
Heptachlorobiphenyl; 2,2',3,3',4,5,6'- (PCB 174)	31.6	3080	2520.00	B	20.00%	1
Heptachlorobiphenyl; 2,2',3,3',4,5',6- (PCB 175)	29.5	121	107.00			0
Heptachlorobiphenyl; 2,2',3,3',4',5,6- (PCB 177)	31.4	1580	1390.00		12.79%	1
Heptachlorobiphenyl; 2,2',3,3',4,6,6'- (PCB 176)	9.68	331	367.00		10.32%	1
Heptachlorobiphenyl; 2,2',3,3',5,5',6- (PCB 178)	14.5	537	617.00		13.86%	1
Heptachlorobiphenyl; 2,2',3,3',5,6,6'- (PCB 179)	10.7	1610	1410.00		13.25%	1
Heptachlorobiphenyl; 2,2',3,4,4',5,5'- (PCB 180)	23.9	3550 C180	3600.00	CB	1.40%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM01			13C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Heptachlorobiphenyl; 2,2',3,4,4',5,6- (PCB 181)	28.4	28.4	U	21.20			0
Heptachlorobiphenyl; 2,2',3,4,4',5,6'- (PCB 182)	26.2	26.2	U	25.40			0
Heptachlorobiphenyl; 2,2',3,4,4',5',6- (PCB 183)	26.1	1540		1650.00	C	6.90%	1
Heptachlorobiphenyl; 2,2',3,4,4',6,6'- (PCB 184)	10.8	10.8	U	11.10			0
Heptachlorobiphenyl; 2,2',3,4,5,5',6- (PCB 185)	28.2	255			C183		1
Heptachlorobiphenyl; 2,2',3,4',5,5',6- (PCB 187)	27.2	3960		3630.00	B	8.70%	1
Heptachlorobiphenyl; 2,2',3,4,5,6,6'- (PCB 186)	10.5	10.5	U	1.04	EMPC-J		0
Heptachlorobiphenyl; 2,2',3,4',5,6,6'- (PCB 188)	9.98	9.98	U	13.50			0
Heptachlorobiphenyl; 2,3,3',4,4',5,5'- (PCB 189)	26.9	40.8	EMPC-J	39.60			0
Heptachlorobiphenyl; 2,3,3',4,4',5,6- (PCB 190)	25.4	286		321.00		11.53%	1
Heptachlorobiphenyl; 2,3,3',4,4',5',6- (PCB 191)	23.9	23.9	U	76.20			0
Heptachlorobiphenyl; 2,3,3',4,5,5',6- (PCB 192)	24.8	24.8	U	0.76	EMPC-J		0
Heptachlorobiphenyl; 2,3,3',4',5,5',6- (PCB 193)			C180		C180		
Hexachlorobiphenyl; 2,2',3,3',4,4'- (PCB 128)	39.1	2540	C128	2680.00	CB	5.36%	1
Hexachlorobiphenyl; 2,2',3,3',4,5- (PCB 129)	19.3	17100	C129	18100.00	CB	5.68%	1
Hexachlorobiphenyl; 2,2',3,3',4,5'- (PCB 130)	22.4	1080		1080.00		0.00%	1
Hexachlorobiphenyl; 2,2',3,3',4,6- (PCB 131)	21.4	353		292.00		18.91%	1
Hexachlorobiphenyl; 2,2',3,3',4,6'- (PCB 132)	20.6	8210		8380.00	B	2.05%	1
Hexachlorobiphenyl; 2,2',3,3',5,5'- (PCB 133)	19.8	349		346.00		0.86%	1
Hexachlorobiphenyl; 2,2',3,3',5,6- (PCB 134)	23.4	1860		1370.00	C	30.34%	1
Hexachlorobiphenyl; 2,2',3,3',5,6'- (PCB 135)	19.1	11100	C135	9270.00	C	17.97%	1
Hexachlorobiphenyl; 2,2',3,3',6,6'- (PCB 136)	11.7	4810	J	3890.00		21.15%	1
Hexachlorobiphenyl; 2,2',3,4,4',5- (PCB 137)	18.3	630		696.00		9.95%	1
Hexachlorobiphenyl; 2,2',3,4,4',5'- (PCB 138)			C129		C129		
Hexachlorobiphenyl; 2,2',3,4,4',6- (PCB 139)	18.4	397	C139	368.00	C	7.58%	1
Hexachlorobiphenyl; 2,2',3,4,4',6'- (PCB 140)			C139		C139		
Hexachlorobiphenyl; 2,2',3,4,5,5'- (PCB 141)	19.8	3260		3410.00	B	4.50%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM01			13C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 2,2',3,4',5,5'- (PCB 146)	18.1	2800		2980.00	B	6.23%	1
Hexachlorobiphenyl; 2,2',3,4,5,6- (PCB 142)	21	21	U	54.70	U		0
Hexachlorobiphenyl; 2,2',3,4,5,6'- (PCB 143)	19	19	U		C134		0
Hexachlorobiphenyl; 2,2',3,4,5',6- (PCB 144)	18.5	1290		1070.00		18.64%	1
Hexachlorobiphenyl; 2,2',3,4',5,6- (PCB 147)	18.5	22900	C147	20500.00	CB	11.06%	1
Hexachlorobiphenyl; 2,2',3,4',5,6'- (PCB 148)	18.3	89.3	EMPC-J	84.70			0
Hexachlorobiphenyl; 2,2',3,4',5',6- (PCB 149)			C147		C147		
Hexachlorobiphenyl; 2,2',3,4,6,6'- (PCB 145)	11.3	11.3	U	16.30			0
Hexachlorobiphenyl; 2,2',3,4',6,6'- (PCB 150)	10.6	122	J	114.00		6.78%	1
Hexachlorobiphenyl; 2,2',3,5,5',6- (PCB 151)			C135		C135		
Hexachlorobiphenyl; 2,2',3,5,6,6'- (PCB 152)	10.8	99.4	EMPC-J	98.80		0.61%	1
Hexachlorobiphenyl; 2,2',4,4',5,5'- (PCB 153)	13.2	12000	C153	15500.00	CB	25.45%	1
Hexachlorobiphenyl; 2,2',4,4',5',6- (PCB 154)	16.6	568			C135		1
Hexachlorobiphenyl; 2,2',4,4',6,6'- (PCB 155)	10.4	193	J	183.00		5.32%	1
Hexachlorobiphenyl; 2,3,3',4,4',5- (PCB 156)	57.6	1240	C156	1160.00	CB	6.67%	1
Hexachlorobiphenyl; 2,3,3',4,4',5'- (PCB 157)			C156		C156		
Hexachlorobiphenyl; 2,3,3',4,4',6- (PCB 158)	14.3	1420		1680.00		16.77%	1
Hexachlorobiphenyl; 2,3,3',4,5,5'- (PCB 159)	34	135		98.40			0
Hexachlorobiphenyl; 2,3,3',4',5,5'- (PCB 162)	34.6	56.3	EMPC-J	98.30	EMPC-J		0
Hexachlorobiphenyl; 2,3,3',4,5,6- (PCB 160)	15.1	15.1	U		C129		0
Hexachlorobiphenyl; 2,3,3',4,5',6- (PCB 161)	14.8	14.8	U	38.80	U		0
Hexachlorobiphenyl; 2,3,3',4',5,6- (PCB 163)			C129		C129		
Hexachlorobiphenyl; 2,3,3',4',5',6- (PCB 164)	15.5	1210		1330.00		9.45%	1
Hexachlorobiphenyl; 2,3,3',5,5',6- (PCB 165)	15.7	15.7	U	44.90	U		0
Hexachlorobiphenyl; 2,3',4,4',5,5'- (PCB 167)	35.9	421		402.00		4.62%	1
Hexachlorobiphenyl; 2,3,4,4',5,6- (PCB 166)			C128		C128		
Hexachlorobiphenyl; 2,3',4,4',5',6- (PCB 168)			C153		C153		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM01			13C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 3,3',4,4',5,5'- (PCB 169)	64.9	64.9	U	5.80	U		0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6- (PCB 206)	36.8	148		162.00			0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,6,6'- (PCB 207)	27.9	27.9	U	40.10			0
Nonachlorobiphenyl; 2,2',3,3',4,5,5',6,6'- (PCB 208)	29.5	57.2	EMPC-J	81.70			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,5'- (PCB 194)	48.7	391		349.00		11.35%	1
Octachlorobiphenyl; 2,2',3,3',4,4',5,6- (PCB 195)	51.6	163		161.00			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,6'- (PCB 196)	23.1	254		284.00		11.15%	1
Octachlorobiphenyl; 2,2',3,3',4,4',6,6'- (PCB 197)	16	24.4		112.00	C		0
Octachlorobiphenyl; 2,2',3,3',4,5,5',6- (PCB 198)	23.6	692	C198	758.00	C	9.10%	1
Octachlorobiphenyl; 2,2',3,3',4,5,5',6'- (PCB 199)			C198		C198		
Octachlorobiphenyl; 2,2',3,3',4,5,6,6'- (PCB 200)	16.8	92.1			C197		1
Octachlorobiphenyl; 2,2',3,3',4,5',6,6'- (PCB 201)	16.3	101		109.00		7.62%	1
Octachlorobiphenyl; 2,2',3,3',5,5',6,6'- (PCB 202)	16	220		246.00		11.16%	1
Octachlorobiphenyl; 2,2',3,4,4',5,5',6- (PCB 203)	22.2	358		467.00		26.42%	1
Octachlorobiphenyl; 2,2',3,4,4',5,6,6'- (PCB 204)	17.2	17.2	U	0.68	U		0
Octachlorobiphenyl; 2,3,3',4,4',5,5',6- (PCB 205)	39.7	39.7	U	18.80			0
Pentachlorobiphenyl; 2,2',3,3',4- (PCB 82)	217	6700		5520.00	B	19.31%	1
Pentachlorobiphenyl; 2,2',3,3',5- (PCB 83)	219	3510		25200.00	CB	151.10%	1
Pentachlorobiphenyl; 2,2',3,3',6- (PCB 84)	207	24800		18700.00	B	28.05%	1
Pentachlorobiphenyl; 2,2',3,4,4'- (PCB 85)	154	6930	C85	7520.00	CB	8.17%	1
Pentachlorobiphenyl; 2,2',3,4,5- (PCB 86)	157	34700	C86	30600.00	CB	12.56%	1
Pentachlorobiphenyl; 2,2',3,4,5'- (PCB 87)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4',5- (PCB 90)	157	53400	C90	44500.00	CB	18.18%	1
Pentachlorobiphenyl; 2,2',3',4,5- (PCB 97)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4,6- (PCB 88)	208	208	U	9830.00	C		0
Pentachlorobiphenyl; 2,2',3,4,6'- (PCB 89)	194	1300		1050.00		21.28%	1
Pentachlorobiphenyl; 2,2',3,4',6- (PCB 91)	147	10300			C88		1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM01			13C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,2',3',4,6- (PCB 98)	169	169	U		C93		0
Pentachlorobiphenyl; 2,2',3,5,5'- (PCB 92)	185	11400		9000.00	B	23.53%	1
Pentachlorobiphenyl; 2,2',3,5,6- (PCB 93)	173	3960	C93	57900.00	CB	174.39%	1
Pentachlorobiphenyl; 2,2',3,5,6'- (PCB 94)	186	1550		1220.00		23.83%	1
Pentachlorobiphenyl; 2,2',3,5',6- (PCB 95)	174	65900	J		C93		1
Pentachlorobiphenyl; 2,2',3,6,6'- (PCB 96)	8.74	1530		1120.00		30.94%	1
Pentachlorobiphenyl; 2,2',4,4',5- (PCB 99)	171	25400			C83		1
Pentachlorobiphenyl; 2,2',4,4',6- (PCB 100)			C93		C93		
Pentachlorobiphenyl; 2,2',4,5,5'- (PCB 101)			C90		C90		
Pentachlorobiphenyl; 2,2',4,5,6'- (PCB 102)	178	4690			C93		1
Pentachlorobiphenyl; 2,2',4,5',6- (PCB 103)	161	1850		1380.00		29.10%	1
Pentachlorobiphenyl; 2,2',4,6,6'- (PCB 104)	8.06	598		559.00		6.74%	1
Pentachlorobiphenyl; 2,3,3',4,4'- (PCB 105)	161	9100		9150.00	B	0.55%	1
Pentachlorobiphenyl; 2,3,3',4,5- (PCB 106)	151	151	U	58.80	U		0
Pentachlorobiphenyl; 2,3,3',4',5- (PCB 107)	147	1020	C107	1000.00	C	1.98%	1
Pentachlorobiphenyl; 2,3,3',4,5'- (PCB 108)			C86		C86		
Pentachlorobiphenyl; 2',3,3',4,5- (PCB 122)	156	425		419.00			0
Pentachlorobiphenyl; 2,3,3',4,6- (PCB 109)	132	1860		2060.00		10.20%	1
Pentachlorobiphenyl; 2,3,3',4',6- (PCB 110)	161	64800	J	50600.00	CB	24.61%	1
Pentachlorobiphenyl; 2,3,3',5,5'- (PCB 111)	133	133	U	31.30			0
Pentachlorobiphenyl; 2,3,3',5,6- (PCB 112)	131	131	U	20.20	U		0
Pentachlorobiphenyl; 2,3,3',5',6- (PCB 113)			C90		C90		
Pentachlorobiphenyl; 2,3,4,4',5- (PCB 114)	146	574		562.00	B		0
Pentachlorobiphenyl; 2,3',4,4',5- (PCB 118)	135	23100		22400.00	B	3.08%	1
Pentachlorobiphenyl; 2',3,4,4',5- (PCB 123)	154	482		465.00			0
Pentachlorobiphenyl; 2,3,4,4',6- (PCB 115)	148	148	U		C110		0
Pentachlorobiphenyl; 2,3',4,4',6- (PCB 119)			C86		C86		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM01			13C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,3',4,5,5'- (PCB 120)	135	135	U	81.40			0
Pentachlorobiphenyl; 2',3,4,5,5'- (PCB 124)			C107		C107		
Pentachlorobiphenyl; 2,3,4,5,6- (PCB 116)			C85		C85		
Pentachlorobiphenyl; 2,3,4',5,6- (PCB 117)	156	1480			C85		1
Pentachlorobiphenyl; 2,3',4,5',6- (PCB 121)	130	130	U	39.00	EMPC-J		0
Pentachlorobiphenyl; 2',3,4,5,6'- (PCB 125)			C86		C86		
Pentachlorobiphenyl; 3,3',4,4',5- (PCB 126)	34.7	48.1	EMPC-J	58.80			0
Pentachlorobiphenyl; 3,3',4,5,5'- (PCB 127)	165	165	U	62.50	U		0
Tetrachlorobiphenyl; 2,2',3,3'- (PCB 40)	18.7	62800	C40	71700.00	CB	13.23%	1
Tetrachlorobiphenyl; 2,2',3,4- (PCB 41)	23.9	9460			C40		1
Tetrachlorobiphenyl; 2,2',3,4'- (PCB 42)	20.9	37500		33800.00	B	10.38%	1
Tetrachlorobiphenyl; 2,2',3,5- (PCB 43)	22.1	6680		5610.00		17.41%	1
Tetrachlorobiphenyl; 2,2',3,5'- (PCB 44)	18.4	155000	JC44	148000.00	CB	4.62%	1
Tetrachlorobiphenyl; 2,2',3,6- (PCB 45)	21	28200		51800.00	CB	59.00%	1
Tetrachlorobiphenyl; 2,2',3,6'- (PCB 46)	22.6	14300		11700.00		20.00%	1
Tetrachlorobiphenyl; 2,2',4,4'- (PCB 47)			C44		C44		
Tetrachlorobiphenyl; 2,2',4,5- (PCB 48)	19.3	25700		22700.00		12.40%	1
Tetrachlorobiphenyl; 2,2',4,5'- (PCB 49)	16.2	88800	JC49	85800.00	CB	3.44%	1
Tetrachlorobiphenyl; 2,2',4,6- (PCB 50)	18.4	40000	C50	36000.00	CB	10.53%	1
Tetrachlorobiphenyl; 2,2',4,6'- (PCB 51)	18.2	31600			C45		1
Tetrachlorobiphenyl; 2,2',5,5'- (PCB 52)	19.4	166000	J	140000.00	B	16.99%	1
Tetrachlorobiphenyl; 2,2',5,6'- (PCB 53)			C50		C50		
Tetrachlorobiphenyl; 2,2',6,6'- (PCB 54)	8.01	4720		4350.00		8.16%	1
Tetrachlorobiphenyl; 2,3,3',4- (PCB 55)	46.8	46.8	U	1550.00			0
Tetrachlorobiphenyl; 2,3,3',4'- (PCB 56)	48.6	33300		35900.00	B	7.51%	1
Tetrachlorobiphenyl; 2,3,3',5- (PCB 57)	44.9	513		450.00		13.08%	1
Tetrachlorobiphenyl; 2,3,3',5'- (PCB 58)	43.1	43.1	U	96.90	U		0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM01			13C-CE05-T102-BM01-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Tetrachlorobiphenyl; 2,3,3',6- (PCB 59)	14.3	12900	C59	12300.00	C	4.76%	1
Tetrachlorobiphenyl; 2,3,4,4'- (PCB 60)	48.4	11700		12600.00	B	7.41%	1
Tetrachlorobiphenyl; 2,3',4,4'- (PCB 66)	46.3	61800	J	67800.00	B	9.26%	1
Tetrachlorobiphenyl; 2,3,4,5- (PCB 61)	44.2	112000	C61	124000.00	CB	10.17%	1
Tetrachlorobiphenyl; 2,3,4',5- (PCB 63)	40	2980		3210.00		7.43%	1
Tetrachlorobiphenyl; 2,3',4,5- (PCB 67)	41.3	2940		3010.00		2.35%	1
Tetrachlorobiphenyl; 2,3',4,5'- (PCB 68)	39.6	834		647.00		25.25%	1
Tetrachlorobiphenyl; 2,3',4',5- (PCB 70)			C61		C61		
Tetrachlorobiphenyl; 2',3,4,5- (PCB 76)			C61		C61		
Tetrachlorobiphenyl; 2,3,4,6- (PCB 62)			C59		C59		
Tetrachlorobiphenyl; 2,3,4',6- (PCB 64)	13.5	48800	J	50900.00	B	4.21%	1
Tetrachlorobiphenyl; 2,3',4,6- (PCB 69)			C49		C49		
Tetrachlorobiphenyl; 2,3',4',6- (PCB 71)			C40		C40		
Tetrachlorobiphenyl; 2,3',5,5'- (PCB 72)	42.7	1040		870.00		17.80%	1
Tetrachlorobiphenyl; 2,3,5,6- (PCB 65)			C44		C44		
Tetrachlorobiphenyl; 2,3',5',6- (PCB 73)	15.2	15.2	U	12.40	U		0
Tetrachlorobiphenyl; 2,4,4',5- (PCB 74)			C61		C61		
Tetrachlorobiphenyl; 2,4,4',6- (PCB 75)			C59		C59		
Tetrachlorobiphenyl; 3,3',4,4'- (PCB 77)	56.3	4590		4260.00	B	7.46%	1
Tetrachlorobiphenyl; 3,3',4,5- (PCB 78)	51.9	51.9	U	91.50	U		0
Tetrachlorobiphenyl; 3,3',4,5'- (PCB 79)	39.6	684		562.00		19.58%	1
Tetrachlorobiphenyl; 3,3',5,5'- (PCB 80)	40.9	40.9	U	82.10	U		0
Tetrachlorobiphenyl; 3,4,4',5- (PCB 81)	53.5	53.5	U	114.00			0
Trichlorobiphenyl; 2,2',3- (PCB 16)	16.1	68600	J	48900.00	B	33.53%	1
Trichlorobiphenyl; 2,2',4- (PCB 17)	12.4	77300	J	61600.00	B	22.61%	1
Trichlorobiphenyl; 2,2',5- (PCB 18)	10.6	148000	JC18	116000.00	CB	24.24%	1
Trichlorobiphenyl; 2,2',6- (PCB 19)	13.7	29700		28300.00	B	4.83%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID Sample Location Unit	13C-CE05-T102-BM01 13C-CE05-T102 pg			13C-CE05-T102-BM01-PUF-C 13C-CE05-T102 pg		Split Result Evaluation	
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Trichlorobiphenyl; 2,3,3'- (PCB 20)	26	153000	JC20	162000.00	CB	5.71%	1
Trichlorobiphenyl; 2,3,4- (PCB 21)	24.4	49300	C21	48500.00	CB	1.64%	1
Trichlorobiphenyl; 2,3,4'- (PCB 22)	27.1	47800	J	50900.00	B	6.28%	1
Trichlorobiphenyl; 2,3',4- (PCB 25)	24.5	20100		19400.00	B	3.54%	1
Trichlorobiphenyl; 2',3,4- (PCB 33)			C21		C21		
Trichlorobiphenyl; 2,3,5- (PCB 23)	24.7	134		118.00		12.70%	1
Trichlorobiphenyl; 2,3',5- (PCB 26)	24.7	29800	C26	33100.00	CB	10.49%	1
Trichlorobiphenyl; 2',3,5- (PCB 34)	25.1	1050		1030.00		1.92%	1
Trichlorobiphenyl; 2,3,6- (PCB 24)	9.48	2540		1830.00		32.49%	1
Trichlorobiphenyl; 2,3',6- (PCB 27)	9.32	16500		12500.00		27.59%	1
Trichlorobiphenyl; 2,4,4'- (PCB 28)			C20		C20		
Trichlorobiphenyl; 2,4,5- (PCB 29)			C26		C26		
Trichlorobiphenyl; 2,4',5- (PCB 31)	24.3	123000	J	128000.00	B	3.98%	1
Trichlorobiphenyl; 2,4,6- (PCB 30)			C18		C18		
Trichlorobiphenyl; 2,4',6- (PCB 32)	8.7	60400	J	50400.00	B	18.05%	1
Trichlorobiphenyl; 3,3',4- (PCB 35)	30.6	2100		2480.00		16.59%	1
Trichlorobiphenyl; 3,3',5- (PCB 36)	25	135		50.00	U		1
Trichlorobiphenyl; 3,4,4'- (PCB 37)	35.8	27800		22200.00	B	22.40%	1
Trichlorobiphenyl; 3,4,5- (PCB 38)	26.8	294		134.00		74.77%	1
Trichlorobiphenyl; 3,4',5- (PCB 39)	24.7	1070		905.00		16.71%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM02			13C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Chlorobiphenyl; 2- (PCB 1)	19.7	5890		5290.00	B	10.73%	1
Chlorobiphenyl; 3- (PCB 2)	427	427	U	411.00	B		0
Chlorobiphenyl; 4- (PCB 3)	944	944	U	780.00	B		0
Decachlorobiphenyl (PCB 209)	47.4	47.4	U	38.60	B		0
Dichlorobiphenyl; 2,2'- (PCB 4)	76.1	29200		25100.00		15.10%	1
Dichlorobiphenyl; 2,3- (PCB 5)	284	284	UJ	320.00			0
Dichlorobiphenyl; 2,3'- (PCB 6)	5800	5800	UJ	5820.00			0
Dichlorobiphenyl; 2,4- (PCB 7)	632	632	UJ	638.00			0
Dichlorobiphenyl; 2,4'- (PCB 8)	17200	17200	UJ	16500.00	B		0
Dichlorobiphenyl; 2,5- (PCB 9)	1230	1230	UJ	1100.00			0
Dichlorobiphenyl; 2,6- (PCB 10)	47.9	1430		1170.00		20.00%	1
Dichlorobiphenyl; 3,3'- (PCB 11)	5950	5950	UJ	7200.00	B		0
Dichlorobiphenyl; 3,4- (PCB 12)	1960	1960	UJC12	2310.00	C		0
Dichlorobiphenyl; 3,4'- (PCB 13)			C12		C12		
Dichlorobiphenyl; 3,5- (PCB 14)	67.4	67.4	U	11.10	EMPC-J		0
Dichlorobiphenyl; 4,4'- (PCB 15)	11200	11200	UJ	9390.00			0
Heptachlorobiphenyl; 2,2',3,3',4,4',5- (PCB 170)	63.5	909		765.00	B	17.20%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',6- (PCB 171)	48.6	410	C171	308.00	C	28.41%	1
Heptachlorobiphenyl; 2,2',3,3',4,5,5'- (PCB 172)	48.1	198		162.00			0
Heptachlorobiphenyl; 2,2',3,3',4,5,6- (PCB 173)			C171		C171		
Heptachlorobiphenyl; 2,2',3,3',4,5,6'- (PCB 174)	48.1	1610		1250.00	B	25.17%	1
Heptachlorobiphenyl; 2,2',3,3',4,5',6- (PCB 175)	44.9	117		49.90			0
Heptachlorobiphenyl; 2,2',3,3',4',5,6- (PCB 177)	47.8	880		660.00		28.57%	1
Heptachlorobiphenyl; 2,2',3,3',4,6,6'- (PCB 176)	20	179	EMPC-J	181.00		1.11%	1
Heptachlorobiphenyl; 2,2',3,3',5,5',6- (PCB 178)	29.8	322		289.00		10.80%	1
Heptachlorobiphenyl; 2,2',3,3',5,6,6'- (PCB 179)	22.1	796		641.00		21.57%	1
Heptachlorobiphenyl; 2,2',3,4,4',5,5'- (PCB 180)	36.4	2040	C180	1900.00	CB	7.11%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM02			13C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Heptachlorobiphenyl; 2,2',3,4,4',5,6- (PCB 181)	43.2	43.2	U	9.90	EMPC-J		0
Heptachlorobiphenyl; 2,2',3,4,4',5,6'- (PCB 182)	39.9	39.9	U	12.10	EMPC-J		0
Heptachlorobiphenyl; 2,2',3,4,4',5',6- (PCB 183)	39.7	841		810.00	C	3.76%	1
Heptachlorobiphenyl; 2,2',3,4,4',6,6'- (PCB 184)	22.3	22.3	U	6.26			0
Heptachlorobiphenyl; 2,2',3,4,5,5',6- (PCB 185)	43	151			C183		0
Heptachlorobiphenyl; 2,2',3,4',5,5',6- (PCB 187)	41.3	2040		1850.00	B	9.77%	1
Heptachlorobiphenyl; 2,2',3,4,5,6,6'- (PCB 186)	21.7	21.7	U	0.67	U		0
Heptachlorobiphenyl; 2,2',3,4',5,6,6'- (PCB 188)	20.6	20.6	U	6.81	EMPC-J		0
Heptachlorobiphenyl; 2,3,3',4,4',5,5'- (PCB 189)	35.9	35.9	U	23.70			0
Heptachlorobiphenyl; 2,3,3',4,4',5,6- (PCB 190)	50.4	181		174.00			0
Heptachlorobiphenyl; 2,3,3',4,4',5',6- (PCB 191)	36.4	36.4	U	38.70			0
Heptachlorobiphenyl; 2,3,3',4,5,5',6- (PCB 192)	37.7	37.7	U	0.67	U		0
Heptachlorobiphenyl; 2,3,3',4',5,5',6- (PCB 193)			C180		C180		
Hexachlorobiphenyl; 2,2',3,3',4,4'- (PCB 128)	60.6	1280	C128	1080.00	CB	16.95%	1
Hexachlorobiphenyl; 2,2',3,3',4,5- (PCB 129)	34.4	7400	C129	6570.00	CB	11.88%	1
Hexachlorobiphenyl; 2,2',3,3',4,5'- (PCB 130)	39.9	479		386.00		21.50%	1
Hexachlorobiphenyl; 2,2',3,3',4,6- (PCB 131)	38	133	EMPC-J	94.00			0
Hexachlorobiphenyl; 2,2',3,3',4,6'- (PCB 132)	36.6	3030		2600.00	B	15.28%	1
Hexachlorobiphenyl; 2,2',3,3',5,5'- (PCB 133)	35.3	170		119.00			0
Hexachlorobiphenyl; 2,2',3,3',5,6- (PCB 134)	41.6	617		428.00	C	36.17%	1
Hexachlorobiphenyl; 2,2',3,3',5,6'- (PCB 135)	34.1	3870	C135	3010.00	CB	25.00%	1
Hexachlorobiphenyl; 2,2',3,3',6,6'- (PCB 136)	22.2	1600		1140.00		33.58%	1
Hexachlorobiphenyl; 2,2',3,4,4',5- (PCB 137)	32.6	247		268.00		8.16%	1
Hexachlorobiphenyl; 2,2',3,4,4',5'- (PCB 138)			C129		C129		
Hexachlorobiphenyl; 2,2',3,4,4',6- (PCB 139)	32.7	139	C139	122.00	C		0
Hexachlorobiphenyl; 2,2',3,4,4',6'- (PCB 140)			C139		C139		
Hexachlorobiphenyl; 2,2',3,4,5,5'- (PCB 141)	35.2	1350		1230.00	B	9.30%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM02			13C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 2,2',3,4',5,5'- (PCB 146)	32.2	1220		1090.00	B	11.26%	1
Hexachlorobiphenyl; 2,2',3,4,5,6- (PCB 142)	37.4	37.4	U	16.30	U		0
Hexachlorobiphenyl; 2,2',3,4,5,6'- (PCB 143)	33.8	33.8	U		C134		0
Hexachlorobiphenyl; 2,2',3,4,5',6- (PCB 144)	33	464		384.00		18.87%	1
Hexachlorobiphenyl; 2,2',3,4',5,6- (PCB 147)	32.9	8280	C147	6810.00	CB	19.48%	1
Hexachlorobiphenyl; 2,2',3,4',5,6'- (PCB 148)	32.6	34.7		28.80			0
Hexachlorobiphenyl; 2,2',3,4',5',6- (PCB 149)			C147		C147		
Hexachlorobiphenyl; 2,2',3,4,6,6'- (PCB 145)	21.5	21.5	U	3.17	EMPC-J		0
Hexachlorobiphenyl; 2,2',3,4',6,6'- (PCB 150)	20.2	41	EMPC-J	34.10			0
Hexachlorobiphenyl; 2,2',3,5,5',6- (PCB 151)			C135		C135		
Hexachlorobiphenyl; 2,2',3,5,6,6'- (PCB 152)	20.6	26.3	EMPC-J	29.70			0
Hexachlorobiphenyl; 2,2',4,4',5,5'- (PCB 153)	23.5	5110	C153	5760.00	CB	11.96%	1
Hexachlorobiphenyl; 2,2',4,4',5',6- (PCB 154)	29.6	190	EMPC-J		C135		1
Hexachlorobiphenyl; 2,2',4,4',6,6'- (PCB 155)	19.7	77.1		61.80			0
Hexachlorobiphenyl; 2,3,3',4,4',5- (PCB 156)	89.2	598	C156	489.00	CB	20.06%	1
Hexachlorobiphenyl; 2,3,3',4,4',5'- (PCB 157)			C156		C156		
Hexachlorobiphenyl; 2,3,3',4,4',6- (PCB 158)	25.5	639		624.00		2.38%	1
Hexachlorobiphenyl; 2,3,3',4,5,5'- (PCB 159)	52.7	101	EMPC-J	56.60			0
Hexachlorobiphenyl; 2,3,3',4',5,5'- (PCB 162)	53.6	53.6	U	30.80	EMPC-J		0
Hexachlorobiphenyl; 2,3,3',4,5,6- (PCB 160)	26.8	26.8	U		C129		0
Hexachlorobiphenyl; 2,3,3',4,5',6- (PCB 161)	26.3	26.3	U	11.50	U		0
Hexachlorobiphenyl; 2,3,3',4',5,6- (PCB 163)			C129		C129		
Hexachlorobiphenyl; 2,3,3',4',5',6- (PCB 164)	27.6	568		492.00		14.34%	1
Hexachlorobiphenyl; 2,3,3',5,5',6- (PCB 165)	27.9	27.9	U	13.30	U		0
Hexachlorobiphenyl; 2,3',4,4',5,5'- (PCB 167)	55.6	212		179.00			0
Hexachlorobiphenyl; 2,3,4,4',5,6- (PCB 166)			C128		C128		
Hexachlorobiphenyl; 2,3',4,4',5',6- (PCB 168)			C153		C153		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM02			13C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 3,3',4,4',5,5'- (PCB 169)	134	134	U	4.00	U		0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6- (PCB 206)	64.2	108		106.00			0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,6,6'- (PCB 207)	59.4	59.4	U	22.20			0
Nonachlorobiphenyl; 2,2',3,3',4,5,5',6,6'- (PCB 208)	62.7	62.7	U	59.70			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,5'- (PCB 194)	76.3	317		238.00			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,6- (PCB 195)	80.8	139		109.00			0
Octachlorobiphenyl; 2,2',3,3',4,4',5,6'- (PCB 196)	50.6	112	EMPC-J	180.00			0
Octachlorobiphenyl; 2,2',3,3',4,4',6,6'- (PCB 197)	35	35	U	68.40	C		0
Octachlorobiphenyl; 2,2',3,3',4,5,5',6- (PCB 198)	51.5	457	C198	505.00	C	9.98%	1
Octachlorobiphenyl; 2,2',3,3',4,5,5',6'- (PCB 199)			C198		C198		
Octachlorobiphenyl; 2,2',3,3',4,5,6,6'- (PCB 200)	36.7	36.7	U		C197		0
Octachlorobiphenyl; 2,2',3,3',4,5',6,6'- (PCB 201)	35.7	70.4	EMPC-J	65.40			0
Octachlorobiphenyl; 2,2',3,3',5,5',6,6'- (PCB 202)	35	169		149.00			0
Octachlorobiphenyl; 2,2',3,4,4',5,5',6- (PCB 203)	48.5	215		277.00			0
Octachlorobiphenyl; 2,2',3,4,4',5,6,6'- (PCB 204)	37.6	37.6	U	0.67	U		0
Octachlorobiphenyl; 2,3,3',4,4',5,5',6- (PCB 205)	62.3	62.3	U	12.90			0
Pentachlorobiphenyl; 2,2',3,3',4- (PCB 82)	100	1970		1350.00	B	37.35%	1
Pentachlorobiphenyl; 2,2',3,3',5- (PCB 83)	101	1040		6580.00	CB	145.41%	1
Pentachlorobiphenyl; 2,2',3,3',6- (PCB 84)	95.2	6140		4210.00	B	37.29%	1
Pentachlorobiphenyl; 2,2',3,4,4'- (PCB 85)	70.9	2080	C85	1930.00	CB	7.48%	1
Pentachlorobiphenyl; 2,2',3,4,5- (PCB 86)	72.5	10100	C86	8120.00	CB	21.73%	1
Pentachlorobiphenyl; 2,2',3,4,5'- (PCB 87)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4',5- (PCB 90)	72.2	15400	C90	11500.00	CB	29.00%	1
Pentachlorobiphenyl; 2,2',3',4,5- (PCB 97)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4,6- (PCB 88)	95.9	95.9	U	2350.00	C		0
Pentachlorobiphenyl; 2,2',3,4,6'- (PCB 89)	89.5	299		238.00			0
Pentachlorobiphenyl; 2,2',3,4',6- (PCB 91)	67.9	2770			C88		1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM02			13C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,2',3',4,6- (PCB 98)	77.8	77.8	U		C93		0
Pentachlorobiphenyl; 2,2',3,5,5'- (PCB 92)	85.3	3250		2280.00	B	35.08%	1
Pentachlorobiphenyl; 2,2',3,5,6- (PCB 93)	79.8	1090	C93	14000.00	CB	171.11%	1
Pentachlorobiphenyl; 2,2',3,5,6'- (PCB 94)	85.5	401		306.00			0
Pentachlorobiphenyl; 2,2',3,5',6- (PCB 95)	80.2	16500			C93		1
Pentachlorobiphenyl; 2,2',3,6,6'- (PCB 96)	21.7	452		266.00		51.81%	1
Pentachlorobiphenyl; 2,2',4,4',5- (PCB 99)	78.7	7470			C83		1
Pentachlorobiphenyl; 2,2',4,4',6- (PCB 100)			C93		C93		
Pentachlorobiphenyl; 2,2',4,5,5'- (PCB 101)			C90		C90		
Pentachlorobiphenyl; 2,2',4,5,6'- (PCB 102)	81.9	1310			C93		1
Pentachlorobiphenyl; 2,2',4,5',6- (PCB 103)	74.4	495		347.00		35.15%	1
Pentachlorobiphenyl; 2,2',4,6,6'- (PCB 104)	20	197		123.00		46.25%	1
Pentachlorobiphenyl; 2,3,3',4,4'- (PCB 105)	76.7	3260		2580.00	B	23.29%	1
Pentachlorobiphenyl; 2,3,3',4,5- (PCB 106)	69.7	69.7	U	12.30	U		0
Pentachlorobiphenyl; 2,3,3',4',5- (PCB 107)	67.9	377	C107	281.00	C	29.18%	1
Pentachlorobiphenyl; 2,3,3',4,5'- (PCB 108)			C86		C86		
Pentachlorobiphenyl; 2',3,3',4,5- (PCB 122)	72.3	72.3	U	117.00			0
Pentachlorobiphenyl; 2,3,3',4,6- (PCB 109)	60.9	638		569.00		11.43%	1
Pentachlorobiphenyl; 2,3,3',4',6- (PCB 110)	74.2	18900		12700.00	CB	39.24%	1
Pentachlorobiphenyl; 2,3,3',5,5'- (PCB 111)	61.1	61.1	U	6.28	U		0
Pentachlorobiphenyl; 2,3,3',5,6- (PCB 112)	60.3	60.3	U	5.80	U		0
Pentachlorobiphenyl; 2,3,3',5',6- (PCB 113)			C90		C90		
Pentachlorobiphenyl; 2,3,4,4',5- (PCB 114)	67.8	222		165.00	B		0
Pentachlorobiphenyl; 2,3',4,4',5- (PCB 118)	69.2	7860		6400.00	B	20.48%	1
Pentachlorobiphenyl; 2',3,4,4',5- (PCB 123)	71.2	197		131.00			0
Pentachlorobiphenyl; 2,3,4,4',6- (PCB 115)	68.4	68.4	U		C110		0
Pentachlorobiphenyl; 2,3',4,4',6- (PCB 119)			C86		C86		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM02			13C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,3',4,5,5'- (PCB 120)	62.1	62.1	U	24.50			0
Pentachlorobiphenyl; 2',3,4,5,5'- (PCB 124)			C107		C107		
Pentachlorobiphenyl; 2,3,4,5,6- (PCB 116)			C85		C85		
Pentachlorobiphenyl; 2,3,4',5,6- (PCB 117)	72	517			C85		1
Pentachlorobiphenyl; 2,3',4,5',6- (PCB 121)	59.9	59.9	U	9.76			0
Pentachlorobiphenyl; 2',3,4,5,6'- (PCB 125)			C86		C86		
Pentachlorobiphenyl; 3,3',4,4',5- (PCB 126)	40.1	40.1	U	17.50			0
Pentachlorobiphenyl; 3,3',4,5,5'- (PCB 127)	78.3	78.3	U	13.00	U		0
Tetrachlorobiphenyl; 2,2',3,3'- (PCB 40)	16200	16200	UC40	17500.00	CB		0
Tetrachlorobiphenyl; 2,2',3,4- (PCB 41)	2380	2380	U		C40		0
Tetrachlorobiphenyl; 2,2',3,4'- (PCB 42)	9340	9340	U	8190.00	B		0
Tetrachlorobiphenyl; 2,2',3,5- (PCB 43)	1830	1830	U	1530.00			0
Tetrachlorobiphenyl; 2,2',3,5'- (PCB 44)	39200	39200	UC44	35300.00	CB		0
Tetrachlorobiphenyl; 2,2',3,6- (PCB 45)	7930	7930	U	12900.00	CB		0
Tetrachlorobiphenyl; 2,2',3,6'- (PCB 46)	3570	3570	U	2980.00			0
Tetrachlorobiphenyl; 2,2',4,4'- (PCB 47)			C44		C44		
Tetrachlorobiphenyl; 2,2',4,5- (PCB 48)	6820	6820	U	6320.00			0
Tetrachlorobiphenyl; 2,2',4,5'- (PCB 49)	22300	22300	UC49	21000.00	CB		0
Tetrachlorobiphenyl; 2,2',4,6- (PCB 50)	10000	10000	UC50	8980.00	CB		0
Tetrachlorobiphenyl; 2,2',4,6'- (PCB 51)	34.5	6960			C45		1
Tetrachlorobiphenyl; 2,2',5,5'- (PCB 52)	40800	40800	UJ	34900.00	B		0
Tetrachlorobiphenyl; 2,2',5,6'- (PCB 53)			C50		C50		
Tetrachlorobiphenyl; 2,2',6,6'- (PCB 54)	21	1200		901.00		28.46%	1
Tetrachlorobiphenyl; 2,3,3',4- (PCB 55)	56.3	56.3	U	393.00			0
Tetrachlorobiphenyl; 2,3,3',4'- (PCB 56)	58.4	8300		7760.00	B	6.72%	1
Tetrachlorobiphenyl; 2,3,3',5- (PCB 57)	53.9	123		108.00			0
Tetrachlorobiphenyl; 2,3,3',5'- (PCB 58)	51.8	51.8	U	40.40	U		0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID Sample Location Unit	13C-CE05-T102-BM02 13C-CE05-T102 pg			13C-CE05-T102-BM02-PUF-C 13C-CE05-T102 pg		Split Result Evaluation	
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Tetrachlorobiphenyl; 2,3,3',6- (PCB 59)	3220	3220	UC59	3110.00	C		0
Tetrachlorobiphenyl; 2,3,4,4'- (PCB 60)	58.2	2980		2690.00	B	10.23%	1
Tetrachlorobiphenyl; 2,3',4,4'- (PCB 66)	55.6	15900		15200.00	B	4.50%	1
Tetrachlorobiphenyl; 2,3,4,5- (PCB 61)	53.1	28700	C61	28300.00	CB	1.40%	1
Tetrachlorobiphenyl; 2,3,4',5- (PCB 63)	755	755	U	783.00			0
Tetrachlorobiphenyl; 2,3',4,5- (PCB 67)	762	762	U	746.00			0
Tetrachlorobiphenyl; 2,3',4,5'- (PCB 68)	47.6	180		185.00			0
Tetrachlorobiphenyl; 2,3',4',5- (PCB 70)			C61		C61		
Tetrachlorobiphenyl; 2',3,4,5- (PCB 76)			C61		C61		
Tetrachlorobiphenyl; 2,3,4,6- (PCB 62)			C59		C59		
Tetrachlorobiphenyl; 2,3,4',6- (PCB 64)	12500	12500	U	12200.00	B		0
Tetrachlorobiphenyl; 2,3',4,6- (PCB 69)			C49		C49		
Tetrachlorobiphenyl; 2,3',4',6- (PCB 71)			C40		C40		
Tetrachlorobiphenyl; 2,3',5,5'- (PCB 72)	51.3	229		214.00			0
Tetrachlorobiphenyl; 2,3,5,6- (PCB 65)			C44		C44		
Tetrachlorobiphenyl; 2,3',5',6- (PCB 73)	28.9	28.9	U	2.22	U		0
Tetrachlorobiphenyl; 2,4,4',5- (PCB 74)			C61		C61		
Tetrachlorobiphenyl; 2,4,4',6- (PCB 75)			C59		C59		
Tetrachlorobiphenyl; 3,3',4,4'- (PCB 77)	66.6	1220		972.00	B	22.63%	1
Tetrachlorobiphenyl; 3,3',4,5- (PCB 78)	62.4	62.4	U	38.20	U		0
Tetrachlorobiphenyl; 3,3',4,5'- (PCB 79)	47.6	189		138.00			0
Tetrachlorobiphenyl; 3,3',5,5'- (PCB 80)	49.1	49.1	U	34.20	U		0
Tetrachlorobiphenyl; 3,4,4',5- (PCB 81)	64.3	64.3	U	27.40			0
Trichlorobiphenyl; 2,2',3- (PCB 16)	23000	23000	U	17100.00	B		0
Trichlorobiphenyl; 2,2',4- (PCB 17)	24500	24500	U	20000.00	B		0
Trichlorobiphenyl; 2,2',5- (PCB 18)	48900	48900	UC18	39000.00	CB		0
Trichlorobiphenyl; 2,2',6- (PCB 19)	10000	10000	U	8460.00	B		0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BM02			13C-CE05-T102-BM02-PUF-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Trichlorobiphenyl; 2,3,3'- (PCB 20)	48000	48000	UC20	45700.00	CB		0
Trichlorobiphenyl; 2,3,4- (PCB 21)	17600	17600	UC21	17200.00	CB		0
Trichlorobiphenyl; 2,3,4'- (PCB 22)	15200	15200	U	14600.00	B		0
Trichlorobiphenyl; 2,3',4- (PCB 25)	6260	6260	U	5320.00	B		0
Trichlorobiphenyl; 2',3,4- (PCB 33)			C21		C21		
Trichlorobiphenyl; 2,3,5- (PCB 23)	36.8	36.8	U	42.20			0
Trichlorobiphenyl; 2,3',5- (PCB 26)	9790	9790	UC26	9460.00	CB		0
Trichlorobiphenyl; 2',3,5- (PCB 34)	334	334	U	279.00			0
Trichlorobiphenyl; 2,3,6- (PCB 24)	762	762	U	669.00			0
Trichlorobiphenyl; 2,3',6- (PCB 27)	5090	5090	U	4010.00			0
Trichlorobiphenyl; 2,4,4'- (PCB 28)			C20		C20		
Trichlorobiphenyl; 2,4,5- (PCB 29)			C26		C26		
Trichlorobiphenyl; 2,4',5- (PCB 31)	40100	40100	UJ	37300.00	B		0
Trichlorobiphenyl; 2,4,6- (PCB 30)			C18		C18		
Trichlorobiphenyl; 2,4',6- (PCB 32)	17800	17800	U	15300.00	B		0
Trichlorobiphenyl; 3,3',4- (PCB 35)	627	627	U	562.00			0
Trichlorobiphenyl; 3,3',5- (PCB 36)	37.3	37.3	U	19.60	U		0
Trichlorobiphenyl; 3,4,4'- (PCB 37)	7830	7830	U	5410.00	B		0
Trichlorobiphenyl; 3,4,5- (PCB 38)	39.9	39.9	U	20.00	U		0
Trichlorobiphenyl; 3,4',5- (PCB 39)	365	365	U	244.00			0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BP01			13C-CE05-T102-BP01-SS-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Chlorobiphenyl; 2- (PCB 1)	11.3	4890		8370.00		52.49%	1
Chlorobiphenyl; 3- (PCB 2)	13	1340		2910		73.88%	1
Chlorobiphenyl; 4- (PCB 3)	12.9	4320		9290.00		73.03%	1
Decachlorobiphenyl (PCB 209)	38.8	8930		40900.00		128.32%	1
Dichlorobiphenyl; 2,2'- (PCB 4)	45.8	9760		18700		62.83%	1
Dichlorobiphenyl; 2,3- (PCB 5)	52.7	206	J	517			0
Dichlorobiphenyl; 2,3'- (PCB 6)	52.6	4880	J	13000		90.83%	1
Dichlorobiphenyl; 2,4- (PCB 7)	49.1	539	J	1720		104.56%	1
Dichlorobiphenyl; 2,4'- (PCB 8)	50.8	18100	J	47600	B	89.80%	1
Dichlorobiphenyl; 2,5- (PCB 9)	54.6	854	J	2250		89.95%	1
Dichlorobiphenyl; 2,6- (PCB 10)	28.8	716		1250.00		54.32%	1
Dichlorobiphenyl; 3,3'- (PCB 11)	57.3	16800	J	60600	B	113.18%	1
Dichlorobiphenyl; 3,4- (PCB 12)	57.9	4910	JC12	16100	C	106.52%	1
Dichlorobiphenyl; 3,4'- (PCB 13)			C12		C12		
Dichlorobiphenyl; 3,5- (PCB 14)	45.8	45.8	U	67.9			0
Dichlorobiphenyl; 4,4'- (PCB 15)	65.4	37800	J	111000		98.39%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',5- (PCB 170)	61	19200		89600.00		129.41%	1
Heptachlorobiphenyl; 2,2',3,3',4,4',6- (PCB 171)	56.3	7270	C171	28300	C	118.25%	1
Heptachlorobiphenyl; 2,2',3,3',4,5,5'- (PCB 172)	55.7	3940		16000.00		120.96%	1
Heptachlorobiphenyl; 2,2',3,3',4,5,6- (PCB 173)			C171		C171		
Heptachlorobiphenyl; 2,2',3,3',4,5,6'- (PCB 174)	55.7	27900		102000.00		114.09%	1
Heptachlorobiphenyl; 2,2',3,3',4,5',6- (PCB 175)	52	1200		4140.00		110.11%	1
Heptachlorobiphenyl; 2,2',3,3',4',5,6- (PCB 177)	55.4	15200		56700.00		115.44%	1
Heptachlorobiphenyl; 2,2',3,3',4,6,6'- (PCB 176)	16.6	3000		13200.00		125.93%	1
Heptachlorobiphenyl; 2,2',3,3',5,5',6- (PCB 178)	24.7	5460		22600.00		122.17%	1
Heptachlorobiphenyl; 2,2',3,3',5,6,6'- (PCB 179)	18.4	11800		46200.00		118.62%	1
Heptachlorobiphenyl; 2,2',3,4,4',5,5'- (PCB 180)	42.1	48400	C180	210000	CB	125.08%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BP01			13C-CE05-T102-BP01-SS-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Heptachlorobiphenyl; 2,2',3,4,4',5,6- (PCB 181)	50.1	231		944			0
Heptachlorobiphenyl; 2,2',3,4,4',5,6'- (PCB 182)	46.2	229		813			0
Heptachlorobiphenyl; 2,2',3,4,4',5',6- (PCB 183)	46	14500		71500.00	CB	132.56%	1
Heptachlorobiphenyl; 2,2',3,4,4',6,6'- (PCB 184)	18.5	94.7		487		134.88%	1
Heptachlorobiphenyl; 2,2',3,4,5,5',6- (PCB 185)	49.7	2920			C183		1
Heptachlorobiphenyl; 2,2',3,4',5,5',6- (PCB 187)	47.9	35100		141000.00	B	120.27%	1
Heptachlorobiphenyl; 2,2',3,4,5,6,6'- (PCB 186)	18	18	U	32			0
Heptachlorobiphenyl; 2,2',3,4',5,6,6'- (PCB 188)	17.1	103		434	B	123.28%	1
Heptachlorobiphenyl; 2,3,3',4,4',5,5'- (PCB 189)	41.5	819	J	3660		126.86%	1
Heptachlorobiphenyl; 2,3,3',4,4',5,6- (PCB 190)	48.4	3900		18400.00		130.04%	1
Heptachlorobiphenyl; 2,3,3',4,4',5',6- (PCB 191)	42.2	962		3650		116.57%	1
Heptachlorobiphenyl; 2,3,3',4,5,5',6- (PCB 192)	43.7	43.7	U	30			0
Heptachlorobiphenyl; 2,3,3',4',5,5',6- (PCB 193)			C180		C180		
Hexachlorobiphenyl; 2,2',3,3',4,4'- (PCB 128)	125	15400	C128	48500	C	103.60%	1
Hexachlorobiphenyl; 2,2',3,3',4,5- (PCB 129)	19.7	92700	C129	364000	CB	118.81%	1
Hexachlorobiphenyl; 2,2',3,3',4,5'- (PCB 130)	22.9	5470		20900.00		117.03%	1
Hexachlorobiphenyl; 2,2',3,3',4,6- (PCB 131)	21.8	1190		4070.00		109.51%	1
Hexachlorobiphenyl; 2,2',3,3',4,6'- (PCB 132)	21	29600		120000.00		120.86%	1
Hexachlorobiphenyl; 2,2',3,3',5,5'- (PCB 133)	20.2	1560		5940.00		116.80%	1
Hexachlorobiphenyl; 2,2',3,3',5,6- (PCB 134)	23.9	5660		17500.00	C	102.25%	1
Hexachlorobiphenyl; 2,2',3,3',5,6'- (PCB 135)	19.5	32700	C135	122000	CB	115.45%	1
Hexachlorobiphenyl; 2,2',3,3',6,6'- (PCB 136)	14.7	12400		48500		118.56%	1
Hexachlorobiphenyl; 2,2',3,4,4',5- (PCB 137)	18.7	3360		17500.00		135.57%	1
Hexachlorobiphenyl; 2,2',3,4,4',5'- (PCB 138)			C129		C129		
Hexachlorobiphenyl; 2,2',3,4,4',6- (PCB 139)	18.8	1720	C139	6530	C	116.61%	1
Hexachlorobiphenyl; 2,2',3,4,4',6'- (PCB 140)			C139		C139		
Hexachlorobiphenyl; 2,2',3,4,5,5'- (PCB 141)	20.2	15700		63200.00		120.41%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BP01			13C-CE05-T102-BP01-SS-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 2,2',3,4',5,5'- (PCB 146)	18.5	13400		57200.00		124.08%	1
Hexachlorobiphenyl; 2,2',3,4,5,6- (PCB 142)	21.5	21.5	U	31.70	U		0
Hexachlorobiphenyl; 2,2',3,4,5,6'- (PCB 143)	19.4	19.4	U		C134		0
Hexachlorobiphenyl; 2,2',3,4,5',6- (PCB 144)	18.9	4220		15300.00		113.52%	1
Hexachlorobiphenyl; 2,2',3,4',5,6- (PCB 147)	18.9	77000	C147	309000	CB	120.21%	1
Hexachlorobiphenyl; 2,2',3,4',5,6'- (PCB 148)	18.7	371		1400		116.21%	1
Hexachlorobiphenyl; 2,2',3,4',5',6- (PCB 149)			C147		C147		
Hexachlorobiphenyl; 2,2',3,4,6,6'- (PCB 145)	14.3	53.1		144			0
Hexachlorobiphenyl; 2,2',3,4',6,6'- (PCB 150)	13.4	382		1770		129.00%	1
Hexachlorobiphenyl; 2,2',3,5,5',6- (PCB 151)			C135		C135		
Hexachlorobiphenyl; 2,2',3,5,6,6'- (PCB 152)	13.7	309		1250		120.72%	1
Hexachlorobiphenyl; 2,2',4,4',5,5'- (PCB 153)	13.5	62100	C153	321000	CB	135.16%	1
Hexachlorobiphenyl; 2,2',4,4',5',6- (PCB 154)	17	2150			C135		1
Hexachlorobiphenyl; 2,2',4,4',6,6'- (PCB 155)	13.1	858		3140	B	114.16%	1
Hexachlorobiphenyl; 2,3,3',4,4',5- (PCB 156)	170	9970	C156	38100	CB	117.04%	1
Hexachlorobiphenyl; 2,3,3',4,4',5'- (PCB 157)			C156		C156		
Hexachlorobiphenyl; 2,3,3',4,4',6- (PCB 158)	14.6	8290		33200.00		120.08%	1
Hexachlorobiphenyl; 2,3,3',4,5,5'- (PCB 159)	108	1580		4240.00		91.41%	1
Hexachlorobiphenyl; 2,3,3',4',5,5'- (PCB 162)	110	436	EMPC-J	1870	EMPC-J		0
Hexachlorobiphenyl; 2,3,3',4,5,6- (PCB 160)	15.4	15.4	U		C129		0
Hexachlorobiphenyl; 2,3,3',4,5',6- (PCB 161)	15.1	15.1	U	21.00	U		0
Hexachlorobiphenyl; 2,3,3',4',5,6- (PCB 163)			C129		C129		
Hexachlorobiphenyl; 2,3,3',4',5',6- (PCB 164)	15.8	6160		22800.00		114.92%	1
Hexachlorobiphenyl; 2,3,3',5,5',6- (PCB 165)	16	59.8	EMPC-J	235			0
Hexachlorobiphenyl; 2,3',4,4',5,5'- (PCB 167)	114	3490		13400.00	B	117.35%	1
Hexachlorobiphenyl; 2,3,4,4',5,6- (PCB 166)			C128		C128		
Hexachlorobiphenyl; 2,3',4,4',5',6- (PCB 168)			C153		C153		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BP01			13C-CE05-T102-BP01-SS-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Hexachlorobiphenyl; 3,3',4,4',5,5'- (PCB 169)	159	580		220.00	U		0
Nonachlorobiphenyl; 2,2',3,3',4,4',5,5',6- (PCB 206)	67.6	9100		51500.00		139.93%	1
Nonachlorobiphenyl; 2,2',3,3',4,4',5,6,6'- (PCB 207)	43.9	1060		5550		135.85%	1
Nonachlorobiphenyl; 2,2',3,3',4,5,5',6,6'- (PCB 208)	46.4	4000		21200		136.51%	1
Octachlorobiphenyl; 2,2',3,3',4,4',5,5'- (PCB 194)	54.4	14300		56200.00		118.87%	1
Octachlorobiphenyl; 2,2',3,3',4,4',5,6- (PCB 195)	57.6	5770		19900.00		110.09%	1
Octachlorobiphenyl; 2,2',3,3',4,4',5,6'- (PCB 196)	25.2	6010		27300.00		127.83%	1
Octachlorobiphenyl; 2,2',3,3',4,4',6,6'- (PCB 197)	17.4	426		10800.00	C	184.82%	1
Octachlorobiphenyl; 2,2',3,3',4,5,5',6- (PCB 198)	25.7	15100	C198	74800	C	132.81%	1
Octachlorobiphenyl; 2,2',3,3',4,5,5',6'- (PCB 199)			C198		C198		
Octachlorobiphenyl; 2,2',3,3',4,5,6,6'- (PCB 200)	18.3	1660			C197		1
Octachlorobiphenyl; 2,2',3,3',4,5',6,6'- (PCB 201)	17.8	1910		9410.00		132.51%	1
Octachlorobiphenyl; 2,2',3,3',5,5',6,6'- (PCB 202)	17.4	3750		19500.00		135.48%	1
Octachlorobiphenyl; 2,2',3,4,4',5,5',6- (PCB 203)	24.1	9180		42700.00		129.22%	1
Octachlorobiphenyl; 2,2',3,4,4',5,6,6'- (PCB 204)	18.7	18.7	U	74.8			0
Octachlorobiphenyl; 2,3,3',4,4',5,5',6- (PCB 205)	44.4	667		2910		125.41%	1
Pentachlorobiphenyl; 2,2',3,3',4- (PCB 82)	467	13400		39200.00		98.10%	1
Pentachlorobiphenyl; 2,2',3,3',5- (PCB 83)	470	5420		229000.00	CB	190.75%	1
Pentachlorobiphenyl; 2,2',3,3',6- (PCB 84)	445	29200		87500.00		99.91%	1
Pentachlorobiphenyl; 2,2',3,4,4'- (PCB 85)	331	16700	C85	61700	C	114.80%	1
Pentachlorobiphenyl; 2,2',3,4,5- (PCB 86)	338	65300	C86	220000	CB	108.45%	1
Pentachlorobiphenyl; 2,2',3,4,5'- (PCB 87)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4',5- (PCB 90)	337	96000	C90	354000	CB	114.67%	1
Pentachlorobiphenyl; 2,2',3',4,5- (PCB 97)			C86		C86		
Pentachlorobiphenyl; 2,2',3,4,6- (PCB 88)	448	448	U	60700	C		0
Pentachlorobiphenyl; 2,2',3,4,6'- (PCB 89)	418	1720		5580.00			0
Pentachlorobiphenyl; 2,2',3,4',6- (PCB 91)	317	14600			C88		1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BP01			13C-CE05-T102-BP01-SS-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,2',3',4,6- (PCB 98)	363	363	U		C93		0
Pentachlorobiphenyl; 2,2',3,5,5'- (PCB 92)	399	19100		66000.00		110.22%	1
Pentachlorobiphenyl; 2,2',3,5,6- (PCB 93)	373	6060	C93	282000	CB	191.59%	1
Pentachlorobiphenyl; 2,2',3,5,6'- (PCB 94)	399	1720		6130.00			0
Pentachlorobiphenyl; 2,2',3,5',6- (PCB 95)	375	74400	J		C93		1
Pentachlorobiphenyl; 2,2',3,6,6'- (PCB 96)	18.1	1370		3990.00		97.76%	1
Pentachlorobiphenyl; 2,2',4,4',5- (PCB 99)	368	53100	J		C83		1
Pentachlorobiphenyl; 2,2',4,4',6- (PCB 100)			C93		C93		
Pentachlorobiphenyl; 2,2',4,5,5'- (PCB 101)			C90		C90		
Pentachlorobiphenyl; 2,2',4,5,6'- (PCB 102)	382	6220			C93		1
Pentachlorobiphenyl; 2,2',4,5',6- (PCB 103)	347	2330		8070.00		110.38%	1
Pentachlorobiphenyl; 2,2',4,6,6'- (PCB 104)	16.7	654		2100.00	B	105.01%	1
Pentachlorobiphenyl; 2,3,3',4,4'- (PCB 105)	306	32000		115000.00	B	112.93%	1
Pentachlorobiphenyl; 2,3,3',4,5- (PCB 106)	326	326	U	124.00	U		0
Pentachlorobiphenyl; 2,3,3',4',5- (PCB 107)	317	3190	C107	10700	C	108.14%	1
Pentachlorobiphenyl; 2,3,3',4,5'- (PCB 108)			C86		C86		
Pentachlorobiphenyl; 2',3,3',4,5- (PCB 122)	314	1440		3990.00			0
Pentachlorobiphenyl; 2,3,3',4,6- (PCB 109)	285	5940		20800.00		111.14%	1
Pentachlorobiphenyl; 2,3,3',4',6- (PCB 110)	346	128000	J	350000	CB	92.89%	1
Pentachlorobiphenyl; 2,3,3',5,5'- (PCB 111)	285	285	U	268			0
Pentachlorobiphenyl; 2,3,3',5,6- (PCB 112)	281	281	U	59.10	U		0
Pentachlorobiphenyl; 2,3,3',5',6- (PCB 113)			C90		C90		
Pentachlorobiphenyl; 2,3,4,4',5- (PCB 114)	294	2000		6540.00	B	106.32%	1
Pentachlorobiphenyl; 2,3',4,4',5- (PCB 118)	253	72500	J	263000.00	B	113.56%	1
Pentachlorobiphenyl; 2',3,4,4',5- (PCB 123)	332	1700		5350.00	B	103.55%	1
Pentachlorobiphenyl; 2,3,4,4',6- (PCB 115)	320	320	U		C110		0
Pentachlorobiphenyl; 2,3',4,4',6- (PCB 119)			C86		C86		

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BP01			13C-CE05-T102-BP01-SS-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Pentachlorobiphenyl; 2,3',4,5,5'- (PCB 120)	290	290	U	1140			0
Pentachlorobiphenyl; 2',3,4,5,5'- (PCB 124)			C107		C107		
Pentachlorobiphenyl; 2,3,4,5,6- (PCB 116)			C85		C85		
Pentachlorobiphenyl; 2,3,4',5,6- (PCB 117)	336	2830			C85		1
Pentachlorobiphenyl; 2,3',4,5',6- (PCB 121)	280	280	U	318			0
Pentachlorobiphenyl; 2',3,4,5,6'- (PCB 125)			C86		C86		
Pentachlorobiphenyl; 3,3',4,4',5- (PCB 126)	72.5	367		1060	B	97.13%	1
Pentachlorobiphenyl; 3,3',4,5,5'- (PCB 127)	312	312	U	631			0
Tetrachlorobiphenyl; 2,2',3,3'- (PCB 40)	23.8	41100	C40	163000	CB	119.45%	1
Tetrachlorobiphenyl; 2,2',3,4- (PCB 41)	30.3	5070			C40		1
Tetrachlorobiphenyl; 2,2',3,4'- (PCB 42)	26.5	24400		79200.00		105.79%	1
Tetrachlorobiphenyl; 2,2',3,5- (PCB 43)	28.1	3640		11800.00		105.70%	1
Tetrachlorobiphenyl; 2,2',3,5'- (PCB 44)	23.4	98600	C44	333000	CB	108.62%	1
Tetrachlorobiphenyl; 2,2',3,6- (PCB 45)	26.6	8870		79400.00	C	159.81%	1
Tetrachlorobiphenyl; 2,2',3,6'- (PCB 46)	28.7	5460		75600.00		173.06%	1
Tetrachlorobiphenyl; 2,2',4,4'- (PCB 47)			C44		C44		
Tetrachlorobiphenyl; 2,2',4,5- (PCB 48)	24.5	14800		51800.00		111.11%	1
Tetrachlorobiphenyl; 2,2',4,5'- (PCB 49)	20.5	56300	C49	206000	CB	114.14%	1
Tetrachlorobiphenyl; 2,2',4,6- (PCB 50)	23.4	14700	C50	47900	C	106.07%	1
Tetrachlorobiphenyl; 2,2',4,6'- (PCB 51)	23.1	15400			C45		1
Tetrachlorobiphenyl; 2,2',5,5'- (PCB 52)	24.6	89400	J	301000	B	108.40%	1
Tetrachlorobiphenyl; 2,2',5,6'- (PCB 53)			C50		C50		
Tetrachlorobiphenyl; 2,2',6,6'- (PCB 54)	14.1	1570		3490.00		75.89%	1
Tetrachlorobiphenyl; 2,3,3',4- (PCB 55)	127	127	U	4090			0
Tetrachlorobiphenyl; 2,3,3',4'- (PCB 56)	132	38400		144000.00		115.79%	1
Tetrachlorobiphenyl; 2,3,3',5- (PCB 57)	122	425		1560.00			0
Tetrachlorobiphenyl; 2,3,3',5'- (PCB 58)	117	117	U	1370			0

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID Sample Location Unit	13C-CE05-T102-BP01 13C-CE05-T102 pg			13C-CE05-T102-BP01-SS-C 13C-CE05-T102 pg		Split Result Evaluation	
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Tetrachlorobiphenyl; 2,3,3',6- (PCB 59)	18.2	7710	C59	27700	C	112.91%	1
Tetrachlorobiphenyl; 2,3,4,4'- (PCB 60)	131	14700		56000.00		116.83%	1
Tetrachlorobiphenyl; 2,3',4,4'- (PCB 66)	125	78400	J	305000	B	118.21%	1
Tetrachlorobiphenyl; 2,3,4,5- (PCB 61)	120	122000	C61	514000	CB	123.27%	1
Tetrachlorobiphenyl; 2,3,4',5- (PCB 63)	108	3110		12700.00		121.32%	1
Tetrachlorobiphenyl; 2,3',4,5- (PCB 67)	112	3000		11500.00		117.24%	1
Tetrachlorobiphenyl; 2,3',4,5'- (PCB 68)	107	841		3440.00		121.42%	1
Tetrachlorobiphenyl; 2,3',4',5- (PCB 70)			C61		C61		
Tetrachlorobiphenyl; 2',3,4,5- (PCB 76)			C61		C61		
Tetrachlorobiphenyl; 2,3,4,6- (PCB 62)			C59		C59		
Tetrachlorobiphenyl; 2,3,4',6- (PCB 64)	17.1	33000		123000		115.38%	1
Tetrachlorobiphenyl; 2,3',4,6- (PCB 69)			C49		C49		
Tetrachlorobiphenyl; 2,3',4',6- (PCB 71)			C40		C40		
Tetrachlorobiphenyl; 2,3',5,5'- (PCB 72)	116	923		3830.00		122.32%	1
Tetrachlorobiphenyl; 2,3,5,6- (PCB 65)			C44		C44		
Tetrachlorobiphenyl; 2,3',5',6- (PCB 73)	19.3	19.3	U	1380			0
Tetrachlorobiphenyl; 2,4,4',5- (PCB 74)			C61		C61		
Tetrachlorobiphenyl; 2,4,4',6- (PCB 75)			C59		C59		
Tetrachlorobiphenyl; 3,3',4,4'- (PCB 77)	161	11900		49700.00	B	122.73%	1
Tetrachlorobiphenyl; 3,3',4,5- (PCB 78)	141	141	U	88.3			0
Tetrachlorobiphenyl; 3,3',4,5'- (PCB 79)	107	1090		4020.00		114.68%	1
Tetrachlorobiphenyl; 3,3',5,5'- (PCB 80)	111	111	U	2710			0
Tetrachlorobiphenyl; 3,4,4',5- (PCB 81)	145	145	U	1080	B		0
Trichlorobiphenyl; 2,2',3- (PCB 16)	26.2	17400		33400		62.99%	1
Trichlorobiphenyl; 2,2',4- (PCB 17)	20.2	22200		52800		81.60%	1
Trichlorobiphenyl; 2,2',5- (PCB 18)	17.3	38500	C18	86600	CB	76.90%	1
Trichlorobiphenyl; 2,2',6- (PCB 19)	22.3	5250		10700.00		68.34%	1

Table 1b
Lower Passaic River
High Volume Chemical Water Column Study
PCB Split Sample Comparison

Sample ID	13C-CE05-T102-BP01			13C-CE05-T102-BP01-SS-C		Split Result Evaluation	
Sample Location	13C-CE05-T102			13C-CE05-T102			
Unit	pg			pg			
Chemical Name	CPG Reporting Limit	Result	Qualifier	Result	Qualifier	RPD (review criterion <40%)	CPG result > 5xRL test (1=yes)
Trichlorobiphenyl; 2,3,3'- (PCB 20)	25.4	90300	JC20	302000	CB	107.93%	1
Trichlorobiphenyl; 2,3,4- (PCB 21)	23.9	24200	C21	78100	CB	105.38%	1
Trichlorobiphenyl; 2,3,4'- (PCB 22)	26.5	24200		77200		104.54%	1
Trichlorobiphenyl; 2,3',4- (PCB 25)	24	10400		29500.00		95.74%	1
Trichlorobiphenyl; 2',3,4- (PCB 33)			C21		C21		
Trichlorobiphenyl; 2,3,5- (PCB 23)	24.1	46.8	EMPC-J	151.00			0
Trichlorobiphenyl; 2,3',5- (PCB 26)	24.1	14400	C26	47400	C	106.80%	1
Trichlorobiphenyl; 2',3,5- (PCB 34)	24.5	480		1490.00		102.54%	1
Trichlorobiphenyl; 2,3,6- (PCB 24)	15.4	568		1430.00		86.29%	1
Trichlorobiphenyl; 2,3',6- (PCB 27)	15.2	4760		9890.00		70.03%	1
Trichlorobiphenyl; 2,4,4'- (PCB 28)			C20		C20		
Trichlorobiphenyl; 2,4,5- (PCB 29)			C26		C26		
Trichlorobiphenyl; 2,4',5- (PCB 31)	23.7	62400	J	208000	B	107.69%	1
Trichlorobiphenyl; 2,4,6- (PCB 30)			C18		C18		
Trichlorobiphenyl; 2,4',6- (PCB 32)	14.2	18000		41200	G	78.38%	1
Trichlorobiphenyl; 3,3',4- (PCB 35)	29.9	2800		111000.00		190.16%	1
Trichlorobiphenyl; 3,3',5- (PCB 36)	24.5	24.5	U	247.00			0
Trichlorobiphenyl; 3,4,4'- (PCB 37)	35	35300		101000.00	B	96.40%	1
Trichlorobiphenyl; 3,4,5- (PCB 38)	26.1	214		229.00		6.77%	1
Trichlorobiphenyl; 3,4',5- (PCB 39)	24.1	747		2250.00		100.30%	1

Notes for Tables 1a and 1b
Lower Passaic River
High Volume Chemical Water Column Study
Split Sample Comparison

Notes and Acronyms

= Split sample evaluation results column
= EPA split sample
= RPD exceeds 40% criterion
> = Greater than
< = Less than
% = Percent
B = Compound was also contained in the associated method blank
C = Result is part of a coeluting PCB congeners
C## = Result is part of a coeluting PCB congeners
CPG = Cooperating Parties Group
D = Result from analysis of dilution
EMPC = Result reported is an estimated maximum possible concentration
G = Lock Mass interference associated result is considered estimated
ID = Identification
J = Result reported is below the reporting limit the associated value is an estimated value
PCB = Polychlorinated biphenyl
pg = Picograms per sample basis
RL = Reporting limit
RPD = Relative percent difference
U = Result reported are non-detect and the associated concentration is the sample reporting limit
UC = A non-detect result associated with coeluting congeners
UJ = A non-detect result where the value reported is estimated