

**SAMPLE RECEIPT FORM / CHEMICAL ANALYSIS FORM**

FILE #: PR250731

CLIENT: Liberty Lake Sewer and Water Dist.  
22510 E. Mission Avenue  
Liberty Lake, WA 99019  
USAPhone: (509) 370-1453  
Email: gsattler@libertylake.orgRECEIVED BY: M. Crisologo  
CONDITION: Okay, 10.9°C

DATE/TIME: February 13, 2025 (11:30 a.m.)

# of Containers	Sample Type	Sample (Client Codes)	Lab Codes	Test Requested
1	Water	Influent	PR250731	209 PCB
1	Water	Influent	PR250732	PBDE
1	Water	Effluent	PR250733	209 PCB
1	Water	Effluent	PR250734	PBDE

STORAGE: Stored at 4°C.

ANALYTES: HRGC/HRMS analysis for polychlorinated biphenyls (209 congener PCB), and polybrominated diphenylethers (PBDE).

SPECIAL INSTRUCTIONS: None.

**METHODOLOGY**Reference Method: PCB: SOP LAB02; EPA Method 1668C  
PBDE: SOP LAB06; EPA Method 1614

Data summarized in Data Report attached.

Report sent to: Greg Sattler

Date: March 10, 2025

Comments: Results relate only to samples as received.

The following flags or qualifiers have been used with this data set:

B: sample concentration is &lt;5x concentration found in the blank

U: not detected at the concentration listed

J: sample concentration is less than lowest point on calibration curve

N: not detected due to incorrect ion ratio. Concentration report is EMPC.

Q: one or more quality control criteria has failed

Kjell Hope MSc., Lab Manager

# DATA REPORT

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: Influent  
 Field ID:  
 PRL ID: PR250731

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/2/2025  
 HRMS File: FS03022506

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2-MoCB	PCB-001	2051-60-7	3.10	3.10	UJ	12.5
3-MoCB	PCB-002	2051-61-8	2.44	2.44	UJ	12.5
4-MoCB	PCB-003	2051-62-9	25.2	3.66		12.5
2,6-DiCB	PCB-010	33146-45-1	5.36	5.36	UJ	12.5
2,2'-DiCB	PCB-004	13029-08-8	8.55	8.55	UJ	12.5
2,5-DiCB	PCB-009	34883-39-1	9.04	9.04	UJ	12.5
2,4-DiCB	PCB-007	33284-50-3	75.4	7.68		12.5
2,3'-DiCB	PCB-006	25569-80-6	8.40	8.40	UJ	12.5
2,3/2,4'-DiCB	PCB-005/008		7.49	7.49	UJ	12.5
3,5-DiCB	PCB-014	34883-41-5	17.5	6.97	NJ	12.5
3,3'-DiCB	PCB-011	2050-67-1	168	7.40		12.5
3,4/3,4'-DiCB	PCB-012/013		6.51	6.51	UJ	12.5
4,4'-DiCB	PCB-015	2050-68-2	6.93	6.93	UJ	12.5
2,2',6-TrCB	PCB-019	38444-73-4	6.95	6.95	UJ	12.5
2,4,6-TrCB	PCB-030	35693-92-6	6.95	6.95	UJ	12.5
2,2',5-TrCB	PCB-018	37680-65-2	9.37	9.37	UJ	12.5
2,2',4-TrCB	PCB-017	37680-66-3	9.21	9.21	UJ	12.5
2,3,6-TrCB	PCB-024	55702-45-9	7.40	7.40	UJ	12.5
2,3',6-TrCB	PCB-027	38444-76-7	6.49	6.49	UJ	12.5
2,4',6-TrCB	PCB-032	38444-77-8	8.01	8.01	UJ	12.5
2,2',3-TrCB	PCB-016	38444-78-9	4.40	4.40	UJ	12.5
2,3,5-TrCB	PCB-023	55720-44-0	2.95	2.95	UJ	12.5
2,3',5'-TrCB	PCB-034	37680-68-5	3.35	3.35	UJ	12.5
2,4,5-TrCB	PCB-029	15862-07-4	2.48	2.48	UJ	12.5
2,3',5-TrCB	PCB-026	38444-81-4	2.62	2.62	UJ	12.5
2,3',4-TrCB	PCB-025	55712-37-3	3.27	3.27	UJ	12.5
2,4',5-TrCB	PCB-031	16606-02-3	61.3	3.03		12.5
2,4,4'-TrCB	PCB-028	7012-37-5	62.8	3.26		12.5
2,3,4-TrCB	PCB-021	55702-46-0	3.23	3.23	UJ	12.5
	PCB-020/033		41.3	3.22		12.5
2,3,4'-TrCB	PCB-022	38444-85-8	46.5	4.02		12.5
3,3',5-TrCB	PCB-036	38444-87-0	2.59	2.59	UJ	12.5
3,4',5-TrCB	PCB-039	38444-88-1	2.63	2.63	UJ	12.5
3,4,5-TrCB	PCB-038	53555-66-1	3.54	3.54	UJ	12.5
3,3',4-TrCB	PCB-035	37680-69-6	2.96	2.96	UJ	12.5
3,4,4'-TrCB	PCB-037	38444-90-5	2.70	2.70	UJ	12.5
2,2',6,6'-TeCB	PCB-054	15968-05-5	0.56	0.56	UJ	12.5
2,2',4,6-TeCB	PCB-050	62796-65-0	1.13	1.13	UJ	12.5
2,2',5,6'-TeCB	PCB-053	41464-41-9	1.29	1.29	UJ	12.5
2,2',4,6'-TeCB	PCB-051	68194-04-7	3.34	1.38	NJ	12.5
2,2',3,6-TeCB	PCB-045	70362-45-7	1.32	1.32	UJ	12.5
2,2',3,6'-TeCB	PCB-046	41464-47-5	1.30	1.30	UJ	12.5
	PCB-052/069		44.1	0.92		12.5
2,3',5',6-TeCB	PCB-073	74338-23-1	0.77	0.77	UJ	12.5
	PCB-043/049		25.4	1.15		12.5
	PCB-065/075		1.12	1.12	UJ	12.5
	PCB-047/048		42.0	0.76		12.5
2,3,4,6-TeCB	PCB-062	54230-22-7	0.82	0.82	UJ	12.5
2,2',3,5'-TeCB	PCB-044	41464-39-5	49.5	1.39		12.5
2,3,3',6-TeCB	PCB-059	74472-33-6	0.74	0.74	UJ	12.5
2,2',3,4'-TeCB	PCB-042	36559-22-5	1.11	1.11	UJ	12.5
2,3',5,5'-TeCB	PCB-072	41464-42-0	12.7	0.38		12.5
	PCB-064/071		1.48	1.48	UJ	12.5
2,2',3,4-TeCB	PCB-041	52663-59-9	1.04	1.04	UJ	12.5
2,3',4,5'-TeCB	PCB-068	73575-52-7	0.70	0.70	UJ	12.5
2,2',3,3'-TeCB	PCB-040	38444-93-8	1.45	1.45	UJ	12.5

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IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,3,3',5'-TeCB	PCB-057	70424-67-8	0.74	0.74	UJ	12.5
2,3',4,5'-TeCB	PCB-067	73575-53-8	0.68	0.68	UJ	12.5
2,3,4',5'-TeCB	PCB-058/063	74472-34-7	0.72	0.72	UJ	12.5
2,3,4,5'-TeCB	PCB-061	33284-53-6	0.89	0.89	UJ	12.5
2,4,4',5'-TeCB	PCB-074	32690-93-0	20.6	0.69		12.5
2,3',4',5'-TeCB	PCB-070	32598-11-1	41.6	0.75		12.5
2,3,3',4'-TeCB	PCB-055	74338-24-2	0.71	0.71	UJ	12.5
	PCB-066/080		25.6	0.65		12.5
2,3',4',5'-TeCB	PCB-076	70362-48-0	0.73	0.73	UJ	12.5
2,3,4,4'-TeCB	PCB-060	33025-41-1	22.4	0.71		12.5
2,3,3',4'-TeCB	PCB-056	41464-43-1	0.76	0.76	UJ	12.5
3,3',4,5'-TeCB	PCB-079	41464-48-6	0.66	0.66	UJ	12.5
3,3',4,5'-TeCB	PCB-078	70362-49-1	0.73	0.73	UJ	12.5
3,4,4',5'-TeCB	PCB-081	70362-50-4	0.86	0.86	UJ	12.5
3,3',4,4'-TeCB	PCB-077	32598-13-3	0.89	0.89	UJ	12.5
2,2',4,6,6'-PeCB	PCB-104	56558-16-8	5.71	5.71	UJ	12.5
2,2',3,6,6'-PeCB	PCB-096	73575-54-9	10.3	10.3	UJ	12.5
2,2',4,5',6'-PeCB	PCB-103	60145-21-3	10.9	10.9	UJ	12.5
2,2',4,4',6'-PeCB	PCB-100	39485-83-1	9.91	9.91	UJ	12.5
2,2',3,5,6'-PeCB	PCB-094	73575-55-0	12.4	12.4	UJ	12.5
	PCB-093/095/098/102		11.5	11.5	UJ	12.5
2,2',3,4,6'-PeCB	PCB-088	55215-17-3	12.8	12.8	U	12.5
2,2',3,4',6'-PeCB	PCB-091	68194-05-8	12.6	12.6	U	12.5
2,3',4,5',6'-PeCB	PCB-121	56558-18-0	6.78	6.78	UJ	12.5
	PCB-084/092		21.9	21.9	U	12.5
2,2',3,4,6'-PeCB	PCB-089	73575-57-2	13.4	13.4	U	12.5
2,2',3,4',5'-PeCB	PCB-090	68194-07-0	10.1	10.1	UJ	12.5
2,2',4,5,5'-PeCB	PCB-101	37680-73-2	32.0	9.56	NJ	12.5
2,3,3',5',6'-PeCB	PCB-113	68194-10-5	9.17	9.17	UJ	12.5
2,2',4,4',5'-PeCB	PCB-099	38380-01-7	9.11	9.11	UJ	12.5
	PCB-112/119		7.42	7.42	UJ	12.5
2,2',3,3',5'-PeCB	PCB-083	60145-20-2	17.1	17.1	U	12.5
2,3,3',4,6'-PeCB	PCB-109	74472-35-8	8.76	8.76	UJ	12.5
	PCB-086-097/117		9.55	9.55	UJ	12.5
	PCB-116/125		6.46	6.46	UJ	12.5
	PCB-087/115		8.99	8.99	UJ	12.5
2,3,3',5,5'-PeCB	PCB-111	39635-32-0	7.13	7.13	UJ	12.5
2,2',3,4,4'-PeCB	PCB-085	65510-45-4	11.0	11.0	UJ	12.5
	PCB-110/120		50.1	7.56		12.5
2,2',3,3',4'-PeCB	PCB-082	52663-62-4	12.8	12.8	U	12.5
2,3',4',5,5'-PeCB	PCB-124	70424-70-3	2.33	2.33	UJ	12.5
	PCB-107/108		2.35	2.35	UJ	12.5
2,3',4,4',5'-PeCB	PCB-123	65510-44-3	2.59	2.59	UJ	12.5
2,3,3',4,5'-PeCB	PCB-106	70424-69-0	2.61	2.61	UJ	12.5
2,3',4,4',5'-PeCB	PCB-118	31508-00-6	15.1	2.36		12.5
2,3,4,4',5'-PeCB	PCB-114	74472-37-0	2.54	2.54	UJ	12.5

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IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,3,3',4',5'-PeCB	PCB-122	76842-07-4	3.06	3.06	UJ	12.5
2,3,3',4,4'-PeCB	PCB-105	32598-14-4	2.78	2.78	UJ	12.5
3,3',4,5,5'-PeCB	PCB-127	39635-33-1	2.97	2.97	UJ	12.5
3,3',4,4',5'-PeCB	PCB-126	57465-28-8	3.03	3.03	UJ	12.5
2,2',4,4',6,6'-HxCB	PCB-155	33979-03-2	0.50	0.50	UJ	12.5
2,2',3,4',6,6'-HxCB	PCB-150	68194-08-1	0.69	0.69	UJ	12.5
2,2',3,5,6,6'-HxCB	PCB-152	68194-09-2	0.74	0.74	UJ	12.5
2,2',3,4,6,6'-HxCB	PCB-145	74472-40-5	0.66	0.66	UJ	12.5
2,2',3,3',6,6'-HxCB	PCB-136	38411-22-2	0.85	0.85	UJ	12.5
2,2',3,4',5,6'-HxCB	PCB-148	74472-41-6	0.86	0.86	UJ	12.5
2,2',4,4',5,6'-HxCB	PCB-154	60145-22-4	0.69	0.69	UJ	12.5
2,2',3,5,5',6-HxCB	PCB-151	52663-63-5	0.97	0.97	UJ	12.5
2,2',3,3',5,6'-HxCB	PCB-135	52744-13-5	0.93	0.93	UJ	12.5
2,2',3,4,5',6-HxCB	PCB-144	68194-14-9	0.96	0.96	UJ	12.5
2,2',3,4',5,6-HxCB	PCB-147	68194-13-8	0.72	0.72	UJ	12.5
	PCB-139/149		0.86	0.86	UJ	12.5
2,2',3,4,4',6'-HxCB	PCB-140	59291-64-4	0.18	0.18	UJ	12.5
2,2',3,4,5,6'-HxCB	PCB-143	68194-15-0	4.72	0.26	NJ	12.5
2,2',3,3',5,6-HxCB	PCB-134	52704-70-8	0.28	0.28	UJ	12.5
2,2',3,4,5,6-HxCB	PCB-142	41411-61-4	0.29	0.29	UJ	12.5
2,2',3,3',5,5'-HxCB	PCB-133	35694-04-3	0.26	0.26	UJ	12.5
2,2',3,3',4,6-HXcb	PCB-131	61798-70-7	0.26	0.26	UJ	12.5
2,3,3',5,5',6-HxCB	PCB-165	74472-46-1	0.18	0.18	UJ	12.5
	PCB-132/146		0.38	0.38	UJ	12.5
2,3,3',4,5',6-HxCB	PCB-161	74472-43-8	0.10	0.10	UJ	12.5
2,2',4,4',5,5'-HxCB	PCB-153	35065-27-1	10.9	0.19	NJ	12.5
2,3',4,4',5,6-HxCB	PCB-168	59291-65-5	0.17	0.17	UJ	12.5
2,2',3,4,5,5'-HxCB	PCB-141	52712-04-6	0.20	0.20	UJ	12.5
2,2',3,4,4',5-HxCB	PCB-137	35694-06-5	0.22	0.22	UJ	12.5
2,2',3,3',4,5'-HxCB	PCB-130	52663-66-8	0.24	0.24	UJ	12.5
	PCB-163/164		0.16	0.16	UJ	12.5
2,2',3,4,4',5'-HxCB	PCB-138	35065-28-2	0.25	0.25	UJ	12.5
2,3,3',4,5,6-HxCB	PCB-160	41411-62-5	0.17	0.17	UJ	12.5
2,3,3',4,4',6-HxCB	PCB-158	74472-42-7	0.14	0.14	UJ	12.5
2,2',3,3',4,5-HxCB	PCB-129	55215-18-4	0.23	0.23	UJ	12.5
2,3,4,4',5,6-HxCB	PCB-166	41411-63-6	0.16	0.16	UJ	12.5
2,3,3',4,5,5'-HxCB	PCB-159	39635-35-3	0.15	0.15	UJ	12.5
2,2',3,3',4,4'-HxCB	PCB-128	38380-07-3	0.25	0.25	UJ	12.5
2,3,3',4',5,5'-HxCB	PCB-162	39635-34-2	0.14	0.14	UJ	12.5
2,3',4,4',5,5'-HxCB	PCB-167	52663-72-6	0.19	0.19	UJ	12.5
2,3,3',4,4',5-HxCB	PCB-156	38380-08-4	0.18	0.18	UJ	12.5
2,3,3',4,4',5'-HxCB	PCB-157	69782-90-7	0.18	0.18	UJ	12.5
3,3',4,4',5,5'-HxCB	PCB-169	32774-16-6	0.19	0.19	UJ	12.5
2,2',3,4',5,6,6'-HpCB	PCB-188	74487-85-7	1.21	1.21	UJ	12.5
2,2',3,4,4',6,6'-HpCB	PCB-184	74472-48-3	1.00	1.00	UJ	12.5
2,2',3,3',5,6,6'-HpCB	PCB-179	52663-64-6	1.01	1.01	UJ	12.5
2,2',3,3',4,6,6'-HpCB	PCB-176	52663-65-7	1.05	1.05	UJ	12.5
2,2',3,4,5,6,6'-HpCB	PCB-186	74472-49-4	1.08	1.08	UJ	12.5
2,2',3,3',5,5',6-HpCB	PCB-178	52663-67-9	1.46	1.46	UJ	12.5
2,2',3,3',4,5',6-HpCB	PCB-175	40186-70-7	1.31	1.31	UJ	12.5
	PCB-182/187		1.22	1.22	UJ	12.5
2,2',3,4,4',5',6-HpCB	PCB-183	52663-69-1	1.21	1.21	UJ	12.5
2,2',3,4,5,5',6-HpCB	PCB-185	52712-05-7	1.36	1.36	UJ	12.5
2,2',3,3',4,5,6'-HpCB	PCB-174	38411-25-5	1.23	1.23	UJ	12.5

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IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,2',3,4,4',5,6-HpCB	PCB-181	74472-47-2	1.30	1.30	UJ	12.5
2,2',3,3',4,5',6'-HpCB	PCB-177	52663-70-4	1.33	1.33	UJ	12.5
2,2',3,3',4,4',6-HpCB	PCB-171	52663-71-5	1.35	1.35	UJ	12.5
2,2',3,3',4,5,6-HpCB	PCB-173	68194-16-1	1.30	1.30	UJ	12.5
2,2',3,3',4,5,5'-HpCB	PCB-172	52663-74-8	1.38	1.38	UJ	12.5
2,3,3',4,5,5',6-HpCB	PCB-192	74472-51-8	1.06	1.06	UJ	12.5
2,2',3,4,4',5,5'-HpCB	PCB-180	35065-29-3	1.39	1.39	UJ	12.5
2,3,3',4',5,5',6-HpCB	PCB-193	69782-91-8	0.88	0.88	UJ	12.5
2,3,3',4,4',5',6-HpCB	PCB-191	74472-50-7	0.95	0.95	UJ	12.5
2,2',3,3',4,4',5-HpCB	PCB-170	35065-30-6	1.35	1.35	UJ	12.5
2,3,3',4,4',5,6-HpCB	PCB-190	41411-64-7	0.90	0.90	UJ	12.5
2,3,3',4,4',5,5'-HpCB	PCB-189	39635-31-9	0.43	0.43	UJ	12.5
2,2',3,3',5,5',6,6'-OoCB	PCB-202	2136-99-4	3.52	3.52	UJ	12.5
2,2',3,3',4,5',6,6'-OoCB	PCB-201	40186-71-8	2.32	2.32	UJ	12.5
2,2',3,4,4',5,6,6'-OoCB	PCB-204	74472-52-9	2.25	2.25	UJ	12.5
2,2',3,3',4,4',6,6'-OoCB	PCB-197	33091-17-7	2.36	2.36	UJ	12.5
2,2',3,3',4,5,6,6'-OoCB	PCB-200	52663-73-7	2.36	2.36	UJ	12.5
2,2',3,3',4,5,5',6-OoCB	PCB-198	68194-17-2	3.68	3.68	UJ	12.5
2,2',3,3',4,5,5',6'-OoCB	PCB-199	52663-75-9	3.02	3.02	UJ	12.5
2,2',3,3',4,4',5,6'-OoCB	PCB-196	42740-50-1	3.39	3.39	UJ	12.5
2,2',3,4,4',5,5',6-OoCB	PCB-203	52663-76-0	2.86	2.86	UJ	12.5
2,2',3,3',4,4',5,6-OoCB	PCB-195	52663-78-2	1.21	1.21	UJ	12.5
2,2',3,3',4,4',5,5'-OoCB	PCB-194	35694-08-7	1.17	1.17	UJ	12.5
2,3,3',4,4',5,5',6-OoCB	PCB-205	74472-53-0	0.97	0.97	UJ	12.5
2,2',3,3',4,5,5',6,6'-NoCB	PCB-208	52663-77-1	9.14	9.14	UJ	12.5
2,2',3,3',4,4',5,6,6'-NoCB	PCB-207	52663-79-3	8.67	8.67	UJ	12.5
2,2',3,3',4,4',5,5',6-NoCB	PCB-206	40186-72-9	10.8	10.8	UJ	12.5
2,2',3,3',4,4',5,5',6,6'-DeCB	PCB-209	2051-24-3	2.76	2.76	UJ	12.5

Homologs	# of Congeners			
Monochlorobiphenyls	3	25.2	2.44	
Dichlorobiphenyls	12	243	5.36	
Trichlorobiphenyls	24	212	2.48	
Tetrachlorobiphenyls	42	284	0.38	
Pentachlorobiphenyls	46	65.2	2.33	
Hexachlorobiphenyls	42	0.10	0.10	UJ
Heptachlorobiphenyls	24	0.43	0.43	UJ
Octachlorobiphenyls	12	0.97	0.97	UJ
Nonachlorobiphenyls	3	8.67	8.67	UJ
Decachlorobiphenyl	1	2.76	2.76	UJ
<b>Total PCB</b>		<b>830</b>	<b>0.1</b>	

# DATA REPORT

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: Influent  
 Field ID:  
 PRL ID: PR250731

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/2/2025  
 HRMS File: FS03022506

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
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Standard Recoveries			Acceptance	
Chemical Name	IUPAC #	%	Min	Max
<sup>13</sup> C <sub>12</sub> -2-MoCB	1L	31	5	145
<sup>13</sup> C <sub>12</sub> -4-MoCB	3L	32	5	145
<sup>13</sup> C <sub>12</sub> -2,2'-DiCB	4L	36	5	145
<sup>13</sup> C <sub>12</sub> -4,4'-DiCB	15L	38	5	145
<sup>13</sup> C <sub>12</sub> -2,2',6'-TrCB	19L	34	5	145
<sup>13</sup> C <sub>12</sub> -3,4,4'-TrCB	37L	52	5	145
<sup>13</sup> C <sub>12</sub> -2,2',6,6'-TeCB	54L	42	5	145
<sup>13</sup> C <sub>12</sub> -3,4,4',5'-TeCB	81L	42	5	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4'-TeCB	77L	41	10	145
<sup>13</sup> C <sub>12</sub> -2,2',4,6,6'-PeCB	104L	36	10	145
<sup>13</sup> C <sub>12</sub> -2',3,4,4',5'-PeCB	123L	56	10	145
<sup>13</sup> C <sub>12</sub> -2,3',4,4',5'-PeCB	118L	61	10	145
<sup>13</sup> C <sub>12</sub> -2,3,4,4',5'-PeCB	114L	56	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4'-PeCB	105L	54	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5'-PeCB	126L	55	10	145
<sup>13</sup> C <sub>12</sub> -2,2',4,4',6,6'-HxCB	155L	36	10	145
<sup>13</sup> C <sub>12</sub> -2,3',4,4',5,5'-HxCB	167L	47	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5'-HxCB	156L	52	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5'-HxCB	157L	51	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5,5'-HxCB	169L	45	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,4',5,6,6'-HpCB	188L	50	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5'-HpCB	189L	60	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',5,5',6,6'-OoCB	202L	47	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5',6'-OoCB	205L	49	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4',5,5',6,6'-NoCB	208L	52	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',5,5',6'-NoCB	206L	47	10	145
<sup>13</sup> C <sub>12</sub> -DeCB	209L	53	10	145
<sup>13</sup> C <sub>12</sub> -2,4,4'-TrCB	28L	60	5	145
<sup>13</sup> C <sub>12</sub> -2,3,3',5,5'-PeCB	111L	59	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',5,5',6'-HpCB	178L	71	10	145

# DATA REPORT

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: Effluent  
 Field ID:  
 PRL ID: PR250733

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/9/2025  
 HRMS File: FS03072509

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2-MoCB	PCB-001	2051-60-7	0.49	0.49	UJ	12.5
3-MoCB	PCB-002	2051-61-8	0.53	0.53	UJ	12.5
4-MoCB	PCB-003	2051-62-9	9.78	0.52	J	12.5
2,6-DiCB	PCB-010	33146-45-1	2.91	2.91	UJ	12.5
2,2'-DiCB	PCB-004	13029-08-8	4.04	4.04	UJ	12.5
2,5-DiCB	PCB-009	34883-39-1	3.71	3.71	UJ	12.5
2,4-DiCB	PCB-007	33284-50-3	3.07	3.07	UJ	12.5
2,3'-DiCB	PCB-006	25569-80-6	3.45	3.45	UJ	12.5
2,3/2,4'-DiCB	PCB-005/008		3.20	3.20	UJ	12.5
3,5-DiCB	PCB-014	34883-41-5	3.13	3.13	UJ	12.5
3,3'-DiCB	PCB-011	2050-67-1	2.96	2.96	UJ	12.5
3,4/3,4'-DiCB	PCB-012/013		2.88	2.88	UJ	12.5
4,4'-DiCB	PCB-015	2050-68-2	3.53	3.53	UJ	12.5
2,2',6-TrCB	PCB-019	38444-73-4	1.59	1.59	UJ	12.5
2,4,6-TrCB	PCB-030	35693-92-6	1.60	1.60	UJ	12.5
2,2',5-TrCB	PCB-018	37680-65-2	2.33	2.33	UJ	12.5
2,2',4-TrCB	PCB-017	37680-66-3	2.09	2.09	UJ	12.5
2,3,6-TrCB	PCB-024	55702-45-9	1.83	1.83	UJ	12.5
2,3',6-TrCB	PCB-027	38444-76-7	1.20	1.20	UJ	12.5
2,4',6-TrCB	PCB-032	38444-77-8	1.61	1.61	UJ	12.5
2,2',3-TrCB	PCB-016	38444-78-9	0.63	0.63	UJ	12.5
2,3,5-TrCB	PCB-023	55720-44-0	0.80	0.80	UJ	12.5
2,3',5'-TrCB	PCB-034	37680-68-5	0.58	0.58	UJ	12.5
2,4,5-TrCB	PCB-029	15862-07-4	0.54	0.54	UJ	12.5
2,3',5-TrCB	PCB-026	38444-81-4	0.65	0.65	UJ	12.5
2,3',4-TrCB	PCB-025	55712-37-3	0.66	0.66	UJ	12.5
2,4',5-TrCB	PCB-031	16606-02-3	5.77	0.72	J	12.5
2,4,4'-TrCB	PCB-028	7012-37-5	3.91	0.69	J	12.5
2,3,4-TrCB	PCB-021	55702-46-0	0.87	0.87	UJ	12.5
	PCB-020/033		0.71	0.71	UJ	12.5
2,3,4'-TrCB	PCB-022	38444-85-8	0.79	0.79	UJ	12.5
3,3',5-TrCB	PCB-036	38444-87-0	0.62	0.62	UJ	12.5
3,4',5-TrCB	PCB-039	38444-88-1	0.67	0.67	UJ	12.5
3,4,5-TrCB	PCB-038	53555-66-1	0.85	0.85	UJ	12.5
3,3',4-TrCB	PCB-035	37680-69-6	0.67	0.67	UJ	12.5
3,4,4'-TrCB	PCB-037	38444-90-5	0.90	0.90	UJ	12.5
2,2',6,6'-TeCB	PCB-054	15968-05-5	0.43	0.43	UJ	12.5
2,2',4,6-TeCB	PCB-050	62796-65-0	0.62	0.62	UJ	12.5
2,2',5,6'-TeCB	PCB-053	41464-41-9	0.71	0.71	UJ	12.5
2,2',4,6'-TeCB	PCB-051	68194-04-7	10.7	0.62	J	12.5
2,2',3,6-TeCB	PCB-045	70362-45-7	0.77	0.77	UJ	12.5
2,2',3,6'-TeCB	PCB-046	41464-47-5	0.76	0.76	UJ	12.5
	PCB-052/069		4.73	0.61	J	12.5
2,3',5',6-TeCB	PCB-073	74338-23-1	0.42	0.42	UJ	12.5
	PCB-043/049		0.66	0.66	UJ	12.5
	PCB-065/075		0.60	0.60	UJ	12.5
	PCB-047/048		14.0	0.49		12.5
2,3,4,6-TeCB	PCB-062	54230-22-7	0.48	0.48	UJ	12.5
2,2',3,5'-TeCB	PCB-044	41464-39-5	0.91	0.91	UJ	12.5
2,3,3',6-TeCB	PCB-059	74472-33-6	0.42	0.42	UJ	12.5
2,2',3,4'-TeCB	PCB-042	36559-22-5	0.62	0.62	UJ	12.5
2,3',5,5'-TeCB	PCB-072	41464-42-0	0.43	0.43	UJ	12.5
	PCB-064/071		0.53	0.53	UJ	12.5
2,2',3,4-TeCB	PCB-041	52663-59-9	0.48	0.48	UJ	12.5
2,3',4,5'-TeCB	PCB-068	73575-52-7	0.44	0.44	UJ	12.5
2,2',3,3'-TeCB	PCB-040	38444-93-8	1.10	1.10	UJ	12.5

# DATA REPORT

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: Effluent  
 Field ID:  
 PRL ID: PR250733

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/9/2025  
 HRMS File: FS03072509

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,3,3',5'-TeCB	PCB-057	70424-67-8	0.54	0.54	UJ	12.5
2,3',4,5'-TeCB	PCB-067	73575-53-8	0.58	0.58	UJ	12.5
2,3,4',5'-TeCB	PCB-058/063	74472-34-7	0.5	0.5	UJ	12.5
2,3,4,5'-TeCB	PCB-061	33284-53-6	0.67	0.67	UJ	12.5
2,4,4',5'-TeCB	PCB-074	32690-93-0	0.39	0.39	UJ	12.5
2,3',4',5'-TeCB	PCB-070	32598-11-1	0.67	0.67	UJ	12.5
2,3,3',4'-TeCB	PCB-055	74338-24-2	0.38	0.38	UJ	12.5
	PCB-066/080		0.42	0.42	UJ	12.5
2,3',4',5'-TeCB	PCB-076	70362-48-0	0.52	0.52	UJ	12.5
2,3,4,4'-TeCB	PCB-060	33025-41-1	5.02	0.56	J	12.5
2,3,3',4'-TeCB	PCB-056	41464-43-1	0.37	0.37	UJ	12.5
3,3',4,5'-TeCB	PCB-079	41464-48-6	0.50	0.50	UJ	12.5
3,3',4,5'-TeCB	PCB-078	70362-49-1	0.57	0.57	UJ	12.5
3,4,4',5'-TeCB	PCB-081	70362-50-4	0.64	0.64	UJ	12.5
3,3',4,4'-TeCB	PCB-077	32598-13-3	0.59	0.59	UJ	12.5
2,2',4,6,6'-PeCB	PCB-104	56558-16-8	2.08	2.08	UJ	12.5
2,2',3,6,6'-PeCB	PCB-096	73575-54-9	3.34	3.34	UJ	12.5
2,2',4,5',6'-PeCB	PCB-103	60145-21-3	3.94	3.94	UJ	12.5
2,2',4,4',6'-PeCB	PCB-100	39485-83-1	4.18	4.18	UJ	12.5
2,2',3,5,6'-PeCB	PCB-094	73575-55-0	4.79	4.79	UJ	12.5
	PCB-093/095/098/102		4.63	4.63	UJ	12.5
2,2',3,4,6'-PeCB	PCB-088	55215-17-3	5.99	5.99	UJ	12.5
2,2',3,4',6'-PeCB	PCB-091	68194-05-8	3.99	3.99	UJ	12.5
2,3',4,5',6'-PeCB	PCB-121	56558-18-0	3.00	3.00	UJ	12.5
	PCB-084/092		4.86	4.86	UJ	12.5
2,2',3,4,6'-PeCB	PCB-089	73575-57-2	5.24	5.24	UJ	12.5
2,2',3,4',5'-PeCB	PCB-090	68194-07-0	3.70	3.70	UJ	12.5
2,2',4,5,5'-PeCB	PCB-101	37680-73-2	3.10	3.10	UJ	12.5
2,3,3',5',6'-PeCB	PCB-113	68194-10-5	3.61	3.61	UJ	12.5
2,2',4,4',5'-PeCB	PCB-099	38380-01-7	3.56	3.56	UJ	12.5
	PCB-112/119		3.26	3.26	UJ	12.5
2,2',3,3',5'-PeCB	PCB-083	60145-20-2	8.70	8.70	UJ	12.5
2,3,3',4,6'-PeCB	PCB-109	74472-35-8	2.99	2.99	UJ	12.5
	PCB-086-097/117		5.79	5.79	UJ	12.5
	PCB-116/125		2.57	2.57	UJ	12.5
	PCB-087/115		4.58	4.58	UJ	12.5
2,3,3',5,5'-PeCB	PCB-111	39635-32-0	3.48	3.48	UJ	12.5
2,2',3,4,4'-PeCB	PCB-085	65510-45-4	4.32	4.32	UJ	12.5
	PCB-110/120		3.48	3.48	UJ	12.5
2,2',3,3',4'-PeCB	PCB-082	52663-62-4	4.86	4.86	UJ	12.5
2,3',4',5,5'-PeCB	PCB-124	70424-70-3	1.26	1.26	UJ	12.5
	PCB-107/108		1.52	1.52	UJ	12.5
2,3',4,4',5'-PeCB	PCB-123	65510-44-3	1.93	1.93	UJ	12.5
2,3,3',4,5'-PeCB	PCB-106	70424-69-0	2.05	2.05	UJ	12.5
2,3',4,4',5'-PeCB	PCB-118	31508-00-6	1.80	1.80	UJ	12.5
2,3,4,4',5'-PeCB	PCB-114	74472-37-0	1.93	1.93	UJ	12.5



# DATA REPORT

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: Effluent  
 Field ID:  
 PRL ID: PR250733

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/9/2025  
 HRMS File: FS03072509

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,3,3',4',5'-PeCB	PCB-122	76842-07-4	1.84	1.84	UJ	12.5
2,3,3',4,4'-PeCB	PCB-105	32598-14-4	1.62	1.62	UJ	12.5
3,3',4,5,5'-PeCB	PCB-127	39635-33-1	1.53	1.53	UJ	12.5
3,3',4,4',5'-PeCB	PCB-126	57465-28-8	1.62	1.62	UJ	12.5
2,2',4,4',6,6'-HxCB	PCB-155	33979-03-2	0.10	0.10	UJ	12.5
2,2',3,4',6,6'-HxCB	PCB-150	68194-08-1	0.09	0.09	UJ	12.5
2,2',3,5,6,6'-HxCB	PCB-152	68194-09-2	0.10	0.10	UJ	12.5
2,2',3,4,6,6'-HxCB	PCB-145	74472-40-5	0.11	0.11	UJ	12.5
2,2',3,3',6,6'-HxCB	PCB-136	38411-22-2	0.16	0.16	UJ	12.5
2,2',3,4',5,6'-HxCB	PCB-148	74472-41-6	0.12	0.12	UJ	12.5
2,2',4,4',5,6'-HxCB	PCB-154	60145-22-4	0.11	0.11	UJ	12.5
2,2',3,5,5',6-HxCB	PCB-151	52663-63-5	0.16	0.16	UJ	12.5
2,2',3,3',5,6'-HxCB	PCB-135	52744-13-5	0.19	0.19	UJ	12.5
2,2',3,4,5',6-HxCB	PCB-144	68194-14-9	0.15	0.15	UJ	12.5
2,2',3,4',5,6-HxCB	PCB-147	68194-13-8	0.10	0.10	UJ	12.5
	PCB-139/149		2.34	0.14	J	12.5
2,2',3,4,4',6'-HxCB	PCB-140	59291-64-4	0.06	0.06	UJ	12.5
2,2',3,4,5,6'-HxCB	PCB-143	68194-15-0	0.08	0.08	UJ	12.5
2,2',3,3',5,6-HxCB	PCB-134	52704-70-8	0.09	0.09	UJ	12.5
2,2',3,4,5,6-HxCB	PCB-142	41411-61-4	0.12	0.12	UJ	12.5
2,2',3,3',5,5'-HxCB	PCB-133	35694-04-3	0.07	0.07	UJ	12.5
2,2',3,3',4,6-HXcb	PCB-131	61798-70-7	0.08	0.08	UJ	12.5
2,3,3',5,5',6-HxCB	PCB-165	74472-46-1	0.07	0.07	UJ	12.5
	PCB-132/146		0.08	0.08	UJ	12.5
2,3,3',4,5',6-HxCB	PCB-161	74472-43-8	0.04	0.04	UJ	12.5
2,2',4,4',5,5'-HxCB	PCB-153	35065-27-1	0.05	0.05	UJ	12.5
2,3',4,4',5,6-HxCB	PCB-168	59291-65-5	0.05	0.05	UJ	12.5
2,2',3,4,5,5'-HxCB	PCB-141	52712-04-6	0.06	0.06	UJ	12.5
2,2',3,4,4',5-HxCB	PCB-137	35694-06-5	0.07	0.07	UJ	12.5
2,2',3,3',4,5'-HxCB	PCB-130	52663-66-8	0.08	0.08	UJ	12.5
	PCB-163/164		0.06	0.06	UJ	12.5
2,2',3,4,4',5'-HxCB	PCB-138	35065-28-2	0.87	0.07	J	12.5
2,3,3',4,5,6-HxCB	PCB-160	41411-62-5	0.07	0.07	UJ	12.5
2,3,3',4,4',6-HxCB	PCB-158	74472-42-7	0.05	0.05	UJ	12.5
2,2',3,3',4,5-HxCB	PCB-129	55215-18-4	0.08	0.08	UJ	12.5
2,3,4,4',5,6-HxCB	PCB-166	41411-63-6	0.06	0.06	UJ	12.5
2,3,3',4,5,5'-HxCB	PCB-159	39635-35-3	0.06	0.06	UJ	12.5
2,2',3,3',4,4'-HxCB	PCB-128	38380-07-3	0.08	0.08	UJ	12.5
2,3,3',4',5,5'-HxCB	PCB-162	39635-34-2	0.04	0.04	UJ	12.5
2,3',4,4',5,5'-HxCB	PCB-167	52663-72-6	0.07	0.07	UJ	12.5
2,3,3',4,4',5-HxCB	PCB-156	38380-08-4	0.07	0.07	UJ	12.5
2,3,3',4,4',5'-HxCB	PCB-157	69782-90-7	0.05	0.05	UJ	12.5
3,3',4,4',5,5'-HxCB	PCB-169	32774-16-6	0.07	0.07	UJ	12.5
2,2',3,4',5,6,6'-HpCB	PCB-188	74487-85-7	0.18	0.18	UJ	12.5
2,2',3,4,4',6,6'-HpCB	PCB-184	74472-48-3	0.14	0.14	UJ	12.5
2,2',3,3',5,6,6'-HpCB	PCB-179	52663-64-6	0.14	0.14	UJ	12.5
2,2',3,3',4,6,6'-HpCB	PCB-176	52663-65-7	0.14	0.14	UJ	12.5
2,2',3,4,5,6,6'-HpCB	PCB-186	74472-49-4	0.13	0.13	UJ	12.5
2,2',3,3',5,5',6-HpCB	PCB-178	52663-67-9	0.22	0.22	UJ	12.5
2,2',3,3',4,5',6-HpCB	PCB-175	40186-70-7	0.24	0.24	UJ	12.5
	PCB-182/187		0.19	0.19	UJ	12.5
2,2',3,4,4',5',6-HpCB	PCB-183	52663-69-1	0.19	0.19	UJ	12.5
2,2',3,4,5,5',6-HpCB	PCB-185	52712-05-7	0.22	0.22	UJ	12.5
2,2',3,3',4,5,6'-HpCB	PCB-174	38411-25-5	0.20	0.20	UJ	12.5

# DATA REPORT

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: Effluent  
 Field ID:  
 PRL ID: PR250733

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/9/2025  
 HRMS File: FS03072509

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,2',3,4,4',5,6-HpCB	PCB-181	74472-47-2	0.20	0.20	UJ	12.5
2,2',3,3',4,5',6'-HpCB	PCB-177	52663-70-4	0.19	0.19	UJ	12.5
2,2',3,3',4,4',6-HpCB	PCB-171	52663-71-5	0.23	0.23	UJ	12.5
2,2',3,3',4,5,6-HpCB	PCB-173	68194-16-1	0.24	0.24	UJ	12.5
2,2',3,3',4,5,5'-HpCB	PCB-172	52663-74-8	0.21	0.21	UJ	12.5
2,3,3',4,5,5',6-HpCB	PCB-192	74472-51-8	0.17	0.17	UJ	12.5
2,2',3,4,4',5,5'-HpCB	PCB-180	35065-29-3	0.22	0.22	UJ	12.5
2,3,3',4',5,5',6-HpCB	PCB-193	69782-91-8	0.12	0.12	UJ	12.5
2,3,3',4,4',5',6-HpCB	PCB-191	74472-50-7	0.15	0.15	UJ	12.5
2,2',3,3',4,4',5-HpCB	PCB-170	35065-30-6	0.20	0.20	UJ	12.5
2,3,3',4,4',5,6-HpCB	PCB-190	41411-64-7	0.16	0.16	UJ	12.5
2,3,3',4,4',5,5'-HpCB	PCB-189	39635-31-9	0.09	0.09	UJ	12.5
2,2',3,3',5,5',6,6'-OoCB	PCB-202	2136-99-4	0.42	0.42	UJ	12.5
2,2',3,3',4,5',6,6'-OoCB	PCB-201	40186-71-8	0.37	0.37	UJ	12.5
2,2',3,4,4',5,6,6'-OoCB	PCB-204	74472-52-9	0.33	0.33	UJ	12.5
2,2',3,3',4,4',6,6'-OoCB	PCB-197	33091-17-7	0.43	0.43	UJ	12.5
2,2',3,3',4,5,6,6'-OoCB	PCB-200	52663-73-7	0.40	0.40	UJ	12.5
2,2',3,3',4,5,5',6-OoCB	PCB-198	68194-17-2	0.74	0.74	UJ	12.5
2,2',3,3',4,5,5',6'-OoCB	PCB-199	52663-75-9	0.54	0.54	UJ	12.5
2,2',3,3',4,4',5,6'-OoCB	PCB-196	42740-50-1	0.53	0.53	UJ	12.5
2,2',3,4,4',5,5',6-OoCB	PCB-203	52663-76-0	0.47	0.47	UJ	12.5
2,2',3,3',4,4',5,6-OoCB	PCB-195	52663-78-2	0.29	0.29	UJ	12.5
2,2',3,3',4,4',5,5'-OoCB	PCB-194	35694-08-7	0.26	0.26	UJ	12.5
2,3,3',4,4',5,5',6-OoCB	PCB-205	74472-53-0	0.20	0.20	UJ	12.5
2,2',3,3',4,5,5',6,6'-NoCB	PCB-208	52663-77-1	4.56	4.56	UJ	12.5
2,2',3,3',4,4',5,6,6'-NoCB	PCB-207	52663-79-3	2.61	2.61	UJ	12.5
2,2',3,3',4,4',5,5',6-NoCB	PCB-206	40186-72-9	2.61	2.61	UJ	12.5
2,2',3,3',4,4',5,5',6,6'-DeCB	PCB-209	2051-24-3	0.33	0.33	UJ	12.5

Homologs	# of Congeners			
Monochlorobiphenyls	3	9.78	0.49	J
Dichlorobiphenyls	12	2.88	2.88	UJ
Trichlorobiphenyls	24	9.68	0.54	J
Tetrachlorobiphenyls	42	34.5	0.37	
Pentachlorobiphenyls	46	1.26	1.26	UJ
Hexachlorobiphenyls	42	3.21	0.04	J
Heptachlorobiphenyls	24	0.09	0.09	UJ
Octachlorobiphenyls	12	0.20	0.20	UJ
Nonachlorobiphenyls	3	2.61	2.61	UJ
Decachlorobiphenyl	1	0.33	0.33	UJ
<b>Total PCB</b>		57.1	0.04	

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 HRMS File: FS03072509

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
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Standard Recoveries			Acceptance	
Chemical Name	IUPAC #	%	Min	Max
<sup>13</sup> C <sub>12</sub> -2-MoCB	1L	19	5	145
<sup>13</sup> C <sub>12</sub> -4-MoCB	3L	21	5	145
<sup>13</sup> C <sub>12</sub> -2,2'-DiCB	4L	20	5	145
<sup>13</sup> C <sub>12</sub> -4,4'-DiCB	15L	20	5	145
<sup>13</sup> C <sub>12</sub> -2,2',6'-TrCB	19L	23	5	145
<sup>13</sup> C <sub>12</sub> -3,4,4'-TrCB	37L	26	5	145
<sup>13</sup> C <sub>12</sub> -2,2',6,6'-TeCB	54L	21	5	145
<sup>13</sup> C <sub>12</sub> -3,4,4',5'-TeCB	81L	27	5	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4'-TeCB	77L	29	10	145
<sup>13</sup> C <sub>12</sub> -2,2',4,6,6'-PeCB	104L	20	10	145
<sup>13</sup> C <sub>12</sub> -2',3,4,4',5'-PeCB	123L	31	10	145
<sup>13</sup> C <sub>12</sub> -2,3',4,4',5'-PeCB	118L	33	10	145
<sup>13</sup> C <sub>12</sub> -2,3,4,4',5'-PeCB	114L	33	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4'-PeCB	105L	40	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5'-PeCB	126L	54	10	145
<sup>13</sup> C <sub>12</sub> -2,2',4,4',6,6'-HxCB	155L	20	10	145
<sup>13</sup> C <sub>12</sub> -2,3',4,4',5,5'-HxCB	167L	41	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5'-HxCB	156L	50	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5'-HxCB	157L	67	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5,5'-HxCB	169L	47	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,4',5,6,6'-HpCB	188L	26	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5'-HpCB	189L	46	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',5,5',6,6'-OoCB	202L	42	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5',6'-OoCB	205L	46	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4',5,5',6,6'-NoCB	208L	15	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',5,5',6'-NoCB	206L	41	10	145
<sup>13</sup> C <sub>12</sub> -DeCB	209L	35	10	145
<sup>13</sup> C <sub>12</sub> -2,4,4'-TrCB	28L	34	5	145
<sup>13</sup> C <sub>12</sub> -2,3,3',5,5'-PeCB	111L	29	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',5,5',6'-HpCB	178L	45	10	145

# QC REPORT - BLANK

**Client:** Liberty Lake Sewer and Water Dist.  
**Client ID:** BLANK  
**Field ID:**  
**PRL ID:** PC250102B

**Contact:** Greg Sattler  
**Date Extracted:** 2/14/2025  
**Date Analysed:** 3/2/2025  
**HRMS File:** FS03022505

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2-MoCB	PCB-001	2051-60-7	2.39	2.39	UJ	12.5
3-MoCB	PCB-002	2051-61-8	1.87	1.87	UJ	12.5
4-MoCB	PCB-003	2051-62-9	2.79	2.79	UJ	12.5
2,6-DiCB	PCB-010	33146-45-1	4.66	4.66	UJ	12.5
2,2'-DiCB	PCB-004	13029-08-8	6.93	6.93	UJ	12.5
2,5-DiCB	PCB-009	34883-39-1	7.86	7.86	UJ	12.5
2,4-DiCB	PCB-007	33284-50-3	6.68	6.68	UJ	12.5
2,3'-DiCB	PCB-006	25569-80-6	7.31	7.31	UJ	12.5
2,3/2,4'-DiCB	PCB-005/008		6.52	6.52	UJ	12.5
3,5-DiCB	PCB-014	34883-41-5	6.06	6.06	UJ	12.5
3,3'-DiCB	PCB-011	2050-67-1	6.44	6.44	UJ	12.5
3,4/3,4'-DiCB	PCB-012/013		5.66	5.66	UJ	12.5
4,4'-DiCB	PCB-015	2050-68-2	6.39	6.39	UJ	12.5
2,2',6-TrCB	PCB-019	38444-73-4	5.62	5.62	UJ	12.5
2,4,6-TrCB	PCB-030	35693-92-6	4.95	4.95	UJ	12.5
2,2',5-TrCB	PCB-018	37680-65-2	6.93	6.93	UJ	12.5
2,2',4-TrCB	PCB-017	37680-66-3	6.56	6.56	UJ	12.5
2,3,6-TrCB	PCB-024	55702-45-9	5.27	5.27	UJ	12.5
2,3',6-TrCB	PCB-027	38444-76-7	4.79	4.79	UJ	12.5
2,4',6-TrCB	PCB-032	38444-77-8	5.70	5.70	UJ	12.5
2,2',3-TrCB	PCB-016	38444-78-9	3.13	3.13	UJ	12.5
2,3,5-TrCB	PCB-023	55720-44-0	2.18	2.18	UJ	12.5
2,3',5'-TrCB	PCB-034	37680-68-5	2.39	2.39	UJ	12.5
2,4,5-TrCB	PCB-029	15862-07-4	1.83	1.83	UJ	12.5
2,3',5-TrCB	PCB-026	38444-81-4	1.94	1.94	UJ	12.5
2,3',4-TrCB	PCB-025	55712-37-3	2.42	2.42	UJ	12.5
2,4',5-TrCB	PCB-031	16606-02-3	2.24	2.24	UJ	12.5
2,4,4'-TrCB	PCB-028	7012-37-5	2.32	2.32	UJ	12.5
2,3,4-TrCB	PCB-021	55702-46-0	2.30	2.30	UJ	12.5
	PCB-020/033		2.29	2.29	UJ	12.5
2,3,4'-TrCB	PCB-022	38444-85-8	2.86	2.86	UJ	12.5
3,3',5-TrCB	PCB-036	38444-87-0	1.84	1.84	UJ	12.5
3,4',5-TrCB	PCB-039	38444-88-1	1.87	1.87	UJ	12.5
3,4,5-TrCB	PCB-038	53555-66-1	2.52	2.52	UJ	12.5
3,3',4-TrCB	PCB-035	37680-69-6	2.11	2.11	UJ	12.5
3,4,4'-TrCB	PCB-037	38444-90-5	1.86	1.86	UJ	12.5
2,2',6,6'-TeCB	PCB-054	15968-05-5	0.16	0.16	UJ	12.5
2,2',4,6'-TeCB	PCB-050	62796-65-0	0.28	0.28	UJ	12.5
2,2',5,6'-TeCB	PCB-053	41464-41-9	0.32	0.32	UJ	12.5
2,2',4,6'-TeCB	PCB-051	68194-04-7	0.34	0.34	UJ	12.5
2,2',3,6'-TeCB	PCB-045	70362-45-7	0.33	0.33	UJ	12.5
2,2',3,6'-TeCB	PCB-046	41464-47-5	0.32	0.32	UJ	12.5
	PCB-052/069		0.23	0.23	UJ	12.5
2,3',5',6'-TeCB	PCB-073	74338-23-1	0.19	0.19	UJ	12.5
	PCB-043/049		0.29	0.29	UJ	12.5
	PCB-065/075		0.28	0.28	UJ	12.5
	PCB-047/048		0.19	0.19	UJ	12.5
2,3,4,6'-TeCB	PCB-062	54230-22-7	0.72	0.20	NJ	12.5
2,2',3,5'-TeCB	PCB-044	41464-39-5	0.35	0.35	UJ	12.5
2,3,3',6'-TeCB	PCB-059	74472-33-6	0.18	0.18	UJ	12.5
2,2',3,4'-TeCB	PCB-042	36559-22-5	0.28	0.28	UJ	12.5
2,3',5,5'-TeCB	PCB-072	41464-42-0	0.10	0.10	UJ	12.5

# QC REPORT - BLANK

**Client:** Liberty Lake Sewer and Water Dist.  
**Client ID:** BLANK  
**Field ID:**  
**PRL ID:** PC250102B

**Contact:** Greg Sattler  
**Date Extracted:** 2/14/2025  
**Date Analysed:** 3/2/2025  
**HRMS File:** FS03022505

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
	PCB-064/071		0.37	0.37	UJ	12.5
2,2',3,4-TeCB	PCB-041	52663-59-9	0.26	0.26	UJ	12.5
2,3',4,5'-TeCB	PCB-068	73575-52-7	0.17	0.17	UJ	12.5
2,2',3,3'-TeCB	PCB-040	38444-93-8	0.36	0.36	UJ	12.5
2,3,3',5-TeCB	PCB-057	70424-67-8	0.18	0.18	UJ	12.5
2,3',4,5-TeCB	PCB-067	73575-53-8	0.17	0.17	UJ	12.5
2,3,4',5-TeCB	PCB-058/063	74472-34-7	0.18	0.18	UJ	12.5
2,3,4,5'-TeCB	PCB-061	33284-53-6	0.22	0.22	UJ	12.5
2,4,4',5-TeCB	PCB-074	32690-93-0	0.17	0.17	UJ	12.5
2,3',4',5-TeCB	PCB-070	32598-11-1	2.34	0.19	NJ	12.5
2,3,3',4-TeCB	PCB-055	74338-24-2	0.18	0.18	UJ	12.5
	PCB-066/080		0.16	0.16	UJ	12.5
2,3',4',5'-TeCB	PCB-076	70362-48-0	0.18	0.18	UJ	12.5
2,3,4,4'-TeCB	PCB-060	33025-41-1	0.18	0.18	UJ	12.5
2,3,3',4'-TeCB	PCB-056	41464-43-1	0.19	0.19	UJ	12.5
3,3',4,5'-TeCB	PCB-079	41464-48-6	0.17	0.17	UJ	12.5
3,3',4,5-TeCB	PCB-078	70362-49-1	0.18	0.18	UJ	12.5
3,4,4',5-TeCB	PCB-081	70362-50-4	0.20	0.20	UJ	12.5
3,3',4,4'-TeCB	PCB-077	32598-13-3	0.19	0.19	UJ	12.5
2,2',4,6,6'-PeCB	PCB-104	56558-16-8	3.65	3.65	UJ	12.5
2,2',3,6,6'-PeCB	PCB-096	73575-54-9	5.66	5.66	UJ	12.5
2,2',4,5',6-PeCB	PCB-103	60145-21-3	6.00	6.00	UJ	12.5
2,2',4,4',6-PeCB	PCB-100	39485-83-1	5.45	5.45	UJ	12.5
2,2',3,5,6'-PeCB	PCB-094	73575-55-0	6.80	6.80	UJ	12.5
	PCB-093/095/098/102		6.33	6.33	UJ	12.5
2,2',3,4,6-PeCB	PCB-088	55215-17-3	7.05	7.05	UJ	12.5
2,2',3,4',6-PeCB	PCB-091	68194-05-8	6.91	6.91	UJ	12.5
2,3',4,5',6-PeCB	PCB-121	56558-18-0	3.73	3.73	UJ	12.5
	PCB-084/092		12.1	12.1	UJ	12.5
2,2',3,4,6'-PeCB	PCB-089	73575-57-2	7.39	7.39	UJ	12.5
2,2',3,4',5-PeCB	PCB-090	68194-07-0	5.56	5.56	UJ	12.5
2,2',4,5,5'-PeCB	PCB-101	37680-73-2	5.26	5.26	UJ	12.5
2,3,3',5',6-PeCB	PCB-113	68194-10-5	5.04	5.04	UJ	12.5
2,2',4,4',5-PeCB	PCB-099	38380-01-7	5.01	5.01	UJ	12.5
	PCB-112/119		4.08	4.08	UJ	12.5
2,2',3,3',5-PeCB	PCB-083	60145-20-2	9.41	9.41	UJ	12.5
2,3,3',4,6-PeCB	PCB-109	74472-35-8	4.82	4.82	UJ	12.5
	PCB-086-097/117		5.25	5.25	UJ	12.5
	PCB-116/125		3.55	3.55	UJ	12.5
	PCB-087/115		4.95	4.95	UJ	12.5
2,3,3',5,5'-PeCB	PCB-111	39635-32-0	3.92	3.92	UJ	12.5
2,2',3,4,4'-PeCB	PCB-085	65510-45-4	6.06	6.06	UJ	12.5
	PCB-110/120		4.16	4.16	UJ	12.5
2,2',3,3',4-PeCB	PCB-082	52663-62-4	7.03	7.03	UJ	12.5
2,3',4',5,5'-PeCB	PCB-124	70424-70-3	1.28	1.28	UJ	12.5
	PCB-107/108		1.29	1.29	UJ	12.5
2,3',4,4',5'-PeCB	PCB-123	65510-44-3	1.44	1.44	UJ	12.5
2,3,3',4,5-PeCB	PCB-106	70424-69-0	1.43	1.43	UJ	12.5
2,3',4,4',5-PeCB	PCB-118	31508-00-6	1.32	1.32	UJ	12.5
2,3,4,4',5-PeCB	PCB-114	74472-37-0	1.46	1.46	UJ	12.5
2,3,3',4',5'-PeCB	PCB-122	76842-07-4	1.68	1.68	UJ	12.5
2,3,3',4,4'-PeCB	PCB-105	32598-14-4	1.34	1.34	UJ	12.5

# QC REPORT - BLANK

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 PRL ID: PC250102B

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/2/2025  
 HRMS File: FS03022505

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
3,3',4,5,5'-PeCB	PCB-127	39635-33-1	1.43	1.43	UJ	12.5
3,3',4,4',5'-PeCB	PCB-126	57465-28-8	1.44	1.44	UJ	12.5
2,2',4,4',6,6'-HxCB	PCB-155	33979-03-2	0.20	0.20	UJ	12.5
2,2',3,4',6,6'-HxCB	PCB-150	68194-08-1	0.22	0.22	UJ	12.5
2,2',3,5,6,6'-HxCB	PCB-152	68194-09-2	0.23	0.23	UJ	12.5
2,2',3,4,6,6'-HxCB	PCB-145	74472-40-5	0.21	0.21	UJ	12.5
2,2',3,3',6,6'-HxCB	PCB-136	38411-22-2	0.27	0.27	UJ	12.5
2,2',3,4',5,6'-HxCB	PCB-148	74472-41-6	0.27	0.27	UJ	12.5
2,2',4,4',5,6'-HxCB	PCB-154	60145-22-4	0.22	0.22	UJ	12.5
2,2',3,5,5',6'-HxCB	PCB-151	52663-63-5	0.31	0.31	UJ	12.5
2,2',3,3',5,6'-HxCB	PCB-135	52744-13-5	0.29	0.29	UJ	12.5
2,2',3,4,5',6'-HxCB	PCB-144	68194-14-9	0.30	0.30	UJ	12.5
2,2',3,4',5,6'-HxCB	PCB-147	68194-13-8	0.23	0.23	UJ	12.5
	PCB-139/149		0.27	0.27	UJ	12.5
2,2',3,4,4',6'-HxCB	PCB-140	59291-64-4	0.06	0.06	UJ	12.5
2,2',3,4,5,6'-HxCB	PCB-143	68194-15-0	0.08	0.08	UJ	12.5
2,2',3,3',5,6'-HxCB	PCB-134	52704-70-8	0.09	0.09	UJ	12.5
2,2',3,4,5,6'-HxCB	PCB-142	41411-61-4	0.09	0.09	UJ	12.5
2,2',3,3',5,5'-HxCB	PCB-133	35694-04-3	0.08	0.08	UJ	12.5
2,2',3,3',4,6'-HxCB	PCB-131	61798-70-7	0.08	0.08	UJ	12.5
2,3,3',5,5',6'-HxCB	PCB-165	74472-46-1	0.06	0.06	UJ	12.5
	PCB-132/146		0.12	0.12	UJ	12.5
2,3,3',4,5',6'-HxCB	PCB-161	74472-43-8	0.03	0.03	UJ	12.5
2,2',4,4',5,5'-HxCB	PCB-153	35065-27-1	0.06	0.06	UJ	12.5
2,3',4,4',5',6'-HxCB	PCB-168	59291-65-5	0.05	0.05	UJ	12.5
2,2',3,4,5,5'-HxCB	PCB-141	52712-04-6	0.06	0.06	UJ	12.5
2,2',3,4,4',5'-HxCB	PCB-137	35694-06-5	0.07	0.07	UJ	12.5
2,2',3,3',4,5'-HxCB	PCB-130	52663-66-8	0.08	0.08	UJ	12.5
	PCB-163/164		0.05	0.05	UJ	12.5
2,2',3,4,4',5'-HxCB	PCB-138	35065-28-2	0.08	0.08	UJ	12.5
2,3,3',4,5,6'-HxCB	PCB-160	41411-62-5	0.05	0.05	UJ	12.5
2,3,3',4,4',6'-HxCB	PCB-158	74472-42-7	0.04	0.04	UJ	12.5
2,2',3,3',4,5'-HxCB	PCB-129	55215-18-4	0.07	0.07	UJ	12.5
2,3,4,4',5,6'-HxCB	PCB-166	41411-63-6	0.05	0.05	UJ	12.5
2,3,3',4,5,5'-HxCB	PCB-159	39635-35-3	0.05	0.05	UJ	12.5
2,2',3,3',4,4'-HxCB	PCB-128	38380-07-3	0.08	0.08	UJ	12.5
2,3,3',4',5,5'-HxCB	PCB-162	39635-34-2	0.04	0.04	UJ	12.5
2,3',4,4',5,5'-HxCB	PCB-167	52663-72-6	0.06	0.06	UJ	12.5
2,3,3',4,4',5'-HxCB	PCB-156	38380-08-4	0.06	0.06	UJ	12.5
2,3,3',4,4',5'-HxCB	PCB-157	69782-90-7	0.05	0.05	UJ	12.5
3,3',4,4',5,5'-HxCB	PCB-169	32774-16-6	0.06	0.06	UJ	12.5
2,2',3,4',5,6,6'-HpCB	PCB-188	74487-85-7	0.66	0.66	UJ	12.5
2,2',3,4,4',6,6'-HpCB	PCB-184	74472-48-3	0.54	0.54	UJ	12.5
2,2',3,3',5,6,6'-HpCB	PCB-179	52663-64-6	0.55	0.55	UJ	12.5
2,2',3,3',4,6,6'-HpCB	PCB-176	52663-65-7	0.57	0.57	UJ	12.5
2,2',3,4,5,6,6'-HpCB	PCB-186	74472-49-4	0.59	0.59	UJ	12.5
2,2',3,3',5,5',6'-HpCB	PCB-178	52663-67-9	0.80	0.80	UJ	12.5
2,2',3,3',4,5',6'-HpCB	PCB-175	40186-70-7	0.71	0.71	UJ	12.5
	PCB-182/187		0.66	0.66	UJ	12.5
2,2',3,4,4',5',6'-HpCB	PCB-183	52663-69-1	0.66	0.66	UJ	12.5
2,2',3,4,5,5',6'-HpCB	PCB-185	52712-05-7	0.74	0.74	UJ	12.5
2,2',3,3',4,5,6'-HpCB	PCB-174	38411-25-5	0.67	0.67	UJ	12.5

# QC REPORT - BLANK

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: BLANK  
 Field ID:  
 PRL ID: PC250102B

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/2/2025  
 HRMS File: FS03022505

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,2',3,4,4',5,6-HpCB	PCB-181	74472-47-2	0.71	0.71	UJ	12.5
2,2',3,3',4,5',6'-HpCB	PCB-177	52663-70-4	0.72	0.72	UJ	12.5
2,2',3,3',4,4',6-HpCB	PCB-171	52663-71-5	0.74	0.74	UJ	12.5
2,2',3,3',4,5,6-HpCB	PCB-173	68194-16-1	0.71	0.71	UJ	12.5
2,2',3,3',4,5,5'-HpCB	PCB-172	52663-74-8	0.75	0.75	UJ	12.5
2,3,3',4,5,5',6-HpCB	PCB-192	74472-51-8	0.58	0.58	UJ	12.5
2,2',3,4,4',5,5'-HpCB	PCB-180	35065-29-3	0.76	0.76	UJ	12.5
2,3,3',4,5,5',6-HpCB	PCB-193	69782-91-8	0.48	0.48	UJ	12.5
2,3,3',4,4',5',6-HpCB	PCB-191	74472-50-7	0.51	0.51	UJ	12.5
2,2',3,3',4,4',5-HpCB	PCB-170	35065-30-6	0.73	0.73	UJ	12.5
2,3,3',4,4',5,6-HpCB	PCB-190	41411-64-7	0.49	0.49	UJ	12.5
2,3,3',4,4',5,5'-HpCB	PCB-189	39635-31-9	0.23	0.23	UJ	12.5
2,2',3,3',5,5',6,6'-OxCB	PCB-202	2136-99-4	2.23	2.23	UJ	12.5
2,2',3,3',4,5',6,6'-OxCB	PCB-201	40186-71-8	1.60	1.60	UJ	12.5
2,2',3,4,4',5,6,6'-OxCB	PCB-204	74472-52-9	1.55	1.55	UJ	12.5
2,2',3,3',4,4',6,6'-OxCB	PCB-197	33091-17-7	1.63	1.63	UJ	12.5
2,2',3,3',4,5,6,6'-OxCB	PCB-200	52663-73-7	1.63	1.63	UJ	12.5
2,2',3,3',4,5,5',6-OxCB	PCB-198	68194-17-2	2.53	2.53	UJ	12.5
2,2',3,3',4,5,5',6'-OxCB	PCB-199	52663-75-9	2.08	2.08	UJ	12.5
2,2',3,3',4,4',5,6'-OxCB	PCB-196	42740-50-1	2.33	2.33	UJ	12.5
2,2',3,4,4',5,5',6-OxCB	PCB-203	52663-76-0	1.97	1.97	UJ	12.5
2,2',3,3',4,4',5,6-OxCB	PCB-195	52663-78-2	0.84	0.84	UJ	12.5
2,2',3,3',4,4',5,5'-OxCB	PCB-194	35694-08-7	0.81	0.81	UJ	12.5
2,3,3',4,4',5,5',6-OxCB	PCB-205	74472-53-0	0.68	0.68	UJ	12.5
2,2',3,3',4,5,5',6,6'-NoCB	PCB-208	52663-77-1	5.07	5.07	UJ	12.5
2,2',3,3',4,4',5,6,6'-NoCB	PCB-207	52663-79-3	5.08	5.08	UJ	12.5
2,2',3,3',4,4',5,5',6-NoCB	PCB-206	40186-72-9	6.75	6.75	UJ	12.5
2,2',3,3',4,4',5,5',6,6'-DeCB	PCB-209	2051-24-3	1.65	1.65	UJ	12.5

Homologs	# of Congeners			
Monochlorobiphenyls	3	1.87	1.87	UJ
Dichlorobiphenyls	12	4.66	4.66	UJ
Trichlorobiphenyls	24	1.83	1.83	UJ
Tetrachlorobiphenyls	42	0.10	0.10	UJ
Pentachlorobiphenyls	46	1.28	1.28	UJ
Hexachlorobiphenyls	42	0.03	0.03	UJ
Heptachlorobiphenyls	24	0.23	0.23	UJ
Octachlorobiphenyls	12	0.68	0.68	UJ
Nonachlorobiphenyls	3	5.07	5.07	UJ
Decachlorobiphenyl	1	1.65	1.65	UJ
Total PCB		0.03	0.03	UJ

# QC REPORT - BLANK

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: BLANK  
 Field ID:  
 PRL ID: PC250102B

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/2/2025  
 HRMS File: FS03022505

IUPAC Name	PCB #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
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Standard Recoveries			Acceptance	
Chemical Name	IUPAC #	%	Min	Max
<sup>13</sup> C <sub>12</sub> -2-MoCB	1L	32	5	145
<sup>13</sup> C <sub>12</sub> -4-MoCB	3L	31	5	145
<sup>13</sup> C <sub>12</sub> -2,2'-DiCB	4L	36	5	145
<sup>13</sup> C <sub>12</sub> -4,4'-DiCB	15L	35	5	145
<sup>13</sup> C <sub>12</sub> -2,2',6'-TrCB	19L	30	5	145
<sup>13</sup> C <sub>12</sub> -3,4,4'-TrCB	37L	48	5	145
<sup>13</sup> C <sub>12</sub> -2,2',6,6'-TeCB	54L	39	5	145
<sup>13</sup> C <sub>12</sub> -3,4,4',5'-TeCB	81L	47	5	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4'-TeCB	77L	49	10	145
<sup>13</sup> C <sub>12</sub> -2,2',4,6,6'-PeCB	104L	41	10	145
<sup>13</sup> C <sub>12</sub> -2',3,4,4',5'-PeCB	123L	70	10	145
<sup>13</sup> C <sub>12</sub> -2,3',4,4',5'-PeCB	118L	73	10	145
<sup>13</sup> C <sub>12</sub> -2,3,4,4',5'-PeCB	114L	65	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4'-PeCB	105L	76	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5'-PeCB	126L	73	10	145
<sup>13</sup> C <sub>12</sub> -2,2',4,4',6,6'-HxCB	155L	36	10	145
<sup>13</sup> C <sub>12</sub> -2,3',4,4',5,5'-HxCB	167L	61	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5'-HxCB	156L	63	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5'-HxCB	157L	65	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5,5'-HxCB	169L	57	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,4',5,6,6'-HpCB	188L	58	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5'-HpCB	189L	80	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',5,5',6,6'-OcCB	202L	59	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5',6'-OcCB	205L	62	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4',5,5',6,6'-NoCB	208L	71	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',5,5',6'-NoCB	206L	61	10	145
<sup>13</sup> C <sub>12</sub> -DeCB	209L	69	10	145
<sup>13</sup> C <sub>12</sub> -2,4,4'-TrCB	28L	60	5	145
<sup>13</sup> C <sub>12</sub> -2,3,3',5,5'-PeCB	111L	56	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',5,5',6'-HpCB	178L	70	10	145



# QC REPORT - SPIKE

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: **SPIKE**  
 Field ID:   
 PRL ID: PC250103S

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/2/2025  
 HRMS File: FS03022502

Polychlorinated Biphenyls				Accept. Recovery		Pass/Fail	Standard Recoveries
Chemical Name	IUPAC #	CAS No.	LOF pg/L	Recovery %	Min %	Max %	
2-MoCB	PCB-001	2051-60-7	1000	124	60	135	Pass 21
4-MoCB	PCB-003	2051-62-9	1000	112	60	135	Pass 26
2,6-DiCB	PCB-010	33146-45-1	1000	103			-
2,2'-DiCB	PCB-004	13029-08-8	1000	74	60	135	Pass 29
	PCB-005/008		1000	118			-
4,4'-DiCB	PCB-015	2050-68-2	1000	89	60	135	Pass 37
2,2',6-TrCB	PCB-019	38444-73-4	1000	101	60	135	Pass 29
2,2',5-TrCB	PCB-018	37680-65-2	1000	101			-
2,4,4'-TrCB	PCB-028	7012-37-5	1000	115			-
	PCB-020/033		1000	130			-
2,3,4'-TrCB	PCB-022	38444-85-8	1000	131			-
3,4,4'-TrCB	PCB-037	38444-90-5	1000	91	60	135	Pass 40
2,2',6,6'-TeCB	PCB-054	15968-05-5	1000	83	60	135	Pass 34
	PCB-052/069		1000	71			-
	PCB-043/049		1000	92			-
2,2',3,5'-TeCB	PCB-044	41464-39-5	1000	97			-
2,2',3,4-TeCB	PCB-041	52663-59-9	1000	65			-
2,2',3,3'-TeCB	PCB-040	38444-93-8	1000	86			-
2,4,4',5-TeCB	PCB-061/074	32690-93-0	1000	72			-
2,3',4',5-TeCB	PCB-070	32598-11-1	1000	97			-
2,3',4,4'-TeCB	PCB-066	32598-10-0	1000	83			-
2,3,4,4'-TeCB	PCB-060	33025-41-1	1000	96			-
3,4,4',5-TeCB	PCB-081	70362-50-4	1000	93	60	135	Pass 40
3,3',4,4'-TeCB	PCB-077	32598-13-3	1000	84	60	135	Pass 43
2,2',4,6,6'-PeCB	PCB-104	56558-16-8	1000	100	60	135	Pass 35
	PCB-093/095/098/102		1000	69			-
2,2',3,4',5-PeCB	PCB-090	68194-07-0	1000	71			-
2,2',4,5,5'-PeCB	PCB-101	37680-73-2	1000	94			-
2,2',4,4',5-PeCB	PCB-099	38380-01-7	1000	71			-
	PCB-112/119		1000	80			-
	PCB-087/115		1000	70			-
2,3,3',4',6-PeCB	PCB-110	38380-03-9	1000	102			-
2,3',4,4',5-PeCB	PCB-123	65510-44-3	1000	97	60	135	Pass 49
2,3',4,4',5-PeCB	PCB-118	31508-00-6	1000	99	60	135	Pass 53
2,3,4,4',5-PeCB	PCB-114	74472-37-0	1000	98	60	135	Pass 50
2,3,3',4,4'-PeCB	PCB-105	32598-14-4	1000	98	60	135	Pass 60
3,3',4,4',5-PeCB	PCB-126	57465-28-8	1000	92	60	135	Pass 71
2,2',4,4',6,6'-HxCB	PCB-155	33979-03-2	1000	78	60	135	Pass 31
2,2',3,5,5',6-HxCB	PCB-151	52663-63-5	1000	42			-
	PCB-139/149		1000	64			-
2,2',4,4',5,5'-HxCB	PCB-153	35065-27-1	1000	65			-
2,3',4,4',5,6-HxCB	PCB-168	59291-65-5	1000	63			-
2,2',3,4,5,5'-HxCB	PCB-141	52712-04-6	1000	61			-
2,2',3,4,4',5-HxCB	PCB-137	35694-06-5	1000	64			-
2,2',3,4,4',5'-HxCB	PCB-138	35065-28-2	1000	79			-
2,3,3',4,4',6-HxCB	PCB-158	74472-42-7	1000	61			-
2,2',3,3',4,5-HxCB	PCB-129	55215-18-4	1000	63			-
	PCB-128/162		1000	92			-
2,3',4,4',5,5'-HxCB	PCB-167	52663-72-6	1000	98	60	135	Pass 63
2,3,3',4,4',5-HxCB	PCB-156	38380-08-4	1000	98	60	135	Pass 71
2,3,3',4,4',5'-HxCB	PCB-157	69782-90-7	1000	100	60	135	Pass 74

# QC REPORT - SPIKE

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: SPIKE  
 Field ID:  
 PRL ID: PC250103S

Contact: Greg Sattler  
 Date Extracted: 2/14/2025  
 Date Analysed: 3/2/2025  
 HRMS File: FS03022502

Polychlorinated Biphenyls			Accept. Recovery				Pass/Fail	Standard
			LOF	Recovery	Min	Max		Recoveries
Chemical Name	IUPAC #	CAS No.	pg/L	%	%	%		%
3,3',4,4',5,5'-HxCB	PCB-169	32774-16-6	1000	107	60	135	Pass	75
2,2',3,4',5,6,6'-HpCB	PCB-188	74487-85-7	1000	83	60	135	Pass	41
2,2',3,3',5,5',6-HpCB	PCB-178	52663-67-9	1000	66				-
	PCB-182/187		1000	63				-
2,2',3,4,4',5',6-HpCB	PCB-183	52663-69-1	1000	73				-
2,2',3,3',4,5',6'-HpCB	PCB-177	52663-70-4	1000	78				-
2,2',3,3',4,4',6-HpCB	PCB-171	52663-71-5	1000	78				-
2,2',3,4,4',5,5'-HpCB	PCB-180	35065-29-3	1000	94				-
2,3,3',4',5,5',6-HpCB	PCB-193	69782-91-8	1000	87				-
2,3,3',4,4',5',6-HpCB	PCB-191	74472-50-7	1000	97				-
2,2',3,3',4,4',5-HpCB	PCB-170	35065-30-6	1000	103				-
2,3,3',4,4',5,5'-HpCB	PCB-189	39635-31-9	1000	97	60	135	Pass	71
2,2',3,3',5,5',6,6'-OxCB	PCB-202	2136-99-4	1000	92	60	135	Pass	60
2,2',3,3',4,5',6,6'-OxCB	PCB-201	40186-71-8	1000	62				-
2,2',3,3',4,5,5',6'-OxCB	PCB-199	52663-75-9	1000	83				-
2,2',3,4,4',5,5',6-OxCB	PCB-203	52663-76-0	1000	87				-
2,2',3,3',4,4',5,5'-OxCB	PCB-194	35694-08-7	1000	109				-
2,3,3',4,4',5,5',6-OxCB	PCB-205	74472-53-0	1000	103	60	135	Pass	62
2,2',3,3',4,5,5',6,6'-NoCB	PCB-208	52663-77-1	1000	84	60	135	Pass	61
2,2',3,3',4,4',5,5',6-NoCB	PCB-206	40186-72-9	1000	101	60	135	Pass	60
2,2',3,3',4,4',5,5',6,6'-DeCB	PCB-209	2051-24-3	1000	83	60	135	Pass	66

LOF - level of fortification

# DATA REPORT

Client:  
Client ID:  
Field ID:  
PRL ID:

Liberty Lake Sewer and Water

Dist.

Influent

PR250732

Contact: Greg Sattler

Date Extracted: 2/20/2025

Date Analysed: 3/5/2025

HRMS File: FS03052510

IUPAC Name	PBDE #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,6-DiBDE	BDE010		2.3	2.3	UJ	20.0
2,4-DiBDE	BDE007		2.0	2.0	UJ	20.0
4,4'-DiBDE	BDE015	2050-47-7	7.5	1.1	J	20.0
2,4,6-TrBDE	BDE030		2.9	2.9	UJ	20.0
2,2',4-TrBDE	BDE017	147217-75-2	45.6	2.2		20.0
2,4,4'-TrBDE	BDE028	41318-75-6	128	2.2		20.0
2,2',4,5'-TeBDE	BDE049	243982-82-3	204	8.9		40.0
2,3',4',6-TeBDE	BDE071	189084-62-6	11.2	11.2	UJ	40.0
2,2',4,4'-TeBDE	BDE047	5436-43-1	6250	5.7		40.0
2,3',4,4'-TeBDE	BDE066	189084-61-5	12.4	12.4	UJ	40.0
3,3',4,4'-TeBDE	BDE077	93703-48-1	7.6	7.6	UJ	40.0
2,2',4,4',6-PeBDE	BDE100	189084-64-8	1170	4.2		40.0
2,3',4,4',6-PeBDE	BDE119	189084-66-0	6.9	6.9	UJ	40.0
2,2',4,4',5-PeBDE	BDE099	60348-60-9	5610	6.7		40.0
2,2',3,4,4'-PeBDE	BDE085	182346-21-0	240	8.2		40.0
3,3',4,4',5-PeBDE	BDE126	366791-32-4	5.7	5.7	UJ	40.0
2,2',4,4',5,6'-HxBDE	BDE154	207122-15-4	426	7.0		40.0
2,2',4,4',5,5'-HxBDE	BDE153	68631-49-2	448	9.4		40.0
2,2',3,4,4',6-HxBDE	BDE139		9.6	9.6	UJ	40.0
2,2',3,4,4',6'-HxBDE	BDE140	243982-83-4	8.7	8.7	UJ	40.0
2,2',3,4,4',5'-HxBDE	BDE138	182677-30-1	55	11.6		40.0
	BDE156/169		12.9	12.9	UJ	80.0
2,2',3,4,4',6,6'-HpBDE	BDE184		5.8	5.8	UJ	80.0
2,2',3,4,4',5',6-HpBDE	BDE183	207122-16-5	108	5.2		80.0
2,3,3',4,4',5',6-HpBDE	BDE191		9.2	9.2	UJ	80.0
2,2',3,4,4',5,5'-HpBDE	BDE180		12.8	8.6	NJ	80.0
2,2',3,3',4,4',6-HpBDE	BDE171		7.4	7.4	UJ	80.0
2,2',3,3',4,5',6,6'-OcBDE	BDE201		6.2	6.2	UJ	80.0
	BDE197/204		59.4	4.4	J	160
2,2',3,4,4',5,5',6-OcBDE	BDE203	337513-72-1	44.4	4.9	J	80.0
2,2',3,3',4,4',5,6'-OcBDE	BDE196		27.6	5.1	NJ	80.0
2,3,3',4,4',5,5',6-OcBDE	BDE205	446255-56-7	7.3	7.3	UJ	80.0
2,2',3,3',4,5,5',6,6'-NoBDE	BDE208		88.5	3.3	J	200
2,2',3,3',4,4',5,6,6'-NoBDE	BDE207	437701-79-6	225	3.0		200
2,2',3,3',4,4',5,5',6-NoBDE	BDE206	63387-28-0	3.5	3.5		200
2,2',3,3',4,4',5,5',6,6'-DeBDE	BDE209	1163-19-5	4990	4.4		200
Total PBDE			20400	1.1		

# DATA REPORT

**Client:** Liberty Lake Sewer and Water  
**Client ID:** Dist.  
**Field ID:** Influent  
**PRL ID:** PR250732

**Contact:** Greg Sattler  
**Date Extracted:** 2/20/2025  
**Date Analysed:** 3/5/2025  
**HRMS File:** FS03052510

IUPAC Name	PBDE #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
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Standard Recoveries		
Chemical Name	IUPAC #	%
<sup>13</sup> C <sub>12</sub> -4,4'-DiBDE	15L	83
<sup>13</sup> C <sub>12</sub> -2,4,4'-TrBDE	28L	85
<sup>13</sup> C <sub>12</sub> -2,2',4,4'-TeBDE	47L	92
<sup>13</sup> C <sub>12</sub> -3,3',4,4'-TeBDE	77L	87
<sup>13</sup> C <sub>12</sub> -2,2',4,4',6-PeBDE	100L	91
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5-PeBDE	99L	88
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5-PeBDE	126L	96
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5,6'-HxBDE	154L	82
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5,5'-HxBDE	153L	89
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5,5'-HxBDE	169L	77
<sup>13</sup> C <sub>12</sub> -2,2',3,4,4',5,6'-HpBDE	183L	94
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',6,6'-OcBDE	197L	80
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5',6-OcBDE	205L	77
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',5,6,6'-NoBD	207L	85
<sup>13</sup> C <sub>12</sub> -DeBDE	209L	83
<sup>13</sup> C <sub>12</sub> -2,2',3,4,4',5'-HxBDE	138L	88

# DATA REPORT

Client:  
Client ID:  
Field ID:  
PRL ID:

Liberty Lake Sewer and Water  
Dist.

Effluent

PR250734

Contact: Greg Sattler

Date Extracted: 2/20/2025

Date Analysed: 3/5/2025

HRMS File: FS03052511

IUPAC Name	PBDE #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,6-DiBDE	BDE010		1.6	1.6	UJ	20
2,4-DiBDE	BDE007		1.4	1.4	UJ	20
4,4'-DiBDE	BDE015	2050-47-7	0.8	0.8	UJ	20
2,4,6-TrBDE	BDE030		1.5	1.5	UJ	20
2,2',4-TrBDE	BDE017	147217-75-2	1.1	1.1	UJ	20
2,4,4'-TrBDE	BDE028	41318-75-6	1.1	1.1	UJ	20
2,2',4,5'-TeBDE	BDE049	243982-82-3	1.9	1.9	UJ	40
2,3',4',6-TeBDE	BDE071	189084-62-6	2.4	2.4	UJ	40
2,2',4,4'-TeBDE	BDE047	5436-43-1	58.7	1.4	B	40
2,3',4,4'-TeBDE	BDE066	189084-61-5	2.7	2.7	UJ	40
3,3',4,4'-TeBDE	BDE077	93703-48-1	1.5	1.5	UJ	40
2,2',4,4',6-PeBDE	BDE100	189084-64-8	9.3	1.2	J	40
2,3',4,4',6-PeBDE	BDE119	189084-66-0	2.0	2.0	UJ	40
2,2',4,4',5-PeBDE	BDE099	60348-60-9	32	1.8	BJ	40
2,2',3,4,4'-PeBDE	BDE085	182346-21-0	2.3	2.3	UJ	40
3,3',4,4',5-PeBDE	BDE126	366791-32-4	1.6	1.6	UJ	40
2,2',4,4',5,6'-HxBDE	BDE154	207122-15-4	17.4	4.5	J	40
2,2',4,4',5,5'-HxBDE	BDE153	68631-49-2	6.5	6.5	UJ	40
2,2',3,4,4',6-HxBDE	BDE139		6.0	6.0	UJ	40
2,2',3,4,4',6'-HxBDE	BDE140	243982-83-4	5.4	5.4	UJ	40
2,2',3,4,4',5'-HxBDE	BDE138	182677-30-1	7.3	7.3	UJ	40
	BDE156/169		7.1	7.1	UJ	79
2,2',3,4,4',6,6'-HpBDE	BDE184		3.0	3.0	UJ	79
2,2',3,4,4',5',6-HpBDE	BDE183	207122-16-5	2.7	2.7	UJ	79
2,3,3',4,4',5',6-HpBDE	BDE191		9.4	4.9	NJ	79
2,2',3,4,4',5,5'-HpBDE	BDE180		4.5	4.5	UJ	79
2,2',3,3',4,4',6-HpBDE	BDE171		3.9	3.9	UJ	79
2,2',3,3',4,5',6,6'-OcBDE	BDE201		3.0	3.0	UJ	79
	BDE197/204		2.2	2.2	UJ	158
2,2',3,4,4',5,5',6-OcBDE	BDE203	337513-72-1	2.4	2.4	UJ	79
2,2',3,3',4,4',5,6'-OcBDE	BDE196		2.5	2.5	UJ	79
2,3,3',4,4',5,5',6-OcBDE	BDE205	446255-56-7	3.2	3.2	UJ	79
2,2',3,3',4,5,5',6,6'-NoBDE	BDE208		3.6	2.3	NJ	198
2,2',3,3',4,4',5,6,6'-NoBDE	BDE207	437701-79-6	8.6	2.2	NJ	198
2,2',3,3',4,4',5,5',6-NoBDE	BDE206	63387-28-0	2.5	2.5	J	198
2,2',3,3',4,4',5,5',6,6'-DeBDE	BDE209	1163-19-5	69.5	2.7	BJ	198
Total PBDE			200	0.8	B	

# DATA REPORT

**Client:** Liberty Lake Sewer and Water  
**Client ID:** Dist.  
**Field ID:** Effluent  
**PRL ID:** PR250734

**Contact:** Greg Sattler  
**Date Extracted:** 2/20/2025  
**Date Analysed:** 3/5/2025  
**HRMS File:** FS03052511

IUPAC Name	PBDE #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
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Standard Recoveries		
Chemical Name	IUPAC #	%
<sup>13</sup> C <sub>12</sub> -4,4'-DiBDE	15L	82
<sup>13</sup> C <sub>12</sub> -2,4,4'-TrBDE	28L	92
<sup>13</sup> C <sub>12</sub> -2,2',4,4'-TeBDE	47L	102
<sup>13</sup> C <sub>12</sub> -3,3',4,4'-TeBDE	77L	109
<sup>13</sup> C <sub>12</sub> -2,2',4,4',6-PeBDE	100L	104
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5-PeBDE	99L	108
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5-PeBDE	126L	108
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5,6'-HxBDE	154L	89
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5,5'-HxBDE	153L	98
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5,5'-HxBDE	169L	96
<sup>13</sup> C <sub>12</sub> -2,2',3,4,4',5',6-HpBDE	183L	93
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',6,6'-OcBDE	197L	110
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5',6-OcBDE	205L	110
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',5,6,6'-NoBD	207L	93
<sup>13</sup> C <sub>12</sub> -DeBDE	209L	87
<sup>13</sup> C <sub>12</sub> -2,2',3,4,4',5'-HxBDE	138L	101

# QC REPORT - BLANK

Client:  
Client ID:  
Field ID:  
PRL ID:

Liberty Lake Sewer and Water  
Dist.

BLANK

BDE250117B

Contact: Greg Sattler

Date Extracted: 2/20/2025

Date Analysed: 3/5/2025

HRMS File: FS03052507

IUPAC Name	PBDE #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
2,6-DiBDE	BDE010		2.4	2.4	UJ	20
2,4-DiBDE	BDE007		2.0	2.0	UJ	20
4,4'-DiBDE	BDE015	2050-47-7	1.1	1.1	UJ	20
2,4,6-TrBDE	BDE030		2.0	2.0	UJ	20
2,2',4-TrBDE	BDE017	147217-75-2	1.5	1.5	UJ	20
2,4,4'-TrBDE	BDE028	41318-75-6	1.5	1.5	UJ	20
2,2',4,5'-TeBDE	BDE049	243982-82-3	1.9	1.9	UJ	40
2,3',4',6'-TeBDE	BDE071	189084-62-6	2.4	2.4	UJ	40
2,2',4,4'-TeBDE	BDE047	5436-43-1	15.9	1.4	J	40
2,3',4,4'-TeBDE	BDE066	189084-61-5	2.7	2.7	UJ	40
3,3',4,4'-TeBDE	BDE077	93703-48-1	1.5	1.5	UJ	40
2,2',4,4',6-PeBDE	BDE100	189084-64-8	1.5	1.5	UJ	40
2,3',4,4',6-PeBDE	BDE119	189084-66-0	2.2	2.2	UJ	40
2,2',4,4',5-PeBDE	BDE099	60348-60-9	14.7	2.0	J	40
2,2',3,4,4'-PeBDE	BDE085	182346-21-0	2.6	2.6	UJ	40
3,3',4,4',5-PeBDE	BDE126	366791-32-4	1.8	1.8	UJ	40
2,2',4,4',5,6'-HxBDE	BDE154	207122-15-4	5.4	5.4	UJ	40
2,2',4,4',5,5'-HxBDE	BDE153	68631-49-2	7.4	7.4	UJ	40
2,2',3,4,4',6-HxBDE	BDE139		6.7	6.7	UJ	40
2,2',3,4,4',6'-HxBDE	BDE140	243982-83-4	6.1	6.1	UJ	40
2,2',3,4,4',5'-HxBDE	BDE138	182677-30-1	8.1	8.1	UJ	40
	BDE156/169		7.3	7.3	UJ	80
2,2',3,4,4',6,6'-HpBDE	BDE184		3.4	3.4	UJ	80
2,2',3,4,4',5',6'-HpBDE	BDE183	207122-16-5	3.0	3.0	UJ	80
2,3,3',4,4',5',6'-HpBDE	BDE191		5.4	5.4	UJ	80
2,2',3,4,4',5,5'-HpBDE	BDE180		5.0	5.0	UJ	80
2,2',3,3',4,4',6-HpBDE	BDE171		4.3	4.3	UJ	80
2,2',3,3',4,5',6,6'-OcBDE	BDE201		3.2	3.2	UJ	80
	BDE197/204		2.3	2.3	UJ	160
2,2',3,4,4',5,5',6-OcBDE	BDE203	337513-72-1	2.5	2.5	UJ	80
2,2',3,3',4,4',5,6'-OcBDE	BDE196		3.1	2.6	NJ	80
2,3,3',4,4',5,5',6-OcBDE	BDE205	446255-56-7	2.9	2.9	UJ	80
2,2',3,3',4,5,5',6,6'-NoBDE	BDE208		2.0	2.0	UJ	200
2,2',3,3',4,4',5,6,6'-NoBDE	BDE207	437701-79-6	1.8	1.8	UJ	200
2,2',3,3',4,4',5,5',6-NoBDE	BDE206	63387-28-0	2.1	2.1	UJ	200
2,2',3,3',4,4',5,5',6,6'-DeBDE	BDE209	1163-19-5	32.6	2.5	J	200
Total PBDE			63.0	1.1		

# QC REPORT - BLANK

Client: Liberty Lake Sewer and Water  
 Client ID: BLANK  
 Field ID:  
 PRL ID: BDE250117B

Contact: Greg Sattler  
 Date Extracted: 2/20/2025  
 Date Analysed: 3/5/2025  
 HRMS File: FS03052507

IUPAC Name	PBDE #	CAS #	Conc. pg/L	DL pg/L	Flag	EQL pg/L
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Standard Recoveries		
Chemical Name	IUPAC #	%
<sup>13</sup> C <sub>12</sub> -4,4'-DiBDE	15L	54
<sup>13</sup> C <sub>12</sub> -2,4,4'-TrBDE	28L	68
<sup>13</sup> C <sub>12</sub> -2,2',4,4'-TeBDE	47L	86
<sup>13</sup> C <sub>12</sub> -3,3',4,4'-TeBDE	77L	94
<sup>13</sup> C <sub>12</sub> -2,2',4,4',6-PeBDE	100L	90
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5-PeBDE	99L	96
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5-PeBDE	126L	97
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5,6'-HxBDE	154L	82
<sup>13</sup> C <sub>12</sub> -2,2',4,4',5,5'-HxBDE	153L	89
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5,5'-HxBDE	169L	95
<sup>13</sup> C <sub>12</sub> -2,2',3,4,4',5',6-HpBDE	183L	81
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',6,6'-OcBDE	197L	85
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5',6-OcBDE	205L	99
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',5,6,6'-NoBD	207L	85
<sup>13</sup> C <sub>12</sub> -DeBDE	209L	76
<sup>13</sup> C <sub>12</sub> -2,2',3,4,4',5'-HxBDE	138L	100



# QC REPORT - SPIKE

Client: Liberty Lake Sewer and Water Dist.  
 Client ID: SPIKE (LCS)  
 Field ID:  
 PRL ID: BDE250119S

Contact: Greg Sattler  
 Date Extracted: 2/20/2025  
 Date Analysed: 3/5/2025  
 HRMS File: FS03052515

Polybrominated Diphenyl Ethers					Accept. Recovery		Pass/Fail	Surrogate Recoveries
Chemical Name	IUPAC #	CAS No.	LOF pg/L	Recovery %	Min %	Max %		%
2,6-DiBDE	BDE010		1000	31				
2,4-DiBDE	BDE007		1000	53				
4,4'-DiBDE	BDE015	2050-47-7	1000	97	50	150	Pass	44
2,4,6-TrBDE	BDE-030		1000	57				-
2,2',4-TrBDE	BDE-017	147217-75-2	1000	81				-
2,4,4'-TrBDE	BDE-028	41318-75-6	1000	93	50	150	Pass	65
2,2',4,5'-TeBDE	BDE-049	243982-82-3	2000	74				-
2,3',4',6-TeBDE	BDE-071	189084-62-6	2000	75				-
2,2',4,4'-TeBDE	BDE-047	5436-43-1	2000	82	50	150	Pass	83
2,3',4,4'-TeBDE	BDE-066	189084-61-5	2000	93				-
3,3',4,4'-TeBDE	BDE-077	93703-48-1	2000	85	50	150	Pass	93
2,2',4,4',6-PeBDE	BDE-100	189084-64-8	2000	86	50	150	Pass	84
2,3',4,4',6-PeBDE	BDE-119	189084-66-0	2000	90				-
2,2',4,4',5-PeBDE	BDE-099	60348-60-9	2000	96	50	150	Pass	85
2,2',3,4,4'-PeBDE	BDE-085	182346-21-0	2000	94				-
3,3',4,4',5-PeBDE	BDE-126	366791-32-4	2000	91	50	150	Pass	94
2,2',4,4',5,6'-HxBDE	BDE-154	207122-15-4	2000	101	50	150	Pass	81
2,2',4,4',5,5'-HxBDE	BDE-153	68631-49-2	2000	85	50	150	Pass	90
2,2',3,4,4',6-HxBDE	BDE-139		2000	89				-
2,2',3,4,4',6'-HxBDE	BDE-140	243982-83-4	2000	89				-
2,2',3,4,4',5'-HxBDE	BDE-138	182677-30-1	2000	91				-
2,3,3',4,4',5/3,3',4,4',5,5'-HxBDE	BDE-156/169		4000	88	50	150	Pass	90
2,2',3,4,4',6,6'-HpBDE	BDE-184		4000	121				-
2,2',3,4,4',5',6-HpBDE	BDE-183	207122-16-5	4000	96	50	150	Pass	82
2,3,3',4,4',5',6-HpBDE	BDE-191		4000	101				-
2,2',3,4,4',5,5'-HpBDE	BDE-180		4000	102				-
2,2',3,3',4,4',6-HpBDE	BDE-171		4000	99				-
2,2',3,3',4,5',6,6'-OcBDE	BDE-201		4000	94				-
2,2',3,3',4,4',6,6'-OcBDE/2,2',3,4,4',5,5',6-OcBDE	BDE197/204		8000	89	50	150	Pass	92
2,2',3,4,4',5,5',6-OcBDE	BDE-203	337513-72-1	4000	94				-
2,2',3,3',4,4',5,6'-OcBDE	BDE-196		4000	108				-
2,3,3',4,4',5,5',6-OcBDE	BDE-205	446255-56-7	4000	82	50	150	Pass	111
2,2',3,3',4,5,5',6,6'-NoBDE	BDE-208		10000	88				-
2,2',3,3',4,4',5,6,6'-NoBDE	BDE-207	437701-79-6	10000	86	50	150	Pass	80
2,2',3,3',4,4',5,5',6-NoBDE	BDE-206	63387-28-0	10000	91				-
2,2',3,3',4,4',5,5',6,6'-DeBDE	BDE-209	1163-19-5	10000	80	50	150	Pass	83

LOF - level of fortification

SAMPLE ID	DATE	QUANTITY	SPIKE	EXTRACTION		
				SOXHLET	LIA/LIA	OTHER
<sup>BDE</sup> PR250732	20Feb25	999 ml	10 µL BDESS-2882 [100-2000 ng/mL] PRL-S-124 20Feb25 MC			
<sup>BDE</sup> PR250734		1006 ml	10 µL BDESS-2821 [100-2000 ng/mL] PRL-S-124 20Feb25 MC	5 µL BDECA-1034 PRL-S-124 [400 ng/mL] 24Feb25 CJ	DCM Shake 20Feb25 CJ/MC	
<sup>BDE</sup> BDE250117B		1000 ml	5 µL BDEST-1429 [1-20 ng/mL] PRL-S-124 20Feb25 MC			
<sup>BDE</sup> BDE250118SL		1000 ml	5 µL BDEST-1428 [200-4000 ng/mL] PRL-S-124 20Feb25 MC			
<sup>BDE</sup> BDE250119S		1000 ml				

CLEAN-UP			FINAL VOLUME	INTERNAL STANDARD	COMMENTS
ACID WASH	CAPE	OTHER			
H <sub>2</sub> SO <sub>4</sub> 24 Feb 25 CJ	All extract AS15-04225 28 Feb 25 CJ	Alumina 04 Mar 25 CJ	F2: 100 mL Toluene 04 Mar 25 CJ	5 mL BDE15-1014 [200-1000 ng/mL] 04 Mar 25 CJ	Liberty Lake PBDE <sub>w</sub>  low level spike

SMP - 357

08

SAMPLE ID	DATE	QUANTITY	SPIKE	EXTRACTION		
				SOXHLET	LIG/LIG	OTHER

[REDACTED]

PR250731 PC	14 Feb 25	(g) 798.12	1.0 mL PCSS-2960 [5.0 ng/mL] PRL-S-119 14 Feb 25 MC	100 mL hexane on roller 14 Feb 25 MC/RN
PR250733 PC		803.82		

[REDACTED]

PC250102B PC		800 mL	1.0 mL PCST-1464 11.0 ng/mL PRL-S-119 RN 14 Feb 25
PC250103S PC		783.47g	

[REDACTED]

[REDACTED]

CLEAN-UP			FINAL VOLUME	INTERNAL STANDARD	COMMENTS
ACID WASH	CAPE	OTHER			

H<sub>2</sub>SO<sub>4</sub>  
18Feb25 MC

All extract  
ASIS-04225  
21Feb25  
RN

50ml in  
DCM  
27Feb25  
RN

PCIS-0997  
[100ng/ml]  
PRL-S-126  
RN  
27Feb25

Liberty Lake

**Acronyms used in reporting Polychlorinated Biphenyls (PCBs)**

MoCB = Monochlorobiphenyl

DiCB = Dichlorobiphenyl

TrCB = Trichlorobiphenyl

TeCB = Tetrachlorobiphenyl

PeCB = Pentachlorobiphenyl

HxCB = Hexachlorobiphenyl

HpCB = Heptachlorobiphenyl

OcCB = Octachlorobiphenyl

NoCB = Nonachlorobiphenyl

DeCB = Decachlorobiphenyl

**Acceptable recoveries for PCB Internal Standards - EPA 1668C**

Chemical Name	IUPAC #	Min	Max
<sup>13</sup> C <sub>12</sub> -2-MoCB	1L	5	145
<sup>13</sup> C <sub>12</sub> -4-MoCB	3L	5	145
<sup>13</sup> C <sub>12</sub> -2,2'-DiCB	4L	5	145
<sup>13</sup> C <sub>12</sub> -4,4'-DiCB	15L	5	145
<sup>13</sup> C <sub>12</sub> -2,2',6'-TrCB	19L	5	145
<sup>13</sup> C <sub>12</sub> -3,4,4'-TrCB	37L	5	145
<sup>13</sup> C <sub>12</sub> -2,2',6,6'-TeCB	54L	5	145
<sup>13</sup> C <sub>12</sub> -3,4,4',5'-TeCB	81L	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4'-TeCB	77L	10	145
<sup>13</sup> C <sub>12</sub> -2,2',4,6,6'-PeCB	104L	10	145
<sup>13</sup> C <sub>12</sub> -2',3,4,4',5'-PeCB	123L	10	145
<sup>13</sup> C <sub>12</sub> -2,3',4,4',5'-PeCB	118L	10	145
<sup>13</sup> C <sub>12</sub> -2,3,4,4',5'-PeCB	114L	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4'-PeCB	105L	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5'-PeCB	126L	10	145
<sup>13</sup> C <sub>12</sub> -2,2',4,4',6,6'-HxCB	155L	10	145
<sup>13</sup> C <sub>12</sub> -2,3',4,4',5,5'-HxCB	167L	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5'-HxCB	156L	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5'-HxCB	157L	10	145
<sup>13</sup> C <sub>12</sub> -3,3',4,4',5,5'-HxCB	169L	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,4',5,6,6'-HpCB	188L	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5'-HpCB	189L	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',5,5',6,6'-OcCB	202L	10	145
<sup>13</sup> C <sub>12</sub> -2,3,3',4,4',5,5',6'-OcCB	205L	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4',5,5',6,6'-NoCB	208L	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',4,4',5,5',6'-NoCB	206L	10	145
<sup>13</sup> C <sub>12</sub> -DeCB	209L	10	145
<sup>13</sup> C <sub>12</sub> -2,4,4'-TrCB	28L	5	145
<sup>13</sup> C <sub>12</sub> -2,3,3',5,5'-PeCB	111L	10	145
<sup>13</sup> C <sub>12</sub> -2,2',3,3',5,5',6'-HpCB	178L	10	145

**Acronyms used in reporting Polybrominated Diphenylethers (PBDEs)**

MoBDE = Monobromodiphenylether

DiBDE = Dibromodiphenylether

TrBDE = Tribromodiphenylether

TeBDE = Tetrabromodiphenylether

PeBDE = Pentabromodiphenylether

HxBDE = Hexabromodiphenylether

HpBDE = Heptabromodiphenylether

OcBDE = Octabromodiphenylether

NoBDE = Nonabromodiphenylether

DeBDE = Decabromodiphenylether

**Acceptable recoveries for PBDE Internal Standards**

	<b>Min (%)</b>	<b>Max (%)</b>
<sup>13</sup> C <sub>12</sub> -TriBDE-NoBDE	25%	150%
<sup>13</sup> C <sub>12</sub> -DeBDE	10%	200%



## CHAIN OF CUSTODY RECORD / ANALYSIS REQUEST

Pacific Rim Laboratories Inc. #103, 19575 - 55A Avenue, Surrey, BC V3S 8P8 Canada Tel: 604-532-8711 Fax: 604-532-8712


**PACIFIC RIM**  
**LABORATORIES INC**

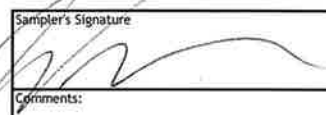
COMPANY: Liberty Lake Sewer and Water District PHONE: 509-368-4593 or 509-922-5443

ADDRESS: 22510 E. Mission Ave EMAIL: [gsattler@libertylake.org](mailto:gsattler@libertylake.org)  
Liberty Lake, WA 99019

DATE: 11-Feb-25 PO #: 25187

CONTACT: Greg Sattler PROJECT: Feb 2025 PCB (inf + eff) and PBDE (inf + eff)

SAMPLE ID	PRL ID	DATE SAMPLED	SAMPLE MATRIX	NUMBER OF CONTAINERS											COMMENTS
				DIOXIN/FURAN	PCB - dioxin-like & homolog	PCB - 209 congener	PAH	PBDE	TBT	Nonylphenol	TCLP	Date Requested			
Influent PR250781		2/11/2025					X								PCB
Influent PR250782		2/11/2025							X						PBDE
Effluent PR250733		2/11/2025					X								PCB
Effluent PR250784		2/11/2025							X						PBDE

Sampler's Signature 	Relinquished by: <u>Bill Kneer</u>	Company <u>LLSWD</u>	Date <u>11-Feb-25</u>	Time <u>10:30 AM</u>	Received by:
Comments:	Method of Shipment <u>FedEx</u>	Waybill No.:	Rec'd for PRL: <u>me</u>	Date <u>13Feb25</u>	Time <u>11:30am</u>
	Shipment Condition	Temp.: <u>10.9°C</u>	Cooler Opened By:		