

DIOXIN AND FURAN RESIDUES IN FISH AND SHELLFISH FROM THE VICINITY OF POWELL RIVER PULP MILL (BC) - PARTS PER TRILLION

NO.	SITE	LAB ID NO	% LIPID	SPECIES/TISSUE	IND. PER COMP.	2,3,7,8 SUBST. TCDD	TOTAL TCDD	2,3,7,8 SUBST. PCDD	TOTAL PCDD	2,3,7,8 SUBST. H6CDD	TOTAL H6CDD	2,3,7,8 SUBST. H7CDD	TOTAL H7CDD	OCDD	2,3,7,8 SUBST. TCDF	TOTAL TCDF	1,2,3,7,8 PCDF	2,3,4,7,8 PCDF	2,3,7,8 SUBST. PCDF	TOTAL PCDF	2,3,7,8 SUBST. H6CDF	TOTAL H6CDF	2,3,7,8 SUBST. H7CDF	TOTAL H7CDF	OCDF
1	MACE POINT	2644-09	0.86	Dungeness Crab - leg muscle	1	0.3	0.3	0.5	0.8	1.1	2.5	<0.4	<0.4	<0.7	12	15	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.5	<0.5	<0.5
2853-9	C1																								
21-02-92	19.0 KM NW of																								
	OUTFALL																								
2	MACE POINT	2644-10	0.84	Dungeness Crab - leg muscle	1	<0.3	<0.3	<0.4	<0.4	<0.5	<0.5	<0.5	<0.5	<0.7	13	17	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.4	<0.4	<0.5
2853-10	C1																								
21-02-92	19.0 KM NW of																								
	OUTFALL																								
3	MACE POINT	2644-11	0.90	Dungeness Crab - leg muscle	1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.4	<0.4	<0.7	1.7	2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.4	<0.4	<0.4
2853-11	C1																								
21-02-92	19.0 KM NW of																								
	OUTFALL																								
	AVERAGE OF SAMPLES 1, 2, 3			Dungeness Crab - leg muscle		0.1	0.1	0.2	0.3	0.4	0.8	<0.5	<0.5	<0.7	8.9	11.3	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.5	<0.5	<0.5
4	MACE POINT	2605-4	6.31	Dungeness Crab - hepatopancreas	3	3.6	3.6	6.2	10.0	29.7	59.0	6.6	6.6	<6.3	260.0	340.0	2.2	5.8	8.0	24.0	<1.6	<1.6	<3.3	<3.3	<3.3
	C1																								
	19.0 KM NW of																								
	OUTFALL																								
5	MACE POINT	2644-12A	10.2	Dungeness Crab - hepatopancreas	3	4.3	9.2	8.9	21	27	59	4.8	8.1	<3.7	350	430	1.8	4.9	6.7	14	<0.7	5.3	<1.9	<1.9	<2.0
2853-12	C1																								
21-02-92	19.0 KM NW of																								
	OUTFALL																								
6	MACE POINT	2644-12B Duplicate	10.2	Dungeness Crab - hepatopancreas	3	4.4	7.4	8.4	16	29	60	4.3	7.6	<3.5	350	430	1.8	5.0	6.8	13	<0.7	4.0	<1.6	<1.6	<2.0
2853-12	C1																								
21-02-92	19.0 KM NW of																								
	OUTFALL																								
	AVERAGE OF SAMPLES 5 & 6			Dungeness Crab - hepatopancreas		4.4	8.3	8.7	18.5	28.0	59.5	4.6	7.9	<3.7	350.0	430.0	1.8	5.0	6.8	13.5	<0.7	4.7	<1.9	<1.9	<2.0
7	HARWOOD IS. - NORTH	2605-06	0.85	Dungeness Crab - leg muscle	1	<0.6	<0.6	<0.8	<0.8	<0.9	<0.9	<1.9	<1.9	<1.9	5.0	6.0	<0.5	<0.5	<0.5	<0.5	<0.8	<0.8	<1.8	<1.8	<2.7
	C2-1																								
	7.0 KM W of																								
	OUTFALL																								
8	HARWOOD IS. - NORTH	2605-07	0.99	Dungeness Crab - leg muscle	1	<0.5	<0.5	<0.8	<0.8	<0.9	<0.9	<1.8	<1.8	<3.1	15.0	18.0	<0.4	<0.4	<0.4	<0.4	<0.8	<0.8	<1.7	<1.7	<2.4
	C2-2																								
	7.0 KM W of																								
	OUTFALL																								
9	HARWOOD IS. - NORTH	2605-08	0.92	Dungeness Crab - leg muscle	1	<0.5	<0.5	<0.7	<0.7	<0.9	<0.9	<1.5	<1.5	<2.4	5.6	6.5	<0.4	<0.4	<0.4	<0.4	<0.7	<0.7	<1.6	<1.6	<1.8
	C2-3																								
	7.0 KM W of																								
	OUTFALL																								
	AVERAGE OF SAMPLES 7, 8, 9			Dungeness Crab - leg muscle		<0.6	<0.6	<0.8	<0.8	<0.9	<0.9	<1.9	<1.9	<3.1	8.5	10.2	<0.5	<0.5	<0.5	<0.5	<0.8	<0.8	<1.8	<1.8	<2.7
10	HARWOOD IS. - NORTH	2605-05	6.06	Dungeness Crab - hepatopancreas	3	2.9	2.9	5.3	5.3	24.9	52.0	<3.4	<3.4	<6.4	250.0	330.0	<0.9	4.7	4.7	14.0	<1.7	<1.7	<3.2	<3.2	<4.4
	C2																								
	7.0 KM W of																								
	OUTFALL																								
11	HARWOOD IS. - NORTH	2644-01	12.8	Dungeness Crab - hepatopancreas	3	2.7	9.1	4.7	23	31	97	6.2	13	NDR(7.9)	320	410	1.9	4.4	6.3	18	<1.4	11	<2.5	<2.5	<3.5
2853-1	C2																								
12	POWELL RIVER	2605-10	0.85	Dungeness Crab - leg muscle	1	<0.7	<0.7	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<6.2	100.0	140.0	<1.0	<1.0	<1.0	<1.0	<1.4	<1.4	<2.0	<2.0	<5.8
	C4-1																								
	0.8 KM S of																								
	OUTFALL																								
13	POWELL RIVER	2605-11	0.87	Dungeness Crab - leg muscle	1	<0.5	<0.5	<0.8	<0.8	<1.4	<1.4	<1.7	<1.7	<4.4	22.0	25.0	<0.4	<0.4	<0.4	<0.4	<1.6	<1.6	<2.4	<2.4	<3.5
	C4-2																								
	0.8 KM S of																								
	OUTFALL																								

DIOXIN AND FURAN RESIDUES IN FISH AND SHELLFISH FROM THE VICINITY OF POWELL RIVER PULP MILL (BC) - PARTS PER TRILLION

NO.	SITE	LAB ID NO	% LIPID	SPECIES/TISSUE	IND. PER COMP.	2,3,7,8 SUBST. TCDD	TOTAL TCDD	2,3,7,8 SUBST. PCDD	TOTAL PCDD	2,3,7,8 SUBST. H6CDD	TOTAL H6CDD	2,3,7,8 SUBST. H7CDD	TOTAL H7CDD	OCDD	2,3,7,8 SUBST. TCDF	TOTAL TCDF	1,2,3,7,8 PCDF	2,3,4,7,8 PCDF	2,3,7,8 SUBST. PCDF	TOTAL PCDF	2,3,7,8 SUBST. H6CDF	TOTAL H6CDF	2,3,7,8 SUBST. H7CDF	TOTAL H7CDF	OCDF
14	POWELL RIVER C4-3 0.8 KM S of OUTFALL	2605-12	0.98	Dungeness Crab - leg muscle	1	<0.4	<0.4	<0.6	<0.6	1.6	1.6	<1.8	<1.8	<5.5	27.0	34.0	<0.4	<0.4	<0.4	1.2	<1.2	<1.2	<1.9	<1.9	<5.5
AVERAGE OF SAMPLES 12, 13, 14				Dungeness Crab - leg muscle		<0.7	<0.7	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<6.2	49.7	66.3	<1.0	<1.0	<1.0	<1.0	<1.6	<1.6	<2.4	<2.4	<5.8
15	POWELL RIVER 2853-13 C4 22-02-92 0.8 KM S of OUTFALL	2644-13	1.02	Dungeness Crab - leg muscle	1	<0.2	<0.2	<0.3	<0.3	0.5	1.7	<1.0	<1.0	<2.5	6.6	10	<0.3	<0.3	<0.3	<0.3	<0.4	1.8	<1.4	<1.4	<2.0
16	POWELL RIVER 2853-14 C4 22-02-92 0.8 KM S of OUTFALL	2644-14	0.84	Dungeness Crab - leg muscle	1	<0.3	<0.3	<0.5	<0.5	1.0	2.3	<1.4	<1.4	2.6	21	29	<0.5	<0.5	<0.5	<0.5	<0.6	2.1	1.4	2.4	<2.5
17	POWELL RIVER 2853-15 C4 22-02-92 0.8 KM S of OUTFALL	2644-15	0.88	Dungeness Crab - leg muscle	1	0.2	0.2	<0.3	<0.3	1.2	3.0	<1.0	<1.0	<2.0	20	29	<0.4	<0.4	<0.4	1.2	<0.5	2.3	1.3	1.8	<2.0
AVERAGE OF SAMPLES 15, 16, 17				Dungeness Crab - leg muscle		0.1	0.1	<0.5	<0.5	0.9	2.3	<1.4	<1.4	0.9	15.9	22.7	<0.5	<0.5	<0.5	0.4	<0.6	2.1	0.9	1.4	<2.5
18	POWELL RIVER C4 0.8 KM S of OUTFALL	2605-09	4.76	Dungeness Crab - hepatopancreas	3	5.4	5.4	8.1	13.0	34.8	64.0	6.4	9.1	<2.7	560.0	720.0	2.9	9.6	12.5	42.0	1.3	40.0	6.3	8.0	<2.3
19	POWELL RIVER 2853-16 C4 22-02-92 0.8 KM S of OUTFALL	2644-16	13.4	Dungeness Crab - hepatopancreas	3	7.6	13	9.3	30	43	88	11	18	9.0	1100	1300	4.2	16	20	60	6.1	66	14	18	<3.6
20	MYRTLE CREEK C5 10.0 KM SE of OUTFALL	2605-13A	5.46	Dungeness Crab - hepatopancreas	3	1.5	1.5	<0.9	<0.9	9.5	21.0	<2.1	<2.1	<3.2	220.0	310.0	<1.2	4.5	4.5	10.0	<2.2	<2.2	<1.9	<1.9	<3.6
21	MYRTLE CREEK C5 10.0 KM SE of OUTFALL	2605-13B	5.46	Dungeness Crab - hepatopancreas (duplicate)	3	1.7	1.7	<0.8	<0.8	7.3	17.0	<1.5	<1.5	<2.5	220.0	300.0	<1.4	4.1	4.1	9.9	<0.8	<0.8	<1.5	<1.5	<2.7
AVERAGE OF SAMPLES 20 & 21				Dungeness Crab - hepatopancreas		1.6	1.6	<0.9	<0.9	8.4	19.0	<2.1	<2.1	<3.2	220.0	305.0	<1.4	4.3	4.3	10.0	<2.2	<2.2	<1.9	<1.9	<3.6
22	MYRTLE CREEK 2853-2 C5 24-02-92 10.0 KM SE of OUTFALL	2644-02	11.3	Dungeness Crab - hepatopancreas	2	3.0	6.5	4.3	17	29	86	5.4	10	<5.0	410	500	2.3	5.2	7.5	18	<1.2	11	<2.5	<2.5	<3.5
23	ALBION POINT 2853-3 C14 23-02-92 26 KM SE of OUTFALL (TRAVELLING DISTANCE)	2644-03	4.15	Dungeness Crab - hepatopancreas	2	2.0	4.8	3.2	8.9	16	32	2.4	5.2	NDR(7.6)	210	250	1.6	4.0	5.6	11	4.0	9.7	<2.5	3.6	NDR(7.5)
24	HERNANDO ISLAND 2853-17 C16 24-02-92 30.8 KM NW of OUTFALL	2644-17A	12.1	Dungeness Crab - hepatopancreas	3	1.6	6.2	4.8	10	13	35	3.9	7.3	5.8	150	200	NDR(1.2)	2.9	2.9	11	1.7	5.8	3.0	3.0	<4.3
25	HERNANDO ISLAND 2853-17 C16 24-02-92 30.8 KM NW of OUTFALL	2644-17B Duplicate	12.1	Dungeness Crab - hepatopancreas	3	1.8	5.8	4.1	11	12	34	3.5	7.3	7.0	140	190	1.2	2.9	4.1	14	2.1	6.5	3.6	5.5	<4.3

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	AVERAGE OF SAMPLES 24 & 25			Dungeness Crab - hepatopancreas		1.7	6.0	4.5	10.5	12.5	34.5	3.7	7.3	6.4	145.0	195.0	0.6	2.9	3.5	12.5	1.9	6.2	3.3	4.3	<4.3
28	SAVARY ISLAND - MACE PT. O1 16.5 KM NW of OUTFALL	2605-14	1.32	Japanese Oysters - soft tissue	4	<0.4	6.8	<0.6	<0.6	<0.8	<0.8	<1.2	<1.2	<2.6	81.0	140.0	<1.1	<1.1	<1.1	<1.1	<0.8	<0.8	<1.2	<1.2	<2.2
27	ATREVIDA REEF O2 12.0 KM NW of OUTFALL (TRAVELLING DISTANCE)	2605-15	1.49	Japanese Oysters - soft tissue	4	<0.4	3.4	<0.8	<0.8	<1.1	<1.1	<2.1	<2.1	<5.6	92.0	150.0	<0.6	0.9	0.9	2.2	<0.9	<0.9	<2.0	<2.0	<4.3
28 2853-4 22-02-92	ATREVIDA REEF O2 12.0 KM NW of OUTFALL (TRAVELLING DISTANCE)	2644-04	2.16	Japanese Oysters - soft tissue	3	0.4	4.0	0.5	4.9	<0.8	1.2	<1.5	<1.5	<2.7	50	76	<0.5	0.7	0.7	3.4	<0.6	<0.6	<1.5	<1.5	<1.7
29	SCUTTLE BAY O3 6.0 KM NW of OUTFALL	2605-16	0.54	Japanese Oysters - soft tissue	3	<0.5	1.2	<0.8	<0.8	<0.9	<0.9	<1.8	<1.8	<3.9	58.0	96.0	<0.5	<0.5	<0.5	<0.5	<0.8	<0.8	<1.5	<1.5	<3.0
30 2853-5 22-02-92	SCUTTLE BAY O3 6.0 KM NW of OUTFALL	2644-05	1.63	Japanese Oysters - soft tissue	3	0.4	4.3	0.5	5.6	<0.9	1.8	<2.3	<2.3	<5.1	56	84	<0.6	0.7	0.7	0.7	<1.2	<1.2	<2.5	<2.5	<3.5
31	POWELL RIVER - DIFFUSER O5 1.0 KM W of OUTFALL	2605-17	0.98	Japanese Oysters - soft tissue	4	<0.4	3.9	<0.8	<0.8	<1.3	<1.3	<3.0	<3.0	<9.0	88.0	150.0	<0.6	0.8	0.8	1.8	<1.1	<1.1	<3.0	<3.0	<7.7
32 2853-6 22-02-92	POWELL RIVER - DIFFUSER O5 1.0 KM W of OUTFALL	2644-06A	1.56	Japanese Oysters - soft tissue	3	0.4	2.7	0.4	1.5	<1.1	2.2	<3.9	<3.9	NDR(8.4)	32	46	<0.8	<0.8	<0.8	<0.8	<1.2	<1.2	<3.5	<3.5	NDR(6.2)
33 2853-6 22-02-92	POWELL RIVER - DIFFUSER O5 1.0 KM W of OUTFALL	2644-06B Duplicate	1.56	Japanese Oysters - soft tissue	3	0.4	3.9	0.4	3.0	<1.1	3.0	<3.9	<3.9	NDR(6.2)	35	53	<0.8	<0.8	<0.8	<0.8	<1.2	<1.2	<3.5	<3.5	<4.9
	AVERAGE OF SAMPLES 32 & 33			Japanese Oysters - soft tissue		0.4	3.3	0.4	2.3	<1.1	2.6	<3.9	<3.9	NDR (8.4)	33.5	49.5	<0.8	<0.8	<0.8	<0.8	<1.2	<1.2	<3.5	<3.5	NDR (6.2)
34	POWELL RIVER O6 1.0 KM S of OUTFALL	2605-18	0.77	Japanese Oysters - soft tissue	4	<0.5	<0.5	<0.7	<0.7	<1.0	<1.0	<2.0	<2.0	<6.0	20.0	32.0	<0.5	<0.5	<0.5	<0.5	<1.1	<1.1	<2.2	<2.2	<4.6
35 2853-7 22-02-92	POWELL RIVER O6 1.0 KM S of OUTFALL	2644-07	1.61	Japanese Oysters - soft tissue	3	0.2	2.3	0.3	3.2	0.4	2.6	<0.6	<0.6	1.4	15	26	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.3	<0.3	<0.3
36 2853-8 22-02-92	MYRTLE POINT O8 14 KM S of OUTFALL	2644-08	0.45	Japanese Oysters - soft tissue	3	<0.1	<0.1	<0.2	<0.2	<0.3	<0.3	<0.4	<0.4	<1.1	1.8	2.8	<0.2	<0.2	<0.2	<0.2	<0.4	<0.4	<0.4	<0.4	<0.3
37	ALBION POINT O9 21.0 KM SE of OUTFALL	2605-19	1.56	Japanese Oysters - soft tissue	4	<0.3	<0.3	<0.6	<0.6	<0.8	<0.8	<1.7	<1.7	<4.4	16.0	26.0	<0.4	<0.4	<0.4	<0.4	<0.7	<0.7	<2.1	<2.1	<4.8

NDR = PEAK DETECTED BUT NOT MEET QUALIFICATION CRITERIA