2023 WILDLIFE MONITORING PROGRAM

Swan Hills Treatment Centre

Veolia Canada

Wildland Management Consultants Ltd.

Leduc County, Alberta

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Executive Summary

Scope

As part of its integrated environmental monitoring program, the Swan Hills Treatment Centre (SHTC) has been conducting demographic studies and analyzing levels of various chemicals in the tissues of red-backed voles (*Myodes gapperi*) annually since 1986. During 2023, demographic studies of voles were conducted on 3 live-trapping plots in June and September as part of the annual wildlife monitoring program (Table 1-1). In addition, concentrations of PCB congeners and TEQs, dioxin/furan congeners and TEQs, and total TEQs were determined for animals collected from 10 plots in May 2022 (Table 1-1).

Population Monitoring

Between 1991 and 2015, average red-backed vole densities in the SHTC area have varied between 1.9 (2000) and 18.8 (2013) voles/ha in June, and between 4.9 (2011) and 37.5 (2013) voles/ha in September. However, vole populations in the SHTC area reached their highest average densities ever recorded for June (19.2 voles/ha) and September (39.8 voles/ha) during the 2016 vole monitoring program. These densities were 2.4 and 2.3 times higher than the respective 25-year average (1991 – 2015) vole densities for June (8.2 voles/ha) and September (17.5 voles/ha). Then in 2017, vole densities declined to some of the lowest levels recorded since monitoring began in the SHTC area (e.g., plots 11 and 70 fell to the lowest recorded September densities since 1991). Vole densities between 2018 and 2021 returned to similar densities recorded prior to the respective population peak and population low reported in 2016 and 2017. Vole densities at the 3 monitoring plots in both June (Figure 1-1) and September (Figure 1-2) 2023 were within historical ranges previously recorded in the SHTC study area.

Historically, population increases, and decreases have almost been synchronous at the 3 annually monitored plots in the SHTC study area, although periodically there have been differences in population dynamics among the plots, particularly in the June populations. This happened June in 2009, 2010, and at least partially, again in 2011 and 2022. For example, vole densities at plots 11 and 70 decreased from 2010 to 2011, while the density at plot 114 increased. During 2022, June (Figure 1-1) vole densities at plots 11 and 70 increased but decreased at plot 114 while in September (Figure 1-2), densities at all 3 plots decreased. In 2023, vole densities increased at all 3 plots in June and only at 2 plots in September. Vole density at plot 70, however, decreased and may have been a result of the wildfires that occurred in the vicinity of the SHTC study area.

The reason(s) for these inconsistencies in vole densities among plots is unclear but likely reflect differences in habitat structure at the plots (or site conditions) and therefore, their ability

to support voles under variable weather conditions (e.g., overwinter survival), levels of predation, and food supply. However, vole population synchronicity in June and September within the SHTC area appears to have returned since 2012 and is similar to the population cycles observed prior to 2009. Aside from some variability in vole weight classes and breeding voles in the heavy weight class (i.e., breeding proportions) among the 3 plots, most other demographic parameters were consistent with those recorded during previous monitoring years, suggesting that plot proximity in relation to the SHTC did not affect vole demography in 2023. With densities increasing in June and September (with the exception of plot 70) 2023, it appears likely that vole populations in the vicinity of the SHTC will continue the increase phase of their cycle in 2024.

Tissue Chemistry of Red-backed Voles

PCBs

The average concentration of congener PCBs in vole tissues across the 10 vole tissue collection plots decreased (-37% or -18,802 pg/g) from 50,888 pg/g in May 2022 to 32,086 pg/g in May 2023 (Table 1-2). While congener PCBs decreased at 8 plots, year-over-year increases were recorded at plots 402 (158% or 1,047 pg/g) and 70 (6,885% or 32,429 pg/g). Despite the increase in PCB congeners at plots 402 and 70, the average 2023 concentration across the 10 plots is 72% lower than the 23-year average (2000 – 2022) for the SHTC study area; the second lowest concentration recorded since 2000 (Table 1-2). The increases in congener PCBs at plots 402 and 70 appear to be related to the extensive smoke associated because of fires that occurred in the region during 2023.

Between May 2022 and May 2023, PCB TEQ concentrations increased at 3 plots and decreased at the remaining 7 plots (Table 1-3), representing a decrease in average PCB TEQ of 32%. The largest percentage increases occurred at plot 70 which increased by 11.69 pg/g (or 10,627%), followed by plots 402 (0.17 pg/g or 109%), and 71 (0.04 pg/g or 78%) (Table 1-3). The higher concentrations of PCB TEQs at the 3 plots located furthest from the SHTC likely were affected by the fires that were burning close to the Town of Swan Hills in 2023. In contrast, PCB TEQs at the remaining plots, all of which were closer to the SHTC, were among the lowest recorded since 2000 (Table 1-3). The highest PCB TEQ in 2023 among the 10 plots was recorded at plot 4 (96.5 pg/g), which has been the case for all but one year (plot 109 in 2012) since 2000 (Table 1-3). Although the PCB TEQ at plot 4 was the highest recorded in 2022, it represents the second lowest concentration recorded at this plot since 2000. While PCB TEQ values at plots 402 and 71 were ≤1 pg/g in 2023, continuing to represent the lowest levels recorded among the 10 plots on a historical basis, plot 70 (11.80 pg/g) was the highest PCB TEQ on record for this plot (Table 1-3).

Dioxins/Furans

Dioxin/furan concentrations in red-backed voles decreased at 5 plots and increased at 5 plots between May 2022 and May 2023 (Table 1-4). The highest concentrations occurred at plots 4 (98.15 pg/g) and 11 (60.70 pg/g) while concentrations at the remaining plots were ≤26.41 pg/g (plot 109). For the most part, the highest levels of dioxins/furans occurred at plots 11 through 114 (range = 11.82 – 98.15 pg/g) which are located ≤0.7 km of the SHTC while the lowest values were recorded at plots 123 through to plot 71 (range = 1.55 - 13.29 pg/g), which are located the furthest away (>0.7 km) (Table 1-4). Unlike the PCB congener concentration at plot 70 in 2023, the concentration of dioxins/furans at plot 70 was within the range recorded during previous monitoring years. Of the 10 annually monitored plots, dioxin/furan concentrations at the 10 plots in 2023 were within previously observed ranges. Overall, dioxin/furan congener concentrations in the SHTC study area were highest between 2000 and 2006 but for the most part, have been declining since 2006 although slight increases were recorded in 2022. In 2023, dioxin/furan congers were slightly lower compared to 2022.

The average dioxin/furan TEQ concentration in 2023 increased slightly (12% or by 0.40 pg/g) between May 2022 and May 2023 and still represents the third lowest concentration (3.80 pg/g) recorded in the SHTC study area since 2000 (range = 2.1 to 1,371.4 pg/g) (Table 1-5). Since 2006, dioxin/furan TEQs have consistently declined to the low levels that have been recorded between 2017 and 2023. The congener 23478 PeCDF was the most important contributor to total dioxin/furan TEQ at 7 of the 10 plots in 2023. As with PCB TEQs, dioxin/furan TEQ concentrations in voles generally declined with increasing distance from the SHTC in May 2023 although larger increases were documented at plots 114 and 117 in 2022 and at plot 70 (likely related to the wildfires in the vicinity of the Town of Swan Hills) in 2023 compared to recent monitoring years (Table 1-5).

PCB, Dioxin/Furan, and Total TEQs in Relation to Plot Location

Analyses of chemical concentrations in relation to distance and prevailing wind direction did not result in a statistically significant relationship between TEQ concentrations and distance in 2023. While PCB TEQ, dioxin/furan TEQ, and total TEQ concentrations generally decreased as distance from the SHTC increased in 2023, no significant trends with respect to TEQ values and prevailing wind direction even though the dominant wind direction was from the west.

Between May 2022 and 2023, total TEQ levels in red-backed voles decreased at 6 plots and increased at 4 of the 10 monitoring plots resulting in an average 26% decrease (-7.54 pg/g). Average total TEQ at plots >2 km from the SHTC remained well-below total TEQ concentrations at plots ≤2 km from the SHTC in 2020 (Figure 1-3). The overall trend for total TEQs in voles collected from plots ≤2 km and >2 km from the SHTC has been to decrease

between 2000 and 2021 although concentrations had been somewhat variable up to about 2013 within both distance categories (Figure 1-3). However, total TEQs generally increased with relatively large increases recorded at plots 4, 114, and 117 in 2022 and at plot 70 in 2023.

Chemical Concentrations in Relation to Red-backed Vole Demography

In 2023, TEQ concentrations of PCBs, dioxins and furans, and TEQs in vole tissues were highest at plot 114, followed by plot 70 and plot 11, respectively in both June and September (Table 1-6). Overall, while higher contaminant levels were recorded in voles closer to the SHTC, this did not appear to affect vole densities in 2023. This is consistent with previous monitoring years indicates that facility operations have not had a discernible effect on vole demography. Historically, observed demographic differences in vole populations in the SHTC study area were related to differences in habitat structure which can affect food supply, cover from inclement weather and predators, and the cyclic nature of red-backed vole populations.

Conclusions and Recommendations

The results of the 2023 vole monitoring program indicates that PCB (7 of 10 plots) and dixon/furan (6 of 10 plots) TEQ concentrations increased at most plots increased in 2023. While total TEQ concentrations at most plots in 2023 are still among the lowest levels recorded in the SHTC study area since 2000, increases at plots 114 and 117 represent the highest concentrations recorded at these 2 plots since 2015 and 2009, respectively. Similarly, total TEQ concentration at plot 70 increased considerably, representing the highest level on record for this plot which was likely related to the wildfires that occurred during 2023 in the SHTC study area.

As has been the case in past monitoring years, operation of the SHTC in 2023 did not appear to influence red-backed vole demography despite elevated levels of PCB and dioxin/furan TEQs in vole tissues collected from plots near the plant site. The average vole density recorded in June 2023 increased but remained about the same in September 2023 compared to 2022. This suggests that vole populations in the SHTC study area will likely continue the increase phase of their population cycle for 2024.

Even though concentrations of PCB TEQs and dioxin/furan TEQs were, for the most part, at historically low concentrations, the continued presence of elevated contaminants in voles collected near the SHTC indicates that there is still a need to continue monitoring vole demography and tissue chemistry in 2024. However, Veolia may want to consider some changes to the red-backed vole monitoring program going forward based on the amount of long-term monitoring data that has been collected over the past 38 years as well as an expected reduction in the PCB waste stream going forward. The red-backed vole monitoring

program, which was intended to be adaptive, has been previously modified based on monitoring results, changes in the facility's waste stream, and/or updates to analytical methodologies. Therefore, changes to vole monitoring program are recommended for 2024 and onward (Table 1-7).

Table 1-1. Summary of plot location, chemical analyses and population monitoring during the 2023 annual wildlife monitoring program at the SHTC.

Plot	Distance from SHTC (km)	Direction from SHTC	PCB Congeners and Dioxins/Furans	Population Monitoring
11	0.1	N	✓	✓
109	0.2	W	✓	-
4	0.3	E	✓	-
110	0.3	W	✓	-
114	0.7	E	✓	✓
123	1.6	NE	✓	-
117	2.4	SE	✓	-
402	7.5	E	✓	-
70	11.5	SW	✓	✓
71	21.0	NNW	✓	-

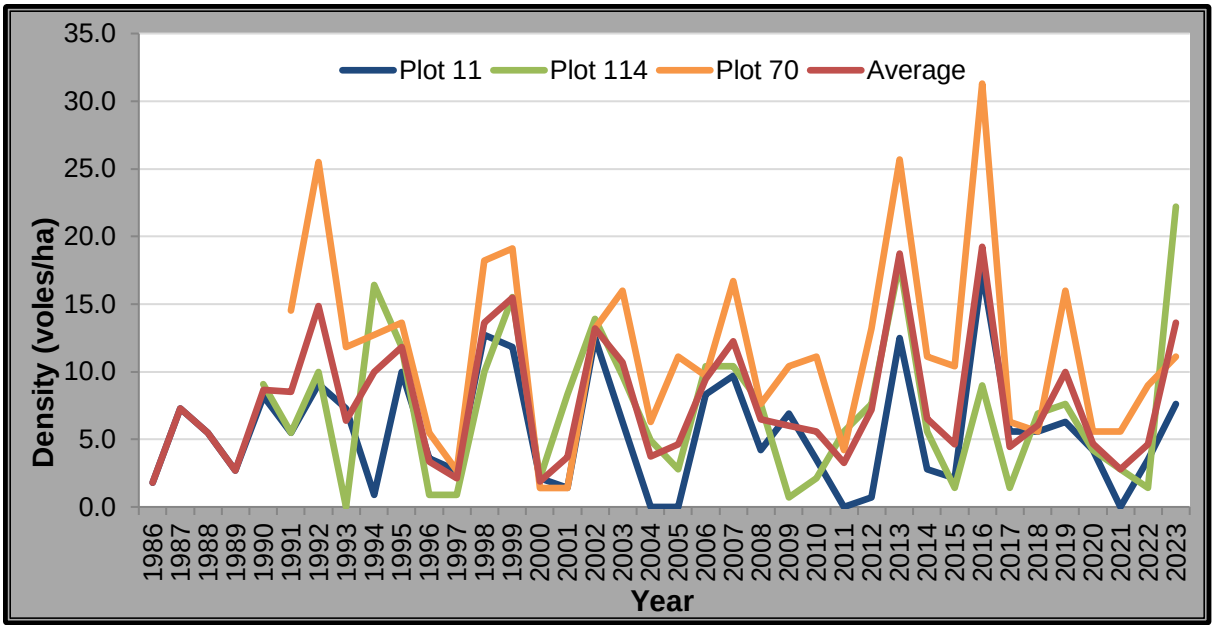

Figure 1-1. Densities of red-backed voles in the SHTC study area, June 1986 - 2023.

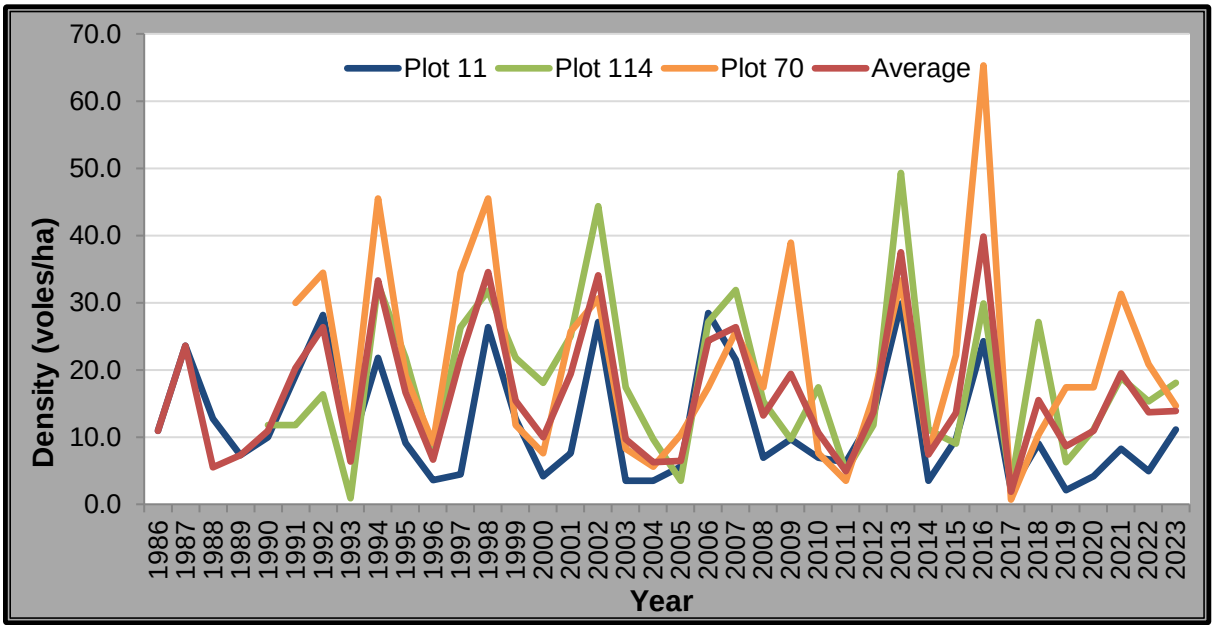

Figure 1-2. Densities of red-backed voles in the SHTC study area, September 1986 - 2023.

Table 1-2. PCB congener concentrations[1] (pg/g) in red-backed voles in SHTC study area, 2000 – 2023.

Year	Plot[2]										Averages
	11	109	4	110	114	123	117	402	70	71	
2000	480,000	-	300,000	-	170,000	-	24,000	5,500	8,800	3,600	**141,700**
2001	169,000	563,000	163	28,800	466,000	32,100	34,600	1,960	1,440	479	**129,754**
2002	627,382	819,944	642,093	16,715	495,810	53,724	108,457	5,557	1,799	393	**277,187**
2003	249,000	583,000	250,000	11,500	129,000	25,100	35,300	1,330	667	199	**128,510**
2004	70,359	1,034,201	687,233	133,077	136,802	14,997	17,438	734	1,084	406	**209,633**
2005	17,865	114,298	140,940	-	34,465	7,601	8,917	953	837	455	**36,259**
2006	203,545	254,766	867,215	17,820	143,851	9,468	34,099	2,944	2,363	1,273	**153,734**
2007	91,000	340,000	360,000	19,000	200,000	23,000	45,000	4,300	1,900	2,900	**108,710**
2008	100,000	99,000	410,000	17,000	85,000	23,000	69,000	47,000	7,200	3,800	**86,100**
2009	120,000	69,400	245,000	11,000	63,200	10,200	4,500	2,070	1,980	785	**52,814**
2010	192,000	98,800	351,000	43,500	294,000	19,300	74,900	3,530	1,680	795	**107,951**
2011	281,000	960,000	547,000	225,000	121,000	16,800	42,500	2,610	3,100	939	**219,995**
2012	181,000	815,000	357,000	136,000	250,000	27,400	45,900	6,150	1,860	1,280	**182,159**
2013	296,000	267,000	1,110,000	72,400	209,000	16,400	10,400	4,050	1,480	1,440	**198,817**
2014	114,000	115,000	399,000	105,000	263,000	19,900	42,500	4,570	935	716	**106,462**
2015	111,000	97,300	386,000	39,500	82,100	13,100	18,800	2,360	1,200	377	**75,174**
2016	90,400	87,700	429,000	21,600	86,900	11,300	33,300	2,330	770	356	**76,366**
2017	110,000	96,700	317,000	21,500	91,900	12,900	16,700	2,220	934	401	**67,026**
2018	84,200	187,000	368,000	26,400	102,000	14,300	34,500	2,470	779	888	**82,054**
2019	98,150	83,250	304,500	11,385	68,200	7,620	21,150	1,380	663	255	**59,832**
2020	63,700	60,400	161,000	7,380	45,900	12,900	17,000	1,410	533	190	**37,041**
2021	39,500	31,600	92,500	13,200	54,600	18,800	6,540	1,200	544	217	**25,870**
2022	65,200	66,100	171,000	28,000	121,000	4,650	51,600	663	471	191	**50,888**
2023	43,500	38,700	140,000	11,200	36,100	3,510	13,100	1,710	32,900[3]	143	**32,086**

[1] PCB congener concentrations are the sum of the homologues. [2] Order of plots indicate increasing distance from SHTC (Plot 11 [100 m] to Plot 71 [21 km]). [3] Re-extraction result = 31,700 pg/g.

Table 1-3. TEQ of PCB congeners in red-backed voles (pg/g) collected from the SHTC study area, 2000 - 2023.

Year	Plot[1]										Averages
	11	109	4	110	114	123	117	402	70	71	
2000	500	-	670	-	144	-	33	1.3	6.7	0.06	**193.58**
2001	108	253	352	18.7	252	15	23.4	0.03	0.01	0.01	**102.22**
2002	241	346	461	5.1	215	22	53	0.1	0.05	0.00	**134.33**
2003	400	385	568	6.1	164	20.4	21.2	0.5	0.0	0.00	**156.52**
2004	94.8	120	836	29.5	3.35	11.5	11.8	0.01	0.02	0.01	**110.70**
2005	40.6	106	267	-	42.2	4.1	6.4	0.03	0.02	0.01	**51.82**
2006	369.9	133.2	1039.8	12.3	96.2	9.5	16.7	1.36	0.04	0.02	**167.90**
2007	119.6	411.2	614.2	7	152.1	18.8	26.4	0.13	0.05	0.03	**134.95**
2008a[2]	85.49	43.97	318.3	5.65	47.07	10.71	41.43	2.4	0.49	0.24	**55.58**
2008b[3]	84.59	42.8	319.02	5.42	45.52	10.42	40.32	2.26	0.47	0.23	**55.11**
2009	139.16	51.54	279.87	5.11	36.24	6.96	1.71	0.55	0.52	0.26	**52.19**
2010	146.72	74.46	207.07	22.1	114.18	6.05	18.93	0.02	0.01	0.00	**58.95**
2011	88.3	259	438	115	34.9	3.9	7.48	0.01	0.99	0.35	**94.79**
2012	74.2	313	294	49.3	52.2	5.31	12.7	0.99	0.49	0.00	**80.22**
2013	203	224	603	22.5	84.4	5.95	3.12	0.84	0.01	0.01	**114.68**
2014	86.4	59.4	305	115	57.6	7.57	10.6	1.0	0.28	0.25	**64.31**
2015	57.2	38.3	335	15.2	38.1	5.85	9.32	0.83	0.56	0.15	**50.05**
2016	43.5	28.4	289	6	26.1	3.9	8.62	0.54	0.30	0.13	**40.65**
2017	52.2	41.8	170	10.6	30.6	4.73	5.24	0.87	0.39	0.20	**40.57**
2018	39.4	98.4	232	8	33.8	4.42	11.4	0.73	0.27	0.36	**42.88**
2019	45.1	45.5	198	3.84	25.5	3.06	7.19	0.20	0.26	0.15	**32.88**
2020	40.4	25.9	113	2.12	18.7	3.7	5.6	0.51	0.24	0.07	**21.03**
2021	21.5	15.8	61.1	6.15	23	7.1	2.66	0.43	0.22	0.09	**13.81**
2022	25.2	23.7	111	7.62	54.4/2.4[4]	1.67	28.1	0.16	0.11	0.05	**25.20**
2023	22.5	17.7	96.5	3.7	14.4	1.25	3.7	0.33	11.8[4]	0.09	**17.20**

[1] Order of plots indicate increasing distance from SHTC (Plot 11 [100 m] to Plot 71 [21 km]). [2] WHO-TEF: World Health Organization Toxic Equivalency Factor (1998). [3] WHO-TEF: World Health Organization Toxic Equivalency Factor (2005). [4] September 2022 result. [4] Re-extraction result = 11.9 pg/g.

Table 1-4. Concentrations of dioxin/furan congeners (pg/g) in red-backed voles collected from the SHTC study area, 2000 - 2023.

Year	Plot[1]										Averages
	11	109	4	110	114	123	117	402	70	71	
2000	5,757	11,026	11,827	2,229	1,585	1,840	591	22	110	59	**3,504.6**
2001	655	2,902	9,203	460	960	931	1,225	8	7	7	**1,635.8**
2002	3,862	4,684	6,349	86	1,550	1,533	1,017	143	23	6	**1,925.3**
2003	2,994	3,938	9,432	112	1,874	865	273	5	25	4	**1,952.2**
2004	1,177	530	6,095	323	677	370	99	n.d.[3]	1.6	0.2	**927.3**
2005	581	1,280	2,005	-[2]	344	155	66	2.8	11	1.3	**444.4**
2006	8,043	648	7,633	158	488	345	78	15	22	8	**1,743.8**
2007	1,142	2,167	2,546	54	912	716	85	29	26	8	**768.5**
2008	862	373	2,316	76	223	266	506	20	36	18	**469.6**
2009	1,013	421	1,145	44	145	194	26	7	31	3	**302.9**
2010	1,720	503	434	168	314	43	48	7	3.4	<0.2	**324.1**
2011	131	312	1,010	438	55.8	22.9	10.2	1	1.9	<0.09	**198.3**
2012	171	973	1,156	168	139	23	43.1	4.4	15.5	1	**269.4**
2013	651	732	1,493	126	183	30.6	37	7.7	44.4	7.3	**331.2**
2014	329	162	781	386	91.8	82.3	27.8	13.7	32.8	7.5	**191.4**
2015	70	12	472	159	45.4	36.9	32.3	6.6	23.2	3.5	**86.1**
2016	123	53	488	31	53.8	20.5	15.6	3.7	17.0	9.2	**81.5**
2017	49.7	66.2	309.1	24.2	26.5	15.9	8.4	4.6	13.1	4.7	**52.5**
2018	77.6	173.7	257.6	21.8	31.1	19.6	11.2	3.4	7.1	1.2	**60.4**
2019	62.2	70.4	193.3	15.6	25.3	13.1	10.5	3.2	20.3	4.3	**41.8**
2020	66.6	26.3	111.9	8.5	14.0	8.2	4.3	3.8	6.7	1.9	**25.2**
2021	27.39	17.11	37.45	11.02	15.25	6.17	9.61	5.72	11.91	3.02	**14.5**
2022	19.66	18.27	135.15	14.17	41.74	5.81	27.17	1.34	11.85	8.44	**28.36**
2023	60.70	26.41	98.15	10.00	11.82	6.07	10.23	3.17	13.29[4]	1.55	**24.14**

[1] Order of plots indicate increasing distance from SHTC (Plot 11 [100 m] to Plot 71 [21 km]). [2] No animals were collected for tissue samples. [3] n.d. - Not Detected. Average values calculated based on ½ the reported detection limit. [4] Re-extraction result = 14.7 pg/g.

Table 1-5. TEQ of dioxin/furan congeners (pg/g) in red-backed voles collected from the SHTC study area, 2000 - 2023.

Year	Plot[1]										Averages
	11	**109**	**4**	**110**	**114**	**123**	**117**	**402**	**70**	**71**	
2000	2,200	4,200	4,900	820	600	700	230	7.2	37	20	**1,371.4**
2001	230	1,100	3,800	160	340	350	440	0.76	2.9	1.2	**642.5**
2002	1,460	1,750	2,450	26.4	553	593	391	19.8	2.6	1.6	**724.7**
2003	1,200	1,490	3920	28.6	682	321	89.2	0.7	3.1	0.3	**773.5**
2004	416	187	2,190	99.5	262	126	31.7	0.79	1.5	0.27	**331.5**
2005	187	465	754	-[2]	104	48.8	17.5	0.81	2	0.43	**157.8**
2006	3,071	219	2,851	32.5	154	109	19.2	2.2	0.5	1.1	**646.0**
2007	421	765	885	14	283	274	21	4	3	2	**267.2**
2008a[3]	310	110	830	14	58	87	44	3.6	3.4	0.92	**146.1**
2008b[4]	200	71	530	11	40	56	30	2.8	4.5	0.94	**94.6**
2009	217	81	241	7	24	36	3	1	2	0	**61.2**
2010	366	100	88	32	58	8	7	1	3	0	**66.3**
2011	19.3	53.4	234	104	8.6	4.5	2.2	1.3	2	0.4	**43.0**
2012	21.2	185.0	223.6	27.56	19.69	4.48	6.84	0.76	2.94	0.18	**49.2**
2013	121.2	129.5	197.7	17	20.3	4	3.8	0.5	4.8	1.4	**50.0**
2014	53.9	22.2	133	81.3	13.0	12.1	2.92	1.4	2.81	0.803	**32.3**
2015	7.26	1.62	75.9	19.2	4.66	5.01	4.04	0.565	2.59	0.378	**12.1**
2016	14.8	6.54	80.8	3.4	5.59	2.79	1.73	0.488	1.97	0.745	**11.9**
2017	5.38	8.71	46.8	4.27	3.03	1.99	0.70	0.53	1.94	0.55	**7.4**
2018	10.8	25.9	35.9	3.15	3.16	3.42	1.4	0.79	1.55	0.31	**8.6**
2019	9.86	10.9	33.7	2.54	3.7	2.19	1.39	0.435	3.05	0.65	**6.8**
2020	10.2	4.32	19.0	1.43	2.1	1.39	0.70	0.516	1.65	0.364	**4.2**
2021	4.44	2.43	5.79	1.5	1.65	0.77	1.33	0.461	1.69	0.45	**2.1**
2022	3.03	2.86	12.8	2.19	5.81/0.27[5]	1.04	3.97	0.201	2.04	0.284	**3.4**
2023	8.72	4.28	15.4	1.91	2.02	1.16	1.34	0.557	2.39[6]	0.274	**3.8**

[1] Order of plots indicate increasing distance from SHTC (plot 11 [100 m] to plot 71 [21 km]). [2] No animals were collected for tissue samples. [3] Between 2000 and 2008a, dioxin and furan TEQs calculated based on NATO I-TEFs (1990). [4] From 2008b and onwards, dioxin and furan TEQs calculated based on WHO (2005). [5] September 2022 result. [6] Re-extraction result = 1.93 pg/g.

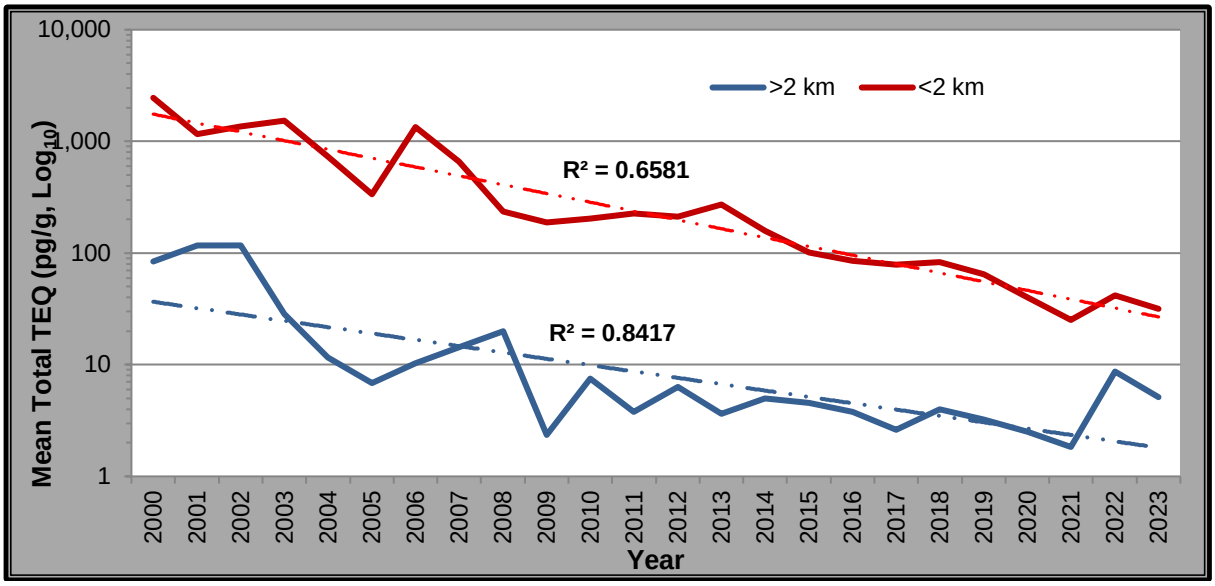

Figure 1-3. Mean total TEQ concentrations at plots ≤2 km and >2 km from the SHTC, 2000 - 2023.

Table 1-6. Comparison of population and chemical data collected at the 3 annual monitoring plots in the vicinity of the SHTC 2023.

Parameter		Plot 11	Plot 114	Plot 70
Distance to SHTC plant site (km)		0.1	0.7	11.5
Direction to SHTC plant site		Upwind (N)	Downwind (SE)	Upwind (SW)
Population Data	June population density (no./ha)	7.6	22.2	11.0
	September population density (no./ha)	11.1	18.1	14.6
	June sex ratio (M:F)	2.7	0.7	1.3
	September sex ratio (M:F)	1.0	1.2	2.0
	% voles in heavy weight class in June	82	47	88
	% voles in heavy weight class in Sept.	14	27	20
	% heavy voles breeding in June	60	100	85
	% heavy voles breeding in Sept.	25	19	19
Chemical Data	PCB congeners (pg/g) in May	43,500	36,100	32,900
	Dioxins/furans (pg/g) in May	61	12	13
	PCB TEQ (pg/g) in May	23	14	12
	Dioxin/furan TEQ (pg/g) in May	9	2	2
	Total TEQ (pg/g) in May	32	16	14

[1] Not detected

Table 1-7. Summary of current and recommended annual/expanded red-backed vole monitoring programs.

Plot No.	Distance from SHTC the (km)	Direction from the SHTC	Tissue Collection/Snap-trapping[1]			Population Monitoring/ Live-trapping[1]
			Metals, PAHs[1]	Aroclor PCBs[2]	PCB Congeners and TEQs, Dioxins/Furans and TEQs, Total TEQs[3]	
Current Annual and Expanded Monitoring Programs:						
11	0.1	N	✓	✓	☑	☑
109	0.2	W	✓	✓	☑	✓
103	0.2	SE	✓	✓	-	✓
4	0.3	E	✓	✓	☑	✓
110	0.3	W	✓	✓	☑	-
104	0.4	NW	✓	✓	-	-
102	0.4	E	✓	✓	-	-
1	0.4	NE	✓	✓	-	✓
27	0.5	S	✓	✓	-	✓
8	0.6	E	✓	✓	-	✓
15	0.6	NW	✓	✓	-	-
114	0.7	E	✓	✓	☑	☑
121	1.2	N	✓	✓	-	-
9	1.4	ENE	✓	✓	-	✓
28	1.4	WNW	✓	✓	-	-
123	1.6	NE	✓	✓	☑	-
16	2.4	E	✓	✓	-	-
117	2.4	SE	✓	✓	☑	-
26	2.6	WNW	✓	✓	-	✓
30	3.6	NW	✓	✓	-	✓
29	3.9	E	✓	✓	-	-
402	7.5	E	✓	✓	☑	-
70	11.5	SW	✓	✓	☑	☑
71	21.0	NNW	✓	✓	☑	✓
Recommended Annual and Expanded Monitoring Programs (2024 and Onward):						
11	0.1	N	✓	-	☑	☑
109	0.2	W	✓	-	☑	-
4	0.3	E	✓	-	☑	-
110	0.3	W	✓	-	✓	-
114	0.7	E	✓	-	☑	☑
123	1.6	NE	✓	-	✓	-
117	2.4	SE	✓	-	✓	-
402	7.5	E	✓	-	✓	-
70	11.5	SW	✓	-	☑	☑
71	21.0	NNW	✓	-	☑	-

[1] Bold boxed check marks ☑ indicate plots that are monitored annually for vole tissue collection and population studies. Plain check marks ✓ indicate plots that are part of the expanded monitoring program (i.e., once every 5 years).

[2] The low resolution GC-ECD method historically used for Aroclor PCBs was discontinued in Canada in 2019.

[3] HRMS congener-specific methodology would be used for all expanded monitoring plots in response to a red-backed vole trigger.

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1.0 INTRODUCTION

The Swan Hills Treatment Centre (SHTC) is a fully integrated hazardous waste treatment facility located in west central Alberta, approximately 12 km northeast of the Town of Swan Hills. It is the only facility of its kind in Canada and one of only a few in the world. The SHTC plays a major role in the disposal of hazardous waste such as polychlorinated biphenyls (PCBs) and dioxins and furans (which for the most part, is a contaminant in many of the wastes received at the facility). The SHTC also has the capability to treat a wide range of hazardous waste types on-site including fuel blend liquids, paint related materials, pesticides, halogenated and non-halogenated organic liquids, pharmaceuticals, bulk solids, gas plant filters, inorganic aqueous liquids and lab packs. The SHTC also began accepting biomedical waste in July 2015 but does not accept or treat radioactive or explosive wastes.

An integrated environmental monitoring program involving ambient air quality, surface and groundwater, soils, vegetation, and wildlife was initiated at the SHTC in 1986. The wildlife monitoring program, which focuses on the southern red-backed vole (*Myodes gapperi*), has been modified on several occasions in response to changing priorities. These modifications involved the consolidation of some monitoring sites and the addition of others along with increasing the scope of the chemical analyses and reducing the number of plots used for vole tissue collection and population monitoring. With this new protocol, there was a requirement that the wildlife monitoring program be expanded to include plots monitored prior to 1999 at 5-year intervals. The expanded wildlife monitoring program was subsequently conducted in 2004, 2009, 2014, and 2019. In 2006, the collection period for vole tissues was changed from February and June to a single collection period conducted only in May of each monitoring year. However, as has been the case since the beginning of the monitoring program, vole population monitoring has still been conducted in June and September.

The southern red-backed vole was selected as the indicator species for the wildlife monitoring program because of its relative abundance near the SHTC and its sedentary nature, which allows information obtained through the study of these animals to be related to specific locations within the study area. The wildlife monitoring program involves studies to determine the demographic characteristics of red-backed voles and the collection of animals to determine concentrations of chemicals (PCBs and dioxins and furans) in their tissues. The following report presents the results of the 2023 annual wildlife monitoring program.

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2

2.0 METHODS

2.1 Scope of the Monitoring Program

The wildlife monitoring program has been modified on several occasions since 1986 in response to changing priorities. These modifications involved the consolidation of some monitoring sites and the addition of others. Changes to the monitoring program, which involved altering the stratification of study plots, were made in June 1996 in response to an air quality assessment for PCB emissions that was conducted in 1994. In addition, forest clearing, which was implemented as a fire protection measure around the SHTC, resulted in the loss of 2 monitoring plots in spring 1998.

The monitoring program was again modified in 2000 to focus sampling on the types of chemicals previously detected in the SHTC study area. As a result, the number of study plots used for both population monitoring and the collection of animals for tissue analysis was reduced, while the scope of the chemical analyses was increased. Prior to 2000, population monitoring was conducted on 13 plots but was reduced to 3 plots (plots 11, 114, and 70) in 2000. In addition, the size of the 3 annually monitored plots was increased from 1.1 ha to 1.44 ha, 2 of which were relocated. Plots 11 and 70 were relocated approximately 250 m south and 750 m north of their previous locations, respectively, to sites used by the Institute for Risk Research in response to a field study conducted in 1999.

The scope of the tissue chemistry component was also changed. Prior to 2000, organic analyses focused on Aroclor PCBs, which were analyzed in voles collected from between 21 and 32 different plots. The number of plots used for tissue analysis was reduced in 2000 to 10 plots but at that time, analyses for PCB congeners, and dioxins and furans were expanded to include voles from all the 10 annually monitored plots. Part of the new monitoring protocol required that monitoring be expanded every 5 years to include the plots sampled prior to 1999 (n = 24). The expanded sampling protocol has since been conducted in 2004, 2009, 2014, and again in 2019. In addition, chemicals other than PCBs and dioxins and furans (e.g., metals, polycyclic aromatic hydrocarbons [PAHs]) in vole tissues have only been periodically analyzed since 2004. A further change in sampling protocol was made in 2006, when tissue collection was conducted only in May. In previous years, red-backed vole tissues were collected in February and June.

Beginning in 2008, the basis for calculating congener PCB, and dioxin and furan toxicity equivalencies (TEQ) was changed. Mammalian toxicity equivalency factors (TEFs) for compounds exhibiting dioxin-like characteristics were updated by the World Health Organization in 2005 (WHO 2005). These new TEFs were used to calculate PCB and dioxin and furan TEQs in vole tissue samples collected in 2009 and have been used as the new benchmark for all chemical monitoring at the SHTC since then.

Then in 2017, the analysis for Aroclor PCBs in vole tissues was dropped from the annual monitoring program and shifted to the expanded monitoring program. Previous results from the SHTC study area have indicated that while measured concentrations of PCBs can vary between the Aroclor and high-resolution mass spectrometry (HRMS) methods, the HRMS method is considered more accurate because results are not affected by weathering and the effects of metabolic activity.

The 2023 wildlife monitoring program followed the annual monitoring protocol developed in 2000 and used in subsequent annual monitoring years. This included tissue collection on 10 plots and population monitoring on 3 plots (Table 2-1) although the location of plot 71 was moved approximately 2 km closer to the SHTC because the original site was clearcut in 2015. The analysis for PCB congeners and dioxins/furans has remained the same as in recent annual monitoring programs (Table 2-1).

Table 2-1. Summary of plot location, chemical analyses, and population monitoring during the 2023 annual wildlife monitoring program in the vicinity of the SHTC.

Plot	Distance from SHTC (km)	Direction from SHTC	PCB Congeners and Dioxins/Furans[1]	Population Monitoring[1]
11	0.1	N	✓	✓
109	0.2	W	✓	-
4	0.3	E	✓	-
110	0.3	W	✓	-
114	0.7	E	✓	✓
123	1.6	NE	✓	-
117	2.4	SE	✓	-
402	7.5	E	✓	-
70	11.5	SW	✓	✓
71	21.0	NNW	✓	-

2.2 Red-backed Vole Population Monitoring

Red-backed vole population studies were conducted on 3 live-trapping plots from June 21 - 25 and from September 6 - 10, 2023 (Figure 2-1). Two of the plots (plots 11 and 114) are

located near the SHTC while the control or reference site (plot 70) is located near the Town of Swan Hills. Each plot was comprised of 64 trapping stations (8 x 8 grid) spaced at 15 m intervals (1.44 ha). A non-folding Sherman aluminum live trap (7.62 cm x 7.62 cm x 22.86 cm) was placed at a suitable location (e.g., beside a fallen log, in a small mammal runway, close to a small mammal tunnel) within 1.5 m of the station marker. Traps were baited with a mixture of peanut butter and rolled oats. Polyester fibre bedding material was placed in each trap to protect animals from adverse weather conditions. To further reduce trapping mortality, traps were covered with natural materials, such as bark or moss, to provide additional protection from inclement weather, and were checked twice daily, once in the morning and once in the evening.

At first capture, red-backed voles were marked with a uniquely numbered aluminum ear tag, and the following information was recorded: tag number, date/time of capture, plot and station numbers, sex, weight, reproductive condition, and comments (e.g., external abnormalities, stress at release, etc.). The reproductive condition of males was determined by the position of the testes (abdominal or scrotal), whereas that of females was determined by the condition of the nipples (not visible, visible, lactating) and the vagina (perforate or imperforate). Only tag numbers were recorded for second and subsequent captures of each tagged animal. For other incidentally captured non-target animals, only species, date, and capture location were recorded and if alive, the animals were released.

2.3 Red-backed Vole Tissue Collection and Analysis

Snap-trapping in the SHTC study area was initiated on May 12 and continued to May 16, 2023 during which time sufficient voles for tissue analyses were collected from plots 109, 110, 114, 123, and 117. Because of forest fires advancing towards the SHTC study area in 2023, the snap-trapping program was suspended because of a provincial evacuation order. Snap-trapping was resumed on May 27 at plots 11, 4, 402, 70 and 71.

Red-backed voles were collected for tissue analyses using wooden Victor metal pedal snap traps at the 10 plots located in the vicinity of the SHTC (Table 2-1, Figure 2.1). The snap traps were baited with a mixture of rolled oats and peanut butter and placed along logs, runways or near the entrances to vole tunnels and were checked once daily. Where tissue collection was associated with a population monitoring plot, snap traps were placed at least 100 m from the population monitoring plot in similar habitat. Snap-trapping was continued until a minimum of 2 voles/plot were collected to ensure sufficient tissues were collected for lab analysis.

Collected voles were placed in 120 ml clear glass jars with Teflon-lined lids, which were labelled with the following information: capture date and location, specimen number, sex,

reproductive condition, and body weight. This information was also recorded in field books and on Specimen Collection Forms. Collected animals were kept frozen until submitted to the ALS Global for chemical analyses of congener PCBs and dioxins/furans (Appendix 1). Results of all chemical analyses were reported as wet weight. Where possible, 6 whole body adult voles (3 males and 3 females) were composited (or homogenized) from each plot prior to chemical analysis to minimize within and between-year variability. An aliquot of the homogenate was then used for each type of tissue analysis conducted.

As in previous monitoring years, 2 types of PCB analyses were conducted fin 2023 which are briefly summarized below:

- ***Congener Specific PCB Analysis –*** This method involves quantitative determination of virtually all 209 PCB congeners using HRMS. The method also provides an estimate of PCB concentration based on the sum of homolog groups. The congener specific analysis is more sensitive and has much lower detection limits than the Aroclor PCB method. Detection limits are typically in the parts per trillion (ppt) or picograms per gram (pg/g) range for individual congeners. In addition, the method provides a more accurate assessment of the PCB concentration in environmental samples, as it does not rely on comparison to an Aroclor standard. The 2023 analysis included 162 PCB congeners, including PCBs that co-elute.

- ***Toxic PCBs (PCB Toxic Equivalency [TEQ]) –*** This term is used to describe a group of 12 PCB congeners that exhibit dioxin-like activity. These congeners are included in the congener specific PCB analysis but are discussed separately because of their recognized toxicity. Toxicity equivalency factors (TEFs) have been developed by the World Health Organization (WHO) to express the toxic potential of each congener relative to 2,3,7,8 tetrachlorodibenzo-p-dioxin. The combined PCB toxicity of these compounds is expressed as PCB TEQ and can be added to the dioxin/furan TEQ to provide a total TEQ estimate for each plot.

In addition, a statistical background subtraction calculation on the congener-specific PCB results was performed in the past (1997 – 1999) to eliminate bias originating from background and laboratory sources. However, beginning in 2000, Alberta Environment requested that this calculation not be used. Consequently, all congener PCB data have since been based on the raw, unadjusted results. Efforts were also made during laboratory analysis to ensure that the TEQ is not unduly elevated by the presence of non-toxic PCB congeners that may co-elute with toxic ones. This is particularly important for PCB 126, which has the highest TEF and therefore, typically has the largest impact on the TEQ values. An additional step can be undertaken by the laboratory, where warranted, in which the non-toxic PCB congeners are removed from the sample extract prior to re-analysis. This reduces the potential impact from congeners at higher levels of chlorination that may co-elute with PCB 126, and occasionally PCB 169. The need for this additional clean-up step for PCB TEQ is recommended by the laboratory following their review of the results.

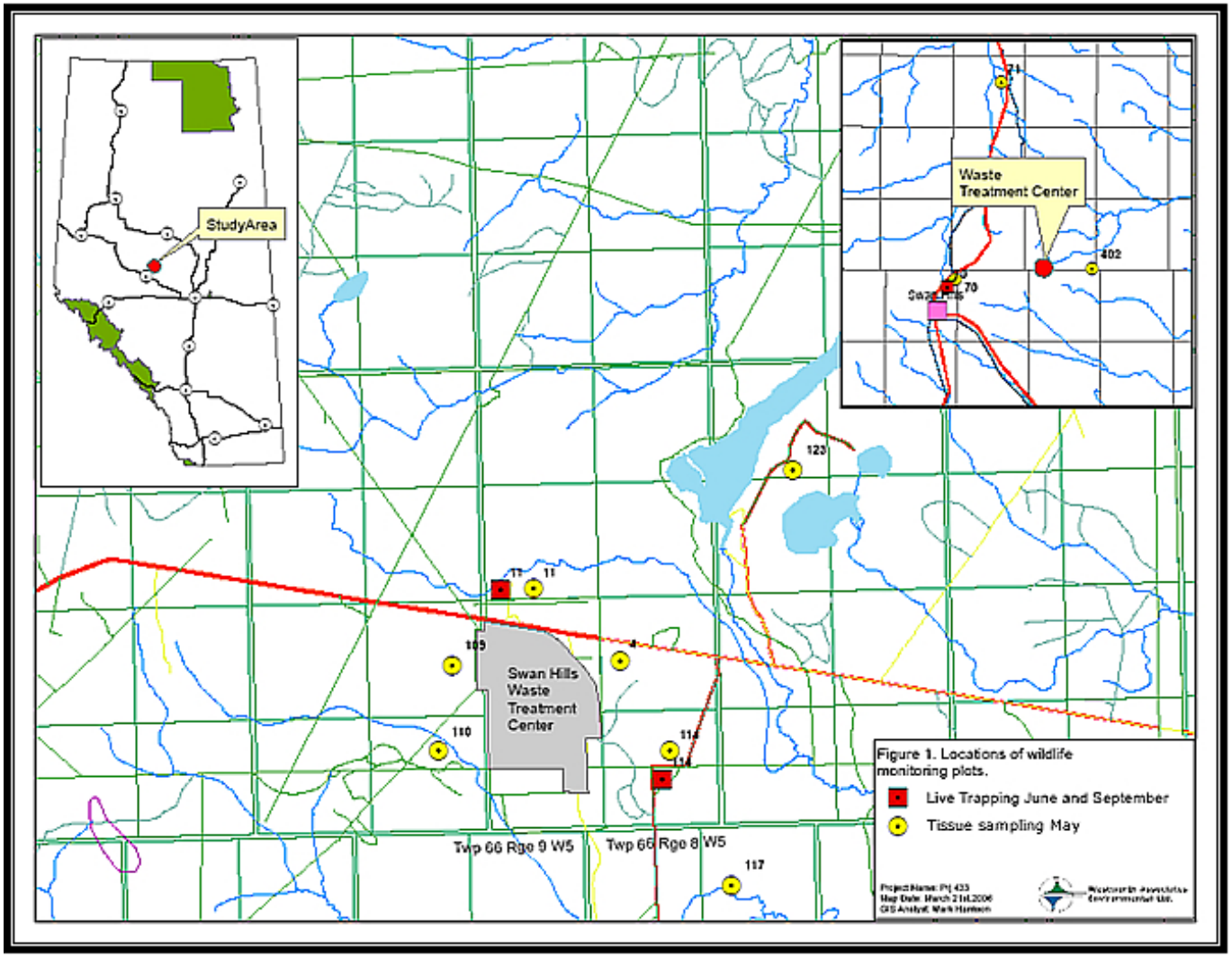

Figure 2-1. Location of plots sampled during the 2023 annual wildlife monitoring program in the vicinity of the SHTC.

To address these issues, the following data interpretation approach was adopted in 2008:

- Congener PCB and dioxin/furan TEQs were calculated using historical TEFs as well as the new WHO (2005) TEFs;
- Differences in TEQ resulting from application of the updated TEFs were discussed;
- Potential trends in congener PCB, dioxin and furan TEQ tissue levels were evaluated using historical TEFs; and
- A new benchmark for future monitoring was established in 2008 based on the application of the new WHO 2005 TEFs.

Therefore, from the 2009 monitoring year and onward, the new TEFs (WHO 2005) were used for calculating PCB and dioxin/furan TEQs.

2.4 Quality Assurance/Quality Control

To ensure quality control in the wildlife monitoring program, the following field procedures were followed:

- The effect of tissue collection on red-backed vole demography was reduced by collecting voles for tissue analyses near, but not on the population monitoring plots.
- Animal contact during tissue collection was minimized by handling voles only when they were first captured. Collected animals were only handled by personnel wearing disposable surgical gloves, which were discarded after each plot was checked.
- Voles collected for tissue analyses were immediately placed in clear glass jars, sealed, and cooled. These jars were labelled in the field to minimize the likelihood of samples being allocated to wrong plots. The sample jars were transported to a freezer, usually within 3 h of capture, and frozen for transport to the laboratory.
- When possible, duplicate samples of voles would be submitted if sufficient animals (i.e., >6 voles) were available from a single plot. However, this would only occur during relatively high population years and would avoid plots where information on vole demography is collected (plots 11, 114, and 70). During years when duplicate samples were not available, a laboratory duplicate, and a method blank were prepared and analyzed along with the samples. The duplicate provides information regarding the precision of the testing, which is affected by sample homogeneity, as well as the analytical reproducibility. The method blank provides information regarding potential bias due to laboratory background. Since PCBs are ubiquitous in the environment, when analyzing at ppt levels, some background PCBs will be detected. The reference method USEPA 1668C provides guidance on acceptable levels. In addition, any potentially elevated sample data are identified in the Certificate of Analysis report. A duplicate sample would provide a better estimate of variability from a single site than having the lab split a homogenized sample.
- Specimens were stored in frozen condition until they were submitted to the ALS Global for tissue analysis. The submission was accompanied by the appropriate chain of custody forms.

ALS Global was selected for the SHTC environmental monitoring program because of their expertise and long-term experience in the analysis of organic chemicals. ALS Global is

accredited with the Standards Council of Canada, American Industrial Hygiene Association, and Agriculture Canada. All aspects of organic analyses were conducted according to standard methods of the United States Environmental Protection Agency and American Society for Testing and Materials. Quality control was ensured by using surrogates, which involves spiking some of the tissue to be analyzed with a known compound and confirming the level of extraction.

2.5 Wildlife Research Permit and Collection License

As in previous monitoring years, a wildlife research permit and collection license (No. 23-248) was obtained from Alberta Environment and Protected Areas to conduct the 2023 SHTC wildlife monitoring program (Appendix 2). The research permit and collection license is required under Alberta's *Wildlife Act* and authorizes the holder to possess and collect wildlife for research or education purposes (GoA 2021). In the case of the SHTC wildlife monitoring program, Alberta Wildlife Animal Care Committee Class Protocol #007 was followed (GoA 2005). All field data collected under the wildlife research permit and collection license was entered into the appropriate loadforms and submitted to the Fish and Wildlife Management Information System maintained by Alberta Environment and Protected Areas along with the appropriate project completion forms.

2.6 Data Analysis

Live-trapping data collected during 2023 were analyzed using methods similar to those in past monitoring years in the SHTC study area (e.g., Penner 1994, Wildland Management Consultants Ltd. 2014). Red-backed vole abundance was estimated by 2 methods: capture rate (no. of captures/100 trap nights) and the minimum method. The capture rate, which was corrected for traps that had been triggered/robbed or had captured non-target animals (Nelson and Clark 1973), is primarily a measure of trapping efficiency and provides only a crude estimate of abundance. To determine the number of trap nights at each plot, the total number of trap nights for June and September 2023 (960 for each session) was adjusted by assuming that traps that had been triggered/robbed or were otherwise inoperable were unavailable to capture voles for the interval between trap checks, resulting in corrected trap night totals of 947 and 894 for June and September, respectively. In comparison, the minimum method, is simply the minimum number of animals known to be alive during each trapping session (Fuller 1969) and describes abundance in terms of density (no./ha). Minimum population estimates are directly comparable to the estimation methods used prior to 1994 (Penner 1994).

Vole survival was calculated as the mean 14-day survival rate between trapping sessions, using the formula:

$$\text{Survival} = e^{[\ln N(t+1) - \ln N(t)] \times 14/dt}$$

where N(*t*) is the number of animals known to be alive during period *t*, N(*t*+1) is the number captured during period *t* that are still alive during the previous trapping session, and *dt* is the interval between the 2 trapping sessions. Use of the 14-day survival rate allows a direct comparison of survival among different time intervals.

All chemical concentrations and detection limits were obtained from the Certificate of Analysis report prepared by ALS Global. In the case of average chemical concentration calculations, one-half the detection limit was used for any non-detections. In addition, the results of the tissue analysis were used to determine the effects of distance and direction from the SHTC on chemical concentrations in vole tissues. The effect of distance and direction of each plot from the SHTC on PCB, dioxin and furan, and total TEQ concentrations in red-backed vole tissues was determined using multiple regression analysis. For the purposes of this analysis, all monitoring plots south or east of the SHTC were considered downwind, whereas plots located north or west of the SHTC were considered upwind. Prior to analysis, data were normalized using a $\log_{10}$ transformation. The equation used in the analysis was (Kleinbaum and Kupper 1978):

$$Y = B_0 + B_1(\text{Distance}) + B_2(\text{Direction}) + B_3(\text{Direction x Distance})$$

where Y is the concentration of PCB, dioxins/furans, and total TEQ in red-backed vole tissues.

In this type of regression, “Direction” is a qualitative explanatory variable (i.e., a factor), with categories upwind and downwind. The dummy variable is a regressor, representing the factor “Direction”. In the resultant analysis, “Direction” indicates that the intercept of the regression differs between the upwind and downwind categories, whereas significance in the interaction term (Direction x Distance) indicates a difference in slope between the 2 categories (upwind and downwind). Thus, if the interaction term is significant, the equation is partitioned into 2 linear regression equations, 1 for the upwind and 1 for the downwind sector. However, if the dummy variable is significant while the interaction is not, the equation is treated as an analysis of covariance.

3

3.0 RESULTS

3.1 Live-trapping Effort and Success

Fifty-nine red-backed voles were captured 138 times in 947 trap nights during the June 2023 live-trapping program (Table 3-1). Shrews (*Sorex spp*.), deer mice (*Peromycus maniculatus*), and red squirrels (*Tamiasciurus hudsonicus*) were also captured during the June live-trapping session (Table 3-1) accounting for 16.7% of the total number of small mammal captures. Similar small animal captures were recorded in September where 60 red-backed voles were captured 140 times in 894 trap nights (Table 3-1). Other small mammals captured in September (34.3% of the total number of captures) included the shrew and red squirrel (Table 3-1).

Table 3-1. Summary of small mammal captures during the 2023 annual wildlife monitoring program in the SHTC study area.

Species	June			September			Totals		
	No. Individuals	Total Captures	% Mortality	No. Individuals	Total Captures	% Mortality	No. Individuals	Total Captures	% Mortality
Red-backed Vole	59	138	12.3	60	140	10.7	**119**	**278**	**11.5**
Shrew *spp*.	17	17	82.4	47	47	85.1	**64**	**64**	**84.4**
Deer Mouse	3	3	0.0	0	0	0.0	**3**	**3**	**0.0**
Red Squirrel	3	3	33.3	1	1	0.0	**4**	**4**	**25.0**

Trapping mortalities of red-backed voles in both June and September 2023 were 12.3% and 11.5%, respectively (Table 3-1). Overall, the trapping mortality rate for red-backed voles in 2023 was 11.5% which was within the range of 4 to 12% annual mortality rates reported since 1992 except for 2010 when a high of 15.7% was recorded.

Overall, red-backed voles that died during the June and September 2023 live-trapping sessions weighed slightly more (mean = 18.4 g) on average than those that survived (mean = 17.1 g). The average weight of voles that died in 2023 was like that recorded in 2013 where lighter animals (16.3 g) were similar to heavier animals (16.9 g). This contrasts to most previous monitoring years where voles with lower body weights tended to be more susceptible to trapping mortality than heavier animals. However, sample sizes for vole mortalities were generally smaller than for those animals that were alive.

The average mortality rate for non-target species in 2023 was 78%, higher than that recorded in 2022 (33%), but within the range of what was recorded between 2013 and 2021 (range = 28.6% - 69.9%). During 2023, the mortality rates of non-target small mammals was recorded for shrews (84%, n = 64) and red squirrels (25%, n = 4 (Table 3-1). In previous monitoring years, high mortality rates for non-target species were usually associated with shrews, typically ranging from 65% to 100%, which was the case in 2023.

3.2 Demographic Characteristics of Red-backed Vole Populations

3.2.1 Abundance

Minimum method estimates indicated that red-backed vole populations increased at all three plots 11 between June 2022 and June 2023 (Figure 3-1). The largest increase occurred at plot 114 (1.4 to 22.2 voles/ha or 1,487%) followed by plots 11 (3.5 to 7.6 voles/ha or 118%) and 70 (9.0 to 11.1 voles/ha or 24% (Table 3-2, Figure 3-1). The average population density for the 3 plots increased 197% from 4.6 voles/ha in June 2022 to 13.7 voles/ha in June 2023 (Table 3-2).

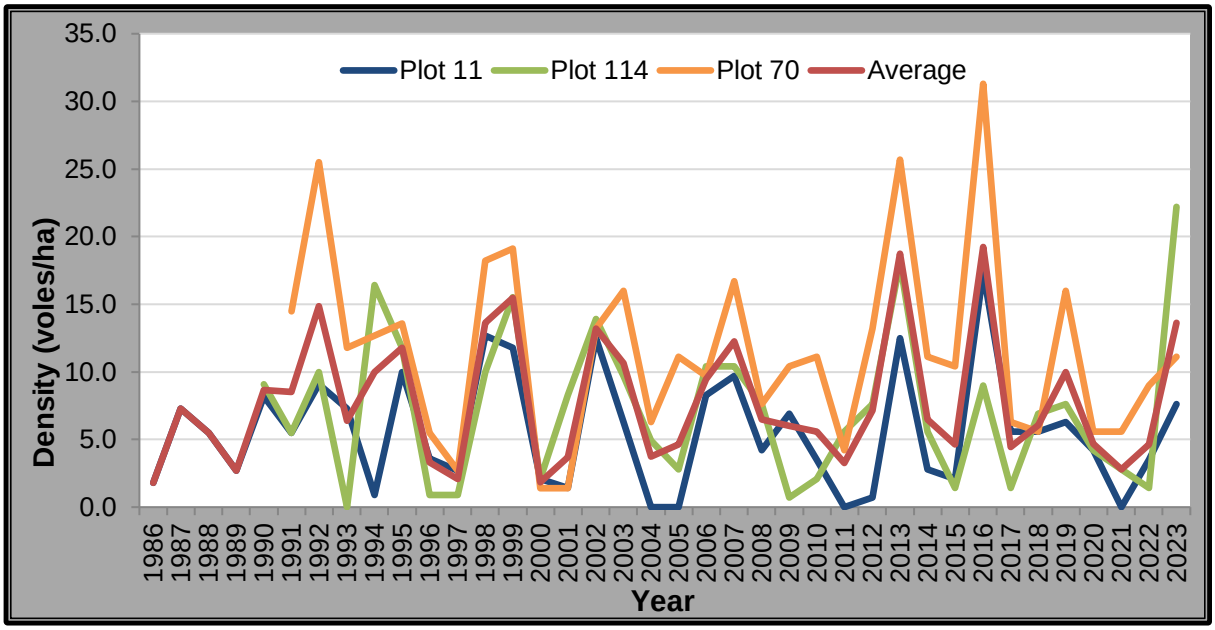

Figure 3-1. Red-backed vole densities for annually monitored plots in the SHTC study area, June 1986 - 2023.

The relative abundance of red-backed voles among plots as indicated by the minimum method and catch/unit effort were significantly different (P = 0.07, two-sample t-test) from each other in June 2023 (Table 3-2). While both methods indicated similar trends in vole populations (i.e., increases at plots 11 and 70 and a decrease at plot 114), catch/unit effort was lower by approximately 50% at the 3 plots and the overall average than that indicated by the minimum method (Table 3-2).

Table 3-2. June and September red-backed vole population estimates for the 2023 annual monitoring program in the SHTC study area.

Plot	Distance from the SHTC (km)	Direction from the SHTC	June		September	
			No./100 TN[1]	Minimum No./ha	No./100 TN	Minimum No./ha
11	0.1	N	3.5	7.6	5.3	11.1
114	0.7	E	10.1	22.2	8.7	18.1
70	11.5	SW	5.1	11.1	7.1	14.6
Averages			**6.2**	**13.7**	**6.7**	**13.9**

[1] TN – Trap nights for capture rate.

In September, minimum method estimates indicated that vole populations in the SHTC area increased at plots 11 (4.9 to 11.1 voles/ha or 127%) and 114 (15.3 to 18.1 voles/ha or 18%) but decreased at plot 70 (20.8 to 14.6 voles/ha or -30%) between 2022 and 2023 (Table 3-2, Figure 3-2). In contrast to previous monitoring years where vole densities at plot 70 are typically higher, vole densities in 2023 were highest at plot 114, followed by plot 70 and plot 11 (Table 3-2). Overall, the average density for these 3 plots increased slightly (1%) from 13.7 voles/ha in September 2022 to 13.9 voles/ha in September 2023. Vole densities at the 3 plots were within the ranges previously recorded in the SHTC area (Figure 3-2).

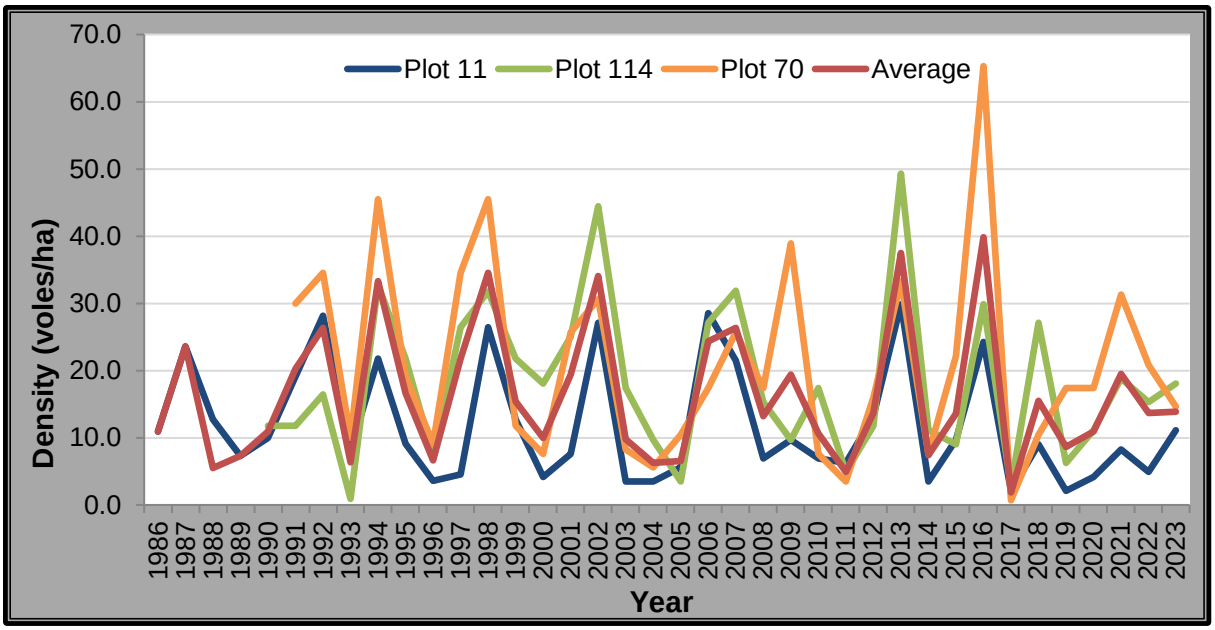

Figure 3-2. Red-backed vole densities for annually monitored plots in the SHTC study area, September 1986 - 2023.

As in June, the abundance of voles in September 2023 also varied by calculation method. Catch/unit effort was consistently lower by about 50% than that indicated by the minimum method across the 3 annually monitored plots and was statistically different based on a two-sample t-test (P = 0.02) (Table 3-2). Plot 114 had the highest density and catch/unit effort

while plots 70 and 11 were lower. The average abundance of voles as indicated by the minimum method (13.9 voles/ha) was higher than that indicated by catch/unit effort (6.7/100 trap nights) (Table 3-2) in 2023.

Based on population trends recorded since 1986 at the 3 annually monitored plots, vole populations in the SHTC study area have fluctuated widely with peak numbers occurring about every 3 - 5 years (Figures 3-1 and 3-2). However, population trends have occasionally differed among plots, particularly in June. For instance, between June 1993 and June 1994, and again between June 1998 and June 1999, vole populations at plot 11 declined while populations increased at plots 70 and 114 (Figure 3-1). This also occurred at plot 114 in 2009 and 2010 and again between 2021 and 2022. Furthermore, vole densities have periodically been very low, particularly at plot 11 in 2004, 2005, 2011, and again in 2021 when no voles were live-trapped in June (Figure 3-1). This only occurred once at plot 114 (1993) and has not occurred at plot 70 since monitoring began.

In comparison, September vole populations at the 3 plots have tended to be more synchronous over the years (Figure 3-2). However, like June, some differences in vole densities among the plots were apparent over time. For instance, plot 70 had the highest densities during population peaks until 1998. In contrast, peaks in 2002, 2007 were highest at plot 114. In 2009, this was most apparent with the large increase in vole density at plot 70 while densities at the remaining 2 plots decreased (plot 114) or increased slightly (plot 11). Recently, vole populations have been more synchronous in both June and September between 2011 and 2018. In 2014, vole populations at plots 11, 70, and 114 all exhibited declines from population highs observed in 2013 in June and September but began increasing in 2015 to another peak in 2016 and the subsequent decline to a population low in 2017. Similarly, in September 2019, vole populations at plots 11 and 114 declined while the voles at plot 70 increased. In September 2021, vole populations at all 3 plots increased followed by a decline in 2022 (Figure 3-1). In comparison, vole populations increased at all 3 plots in June 2023 and at plots 11 and 114 in September. Vole densities at plot 70 have continued to decline following a peak density in 2021 (Figure 3-1). Unlike June, voles have been captured at all 3 plots in September during every monitoring year with exception of plot 114 in 1993 and plot 70 in 2017 when densities approached 0 (e.g., 0.9 and 0.7 voles/ha, respectively) (Figure 3-2).

Although the reasons for these inconsistencies are unclear, they likely reflect differences in habitat structure among the 3 plots and therefore, their ability to support voles under variable weather conditions and different levels of predation and food supply. Populations have typically been higher at plot 70 (farthest from the SHTC) in both June and September than at plots 11 and 114 since monitoring began. June peak vole populations at plot 70 in September

varied from highs of between 10.7 to 31.3/ha and lows of 1.4 to 6.3/ha. In comparison, peak populations in September at plot 70 have ranged from 30.0 to 65.3 voles/ha while previously, low populations have ranged from 5.6 to 10.0 voles/ha. From a habitat standpoint, plot 70 is the most structurally diverse (i.e., well-developed ground, shrub, and tree cover) of the 3 monitoring plots. However, the effects of forest fires that occurred during the summer of 2023 on vole demography is unclear but may have affected vole densities, particularly at plot 70.

In contrast, vole densities have ranged from a high of 20 to 49.3 voles/ha to a low of 0.0 to 10.0 voles/ha at plots 11 and 114, both of which are characterized primarily by black spruce with relatively open shrub and ground layers dominated by Labrador tea and moss. It is interesting to note however, that the vole density at plot 11 was the same as the density at plot 70 in June 2018 and that vole densities at all 3 plots were similar in 2020. Historically, vole densities at plot 11 have typically been lower than the other 2 plots while densities at plot 70 have been higher. However, the highest vole densities in June 2023 occurred at plot 114 followed by plot 70 while plot 11 had the lowest density (Table 3-2, Figure 3-2). In comparison, the highest September vole density was also recorded at plot 114, followed by plots 70 and 11, similar to September densities in most previous monitoring years (Table 3-2, Figure 3-2).

3.2.2 Sex Ratios

Overall, an equal sex ratio of 1.0 male/female was recorded in June 2023 like most previous monitoring years although considerably more males were present at plot 11 (2.7 males/female, Table 3-3). In contrast, the average sex ratio for voles in September 2023 slightly favored males (1.2 males/female) reflecting the predominance of males at plot 70 (2.0 males/female, Table 3-3).

Table 3-3. Sex ratios (no. of males/female) of red-backed voles recorded on annually monitored plots in the SHTC study area, June and September 1986 - 2023.

Year	June				September			
	Plot 11	Plot 114	Plot 70	Average	Plot 11	Plot 114	Plot 70	Averages
1986	2M[1]	-[2]	-	**2M**	0.2	-	-	**0.2**
1987	3.0	-	-	**3.0**	0.5	-	-	**0.5**
1988	1.0	-	-	**1.0**	1.8	-	-	**1.8**
1989	0.5	-	-	**0.5**	1.7	-	-	**1.7**
1990	2.0	2.0	-	**2.0**	1.2	3.0	-	**1.9**
1991	0.5	5.0	2.2	**1.8**	1.1	1.6	1.7	**1.5**
1992	4.0	1.8	1.2	**1.6**	0.9	1.6	1.0	**1.1**
1993	7.0	n/a[3]	0.9	**1.7**	0.5	1F	0.8	**0.6**
1994	1M	1.3	1.4	**1.4**	1.2	1.0	0.9	**0.6**
1995	2.0	1.2	1.8	**1.6**	0.2	0.4	0.9	**0.5**

Year	June				September			
	Plot 11	Plot 114	Plot 70	Average	Plot 11	Plot 114	Plot 70	Averages
1996	1.0	1M	1.0	**1.2**	1.0	3.0	2.0	**0.8**
1997	3M	1M	2.0	**1.3**	1.5	1.5	0.9	**1.2**
1998	1.8	0.8	1.7	**1.4**	1.0	0.5	0.8	**0.7**
1999	3.3	0.7	1.3	**1.2**	1.8	0.7	3.3	**1.2**
2000	2.0	2.0	2F	**1.0**	6M	0.9	0.6	**0.8**
2001	2M	1.2	2M	**2.0**	0.4	0.3	0.2	**0.3**
2002	1.6	1.2	1.4	**1.4**	0.8	2.5	1.3	**1.4**
2003	0.5	1.8	1.3	**1.2**	4M	1.6	2.0	**2.0**
2004	n/a	1.3	1.3	**1.3**	4.0	0.4	1.0	**1.8**
2005	n/a	1.0	1.7	**1.5**	7.0	0.3	2.3	**2.1**
2006	1.8	1.1	3.7	**1.9**	0.6	1.1	0.6	**0.8**
2007	1.1	0.9	2.2	**1.5**	0.8	0.5	1	**0.7**
2008	5.0	0.8	1.8	**1.5**	0.1	0.8	0.9	**0.7**
2009	1.0	1F	2.0	**1.5**	1.0	0.3	2.1	**1.0**
2010	1.0	3M	1.5	**1.8**	1.0	0.3	2.1	**1.0**
2011	n/a	3.0	5.0	**3.7**	0.5	0.5	0.7	**0.5**
2012	1F	2.7	2.8	**2.4**	0.8	1.0	1.2	**1.0**
2013	1.3	1.7	1.6	**1.5**	1.8	1.4	1.1	**1.4**
2014	0.3	1.7	2.2	**1.4**	4.0	1.0	0.8	**1.9**
2015	2.0	1.0	1.5	**1.5**	0.8	2.2	1.1	**1.4**
2016	1.3	5.5	1.0	**1.3**	0.8	0.9	1.1	**1.0**
2017	0.3	2F	0.5	**0.4**	3M	0.3	1F	**1.0**
2018	1.0	0.7	3.0	**1.2**	2.3	1.2	0.4	**1.0**
2019	1.3	4.5	2.3	**2.3**	3M	8.0	0.9	**1.6**
2020	1.0	0.5	7.0	**1.5**	5.0	3.0	2.1	**2.6**
2021	n/a	1.0	3.0	**2.0**	1.0	0.7	0.6	**0.6**
2022	0.7	2M	0.9	**1.0**	2.5	1.2	0.4	**0.8**
2023	2.7	0.7	1.3	**1.0**	1.0	1.2	2.0	**1.2**

[1] M, F- single sex captures are denoted as M (male) and F (female). [2] Plots not sampled. [3] n/a - no voles captured at this plot.

Previous monitoring indicates that sex ratios of red-backed voles in the SHTC area often differ between June and September (e.g., Penner 1994, Westworth Associates Environmental Ltd. 1999). Between 1986 and 2023, males are usually more prevalent on average, than females in the June population (1.6 males/female) across the 3 annually monitored plots, whereas in September, the dominant sex has differed among years although the average sex ratio for September approaches equilibrium (1.1 males/female).

3.2.3 Weight Classes

Earlier monitoring studies in the SHTC study area assigned voles to age classes based on body weight but analyses by Westworth Associates Environmental Ltd. (1999, 2004) indicated that body weight may be a poor indicator of age which can provide misleading results with respect to breeding status and age structure. Consequently, voles were categorized only based on weight classes since 2007. Voles weighing <13 g were classified as light (formerly 'juveniles'), those weighing 13 - 18 g were classified as moderate (formerly 'sub-adults'), while those weighing >18 g were classified as heavy (formerly 'adults').

Using these criteria, 72% of the June 2023 vole population consisted of "heavy" animals. By comparison, only 11% were composed of "moderate" individuals and 16% of the animals in the lightweight class were captured in June (Figure 3-3). On an individual plot basis, 82%, 47%, and 88% of the voles captured on plots 11, 114, and 70 were classed as "heavy", respectively (Figure 3-3). These results are similar, for the most part, to the weight class compositions recorded in previous years (Figure 3-3). Heavy voles have typically comprised an average of 40 to 100% of the June population during most years, while moderate voles have ranged between 2 and 58%. Light voles generally make up <15% of the population in June. The higher ratio of heavy to light weight voles is typical in June (Figure 3-3) and reflects the predominance of heavier, over-wintered voles.

In September 2023, voles in the "heavy" weight class accounted for only 21% of the population across the 3 monitoring plots, considerably less than the "moderate" category (68%) but more than the "light" vole class (11%) (Figure 3-4). On an individual plot basis, voles characterized as "heavy" varied among plots from 19% (plots 114 and 70) to 25% (plot 11) (Figure 3-4). Historically, most individuals in September populations are usually in the moderate weight class, with fluctuating proportions of individuals in the heavy and light weight classes (Figure 3-4). Weight class profiles for individual plots in 2023 were like those recorded in previous years (Figure 3-4), reflecting the predominance of individuals in the "moderate" weight class.

3.2.4 Reproduction

Overall, 57% of the males and 62% of the females in the heavy weight class were in breeding condition in June 2023 (Table 3-4) like previously recorded ranges for these 3 plots (Table 3-4). The percentage of individuals in the heavy weight class in breeding condition in June is usually high, with averages for both males and females typically >70% for most years, although the percentages of breeding voles can be highly variable among plots (0 - 100%) and between the sexes (Table 3-4). No trends in reproductive condition of voles were apparent with respect to distance from the SHTC in June 2023.

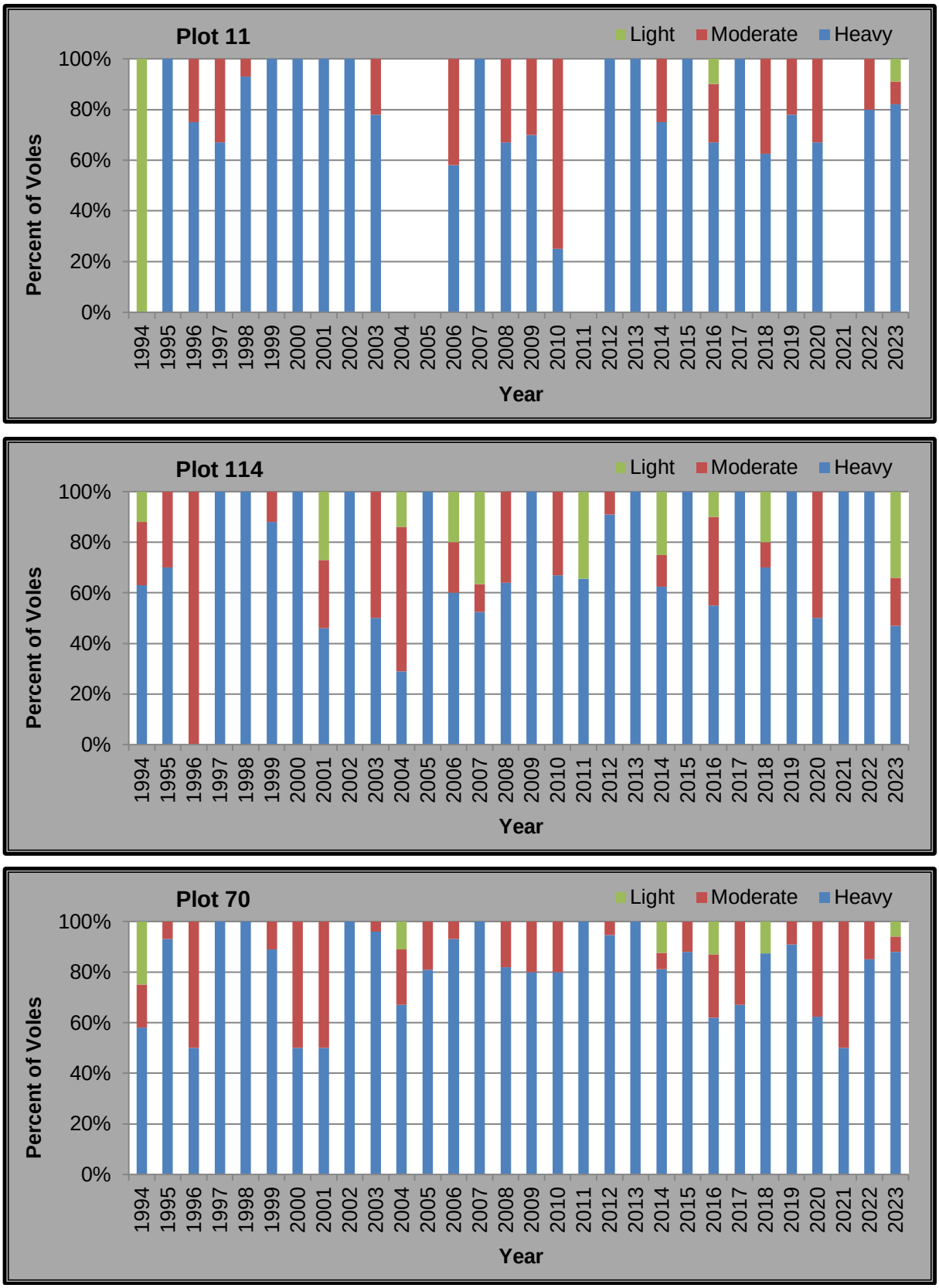

Figure 3-3. June weight classes of red-backed voles at 3 plots monitored annually in the SHTC area between 1994 and 2023.

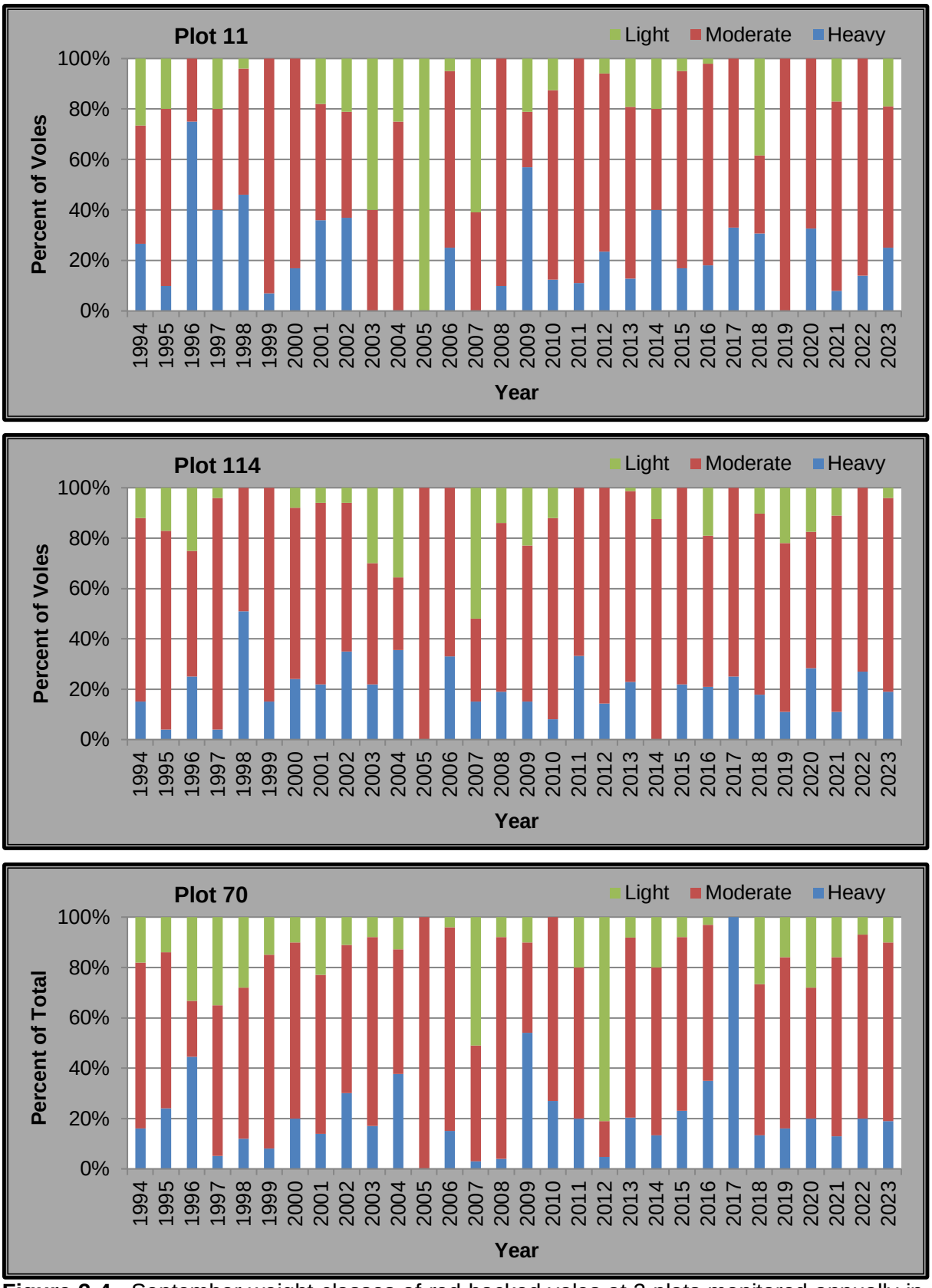

Figure 3-4. September weight classes of red-backed voles at 3 plots monitored annually in the SHTC study area between 1994 and 2023.

Overall, 9% of male and 22% of female voles captured in the heavy weight class were in breeding condition in September 2023 like previously observed ranges of breeding individuals (Table 3-5). For both sexes, the overall percentage of breeding individuals in the heavy weight class in September has also been highly variable (0 – 100%) among plots and across years (Table 3-5). Two factors likely account for the variable breeding rates: (1) the number of voles in the heavy weight class is usually low since a larger proportion of the population is comprised of light to moderate individuals (i.e., young-of-the year), which increases variability, and (2) the timing of September monitoring occurs after the main breeding season (early June - late August) which affects the number of reproductive animals captured. No trend in reproductive condition of voles was apparent with respect to distance from the SHTC in September 2023.

Table 3-4. Percentages of red-backed voles in the heavy weight class breeding on annually monitored plots in the SHTC study area, June 1986 - 2023.

Year	Sex	Plot 11		Plot 114		Plot 70		Overall	
		No.	% Breeding	No.	% Breeding	No.	% Breeding	No.	% Breeding
1994	Male	0	0	7	43	4	25	**11**	**36**
	Female	0	0	3	67	3	100	**6**	**83**
1995	Male	5	80	3	33	8	25	**16**	**44**
	Female	3	100	4	50	5	80	**12**	**75**
1996	Male	2	100	0	0	2	100	**4**	**100**
	Female	1	100	0	0	1	100	**2**	**100**
1997	Male	2	100	2	100	5	100	**9**	**100**
	Female	0	0	0	0	0	0	**0**	**0**
1998	Male	9	78	5	100	12	83	**26**	**85**
	Female	5	20	6	83	7	100	**18**	**72**
1999	Male	10	100	6	100	8	100	**24**	**100**
	Female	3	100	9	56	8	88	**20**	**75**
2000	Male	2	100	2	50	1	100	**5**	**80**
	Female	1	0	1	100	0	0	**2**	**50**
2001	Male	2	100	3	100	1	100	**5**	**100**
	Female	0	0	2	100	0	0	**2**	**100**
2002	Male	11	100	11	100	11	100	**33**	**100**
	Female	7	100	9	78	8	100	**24**	**96**
2003	Male	3	100	9	100	13	100	**25**	**100**
	Female	6	83	4	80	9	90	**18**	**86**
2004	Male	n/a[1]	n/a	1	100	2	50	**3**	**60**
	Female	n/a	n/a	1	100	2	100	**3**	**100**
2005	Male	n/a	n/a	2	100	8	80	**10**	**83**
	Female	n/a	n/a	2	100	4	67	**6**	**75**

Year	Sex	Plot 11		Plot 114		Plot 70		Overall	
		No.	% Breeding	No.	% Breeding	No.	% Breeding	No.	% Breeding
2006	Male	4	75	6	50	10	70	**20**	**65**
	Female	3	67	3	67	3	67	**9**	**67**
2007	Male	8	100	4	67	21	95	**33**	**92**
	Female	7	100	6	86	7	70	**20**	**83**
2008	Male	3	100	2	100	5	100	**10**	**100**
	Female	0	0	2	40	3	75	**5**	**50**
2009	Male	4	100	0	0	7	100	**11**	**100**
	Female	3	100	1	100	5	100	**6**	**100**
2010	Male	0	0	0	0	4	50	**4**	**40**
	Female	1	100	0	0	2	50	**3**	**60**
2011	Male	n/a	n/a	6	67	5	60	**11**	**64**
	Female	n/a	n/a	2	100	1	100	**3**	**100**
2012	Male	0	0	7	100	13	85	**20**	**85**
	Female	1	100	3	100	5	100	**9**	**100**
2013	Male	10	40	14	7	22	41	**46**	**30**
	Female	8	25	9	33	12	42	**29**	**34**
2014	Male	0	0	2	67	6	86	**8**	**80**
	Female	1	50	2	100	3	60	**6**	**67**
2015	Male	2	100	1	100	6	86	**9**	**90**
	Female	1	100	1	100	5	83	**7**	**88**
2016	Male	11	79	5	46	19	86	**35**	**75**
	Female	5	46	2	100	15	65	**22**	**61**
2017	Male	0	0	0	0	1	33	**1**	**20**
	Female	3	50	2	100	3	50	**8**	**57**
2018	Male	3	75	3	75	6	100	**12**	**86**
	Female	3	75	4	67	1	50	**8**	**58**
2019	Male	5	100	6	67	16	100	**27**	**90**
	Female	2	50	1	50	4	57	**7**	**54**
2020	Male	2	67	0	0	4	57	**6**	**50**
	Female	2	67	3	75	1	100	**6**	**75**
2021	Male	0	0	2	100	5	83	**7**	**75**
	Female	0	0	2	100	0	0	**2**	**50**
2022	Male	2	100	2	100	4	67	**8**	**80**
	Female	1	33	0	0	7	100	**8**	**80**
2023	Male	7	88	5	39	6	67	**18**	**57**
	Female	3	100	9	47	6	86	**18**	**62**

Table 3-5. Percentages of red-backed voles in the heavy weight class breeding on annually monitored plots in the SHTC study area, September 1986 – 2023.

Year	Sex	Plot 11		Plot 114		Plot 70		Overall	
		No.	% Breeding	No.	% Breeding	No.	% Breeding	No.	% Breeding
1994	Male	3	67	3	33	3	33	**9**	**44**
	Female	5	40	2	50	4	75	**11**	**55**
1995	Male	0	0	1	100	4	0	**5**	**0**
	Female	1	100	0	0	1	100	**2**	**100**
1996	Male	1	100	2	100	2	100	**5**	**100**
	Female	2	100	0	0	2	100	**4**	**100**
1997	Male	1	100	0	0	0	0	**1**	**100**
	Female	1	50	1	100	2	50	**4**	**67**
1998	Male	7	29	5	20	8	25	**20**	**25**
	Female	6	33	13	8	6	17	**25**	**16**
1999	Male	2	0	2	50	1	0	**5**	**20**
	Female	0	0	1	100	0	0	**1**	**100**
2000	Male	1	0	2	0	0	0	**3**	**0**
	Female	0	0	4	75	2	0	**6**	**50**
2001	Male	0	0	1	100	0	0	**1**	**100**
	Female	4	100	7	86	5	80	**16**	**94**
2002	Male	4	50	15	7	7	14	**26**	**15**
	Female	10	40	7	29	6	50	**23**	**39**
2003	Male	4	0	14	7	8	25	**26**	**12**
	Female	0	0	9	44	4	50	**13**	**46**
2004	Male	0	0	0	0	0	0	**0**	**0**
	Female	0	0	0	0	0	0	**0**	**0**
2005	Male	0	0	0	0	0	0	**0**	**0**
	Female	0	0	0	0	0	0	**0**	**0**
2006	Male	3	75	5	83	1	100	**9**	**82**
	Female	5	83	2	29	3	100	**10**	**63**
2007	Male	0	0	3	75	0	0	**3**	**75**
	Female	0	0	2	50	1	100	**3**	**60**
2008	Male	0	0	0	0	0	0	**0**	**0**
	Female	0	0	0	0	0	0	**0**	**0**
2009	Male	0	0	0	0	0	0	**0**	**0**
	Female	1	0	3	0	1	0	**4**	**0**
2010	Male	0	0	0	0	2	67	**2**	**50**
	Female	1	0	1	100	0	0	**2**	**50**

Year	Sex	Plot 11		Plot 114		Plot 70		Overall	
		No.	% Breeding	No.	% Breeding	No.	% Breeding	No.	% Breeding
2011	Male	3	67	2	50	2	50	**7**	**57**
	Female	6	0	4	25	3	0	**13**	**0**
2012	Male	1	100	0	0	0	0	**1**	**100**
	Female	2	67	1	50	1	100	**4**	**67**
2013	Male	2	50	7	0	4	0	**13**	**8**
	Female	4	50	9	44	6	67	**19**	**53**
2014	Male	0	0	0	0	1	100	**1**	**100**
	Female	0	0	0	0	2	67	**2**	**67**
2015	Male	0	0	0	0	0	0	**0**	**0**
	Female	0	0	0	0	1	20	**1**	**14**
2016	Male	3	20	3	15	5	10	**12**	**14**
	Female	3	15	4	17	5	11	**11**	**13**
2017	Male	0	0	1	100	0	0	**1**	**25**
	Female	0	0	1	33	0	0	**1**	**25**
2018	Male	2	22	1	5	1	25	**4**	**12**
	Female	1	25	0	0	0	0	**5**	**15**
2019	Male	0	0	2	25	1	8	**3**	**21**
	Female	0	0	0	0	3	23	**3**	**23**
2020	Male	2	40	1	25	3	18	**6**	**18**
	Female	0	0	1	13	2	25	**3**	**23**
2021	Male	0	0	0	9	3	19	**3**	**9**
	Female	1	50	2	13	3	10	**6**	**10**
2022	Male	2	40	3	25	4	44	**9**	**35**
	Female	0	0	1	10	1	5	**2**	**6**
2023	Male	2	25	0	0	1	7	**3**	**9**
	Female	2	25	3	12	1	14.3	**6**	**22**

3.2.5 Survival

The September 2022 to June 2023 survival rate could not be calculated for the 3 population plots since no previously tagged voles were known to have over-wintered during this period (Table 3-6). This was likely a result of the long interval (282 days) between the 2 trapping sessions which would have reduced the likelihood of recapturing tagged animals in June 2023. Red-backed voles are short-lived with a maximum lifespan of 1 year (Boonstra and Krebs 2011). Consequently, their entire breeding lifespan typically occurs over 1 season (March – October). Average overwinter survival (when it could be calculated) has ranged from 0.64 to

0.96 (Table 3-6) in the past and is typically higher when previous September vole populations are higher.

One vole that was previously tagged in June 2023 was recaptured in September 2023 for a survival rate of 0.65 over the 77-day period (Table 3-6). Historical data indicate that overwinter survival is typically higher than survival over the summer period since voles are more exposed to predators and weather conditions (cool and rain/wet snow conditions) during the snow-free period. When survival rates could be calculated (Table 3-6), the mean September to June (1987-2023) survival is 0.88, whereas the mean June to September (1987-2023) survival is only 0.65 at the 3 annually monitored plots.

Table 3-6. Intercession 14-day survival rate of red-backed voles in the SHTC study area, 1987 - 2023.

Year	Plot 11		Plot 114		Plot 70		Overall	
	June	September	June	September	June	September	June	September
1987	npc[1]	0.79					**npc**	**0.79**
1988	npc	ns[2]					**npc**	**ns**
1989	0.92	1.00					**0.92**	**1.00**
1990	npc	ns	npc	0.79			**npc**	**0.73**
1991	npc	ns	0.9	0.71	npc	ns	**0.87**	**0.53**
1992	npc	ns	0.89	0.71	0.9	ns	**0.89**	**0.65**
1993	npc	ns	npc	ns	npc	ns	**npc**	**ns**
1994	0.86	ns	npc	0.67	npc	ns	**npc**	**0.49**
1995	1.06[3]	ns	0.86	ns	0.92	0.68	**0.92**	**0.54**
1996	npc	ns	npc	ns	npc	ns	**npc**	**ns**
1997	npc	ns	npc	1.00	npc	ns	**npc**	**0.52**
1998	npc	ns	0.77	0.87	0.75	0.88	**0.88**	**0.62**
1999	0.87	ns	0.9	ns	0.82	ns	**0.9**	**ns**
2000	npc	ns	npc	ns	npc	ns	**npc**	**ns**
2001	0.96	ns	npc	ns	npc	ns	**0.96**	**ns**
2002	0.86	0.54	0.93	0.56	0.86	0.53	**0.89**	**0.54**
2003	0.96	ns	0.97	0.62	0.93	ns	**0.94**	**0.57**
2004	npc	npc	npc	ns	npc	ns	**npc**	**ns**
2005	npc	npc	npc	ns	npc	0.65	**npc**	**0.63**
2006	npc	0.75	npc	ns	npc	0.82	**npc**	**0.74**
2007	0.87	0.64	0.93	0.53	0.94	0.55	**0.93**	**0.58**
2008	npc	ns	0.9	ns	0.86	ns	**0.87**	**ns**
2009	npc	ns	npc	ns	npc	0.81	**npc**	**0.68**

Year	Plot 11		Plot 114		Plot 70		Overall	
	June	September	June	September	June	September	June	September
2010	npc	ns	0.94	0.71	0.92	ns	**0.95**	**0.71**
2011	npc	npc	npc	ns	npc	ns	**npc**	**ns**
2012	npc	1.00	npc	0.68	npc	0.74	**npc**	**0.81**
2013	0.91	0.72	0.87	0.68	0.93	0.74	**0.91**	**0.72**
2014	npc	0.82	0.62	npc	0.73	0.75	**0.64**	**0.72**
2015	npc	0.66	npc	ns	npc	0.58	**npc**	**0.59**
2016	npc	0.62	npc	ns	0.80	0.65	**0.76**	**0.62**
2017	0.93	ns	npc	ns	npc	ns	**0.89**	**ns**
2018	npc	ns	npc	ns	npc	ns	**npc**	**ns**
2019	npc	ns	0.88	ns	npc	ns	**0.82**	**ns**
2020	npc	0.76	ns	ns	npc	0.61	**npc**	**0.61**
2021	npc	ns	npc	ns	npc	ns	**npc**	**ns**
2022	npc	ns	npc	ns	npc	0.63	**0.63**	**ns**
2023	npc	ns	npc	0.65	npc	npc	**0.63**	**ns**

[1] npc – A survival rate could not be calculated because there were no captures from the previous trapping session. [2] ns - Survival rates could not be calculated as no voles were known to have survived between trapping sessions. [3] A survival rate of greater than 1.00 resulted from the inter-plot movement of tagged animals when plot 11 was relocated.

3.3 Snap-trapping Effort and Success

Overall, 2,800 trap nights of effort were expended to capture enough voles for tissue analyses at the 10 plots in May 2023 (Table 3-7). Mean trapping effort in 2023 was 280 trap nights/plot, the highest recorded over the last 10 years (2013 to 2022, range = 74 – 740 trap nights/plot) likely reflected the effects of the 2023 forest fires may have had on vole trappability. During 2023, trapping effort ranged from a low of 160 trap nights at plot 4 to a high of 480 trap nights at plot 114 (Table 3-7).

Fifty voles were collected in 2023 for an overall capture rate of 1.8 voles/100 trap nights (Table 3-7), which was the lowest recorded over the previous 10 year monitoring period (2013 to 2022, range= 2.0 – 8.6 voles/100 trap nights). The number of voles captured at each plot ranged from 3 to 8 (mean = 5.0 voles/plot, Table 3-7). During previous monitoring years, the variation in trapping success has been highly variable in May among plots, likely reflecting differences in habitat quality and the population phase (i.e., increasing or decreasing) voles are in although as discussed above, forest fires during 2023 also likely had some effect on vole trappability.

Table 3-7. Summary of snap trapping effort and success during the red-backed vole tissue collection program in the SHTC study area, May 2023.

Plot[1]	Trap Nights	No. of Voles	No./100 Trap Nights
11	320	3	0.9
109	320	6	1.9
4	160	4	2.5
110	320	4	1.3
114	480	5	1.0
123	320	8	2.5
117	240	6	2.5
402	240	6	2.5
70	240	3	1.3
71	240	5	2.1
Totals	**2,800**	**50**	**1.8**
Averages	**280**	**5.0**	**-**

[1] Order of plots indicate increasing distance from SHTC (plot 11 [100 m] to plot 71 [21 km]).

3.4 Tissue Chemistry of Red-backed Voles

3.4.1 Polychlorinated Biphenyls (PCBs)

3.4.1.1 PCB Congeners

The average concentration of congener PCBs in vole tissues across the 10 vole tissue collection plots decreased (-37% or -18,802 pg/g) from 50,888 pg/g in May 2022 to 32,086 pg/g in May 2023 (Table 3-8). While congener PCBs decreased at 8 plots, year-over-year increases were recorded at plots 402 (158% or 1,047 pg/g) and 70 (6,885% or 32,429 pg/g). Despite the increase in PCB congeners at plots 402 and 70, the average 2023 concentration across the 10 plots is 72% lower than the 23-year average (2000 – 2022) for the SHTC study area; the second lowest concentration recorded since 2000 (Table 3-8). The increases in congener PCBs at plots 402 and 70 appear to be related to the extensive smoke associated as a result of the fires that occurred in the region during 2023.

As in previous years, PCB 118 was the dominant toxic PCB congener in voles collected in May 2023, accounting for between 51% (plot 70) and 59% (plot 123) of the 12 toxic PCB congeners that contribute to PCB TEQ in vole tissues (Table 3-9). PCB 156/157 accounted for an additional 11 (plot 71) - 21% (plot 70), while PCB 105 accounted for between 7 (plot 70) - 17% (plot 402) of the total concentrations. The remaining toxic PCB congeners exhibited low concentration profiles (≤9%) across all plots (Table 3-9). However, despite having one of the lowest concentrations across all plots, PCB 126 contributes the most towards PCB TEQ because of its high TEF (0.1) relative to other PCB congeners (see Table 3-11).

Table 3-8. PCB congener concentrations[1] (pg/g) in red-backed voles collected in the SHTC study area, 2000 – 2023.

Year	Plot[2]										Averages
	11	109	4	110	114	123	117	402	70	71	
2000	480,000	-	300,000	-	170,000	-	24,000	5,500	8,800	3,600	**141,700**
2001	169,000	563,000	163	28,800	466,000	32,100	34,600	1,960	1,440	479	**129,754**
2002	627,382	819,944	642,093	16,715	495,810	53,724	108,457	5,557	1,799	393	**277,187**
2003	249,000	583,000	250,000	11,500	129,000	25,100	35,300	1,330	667	199	**128,510**
2004	70,359	1,034,201	687,233	133,077	136,802	14,997	17,438	734	1,084	406	**209,633**
2005	17,865	114,298	140,940	-	34,465	7,601	8,917	953	837	455	**36,259**
2006	203,545	254,766	867,215	17,820	143,851	9,468	34,099	2,944	2,363	1,273	**153,734**
2007	91,000	340,000	360,000	19,000	200,000	23,000	45,000	4,300	1,900	2,900	**108,710**
2008	100,000	99,000	410,000	17,000	85,000	23,000	69,000	47,000	7,200	3,800	**86,100**
2009	120,000	69,400	245,000	11,000	63,200	10,200	4,500	2,070	1,980	785	**52,814**
2010	192,000	98,800	351,000	43,500	294,000	19,300	74,900	3,530	1,680	795	**107,951**
2011	281,000	960,000	547,000	225,000	121,000	16,800	42,500	2,610	3,100	939	**219,995**
2012	181,000	815,000	357,000	136,000	250,000	27,400	45,900	6,150	1,860	1,280	**182,159**
2013	296,000	267,000	1,110,000	72,400	209,000	16,400	10,400	4,050	1,480	1,440	**198,817**
2014	114,000	115,000	399,000	105,000	263,000	19,900	42,500	4,570	935	716	**106,462**
2015	111,000	97,300	386,000	39,500	82,100	13,100	18,800	2,360	1,200	377	**75,174**
2016	90,400	87,700	429,000	21,600	86,900	11,300	33,300	2,330	770	356	**76,366**
2017	110,000	96,700	317,000	21,500	91,900	12,900	16,700	2,220	934	401	**67,026**
2018	84,200	187,000	368,000	26,400	102,000	14,300	34,500	2,470	779	888	**82,054**
2019	98,150	83,250	304,500	11,385	68,200	7,620	21,150	1,380	663	255	**59,832**
2020	63,700	60,400	161,000	7,380	45,900	12,900	17,000	1,410	533	190	**37,041**
2021	39,500	31,600	92,500	13,200	54,600	18,800	6,540	1,200	544	217	**25,870**
2022	65,200	66,100	171,000	28,000	121,000	4,650	51,600	663	471	191	**50,888**
2023	43,500	38,700	140,000	11,200	36,100	3,510	13,100	1,710	32,900[3]	143	**32,086**

[1] PCB congener concentrations are the sum of the homologues. [2] Order of plots indicate increasing distance from the SHTC (plot 11 [100 m] to plot 71 [21 km]).]). [3] Re-extraction result = 31,700 pg/g.

Table 3-9. Concentrations of 12 toxic PCB congeners (pg/g) in red-backed voles in the SHTC study area, May 2023.

PCB Congener	Plot [1]									
	11	109	4	110	114	123	117	402	70	71
PCB 77	29.4	67.4	195	18.2	53.4	12.7	17.8	1.85	19.9	0.6
PCB 81	4.9	7.5	28.5	2.3	4.0	0.45	1.90	0.065	3.87	0.55
PCB 105	603	687	3,020	169	490	54.2	173	40.0	262	1.5
PCB 114	57.3	57.6	272	11.8	41.9	4.5	18.5	2.8	23.6	0.75

PCB Congener	Plot [1]									
	11	109	4	110	114	123	117	402	70	71
PCB 118	3,150	3,540	13,400	852	2710	357	924	135	1,900	10.3
PCB 123[2]	7.74	9.6	33.0	3.4	3.94	0.6	0.75	1.05	0.85	0.08
PCB 126	201	159	888	31.0	125	11.0	30.9	3.0	100	0.75
PCB 156/157	1,090	1,110	3,840	283	1,040	95.6	358	35.3	775	2.2
PCB 167	515	491	1,800	148	448	39.8	135	14.0	312	1.48
PCB 169	74.7	54.3	232	18.4	59.0	4.5	18.7	0.85	55.6	0.445
PCB 189	291	244	878	73.1	243	21.0	94.5	5.5	304	0.64
Totals	**6,024**	**6,427**	**24,587**	**1,610**	**5,218**	**601**	**1,773**	**239**	**3,757**	**19**

[1] Order of plots indicate increasing distance from the SHTC (plot 11 [100 m] to plot 71 [21 km]). [2] PCB 123 co-elutes with PCB 107 and PCB 109. [3] < = Not detected, ½ the detection limit was used to calculate totals.

3.4.1.2 Toxic Equivalency of PCB Congeners

Between May 2022 and May 2023, PCB TEQ concentrations increased at 3 plots and decreased at the remaining 7 plots (Table 3-10), representing a decrease in average PCB TEQ of 32%. The largest percentage increases occurred at plot 70 which increased by 11.69 pg/g (or 10,627%), followed by plots 402 (0.17 pg/g or 109%), and 71 (0.04 pg/g or 78%) (Table 3-10). The higher concentrations of PCB TEQs at the 3 plots located furthest from the SHTC likely were affected by the fires that were burning close to the Town of Swan Hills in 2023. In contrast, PCB TEQs at the remaining plots, all of which were closer to the SHTC, were among the lowest recorded since 2000 (Table 3-10). The highest PCB TEQ in 2023 among the 10 plots was recorded at plot 4 (96.5 pg/g), which has been the case for all but one year (plot 109 in 2012) since 2000 (Table 3-10). Although the PCB TEQ at plot 4 was the highest recorded in 2022, it represents the second lowest concentration recorded at this plot since 2000. While PCB TEQ values at plots 402 and 71 were ≤1 pg/g in 2023, continuing to represent the lowest levels recorded among the 10 plots on a historical basis, plot 70 (11.80 pg/g) was the highest PCB TEQ on record for this plot (Table 3-10).

Table 3-10. TEQ of PCB congeners (pg/g) in red-backed voles captured in the SHTC study area, 2000 - 2023.

Year	Plot[1]										Averages
	11	109	4	110	114	123	117	402	70	71	
2000	500	-	670	-	144	-	33	1.3	6.7	0.06	**193.58**
2001	108	253	352	18.7	252	15	23.4	0.03	0.01	0.01	**102.22**
2002	241	346	461	5.1	215	22	53	0.1	0.05	0.00	**134.33**
2003	400	385	568	6.1	164	20.4	21.2	0.5	0.0	0.00	**156.52**
2004	94.8	120	836	29.5	3.35	11.5	11.8	0.01	0.02	0.01	**110.70**
2005	40.6	106	267	-	42.2	4.1	6.4	0.03	0.02	0.01	**51.82**

Year	Plot[1]										Averages
	11	109	4	110	114	123	117	402	70	71	
2006	369.9	133.2	1039.8	12.3	96.2	9.5	16.7	1.36	0.04	0.02	**167.90**
2007	119.6	411.2	614.2	7	152.1	18.8	26.4	0.13	0.05	0.03	**134.95**
2008a[2]	85.49	43.97	318.3	5.65	47.07	10.71	41.43	2.4	0.49	0.24	**55.58**
2008b[3]	84.59	42.8	319.02	5.42	45.52	10.42	40.32	2.26	0.47	0.23	**55.11**
2009	139.16	51.54	279.87	5.11	36.24	6.96	1.71	0.55	0.52	0.26	**52.19**
2010	146.72	74.46	207.07	22.1	114.18	6.05	18.93	0.02	0.01	0.00	**58.95**
2011	88.3	259	438	115	34.9	3.9	7.48	0.01	0.99	0.35	**94.79**
2012	74.2	313	294	49.3	52.2	5.31	12.7	0.99	0.49	0.00	**80.22**
2013	203	224	603	22.5	84.4	5.95	3.12	0.84	0.01	0.01	**114.68**
2014	86.4	59.4	305	115	57.6	7.57	10.6	1.0	0.28	0.25	**64.31**
2015	57.2	38.3	335	15.2	38.1	5.85	9.32	0.83	0.56	0.15	**50.05**
2016	43.5	28.4	289	6	26.1	3.9	8.62	0.54	0.30	0.13	**40.65**
2017	52.2	41.8	170	10.6	30.6	4.73	5.24	0.87	0.39	0.20	**40.57**
2018	39.4	98.4	232	8	33.8	4.42	11.4	0.73	0.27	0.36	**42.88**
2019	45.1	45.5	198	3.84	25.5	3.06	7.19	0.20	0.26	0.15	**32.88**
2020	40.4	25.9	113	2.12	18.7	3.7	5.6	0.51	0.24	0.07	**21.03**
2021	21.5	15.8	61.1	6.15	23	7.1	2.66	0.43	0.22	0.09	**13.81**
2022	25.2	23.7	111	7.62	54.4/2.4[4]	1.67	28.1	0.16	0.11	0.05	**25.20**
2023	22.5	17.7	96.5	3.7	14.4	1.25	3.7	0.33	11.8[4]	0.09	**17.20**

[1] Order of plots indicate increasing distance from the SHTC (plot 11 [100 m] to plot 71 [(21 km]). [2] Between 2000 and 2008a, PCB TEQs calculated based on the WHO (1998). [3] From 2008b and onwards, PCB TEQs calculated based on the WHO (2005). [4] September 2022 result anomaly comparing over-wintered voles (heavier) PC TEQ to young-of year voles (lighter). [4] Re-extraction result = 11.9 pg/g.

Historically, PCB TEQ concentrations have typically declined with increasing distance from the SHTC and for most part, the data collected in May 2023 are generally consistent with this trend. However, the 2023 PCB TEQ concentration at plot 70 (Table 3-10, Figure 3-5) the highest recorded since 2000. Overall, the mean PCB TEQ from plots ≤0.7 km from the SHTC (plots 11, 109, 4, 110, 114) in 2023 was 30.96 pg/g (a decrease of 30% from the 44.38 pg/g reported in 2022), whereas the mean concentration for plots >0.7 km away (plots 123, 117, 402, 70 and 71) was 3.43 pg/g (a decrease of 43% from the 6.02 pg/g reported in 2022). PCB TEQ concentrations in voles captured within 0.7 km of the SHTC ranged from 3.70 pg/g (plot 110) to 96.50 pg/g (plot 4), while voles captured >0.7 km away had concentrations that ranged from 0.09 pg/g (plot 71) to 11.80 pg/g (plot 70) in 2023 (Figure 3-5).

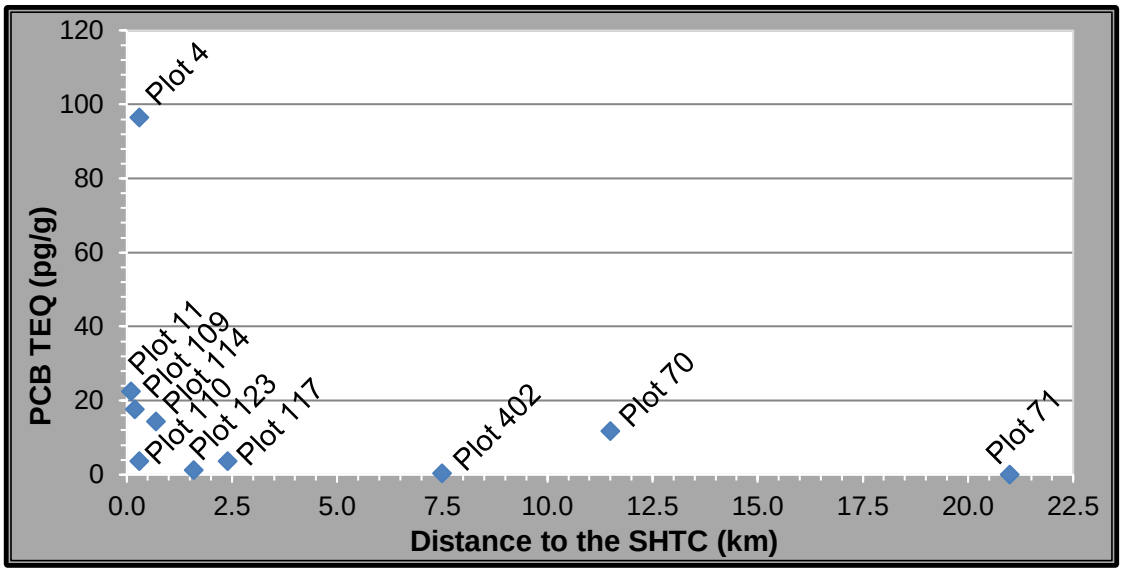

Figure 3-5. Relationship between PCB TEQ concentrations (pg/g) in red-backed voles and distance from the SHTC, May 2023.

As in previous years, PCB 126 contributed the most to PCB TEQ in 2023 because of its higher TEF, representing between 83% (plot 117) and 92% (plot 4) of the totals at the 10 plots (Table 3-11). PCB 169 contributed the second most to PCB TEQ, accounting for between 7% (plot 4) and 15% (plots 117, 71, and 110), while the remaining 9 toxic PCB congeners contributed the least (≤0.9% of the totals) at the 10 plots (Table 3-11).

Table 3-11. TEQ of toxic PCB congeners in red-backed voles (pg/g) collected from the SHTC study area, May 2023.

PCB Congener	WHO TEF[1]	Plot[2]									
		11	109	4	110	114	123	117	402	70	71
PCB 77	0.0001	0.0029	0.0067	0.0195	0.0018	0.0053	0.0013	0.0018	0.0002	0.0020	0.0001
PCB 81	0.0003	0.0015	0.0023	0.0086	0.0007	0.0012	0.0001	0.0006	0.0000	0.0012	0.0002
PCB 105	0.00003	0.0181	0.0206	0.0906	0.0051	0.0147	0.0016	0.0052	0.0012	0.0079	0.0000
PCB 114	0.00003	0.0017	0.0017	0.0082	0.0004	0.0013	0.0001	0.0006	0.0001	0.0007	0.0000
PCB 118	0.00003	0.0945	0.1062	0.4020	0.0256	0.0813	0.0107	0.0277	0.0041	0.0570	0.0003
PCB 123[4]	0.00003	0.0002	0.0003	0.0010	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
PCB 126	0.1	20.100	15.900	88.800	3.1000	12.500	1.1000	3.0900	0.3000	10.000	0.0750
PCB 156/157	0.00003	0.0327	0.0333	0.1152	0.0085	0.0312	0.0029	0.0107	0.0011	0.0233	0.0001
PCB 167	0.00003	0.0155	0.0147	0.0540	0.0044	0.0134	0.0012	0.0041	0.0004	0.0094	0.0000
PCB 169	0.03	2.2410	1.6290	6.9600	0.5520	1.7700	0.1350	0.5610	0.0255	1.6680	0.0134
PCB 189	0.00003	0.0087	0.0073	0.0263	0.0022	0.0073	0.0006	0.0028	0.0002	0.0091	0.0000
Total PCB TEQs		**22.52**	**17.72**	**96.49**	**3.70**	**14.43**	**1.25**	**3.70**	**0.33**	**11.78**	**0.09**

[1] WHO-TEF: World Health Organization Toxic Equivalency Factor (2005). [2] Order of plots indicates increasing distance from the SHTC (plot 11 [100 m] to plot 71 [21 km]). [3] n.d. = Not detected, ½ the detection limit used to calculate totals. [4] PCB 123 co-elutes with PCB 107 and PCB 109.

3.4.2 Dioxins and Furans

3.4.2.1 Dioxin/Furan Congeners

Between May 2022 and May 2023, dioxin/furan concentrations in voles decreased at 5 plots and increased at 5 plots (Table 3-12). The largest percentage decreases occurred at plot 71 where the dioxin/furan concentration went from 8.4 pg/g in 2022 to 1.6 pg/g in 2022 (-82% or -6.9 pg/g) followed by plots 114 (-72% or -29.9 pg/g), and 117 (-62% or -16.8 pg/g) (Table 3-12). The highest percentage increases between 2022 and 2023 occurred at plots 11 (208% or 41.0 pg/g) and 402 (137% or 1.8 pg/g) (Table 3-12). Like PCB congeners, the average concentration of dioxins/furans also decreased from 2022 to 2023 but increased at 5 plots whereas PCB congers increased only at plots 402 and 70 which are located further away from the SHTC.

Table 3-12. Concentrations of dioxin/furan congeners (pg/g) in red-backed voles collected from the SHTC study area, 2000 - 2023.

Year	Plot[1]										Averages
	11	**109**	**4**	**110**	**114**	**123**	**117**	**402**	**70**	**71**	
2000	5,757	11,026	11,827	2,229	1,585	1,840	591	22	110	59	**3,504.6**
2001	655	2,902	9,203	460	960	931	1,225	8	7	7	**1,635.8**
2002	3,862	4,684	6,349	86	1,550	1,533	1,017	143	23	6	**1,925.3**
2003	2,994	3,938	9,432	112	1,874	865	273	5	25	4	**1,952.2**
2004	1,177	530	6,095	323	677	370	99	n.d.[3]	1.6	0.2	**927.3**
2005	581	1,280	2,005	-[2]	344	155	66	2.8	11	1.3	**444.4**
2006	8,043	648	7,633	158	488	345	78	15	22	8	**1,743.8**
2007	1,142	2,167	2,546	54	912	716	85	29	26	8	**768.5**
2008	862	373	2,316	76	223	266	506	20	36	18	**469.6**
2009	1,013	421	1,145	44	145	194	26	7	31	3	**302.9**
2010	1,720	503	434	168	314	43	48	7	3.4	<0.2	**324.1**
2011	131	312	1,010	438	55.8	22.9	10.2	1	1.9	<0.09	**198.3**
2012	171	973	1,156	168	139	23	43.1	4.4	15.5	1	**269.4**
2013	651	732	1,493	126	183	30.6	37	7.7	44.4	7.3	**331.2**
2014	329	162	781	386	91.8	82.3	27.8	13.7	32.8	7.5	**191.4**
2015	70	12	472	159	45.4	36.9	32.3	6.6	23.2	3.5	**86.1**
2016	123	53	488	31	53.8	20.5	15.6	3.7	17.0	9.2	**81.5**
2017	49.7	66.2	309.1	24.2	26.5	15.9	8.4	4.6	13.1	4.7	**52.5**
2018	77.6	173.7	257.6	21.8	31.1	19.6	11.2	3.4	7.1	1.2	**60.4**

Year	Plot[1]										Averages
	11	109	4	110	114	123	117	402	70	71	
2019	62.2	70.4	193.3	15.6	25.3	13.1	10.5	3.2	20.3	4.3	**41.8**
2020	66.6	26.3	111.9	8.5	14.0	8.2	4.3	3.8	6.7	1.9	**25.2**
2021	27.39	17.11	37.45	11.02	15.25	6.17	9.61	5.72	11.91	3.02	**14.5**
2022	19.66	18.27	135.15	14.17	41.74	5.81	27.17	1.34	11.85	8.44	**28.36**
2023	60.70	26.41	98.15	10.00	11.82	6.07	10.23	3.17	13.29[4]	1.55	**24.14**

[1] Order of plots indicate increasing distance from the SHTC (Plot 11 [100 m] to Plot 71 [21 km]). [2] No animals were collected for tissue samples. [3] n.d. or < = Not detected, ½ the detection limit used to calculate averages. [4] Re-extraction result = 14.7 pg/g.

Congener 23478 PeCDF was the dominant dioxin/furan at 6 of the 10 plots in 2023, accounting for between 17% (plot 123) - 27% (plot 4) of the total concentrations at these plots (Table 3-13). In contrast, the dominant congener at plots 109, 4, 110, 114, and 123 was 2378 TeCDF, accounting for between 14% - 25% of the total concentration. In comparison, OCDD accounted for 14% - 15% of the concentrations at plots 402 and 70, respectively while the congener 1234678 HpCDD was dominant only at plots 402 (15%) and 117 (16%).

Table 3-13. Concentrations (pg/g) for individual dioxin/furan congeners in red-backed voles collected from the SHTC study area, May 2023.

Dioxin/Furan Congener	Plot[1]									
	11	109	4	110	114	123	117	402	70	71
2378 TCDD	0.124	0.170	0.396	0.110	0.145	0.069	0.07	0.024	0.198	0.0245
12378 PeCDD	1.04	0.953	2.53	0.670	0.526	0.496	0.39	0.317	1.07	0.192
123478 HxCDD	0.58	0.55	1.49	0.260	0.33	0.236	0.25	0.234	0.49	0.092
123678 HxCDD	1.34	0.83	2.82	0.439	0.59	0.475	0.80	0.260	0.86	0.162
123789 HxCDD	0.66	0.55	1.47	0.239	0.25	0.177	0.21	0.198	0.39	0.044
1234678 HpCDD	1.84	1.68	7.34	0.800	0.94	0.632	1.61	0.470	0.932	0.321
OCDD	2.15	1.20	5.10	0.105	0.12	0.58	0.67	0.45	1.97	0.095
2378 TCDF	6.20	6.03	19.0	2.51	2.44	0.825	1.13	0.180	1.15	0.025
12378 PeCDF	3.80	2.16	6.06	0.804	0.831	0.426	0.671	0.150	0.830	0.027
23478 PeCDF	14.5	6.09	26.1	1.99	2.29	1.05	1.19	0.231	1.58	0.0245
123478 HxCDF	6.87	1.11	4.13	0.29	0.532	0.218	0.36	0.110	0.767	0.0215
123678 HxCDF	5.78	0.950	4.76	0.370	0.661	0.207	0.580	0.133	0.735	0.02
123789 HxCDF	1.12	0.055	0.81	0.19	0.38	0.154	0.26	0.111	0.857	0.074
234678 HxCDF	7.58	2.32	9.06	0.630	0.991	0.283	1.20	0.135	0.847	0.022
1234678 HpCDF	5.85	1.24	5.60	0.419	0.62	0.140	0.63	0.05	0.491	0.0215
1234789 HpCDF	0.578	0.075	0.26	0.035	0.08	0.038	0.085	0.07	0.0375	0.32
OCDF	0.69	0.45	1.22	0.14	0.095	0.06	0.12	0.045	0.09	0.06
Totals	**60.70**	**26.41**	**98.15**	**10.00**	**11.82**	**6.07**	**10.23**	**3.17**	**13.29**	**1.55**

[1] Order of plots indicate increasing distance from the SHTC (plot 11 [100 m] to plot 71 [21 km]). [2] < = Not detected, ½ the detection limit used.

3.4.2.2 Toxic Equivalency of Dioxin/Furan Congeners

Dioxin/furan TEQ concentrations increased at 6 plots and decreased at 4 plots between May 2022 and May 2023 (Table 3-14), which represented an average year-over-year increase of -11.8% (or 0.40 pg/g). The largest percentage decreases occurred at plot 117 (-66% or -2.63 pg/g) and plot 114 (-65% or -3.79 pg/g), while the largest increases occurred at plots 11 (188% or 5.69 pg/g) and 402 (177% or 0.36 pg/g) (Table 3-14). Although dioxin/furan TEQs in 20232 increased slightly at most plots, they were amongst the lowest levels recorded since 2000. Overall, dioxin/furan TEQs have, for the most part, been declining steadily in the SHTC study area from 2006 (646.0 pg/g) to 2022 (3.4 pg/g). The average 2023 dioxin/furan TEQ across the 10 plots was the third lowest concentration recorded in the SHTC study area since 2000 (Table 3-14).

Table 3-14. TEQ of dioxin/furan congeners (pg/g) in red-backed voles collected from the SHTC study area, 2000 - 2023.

Year	Plot[1]										Averages
	11	**109**	**4**	**110**	**114**	**123**	**117**	**402**	**70**	**71**	
2000	2,200	4,200	4,900	820	600	700	230	7.2	37	20	**1,371.4**
2001	230	1,100	3,800	160	340	350	440	0.76	2.9	1.2	**642.5**
2002	1,460	1,750	2,450	26.4	553	593	391	19.8	2.6	1.6	**724.7**
2003	1,200	1,490	3920	28.6	682	321	89.2	0.7	3.1	0.3	**773.5**
2004	416	187	2,190	99.5	262	126	31.7	0.79	1.5	0.27	**331.5**
2005	187	465	754	-[2]	104	48.8	17.5	0.81	2	0.43	**157.8**
2006	3,071	219	2,851	32.5	154	109	19.2	2.2	0.5	1.1	**646.0**
2007	421	765	885	14	283	274	21	4	3	2	**267.2**
2008a[3]	310	110	830	14	58	87	44	3.6	3.4	0.92	**146.1**
2008b[4]	200	71	530	11	40	56	30	2.8	4.5	0.94	**94.6**
2009	217	81	241	7	24	36	3	1	2	0	**61.2**
2010	366	100	88	32	58	8	7	1	3	0	**66.3**
2011	19.3	53.4	234	104	8.6	4.5	2.2	1.3	2	0.4	**43.0**
2012	21.2	185.0	223.6	27.56	19.69	4.48	6.84	0.76	2.94	0.18	**49.2**
2013	121.2	129.5	197.7	17	20.3	4	3.8	0.5	4.8	1.4	**50.0**
2014	53.9	22.2	133	81.3	13.0	12.1	2.92	1.4	2.81	0.803	**32.3**
2015	7.26	1.62	75.9	19.2	4.66	5.01	4.04	0.565	2.59	0.378	**12.1**
2016	14.8	6.54	80.8	3.4	5.59	2.79	1.73	0.488	1.97	0.745	**11.9**
2017	5.38	8.71	46.8	4.27	3.03	1.99	0.70	0.53	1.94	0.55	**7.4**
2018	10.8	25.9	35.9	3.15	3.16	3.42	1.4	0.79	1.55	0.31	**8.6**
2019	9.86	10.9	33.7	2.54	3.7	2.19	1.39	0.435	3.05	0.65	**6.8**
2020	10.2	4.32	19.0	1.43	2.1	1.39	0.70	0.516	1.65	0.364	**4.2**

Year	Plot[1]										Averages
	11	109	4	110	114	123	117	402	70	71	
2021	4.44	2.43	5.79	1.5	1.65	0.77	1.33	0.461	1.69	0.45	**2.1**
2022	3.03	2.86	12.8	2.19	5.81/0.27[5]	1.04	3.97	0.201	2.04	0.284	**3.4**
2023	8.72	4.28	15.4	1.91	2.02	1.16	1.34	0.557	2.39[6]	0.274	**3.8**

[1] Order of plots indicate increasing distance from the SHTC (plot 11 [100 m] to plot 71 [21 km]). [2] No animals were collected for tissue samples. [3] Between 2000 and 2008a, dioxin and furan TEQs calculated based on NATO I-TEFs (1990). [4] From 2008b and onwards, dioxin and furan TEQs calculated based on the WHO (2005). [5] September 2022 result anomaly comparing over-wintered voles (heavier) PC TEQ to young-of year voles (lighter). [6] Re-extraction result = 1.93 pg/g.

As with PCB TEQs, dioxin/furan TEQ concentrations in voles generally declined with increasing distance from the SHTC in May 2023 (Figure 3-6). The mean dioxin/furan TEQ from plots ≤0.7 km from the SHTC (plots 11, 109, 4, 110, 114) in 2023 was 6.47 pg/g (an increase of 21% from the 5.34 pg/g reported in 2022), whereas the mean concentration for plots >0.7 km away (plots 123, 117, 402, 70 and 71) was 1.14 pg/g (a decrease of 24% from the 1.51 pg/g reported in 2022). Dioxin/furan TEQs in voles captured within 0.7 km of the SHTC ranged from 1.91 pg/g (plot 110) to 15.40 pg/g (plot4), while voles captured >0.7 km away had concentrations that ranged from 0.27 pg/g (plot 71) to 2.39 pg/g (plot 70) in 2023 (Figure 3-6).

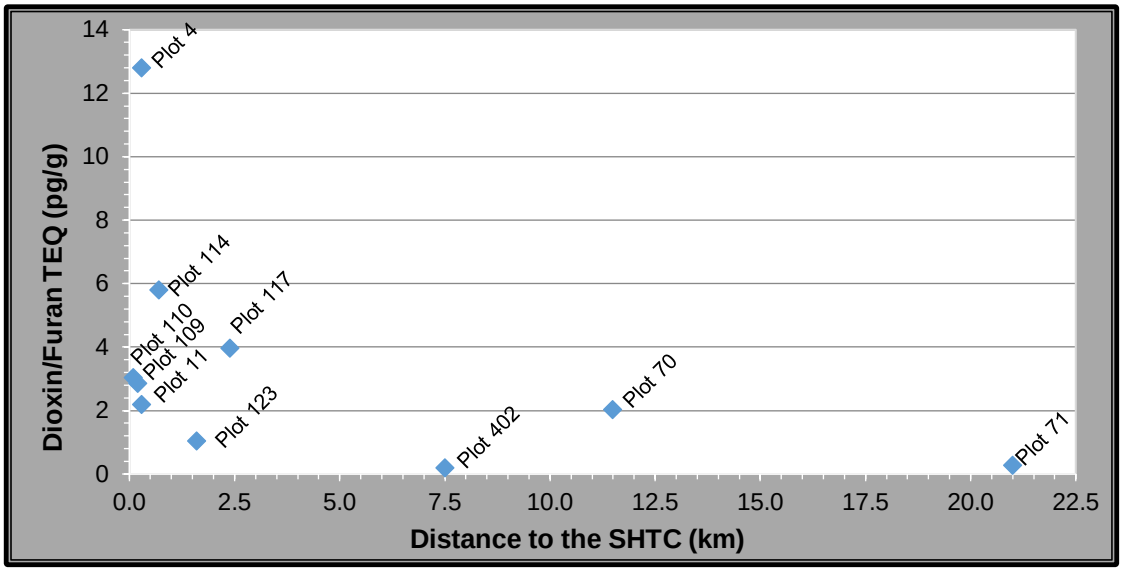

Figure 3-6. Distribution of dioxin/furan TEQs (pg/g) in relation to distance, May 2023.

The congener 12378 PeCDD was the largest contributor to total dioxin/furan TEQs at 7 of the 10 plots, ranging from 22% at plot 109 to 69% at plot 71 (Table 3-15). The congener 23478 PeCDF was also a large contributor at 4 of the 10 plots in the SHTC study area, where it accounted for between 34% (plot 114) and 51% (plot 4) of the total dioxin/furan TEQs in May 2022 (Table 3-15). The remaining individual dioxin/furan TEQs accounted for ≤27% of the total concentrations at the 10 plots in 2023.

Table 3-15. TEQ of individual dioxin/furan congeners (pg/g) in red-backed voles, May 2023.

Congener	WHO TEF[1]	Plot[2]									
		11	109	4	110	114	123	117	402	70	71
2378 TeCDD	1	0.124	0.170	0.396	0.110	0.145	0.069	0.070	0.024	0.198	0.025
12378 PeCDD	1	1.040	0.953	2.530	0.670	0.526	0.496	0.390	0.317	1.070	0.192
123478 HxCDD	0.1	0.058	0.055	0.149	0.026	0.033	0.024	0.025	0.023	0.049	0.009
123678 HxCDD	0.1	0.134	0.083	0.282	0.044	0.059	0.048	0.080	0.026	0.086	0.016
123789 HxCDD	0.1	0.066	0.055	0.147	0.024	0.025	0.018	0.021	0.020	0.039	0.004
1234678 HpCDD	0.01	0.018	0.017	0.073	0.008	0.009	0.006	0.016	0.005	0.009	0.003
OCDD	0.0003	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000
2378 TeCDF	0.1	0.620	0.603	1.900	0.251	0.244	0.083	0.113	0.018	0.115	0.003
12378 PeCDF	0.03	0.114	0.065	0.182	0.024	0.025	0.013	0.020	0.005	0.025	0.001
23478 PeCDF	0.3	4.350	1.827	7.830	0.597	0.687	0.315	0.357	0.069	0.474	0.007
123478 HxCDF	0.1	0.687	0.111	0.413	0.029	0.053	0.022	0.036	0.011	0.077	0.002
123678 HxCDF	0.1	0.578	0.095	0.476	0.037	0.066	0.021	0.058	0.013	0.074	0.002
123789 HxCDF	0.1	0.112	0.006	0.081	0.019	0.038	0.015	0.026	0.011	0.086	0.007
234678 HxCDF	0.1	0.758	0.232	0.906	0.063	0.099	0.028	0.120	0.014	0.085	0.002
1234678 HpCDF	0.01	0.059	0.012	0.056	0.004	0.006	0.001	0.006	0.001	0.005	0.000
1234789 HpCDF	0.01	0.006	0.001	0.003	0.000	0.001	0.000	0.001	0.001	0.000	0.003
OCDF	0.0003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total Dioxin/Furan TEQs		**8.725**	**4.285**	**15.426**	**1.907**	**2.017**	**1.159**	**1.340**	**0.557**	**2.392**	**0.277**

[1] WHO-TEF: World Health Organization Toxic Equivalency Factor (2005). [2] Order of plots indicate increasing distance from the SHTC (plot 11 [100 m] to plot 71 [21 km]). [3] n.d. – Not detected, ½ the detection limit used to calculate totals.

3.4.3 Total TEQ

3.4.3.1 Total TEQ in Relation to Plot and Monitoring Year

PCB TEQs and dioxin/furan TEQs decreased at 6 and increased at 4 plots between 2022 and 2023, resulting in an average 26% decrease (-7.54 pg/g) in total TEQs (PCB TEQs + dioxin/furan TEQs) from 28.58 pg/g to 21.05 pg across the 10 plots (Table 3-16). The largest percentage decreases occurred at plot 117 (-84% or -27.00 pg/g) and plot 114 (-73% or 44.00 pg/g) while the largest increases were recorded at plots 70 (561% or 12.05 pg/g) and 402 (147% or 0.53 pg/g) (Table 3-16).

Overall, PCB TEQs comprised about 67% of the total TEQs in red-backed voles while dioxin/furan TEQs accounted for 33% across the 10 plots in 2023 (Table 3-16). The percentage contribution of PCB TEQ to total TEQ in 2023 was higher than what has been recorded across all plots between 2000 and 2022 (mean = 43%) but has varied from a low of 1% at plots 70 and 71 to a high of 93% at plot 114 over the same historical period. When

compared to distance from the SHTC, PCB TEQ accounted for 52% of the total TEQ at plots located ≤2 km and 30% of the total TEQ at plots >2km from the SHTC.

Table 3-16. Total TEQ concentrations (pg/g) in red-backed voles collected from the SHTC study area, 2000 - 2023.

Plot[1]	Year	PCB TEQ[2]	Dioxin/Furan TEQ[3]	Total TEQ	Year	PCB TEQ[2]	Dioxin/Furan TEQ[3]	Total TEQ
11	2000	500	2200	2700	2012	74	21	95
	2001	108	230	338	2013	203	121	324
	2002	241	1460	1701	2014	86	54	140
	2003	400	1200	1600	2015	57	7	64
	2004	95	416	511	2016	44	15	59
	2005	41	187	228	2017	52.2	5	58
	2006	370	3071	3441	2018	39	11	50
	2007	123	421	544	2019	45	10	55
	2008a/b	85	200	285	2020	40	10	50
	2009	140	217	357	2021	21.5	4	26
	2010	147	366	513	2022	25	3	28
	2011	88	19	107	2023	23	9	32
109	2000	-	4200	4200	2012	313	185	498
	2001	253	1100	1353	2013	224	130	354
	2002	346	1750	2096	2014	59	22	81
	2003	385	1490	1875	2015	38	2	40
	2004	120	187	307	2016	28	7	35
	2005	106	465	571	2017	42	9	51
	2006	133	219	352	2018	98	26	124
	2007	410	765	1175	2019	46	11	57
	2008a/b	43	71	114	2020	26	4	30
	2009	52	81	133	2021	16	2	18
	2010	75	100	175	2022	24	3	27
	2011	259	53	312	2023	18	4	22
4	2000	670	4900	5570	2012	294	224	518
	2001	352	3800	4152	2013	603	198	801
	2002	461	2450	2911	2014	305	133	438
	2003	568	3920	4488	2015	335	76	411
	2004	836	2190	3026	2016	289	81	370
	2005	267	754	1021	2017	170	47	217
	2006	1040	2851	3891	2018	232	36	268
	2007	614	885	1499	2019	198	34	232
	2008a/b	319	530	849	2020	113	19	132
	2009	283	241	524	2021	61	6	67

Plot[1]	Year	PCB TEQ[2]	Dioxin/Furan TEQ[3]	Total TEQ	Year	PCB TEQ[2]	Dioxin/Furan TEQ[3]	Total TEQ
	2010	207	88	295	2022	111	13	124
	2011	438	234	672	2023	97	15	112
110	2000	-	820	820	2012	49	28	77
	2001	19	160	179	2013	23	17	40
	2002	5	26	31	2014	115	81	196
	2003	6	29	35	2015	15	19	34
	2004	30	100	130	2016	6	3	9
	2005	-	-	0	2017	11	4	15
	2006	12	33	45	2018	8	3	11
	2007	7	14	21	2019	4	3	7
	2008a/b	5	11	16	2020	2	1	3
	2009	5	7	12	2021	6	2	8
	2010	22	32	54	2022	7	2	9
	2011	115	104	219	2023	4	2	6
114	2000	144	600	744	2012	52	20	72
	2001	252	340	592	2013	84	20	104
	2002	215	553	768	2014	58	13	71
	2003	164	682	846	2015	38	5	43
	2004	3	262	265	2016	26	6	32
	2005	42	104	146	2017	31	3	34
	2006	96	154	250	2018	34	3	37
	2007	147	283	430	2019	26	4	30
	2008a/b	46	40	86	2020	19	2	21
	2009	37	24	61	2021	23	2	25
	2010	114	58	172	2022	54	6	60
	2011	35	9	44	2023	14	2	16
123	2000	-	700	700	2012	5	4	9
	2001	15	350	365	2013	6	4	10
	2002	22	593	615	2014	8	12	20
	2003	20	321	341	2015	6	5	11
	2004	12	126	138	2016	4	3	7
	2005	4	49	53	2017	5	2	7
	2006	9	109	118	2018	4	3	7
	2007	19	274	293	2019	3	2	5
	2008a/b	10	56	66	2020	4	1	5
	2009	7	36	43	2021	7	1	8
	2010	6	8	14	2022	2	1	3
	2011	4	5	9	2023	1	1	2

Plot[1]	Year	PCB TEQ[2]	Dioxin/Furan TEQ[3]	Total TEQ	Year	PCB TEQ[2]	Dioxin/Furan TEQ[3]	Total TEQ
117	2000	33	230	263	2012	13	7	20
	2001	23	440	463	2013	3	4	7
	2002	53	391	444	2014	11	3	14
	2003	21	89	110	2015	9	4	13
	2004	12	32	44	2016	9	2	11
	2005	6	18	24	2017	5	1	6
	2006	17	19	36	2018	11	1	12
	2007	27	21	48	2019	7	1	8
	2008a/b	40	30	70	2020	6	1	7
	2009	2	3	5	2021	3	1	4
	2010	19	7	26	2022	28	4	32
	2011	8	2	10	2023	4	1	5
402	2000	1.3	7.2	8.50	2012	0.99	0.76	1.75
	2001	0.03	0.76	0.79	2013	0.84	0.50	1.34
	2002	0.1	19.8	19.90	2014	1.03	1.40	2.43
	2003	0.5	0.7	1.20	2015	0.83	0.57	1.40
	2004	0.01	0.79	0.80	2016	0.54	0.49	1.03
	2005	0.03	0.81	0.84	2017	0.87	0.53	1.40
	2006	1.36	2.2	3.56	2018	0.73	0.79	1.52
	2007	0.13	4.2	4.33	2019	0.2	0.44	0.64
	2008a/b	2.26	2.8	5.06	2020	0.51	0.52	1.03
	2009	0.6	1	1.60	2021	0.43	0.46	0.89
	2010	0.02	1	1.02	2022	0.16	0.20	0.36
	2011	0.01	1.3	1.31	2023	0.33	0.56	0.89
70	2000	6.7	37	43.70	2012	0.49	2.94	3.43
	2001	0.01	2.9	2.91	2013	0.01	4.80	4.81
	2002	0.05	2.6	2.65	2014	0.28	2.81	3.09
	2003	0	3.1	3.10	2015	0.56	2.59	3.15
	2004	0.02	1.5	1.52	2016	0.3	1.97	2.27
	2005	0.02	2	2.02	2017	0.39	1.94	2.33
	2006	0.04	0.5	0.54	2018	0.27	1.55	1.82
	2007	0.05	3	3.05	2019	0.26	3.05	3.31
	2008a/b	0.47	4.5	4.97	2020	0.24	1.65	1.89
	2009	0.6	1.8	2.40	2021	0.22	1.69	1.91
	2010	0.01	3	3.01	2022	0.11	2.04	2.15
	2011	0.99	2	2.99	2023	11.78	2.4	14.18[4]
71	2000	0.06	20	20.06	2012	0	0.18	0.18
	2001	0.01	1.2	1.21	2013	0.01	1.40	1.41

Plot[1]	Year	PCB TEQ[2]	Dioxin/Furan TEQ[3]	Total TEQ	Year	PCB TEQ[2]	Dioxin/Furan TEQ[3]	Total TEQ
	2002	0	1.6	1.60	2014	0.25	0.80	1.05
	2003	0	0.3	0.30	2015	0.15	0.38	0.53
	2004	0.01	0.27	0.28	2016	0.13	0.75	0.88
	2005	0.01	0.43	0.44	2017	0.22	0.55	0.77
	2006	0.02	1.1	1.12	2018	0.36	0.31	0.67
	2007	0.03	2	2.03	2019	0.15	0.65	0.80
	2008a/b	0.23	0.94	1.17	2020	0.07	0.36	0.43
	2009	0.25	0.2	0.45	2021	0.09	0.45	0.54
	2010	0	0	0.00	2022	0.05	0.28	0.33
	2011	0.35	0.4	0.75	2023	0.09	0.28	0.37

[1] Order of plots indicate increasing distance from the SHTC (plot 11 [100 m] to plot 71 [21 km]). [2] Between 2000 and 2008a, PCB TEQs were calculated based on the WHO (1998) TEFs and from 2008b onwards, were based on the WHO (2005) TEFs. [3] Between 2000 and 2008a, dioxin/furan TEQs were calculated based on NATO I-TEFs and from 2008b onwards, were based on the WHO (2005) TEFs. [4] Re-extraction result = 13.8 pg/g.

The overall trend for total TEQs in voles collected from plots ≤2 km and >2 km from the SHTC has been to decrease between 2000 and 2021 although concentrations had been somewhat variable up to about 2013 within both distance categories (Figure 3-7). Since 2013, total TEQs have steadily been declining within both distance categories up until 2021 to the lowest concentrations since 2000 (Figure 3-7). However, total TEQs generally increased with relatively large increases recorded at plots 4, 114, and 117 in 2022 and at plot 70 in 2023. Nevertheless, the mean total TEQ for more distant plots (mean = 5.1 pg/g) was still considerably lower than that for plots located near the SHTC (mean = 37.6 pg/g) in 2023 as in previous monitoring years.

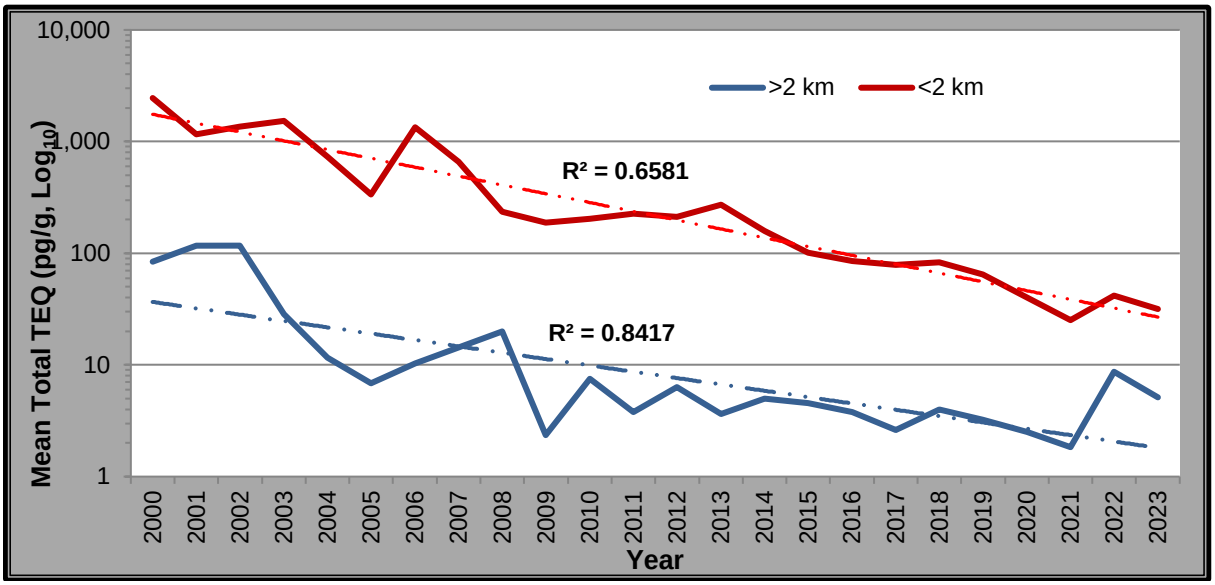

Figure 3-7. Mean total TEQ concentrations at plots <2 km and >2 km from the SHTC, 2000 - 2023.

The higher total TEQ concentrations for both distance categories were likely associated with wildfires in the vicinity of the SHTC study area in 2023. While total TEQ concentrations at most plots in 2023 were still among the lowest levels recorded in the SHTC study area since 2000, the observed increase at plot 70 represents the highest concentration (14.2 pg/g) recorded at this plot since 2001 (range = 0.54 in 2006 to 4.81 pg/g in 2013). PCB TEQ accounted for 83% of the total TEQ in 2023 which were likely related to the wildfires in the vicinity of the SHTC study area. Because of the comparatively large increase in total TEQ compared to historical levels at plot 70, the red-backed vole trigger protocol was implemented which involved:

- Contacting ALS to review the analytical results. Based on their review, the results appeared to be correct and there were no reasons to suspect discrepancies with the samples or the analytical methods used.
- In addition, a re-extraction analysis for plot 70 was requested from ALS which resulted in a slightly lower (-2.7%, 13.8 pg/g) total TEQ concentration compared to the original analytical result (14.18 pg/g).

3.4.3.2 Effect of Plot Location on TEQs

The relationships between PCB TEQ, dioxin/furan TEQ, and total (PCB TEQ + dioxin/furan TEQ) TEQ concentrations in red-backed voles and distance and direction from the SHTC in May 2023 were analyzed for the 10 annually monitored plots using multiple linear regression analysis. Values were log-transformed to improve normality. The results of these analyses yielded the following equations:

PCB TEQ

- Y = 1.135 - 0.045 (distance) + 0.194 (direction) - 0.221 (distance x direction)
- r^2 = 0.63, P = 0.095

Dioxin/Furan TEQ

- Y = 0.674 - 0.051 (distance) - 0.056 (direction) - 0.081 (distance x direction)
- r^2 = 0.63, P = 0.095

Total TEQ

- Y = 1.316 - 0.068 (distance) + 0.060 (direction) - 0.147 (distance x direction)
- r^2 = 0.62, P = 0.100

Overall, the PCB TEQ regression model in 2023 was not significant (P = 0.095), explaining only 63% of the variation in PCB TEQ concentrations in the SHTC study area. PCB TEQ was not significantly related to distance (P = 0.181), direction (P = 0.695), or the interaction term (direction x distance; P = 0.071). The results indicate that PCB TEQ concentrations generally declined with increasing distance from the SHTC in 2023 but the results suggests that plots located upwind, or downwind locations were equally affected regardless of direction.

Similarly, the overall regression model for dioxin/furan TEQ concentrations was also not significant (P = 0.095), explaining only 63% of the variance in 2023. However, dioxin/furan TEQ was significantly related to distance (*P = 0.048*) and but not to direction *(P=0.870*) or the

interaction term (direction x distance; *P = 0.289*). The results indicate that dioxin/furan TEQ concentrations declined with increasing distance from the SHTC in 2023 but contrary to the results of the PCB TEQ model, were affected by direction as indicated by the significant interaction term. Distance of plots from the SHTC by itself was not significantly affecting total TEQ concentrations in 2023.

The linear regression for total TEQ produced results similar to the PCB TEQ and dioxin/furan TEQ analyses, where the regression model was not significant (*P* = 0.1) in accounting for only 63% of the variance in total TEQ concentrations. Total TEQ concentrations were also not significantly associated with distance (*P* = 0.066), the interaction term (*P = 0.120*), and direction (*P* = 0.904) from the SHTC, reflecting the contribution of PCB TEQ to total TEQ. However, the overall direction of the relationships suggests that total TEQ concentrations were higher in plots located downwind and closer to the SHTC during the 2023 monitoring year.

No statistically significant relationships were evident between TEQ values and prevailing wind direction in 2023 even though the strong dominant wind direction is from the west (Zelt 2014). Apparently, terrain features in the vicinity of the SHTC may cause winds to be deflected in stable and unstable conditions with light winds (Zelt 2014). Based on the results of the air quality modelling and criteria air contaminants, concentrations of PCBs and dioxins/furans were less than threshold values reported for Alberta, Ontario, and Texas and largely limited to areas close to the SHTC (Zelt 2014). The air quality modelling appears to confirm that total TEQ concentrations in vole tissues are generally higher close to the SHTC (<0.7 km) and decrease as distance from the plant site increases.

3.5 Chemical Concentrations in Relation to Red-backed Vole Demography

Chemicals, including PCBs, are known to affect reproductive success (Linzey 1987) and health (Kelly et al. 2009) in some species of small mammals. Consequently, several red-backed vole demographic parameters, including population density, percentage of heavy voles in breeding condition, sex ratio and weight class structure were examined in relation to chemical concentrations in tissues. Because population monitoring and chemical data analysis occur together at only 3 plots during the annual monitoring program, a statistical comparison of population and chemical parameters could not be conducted. As such, all data were compared qualitatively (Table 3-18).

Table 3-17. Comparison of population and chemical data collected at the 3 annual monitoring plots in the vicinity of the SHTC, 2023.

Parameter		Plot 11	Plot 114	Plot 70
Distance to SHTC plant site (km)		0.1	0.7	11.5
Direction to SHTC plant site		Upwind (N)	Downwind (SE)	Upwind (SW)
Population Data	June population density (no./ha)	7.6	22.2	11.0
	September population density (no./ha)	11.1	18.1	14.6
	June sex ratio (M:F)	2.7	0.7	1.3
	September sex ratio (M:F)	1.0	1.2	2.0
	% voles in heavy weight class in June	82	47	88
	% voles in heavy weight class in Sept.	14	27	20
	% heavy voles breeding in June	60	100	85
	% heavy voles breeding in Sept.	25	19	19
Chemical Data	PCB congeners (pg/g) in May	43,500	36,100	32,900
	Dioxins/furans (pg/g) in May	61	12	13
	PCB TEQ (pg/g) in May	23	14	12
	Dioxin/furan TEQ (pg/g) in May	9	2	2
	Total TEQ (pg/g) in May	32	16	14

Plot 11 is located approximately 0.1 km upwind of the plant, plot 114 is located 0.7 km downwind of the plant, and plot 70 is located 11.5 km upwind of the SHTC. In 2023, while the results indicated that higher concentrations of chemical parameters were associated with plots 11 and 114 which are closer to the plant site than plot 70, there was no clear indication that the Treatment Centre was affecting vole demography in 2023 (Table 3-18). For example, the highest vole densities were recorded at plot 114 in both June and September, followed by plot 70 and plot 11. Similarly, there were no consistent trends in other demographic parameters recorded in 2023. Long-term monitoring has also not exhibited any obvious population-level changes that would be consistent with the higher body burden levels in voles that were observed between 2000 and 2023. Instead, this appears to more likely reflect different habitat conditions among the 3 plots and the phase of the population cycle the voles are in.

Overall, while higher contaminant levels were recorded in voles closer to the SHTC, this did not appear to affect vole densities in 2023. This is consistent with previous monitoring years indicates that facility operations have not had a discernible effect on vole demography. Historically, observed demographic differences in vole populations in the SHTC study area were related to differences in habitat structure which can affect food supply, cover from inclement weather and predators, and the cyclic nature of red-backed vole populations. For example, plot 11, which is characterized as an upland black spruce stand with an understory

dominated by feather moss and Labrador tea, is the least structurally diverse plot (Photo 3-1). In comparison, plot 114 is a lowland black spruce stand characterized by feather moss with higher Labrador tea cover and scattered open, wetter grassy areas. Plot 70 is the most structurally diverse of the 3 plots and is characterized by a multi-species mature tree canopy (black spruce, white spruce, and balsam fir), well developed shrub and ground layers, and abundant downed woody material (Photo 3-1).

Long-term population monitoring data indicate that vole densities are generally highest at plot 70 followed by plot 114 and lowest at plot 11. Furthermore, total TEQ concentrations at plots 114 and 11 have been decreasing over time and have been relatively stable over the past 10 years although increases were recorded in 2022. If total TEQ was impairing reproduction, fluctuations in vole densities at Plot 11 would be expected to be more pronounced than what was observed during the early 2000's when levels ranged from about 228 in 2005 to 3,441 pg/g in 2006 and were above the toxicity threshold where impacts would have been expected. In comparison, over the past few monitoring cycles where total TEQ values were lower (ranging from 26 in 2021 to 140 pg/g in 2014), fluctuations in vole densities were similar to densities recorded in the early 2000s. These trends are similar among the 3 plots during both the June (Figure 3-8) and September live-trapping sessions (Figures 3-9). The magnitude of the population cycles has not exhibited any obvious changes that would be consistent with higher contaminant loadings and instead, appear to be more likely reflect different habitat conditions, variable predation levels, weather conditions, and natural variations in the population cycle (3 - 5 years) among the 3 plots. Vole populations in the vicinity of the SHTC have been more or less synchronous in their densities since monitoring began (Figures 3-8 and 3-9).

Plot 11

Plot 114

Plot 70

Photo 3-1. Representative habitat conditions for the 3 annually monitored live-trapping plots in the SHTC study area.

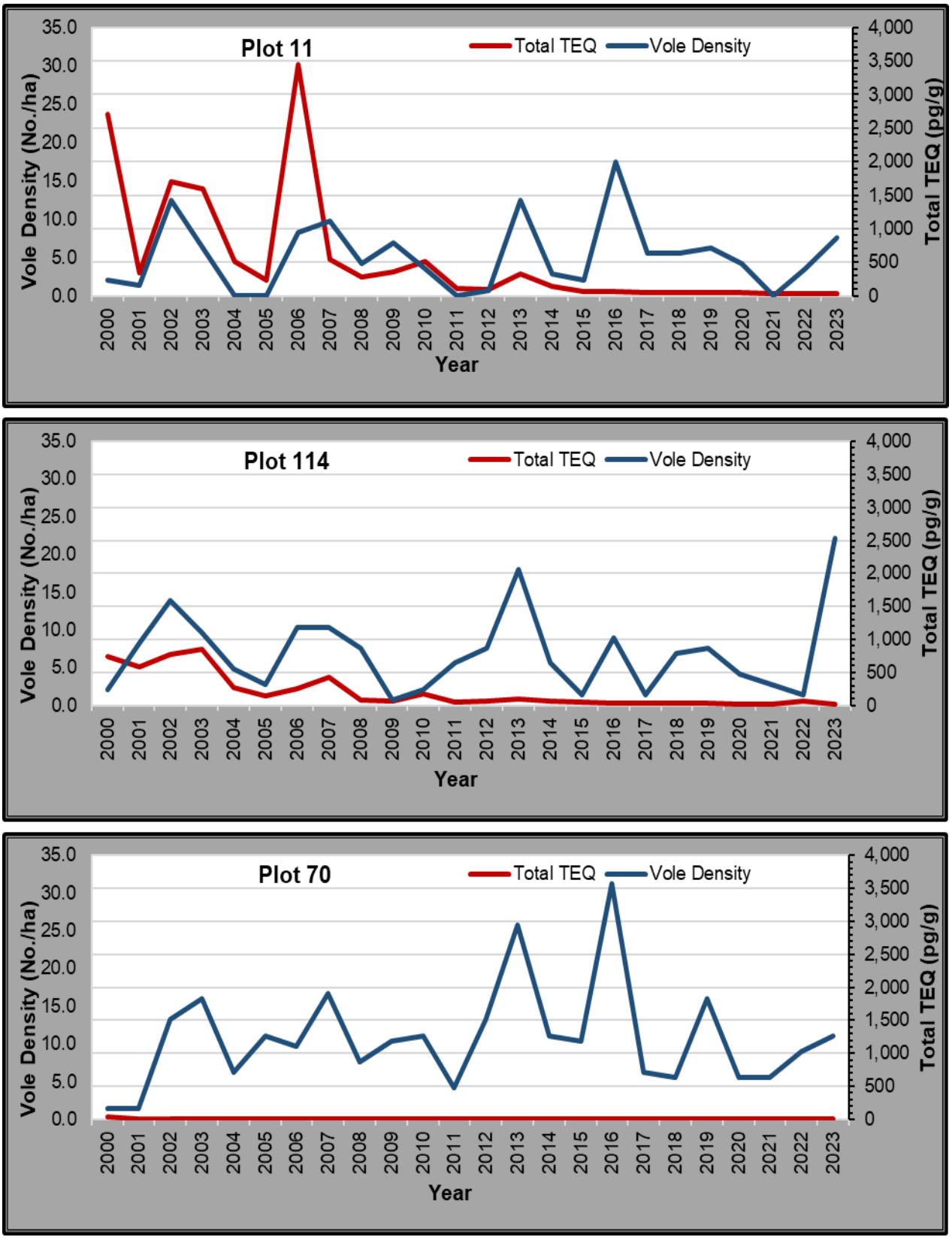

Figure 3-8. Comparison of June red-backed vole densities and total TEQs at the 3 annually monitored plots in the SHTC area from 2000 to 2023.

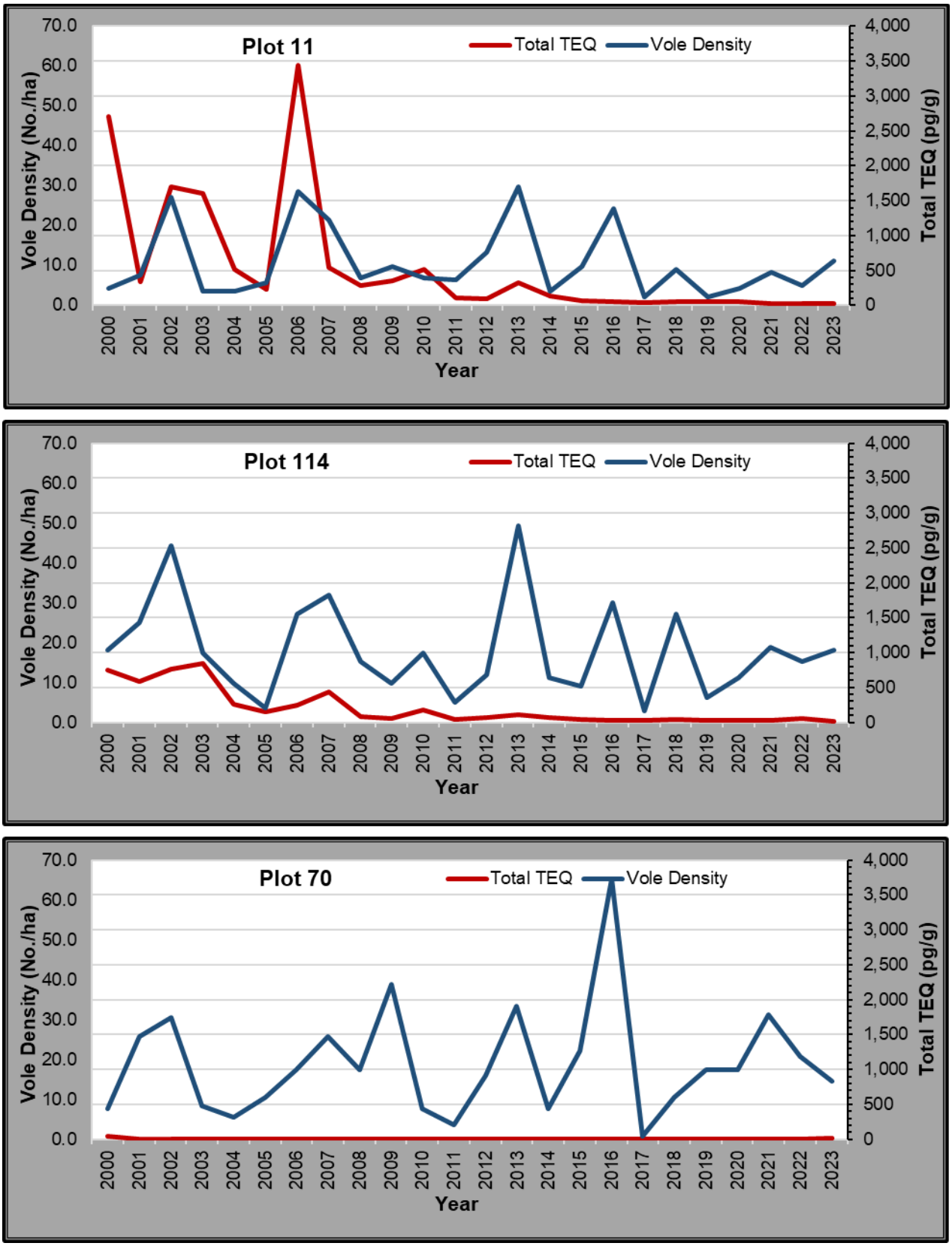

Figure 3-9. Comparisons of September red-backed vole densities and total TEQs at the 3 annually monitored plots in the SHTC area from 2000 to 2023.

4.0 DISCUSSION AND CONCLUSIONS

4.1 Red-backed Vole Demography

Between 1991 and 2015, average red-backed vole densities in the SHTC area have varied between 1.9 (2000) and 18.8 (2013) voles/ha in June, and between 4.9 (2011) and 37.5 (2013) voles/ha in September. However, vole populations in the SHTC area reached their highest average densities ever recorded for June (19.2 voles/ha) and September (39.8 voles/ha) during the 2016 vole monitoring program. These densities were 2.4 and 2.3 times higher than the respective 25-year average (1991 – 2015) vole densities for June (8.2 voles/ha) and September (17.5 voles/ha). Then in 2017, vole densities declined to some of the lowest levels recorded since monitoring began in the SHTC area (e.g., plots 11 and 70 fell to the lowest recorded September densities since 1991). Vole densities between 2018 and 2021 returned to similar densities recorded prior to the respective population peak and population low reported in 2016 and 2017. Vole densities at the 3 monitoring plots in both June and September 2023 were within historical ranges previously recorded in the SHTC study area.

Variability in population densities across years appears to be related to the population dynamics of red-backed voles, which typically undergo cyclic population fluctuations over large geographic areas. Vole populations in the SHTC study area and elsewhere in central Alberta (e.g., Wildland Management Consultants Ltd. 2021) and North America (e.g., Krebs et al. 2002, Elias et al. 2006, Boonstra and Krebs 2011) have exhibited 3 - 5 year cycles, which is exemplified by dramatic declines after years of high or peak densities.

Historically, population increases, and decreases have almost been synchronous at the 3 annually monitored plots in the SHTC study area, although periodically there have been differences in population dynamics among the plots, particularly in the June populations. This happened June in 2009, 2010, and at least partially, again in 2011 and 2022. For example, vole densities at plots 11 and 70 decreased from 2010 to 2011, while the density at plot 114 increased. The observed variability in June populations as compared to the more synchronous cycles observed in September is likely influenced by recruitment into the June population when breeding typically occurs. During 2023, June vole densities increased at all 3 plots with the highest increase recorded at plot 114, followed by plots 70 and 11. In comparison, September 2023 densities increased at plots 11 and 114 but decreased at plot, 70.

The reason(s) for these inconsistencies in vole densities among plots is unclear but likely reflect differences in habitat structure at the plots (or site conditions) (e.g., Vanderwel et al. 2010) and therefore, their ability to support voles under variable weather conditions (e.g., overwinter survival) (Boonstra and Krebs 2006), levels of predation, and food supply.

However, vole population synchronicity in June and September within the SHTC area appears to have returned since 2012 and is similar to the population cycles observed prior to 2009. With densities increasing in June and increasing at 2 of the 3 plots in September 2023, it appears likely that vole populations at the 3 annually monitored plots will continue the increase phase of their cycle in 2024.

Overall, the sex ratio for red-backed voles captured in June was even while the September sex ratio slightly favored males in 2023 and were similar to historical values recorded in the SHTC study area. As in previous monitoring years, sex ratios varied among plots and between live-trapping sessions. Historically, red-backed vole sex ratios have generally been more variable among the 3 plots in June than in September. While sex ratios have been highly variable among plots and years, this does not appear to have affected vole reproduction since populations have cycled every 3 to 5 years more or less synchronously since the SHTC vole monitoring program began.

Overwinter survival of voles (i.e., voles that were tagged in September 2022 and recaptured in June 2023) could not be calculated since no previously tagged voles were known to have over-wintered during this period. However, when survival rates could be calculated, the average overwinter survival of voles from 2001 to 2022 has ranged from 0.64 to 0.96 with an average of 0.88 (n = 17). During this period, the survival rates for 19 of the 36 years could not be calculated. When overwinter survival rates could be calculated, 32% (n = 11) were associated with increasing population and peak population monitoring years. Lower overwinter survival is typically a result of the lower red-backed vole populations, which makes it difficult to calculate survival with any degree of confidence.

In comparison, 1 vole that was previously tagged in June 2023 was recaptured in September 2023 for a survival rate of 0.65 over the 77-day period. Historically, overwinter survival is generally higher than survival over the summer period since voles are more likely related to exposure to predators and weather conditions during the snow free period or may be a result of lower vole population densities in June, which can make it difficult to calculate survival with any degree of confidence. When survival rates could be calculated, the average June to September survival of voles from 2001 to 2022 has ranged from 0.49 to 1.00 with an average of 0.65 (n = 24).

Aside from some variability in vole weight classes and breeding voles in the heavy weight class (i.e., breeding proportions) among the 3 annually monitored plots, most other demographic parameters were consistent with those recorded during previous years of monitoring. Overall, it appears that plot proximity in relation to the SHTC did not affect vole demography in 2023.

4.2 Red-backed Vole Tissue Chemistry

4.2.1 PCBs

The average concentration of PCB congeners in vole tissues decreased (-37%) between May 2022 and May 2023. Although concentrations of PCB congeners at plots 402 and 70 were higher in 2023, the average 2023 PCB congener concentration across the 10 plots was 72% lower than the 23 year average for the SHTC study area. On an individual plot basis, congener PCBs decreased at 8 of the 10 annually monitored plots year-over-year. The increases in congener PCBs at plots 402 and 70 appear to be related to the extensive smoke associated as a result of the fires that occurred in the region during 2023. As in previous monitoring years, the lowest concentrations were recorded at plots located farthest from the plant (i.e., plots 402, 70 and 71). PCB 118 was the dominant toxic congener in voles collected from all plots in May 2022. PCB 126, which has the highest TEF, accounted for the majority of PCB TEQ at all plots despite its relatively low contribution to total PCB concentration.

PCB TEQs decreased at 7 and increased at 3 of the 10 plots between May 2022 and May 2023, representing an average decrease in PCB TEQ concentration of 32%. The highest PCB TEQ in 2023 was recorded at plot 4, which has been the case for all but one year (plot 109 in 2012), although it represents the second lowest concentration recorded at this plot since 2000. While PCB TEQ values at plots 402 and 71 were ≤1 pg/g in 2023, continuing to represent the lowest levels recorded among the 10 plots on a historical basis, plot 70 (11.80 pg/g) had the highest PCB TEQ on record for this plot. Historically, the highest PCB TEQ concentrations have been found in vole tissues collected near (≤0.7 km) and lowest at plots further away (>0.7 km) the SHTC. The exceptions to this occurred in 2022 were plot 110 (7.62 pg/g) which is located only 0.3 km from the SHTC and plot 117 (28.1 pg/g) which is located 2.7 km from the SHTC and plot 70 (11.80 pg/g) in 2023, unlike most previous monitoring years. The higher concentration of PCB TEQ at plot 70 was likely affected by the fires that were burning close to the Town of Swan Hills in 2023.

4.2.2 Dioxins and Furans

Dioxin/furan concentrations in red-backed voles decreased at 5 plots and increased at 5 plots between May 2022 and May 2023. The highest concentrations occurred at plots 4 (98.15 pg/g) and 11 (60.70 pg/g) while concentrations at the remaining plots were ≤26.41 pg/g (plot 109). For the most part, the highest levels of dioxins/furans occurred at plots 11 through 114 (range = 11.82 – 98.15 pg/g) which are located ≤0.7 km of the SHTC while the lowest values were recorded at plots 123 through to plot 71 (range = 1.55 - 13.29 pg/g), which are located the furthest away (>0.7 km). Unlike the PCB congener concentration at plot 70 in 2023, the concentration of dioxins/furans at plot 70 was within the range recorded during previous monitoring years. Of the 10 annually monitored plots, dioxin/furan concentrations at the 10

plots in 2023 were within previously observed ranges. Overall, dioxin/furan congener concentrations in the SHTC study area were highest between 2000 and 2006 but for the most part, have been declining since 2006 although slight increases were recorded in 2022. In 2023, dioxin/furan congers were slightly lower compared to 2022.

The average dioxin/furan TEQ concentration in 2023 increased slightly (12% or by 0.40 pg/g) between May 2022 and May 2023 and still represents the third lowest concentration (3.80 pg/g) recorded in the SHTC study area since 2000 (range = 2.1 to 1,371.4 pg/g). Since 2006, dioxin/furan TEQs have consistently declined to the low levels that have been recorded between 2017 and 2023. The congener 23478 PeCDF was the most important contributor to total dioxin/furan TEQ at 7 of the 10 plots in 2023. As with PCB TEQs, dioxin/furan TEQ concentrations in voles generally declined with increasing distance from the SHTC in May 2023 although larger increases were documented at plots 114 and 117 in 2022 and at plot 70 (likely related to the wildfires in the vicinity of the Town of Swan Hills) in 2023 compared to recent monitoring years.

4.2.3 PCB, Dioxin/Furan, and Total TEQs in Relation to Plot Location

Analyses of chemical concentrations in relation to distance and prevailing wind direction did not result in a statistically significant relationship between TEQ concentrations and distance in 2023. While PCB TEQ, dioxin/furan TEQ, and total TEQ concentrations generally decreased as distance from the SHTC increased in 2023, no significant trends with respect to TEQ values and prevailing wind direction despite the fact that the dominant wind direction was from the west.

Between May 2022 and May 2023, total TEQ levels in red-backed voles decreased at 6 plots and increased at 4 of the 10 monitoring plots, resulting in an average 26% decrease (-7.54 pg/g). Average total TEQ at plots >2 km from the SHTC remained well-below total TEQ concentrations at plots ≤2 km from the SHTC in 2023. The overall trend in total TEQ concentrations for both distance categories in the SHTC study area has continued to decline since 2000 but increased in 2022 because of an anomaly in the data set. In 2023, total TEQ concentrations recorded at plots 114 and 117 were back within historical ranges while total TEQ concentration at plot 70 was the highest recorded since 2000. This was attributed to the occurrence of wildfires that occurred near the Town of Swan Hills and elsewhere in the vicinity of the SHTC study area. Increases in PCB TEQ concentrations recorded during the 2023 vegetation monitoring program for the SHTC (Matrix 2024) were noted but were within recent historical ranges. However, increases were also noted in dioxin/furan TEQs at some plots that were above values within recent historical ranges suggesting that the increase in total TEQ in Labrador tea was likely related to the 2023 wildfires, similar to the results obtained for the 2023 vole monitoring program.

4.3 Conclusions and Recommendations

The results of the 2023 vole monitoring program indicated that PCB (7 of 10 plots) and dixon/furan (6 of 10 plots) TEQ concentrations increased in 2023. While total TEQ concentrations at most plots in 2023 are still among the lowest levels recorded in the SHTC study area since 2000, increases at plots 114 and 117 in 2022 represent the highest concentrations recorded at these 2 plots since 2015 and 2009, respectively. PCB TEQs at both plots 114 and 117 accounted for most of the contributions to total TEQ concentrations. Similarly, total TEQ concentration at plot 70 increased considerably, representing the highest level on record for this plot which was likely related to the wildfires that occurred during 2023 in the SHTC study area.

As has been the case in past monitoring years, operation of the SHTC in 2023 did not appear to influence red-backed vole demography despite elevated levels of PCB and dioxin/furan TEQs in vole tissues collected from plots near the plant site. The average vole density recorded in June 2023 increased but remained about the same in September 2023 compared to 2022. This suggests that vole populations in the SHTC study area will likely continue the increase phase of their population cycle for 2024.

Based on vole tissue chemistry data and the vole live-trapping sessions, there was no indication that SHTC operations affected red-backed vole demography despite elevated chemical levels in vole tissues close to the plant in 2023. Even though concentrations of PCB TEQs and dioxin/furan TEQs were, for the most part, at historically low concentrations, the continued presence of elevated contaminants in voles collected near the SHTC indicates that there is still a need to continue monitoring vole demography and tissue chemistry in 2024. However, Veolia may want to consider some changes to the red-backed vole monitoring program going forward based on the amount of long-term monitoring data that has been collected over the past 38 years as well as an expected reduction in the PCB waste stream going forward.

The red-backed vole monitoring program, which was intended to be adaptive, has been previously modified based on monitoring results, changes in the facility's waste stream, and/or updates to analytical methodologies. Therefore, the following changes to vole monitoring program are recommended for 2024 and onward (Table 4-1):

- Annual vole population monitoring at the 3 population plots in June and September should be continued.
- Because of the historic lows in total TEQs and organic contaminants at some of the tissue collection plots, the number of plots that are annually monitored can be reduced from 10 plot to 6 plots.

- Annual tissue collection will focus on the 3 plots that are associated with the 3 annually monitored population plots (11, 114, and 70) as well as plots 4 and 109 (which have consistently had historically elevated levels of contaminants) and plot 71 (located 21 km away). This would focus annual monitoring of contaminant levels present in voles at 4 plots near the SHTC as well as 2 reference plots located further away.
- Laboratory analyses to focus on PCB, dioxin/furan, and total TEQs with the option to drop the congener analysis. TEQs are more meaningful with respect to the toxicity potential to voles than reporting on congeners.
- The expanded monitoring program (conducted once every 5 years) would be modified to only include the 3 annually monitored population (plots 11, 114, and 70) and 6 tissue collection (plots 11, 114, 70, 4, 109, and 71) plots addition to the 4 tissue collection plots (110, 123, 117, and 402) that previously were part of the annual monitoring program.
- If warranted, plots previously part of the expanded monitoring program (10 population and 24 tissue collection plots) would be sampled if responses to any of the key triggers developed for red-backed voles are required (see Section 4.5).
- Voles will continue to be archived for a 5 year period to provide tissue reference material if required.

Table 4-1. Summary of current and recommended annual/expanded red-backed vole monitoring programs.

Plot No.	Distance from SHTC the (km)	Direction from the SHTC	Tissue Collection/Snap-trapping[1]			Population Monitoring/ Live-trapping[1]
			Metals, PAHs[1]	Aroclor PCBs[2]	PCB Congeners and TEQs, Dioxins/Furans and TEQs, Total TEQs[3]	
Current Annual and Expanded Monitoring Programs:						
11	0.1	N	✓	✓	☑	☑
109	0.2	W	✓	✓	☑	✓
103	0.2	SE	✓	✓	-	✓
4	0.3	E	✓	✓	☑	✓
110	0.3	W	✓	✓	☑	-
104	0.4	NW	✓	✓	-	-
102	0.4	E	✓	✓	-	-
1	0.4	NE	✓	✓	-	✓
27	0.5	S	✓	✓	-	✓
8	0.6	E	✓	✓	-	✓
15	0.6	NW	✓	✓	-	-
114	0.7	E	✓	✓	☑	☑
121	1.2	N	✓	✓	-	-
9	1.4	ENE	✓	✓	-	✓
28	1.4	WNW	✓	✓	-	-
123	1.6	NE	✓	✓	☑	-
16	2.4	E	✓	✓	-	-
117	2.4	SE	✓	✓	☑	-
26	2.6	WNW	✓	✓	-	✓
30	3.6	NW	✓	✓	-	✓

Plot No.	Distance from SHTC the (km)	Direction from the SHTC	Tissue Collection/Snap-trapping[1]			Population Monitoring/ Live-trapping[1]
			Metals, PAHs[1]	Aroclor PCBs [2]	PCB Congeners and TEQs, Dioxins/Furans and TEQs, Total TEQs [3]	
29	3.9	E	✓	✓	-	-
402	7.5	E	✓	✓	☑	-
70	11.5	SW	✓	✓	☑	☑
71	21.0	NNW	✓	✓	☑	✓
Recommended Annual and Expanded Monitoring Programs (2024 and Onward):						
11	0.1	N	✓	-	☑	☑
109	0.2	W	✓	-	☑	-
4	0.3	E	✓	-	☑	-
110	0.3	W	✓	-	✓	-
114	0.7	E	✓	-	☑	☑
123	1.6	NE	✓	-	✓	-
117	2.4	SE	✓	-	✓	-
402	7.5	E	✓	-	✓	-
70	11.5	SW	✓	-	☑	☑
71	21.0	NNW	✓	-	☑	-

[1] Bold boxed check marks ☑ indicate plots that are monitored annually for vole tissue collection and population studies. Plain check marks ✓ indicate plots that are part of the expanded monitoring program (i.e., once every 5 years).

[2] The low resolution GC-ECD method historically used for Aroclor PCBs was discontinued in Canada in 2019.

[3] HRMS congener-specific methodology would be used for all expanded monitoring plots in response to a red-backed vole trigger.

4.4 Red-backed Vole Trigger Protocol

Following is summary of potential responses that would be triggered in the event of any facility incidents/upsets or increased contaminant levels in various media associated with the integrated environmental monitoring program for the SHTC (Table 4-1).

Table 4-1. Red-backed vole monitoring program triggers and responses (Source: Intricate 2024).

Trigger	Response - Additional Monitoring Work
Statistically significant change in June vole population levels correlated with April/May tissue contaminant levels.	Collect and analyze September vole tissue from population monitoring plots (11, 114 and 70) for PCBs, dioxins and furans.
A facility upset resulting in off-site emissions of significant magnitude to warrant immediate assessment.	Additional sampling of vole tissue. Timing, sample locations and analytical scope would be determined based on meteorological conditions and the nature of the release.
Elevated total TEQs in live moss and Labrador tea are observed.	Expand vole tissue collection to 10 plots consistent with the Soil and Vegetation programs.

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6.0 APPENDICES

Appendix 1. Results of the chemical analyses for red-backed vole tissues collected in the SHTC study area, May 2023.

Wildland Management Consultants Ltd.
ATTN: Lawrence Brusnyk
50345 Range Road 222
Leduc County AB T0B 3M2

Date Received: 28-JUN-23
Report Date: 14-DEC-23 15:11 (MT)
Version: FINAL REV. 2

Client Phone: 780-915-4856

Certificate of Analysis

Lab Work Order #: L2751583

Project P.O. #: NOT SUBMITTED
Job Reference: SHTC 11-086
C of C Numbers:
Legal Site Desc:

Comments: ADDITIONAL 12-OCT-23 15:13

Dana Brown, Chem. Tech. DIPL
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-1 PLOT 4							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	71.9		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	0.334	M,J	0.043	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 2	0.477	M,J	0.057	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 3	0.518	[J]	0.054	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 4	<6.7	[U]	6.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 9	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	3.6	M,J,R	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<4.6	[U]	4.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	30.0	R	4.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<3.8	[U]	3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 15	4.1	M,J,R	2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	0.310	M,J,R	0.066	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 30/18	<2.6	M,U	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<2.9	M,U	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<3.3	[U]	3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<2.1	M,U	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<3.4	[U]	3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 23	<3.3	M,U	3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 29/26	<3.1	M,U	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 25	<3.0	M,U	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 31	11.0	M,J,R	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 28/20	149		3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 21/33	5.9	[J]	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 22	5.2	M,J,R	3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 36	<3.0	[U]	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 39	<3.3	[U]	3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 38	<3.3	[U]	3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 35	<3.5	M,U	3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 37	24.5	[J]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 54	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<2.9	M,U	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<2.9	[U]	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<3.2	[U]	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 52	37.9		2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 43	<3.5	[U]	3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 69/49	9.1	[J]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<2.8	[U]	2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	37.6		2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	8.1	[J]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	<3.1	[U]	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	3.2	J,R	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	10.9	[J]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	1.69	[J]	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-1 PLOT 4							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 68	0.44	M,J	0.16	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 57	<0.18	M,U	0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 58	1.39	M,J	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 67	0.86	[J]	0.14	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 63	15.6		0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 61/70/74/76	861		0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 66	354		0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 55	<0.18	[U]	0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 56	12.5		0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 60	179		0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 80	<0.14	[U]	0.14	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 79	4.43		0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 78	<0.19	[U]	0.19	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 81	28.5	M	0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 77	195	M	0.21	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 104	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 96	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<3.0	M,U	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<3.2	[U]	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	51.9		3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<2.9	[U]	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	6.2	J,R	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	10.7	[J]	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<4.0	[U]	4.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 121	<2.2	[U]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	58.5	M	3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	251		2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	1370		3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	90.0	M	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	651	M	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	17.0	J,R	3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	5.5	M,J	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 120	18.8	[J]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 108/124	24.0	J,R	5.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 107	425	M	4.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 123	33.0	M,R	4.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 106	<5.8	[U]	5.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 118	13400		4.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 122	<6.9	[U]	6.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 114	272		4.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 105	3020		4.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 127	<0.34	[U]	0.34	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 126	888		4.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 155	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.93	[U]	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	14.0	J,R	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	224		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-1 PLOT 4							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 154	14.0	J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 144	17.0	J,R	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	300		0.49	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 134/143	9.76		0.70	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 139/140	31.2		0.57	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 131	2.16	[J]	0.73	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 142	<0.75	[U]	0.75	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 132	59.3		0.68	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 133	216		0.69	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 165	10.2		0.49	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 146	1260		0.55	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 161	<0.47	[U]	0.47	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 168/153	10600		9.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 141	174		0.58	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 130	481		0.61	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 137/164	232		0.49	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 138/163/129	8850		11	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 160	<0.44	[U]	0.44	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 158	490		0.38	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 128/166	937		0.52	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 159	16.8		0.44	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 162	79.9		0.45	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 167	1800		0.44	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 156/157	3840		0.56	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 169	232		0.54	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 188	0.86	[J]	0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 179	37.5		0.21	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 184	1.22	[J]	0.20	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 176	15.0		0.22	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 186	<5.5	[U]	5.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	1880		0.30	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 175	51.7		0.30	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 187	6720		6.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 182	<6.8	[U]	6.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 183	2860		0.28	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 185	9.1	M,J,R	7.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	239		0.27	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 177	4200		0.27	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 181	28.0	R	7.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	563		7.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	2390		7.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<0.25	[U]	0.25	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 180/193	22500		6.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 191	78.0		0.22	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 170	4510		8.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	3820		0.19	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 189	878		11	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 202	631		0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 201	75.2		0.98	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 204	<1.0	M,U	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 197	54.0		1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-1 PLOT 4							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 200	7.0	[J]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 198/199	10700		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 196	824		1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 203	4850		1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 195	2110		7.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	13500		6.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 205	626		6.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	230		3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 207	59.3		4.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 206	2440		6.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	161		0.57	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 1	38.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 3	38.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 4	56.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	82.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	49.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 37	89.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 54	65.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	81.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 77	72.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 104	75.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	100.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 118	92.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 114	92.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 105	100.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	101.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 155	81.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	77.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	81.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 169	93.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	79.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 189	88.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 202	88.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 205	85.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 208	85.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	80.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 209	77.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	123.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	111.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	96.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	1.33	[J]	0.043	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	37.7	[J]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TriCB	196	[J]	0.066	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TetraCB	1760	[J]	0.14	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	20600	[J]	0.34	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	29900	[J]	0.38	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	50800	[J]	0.15	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	33400	[J]	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	2730	[J]	3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	161	[J]	0.57	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	140000	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-1 PLOT 4							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Lower Bound PCB TEQ (WHO 2005)	96.5			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	96.5			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	96.5			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	0.396	[J]	0.083	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDD	2.53	M	0.078	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	1.49	[J]	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	2.82		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	1.47	[J]	0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	7.34	M	0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDD	5.10		0.23	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,7,8-TCDF	19.0		0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDF	6.06		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,7,8-PeCDF	26.1		0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	4.13		0.22	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	4.76		0.19	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	9.06		0.21	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	0.81	[J]	0.32	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	5.60		0.11	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	0.26	M,J,R	0.15	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDF	1.22	M,J	0.28	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total-TCDD	0.396		0.083	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-PeCDD	2.94		0.078	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDD # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-HxCDD	6.98		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDD # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Total-HpCDD	8.48		0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDD # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-TCDF	20.4		0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDF # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Total-PeCDF	42.1		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDF # Homologues	7				11-AUG-23	20-AUG-23	R5966396
Total-HxCDF	21.3		0.32	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDF # Homologues	6				11-AUG-23	20-AUG-23	R5966396
Total-HpCDF	6.79		0.15	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDF # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	42.0		25-164	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	48.0		25-181	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	50.0		32-141	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	48.0		28-130	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	50.0		23-140	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-OCDD	40.0		17-157	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	51.0		24-169	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	59.0		21-192	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	56.0		21-178	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	59.0		26-152	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	62.0		26-123	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	60.0		29-147	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	52.0		28-136	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	58.0		28-143	%	11-AUG-23	20-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-1 PLOT 4							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	56.0		26-138	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	48.0		31-197	%	11-AUG-23	20-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	15.4		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	15.4		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	15.4		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
L2751583-2 PLOT 11							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	71.0		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	0.360	J,R	0.063	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 2	0.430	J,R	0.079	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 3	0.618	[J]	0.071	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 4	<3.2	[U]	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 9	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	4.8	M,J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<3.1	[U]	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	17.0	J,R	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 15	3.9	M,J,R	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	0.30	M,J	0.14	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 30/18	1.9	M,J,R	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<0.20	[U]	0.20	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 23	<0.17	[U]	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 29/26	1.10	[J]	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 25	0.45	[J]	0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 31	6.13		0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 28/20	33.7		0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 21/33	2.90		0.16	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 22	1.79	[J]	0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 36	<0.15	[U]	0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 39	<0.18	[U]	0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 38	<0.17	[U]	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 35	0.39	J,R	0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 37	5.19		0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 54	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 52	34.2		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-2 PLOT 11							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 43	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 69/49	8.1	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	19.1	[J]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	2.2	J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	2.8	[J]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	5.5	M,J	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	6.6	[J]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	<1.4	M,U	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 68	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 57	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 58	<1.5	M,U	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 67	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 63	3.6	J,R	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 61/70/74/76	229		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 66	55.0		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 55	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 56	9.7	[J]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 60	30.9		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 80	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 79	2.0	M,J	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 78	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 81	4.9	[J]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 77	29.4		1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 104	<0.71	[U]	0.71	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 96	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	60.6	M	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<1.6	M,U	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	7.3	J,R	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	11.0	J,R	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<2.2	[U]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 121	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	35.0	R	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	152		1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	435		1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	65.7	M	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	353	M	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	13.6	[J]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	2.3	[J]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 120	3.9	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 108/124	8.68		0.30	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 107	89.9	M	0.26	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 123	7.74	M	0.33	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 106	<0.34	[U]	0.34	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 118	3150		0.27	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 122	4.07		0.44	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 114	57.3		0.30	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 105	603		0.30	pg/g wwt	11-AUG-23	18-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-2 PLOT 11							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 127	2.97		0.29	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 126	201		0.36	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 155	<0.36	[U]	0.36	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<0.54	[U]	0.54	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.47	[U]	0.47	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	11.0	J,R	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<0.55	[U]	0.55	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<0.78	[U]	0.78	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	142		0.77	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 154	3.20	J,R	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 144	6.90	J,R	0.82	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	168		0.32	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 134/143	4.59		0.47	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 139/140	11.9		0.38	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 131	1.81	[J]	0.48	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 142	<0.50	[U]	0.50	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 132	56.2		4.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 133	75.9		0.46	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 165	3.91		0.33	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 146	355		0.36	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 161	<0.31	[U]	0.31	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 168/153	3900		0.32	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 141	83.5		0.39	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 130	134		0.41	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 137/164	64.7		0.33	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 138/163/129	3020		0.39	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 160	<0.29	[U]	0.29	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 158	188		0.25	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 128/166	307		0.35	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 159	6.15		0.29	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 162	23.8		0.30	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 167	515		0.31	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 156/157	1090		0.37	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 169	74.7		0.33	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 188	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 179	15.7	[J]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 184	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 176	3.4	J,R	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 186	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	448		3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 175	10.0	J,R	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 187	2240		2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 182	<2.9	[U]	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 183	624	M	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 185	4.0	M,J,R	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	67.0	M,R	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 177	987		3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 181	4.5	J,R	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	144		3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	692		3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<2.7	[U]	2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-2 PLOT 11							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 180/193	7400		2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 191	13.0	J,R	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 170	1210		3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	1030		2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 189	291		3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 202	194		0.55	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 201	16.8	[J]	0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 204	<0.64	[U]	0.64	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 197	13.7	[J]	0.64	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 200	2.60	J,R	0.67	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 198/199	3490		0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 196	212		0.88	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 203	1730		0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 195	727		3.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	4590		3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 205	230		3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	89.2		2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 207	20.2	[J]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 206	830		3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	132		0.52	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 1	23.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 3	26.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 4	30.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	43.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	26.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 37	44.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 54	34.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	53.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 77	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 104	43.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	56.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 118	52.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 114	51.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 105	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	55.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 155	49.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	46.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	50.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 169	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 189	47.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 202	48.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 205	48.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 208	52.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	54.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 209	41.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	65.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	58.0	R	10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	53.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	1.41	[J]	0.063	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	25.7	[J]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-2 PLOT 11							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Total TriCB	53.8	[J]	0.14	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TetraCB	443	[J]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	5260	[J]	0.26	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	10200	[J]	0.25	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	15200	[J]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	11200	[J]	0.55	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	939	[J]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	132	[J]	0.52	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	43500	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	22.5			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	22.5			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	22.5			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	0.124	M,J	0.050	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDD	1.04	[J]	0.074	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.58	[J]	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	1.34	[J]	0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	0.66	M,J	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	1.84	[J]	0.068	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDD	2.15	[J]	0.19	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,7,8-TCDF	6.20		0.074	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDF	3.80	R	0.057	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,7,8-PeCDF	14.5		0.046	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	6.87		0.076	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	5.78		0.065	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	7.58		0.072	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	1.12	M,J	0.098	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	5.85		0.040	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	0.578	M,J	0.054	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDF	0.69	M,J,R	0.14	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total-TCDD	0.124		0.050	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-PeCDD	1.04		0.074	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-HxCDD	2.57		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDD # Homologues	3				11-AUG-23	20-AUG-23	R5966396
Total-HpCDD	2.79		0.068	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDD # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-TCDF	7.22		0.074	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDF # Homologues	5				11-AUG-23	20-AUG-23	R5966396
Total-PeCDF	18.8		0.057	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDF # Homologues	5				11-AUG-23	20-AUG-23	R5966396
Total-HxCDF	24.5		0.098	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDF # Homologues	9				11-AUG-23	20-AUG-23	R5966396
Total-HpCDF	7.31		0.054	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDF # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	70.0		25-164	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	74.0		25-181	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	74.0		32-141	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	69.0		28-130	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	71.0		23-140	%	11-AUG-23	20-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-2 PLOT 11							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
Surrogate: 13C12-OCDD	49.0		17-157	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	77.0		24-169	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	87.0		21-192	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	89.0		21-178	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	82.0		26-152	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	97.0		26-123	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	89.0		29-147	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	85.0		28-136	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	81.0		28-143	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	79.0		26-138	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	73.0		31-197	%	11-AUG-23	20-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	8.61		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	8.72		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	8.72		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
L2751583-3 PLOT 70							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	72.2		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	<0.64	[U]	0.64	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 2	<0.67	[U]	0.67	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 3	<0.63	[U]	0.63	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 4	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<0.78	[U]	0.78	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 9	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<0.81	[U]	0.81	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<0.85	[U]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<0.84	[U]	0.84	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	2.14	M,J	0.79	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	10.0	[J]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<1.4	M,U	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 15	1.3	M,J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	0.087	M,J,R	0.077	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 30/18	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 23	<1.3	M,U	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 29/26	<1.3	M,U	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 25	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 31	2.9	M,J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 28/20	11.1	[J]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 21/33	<1.3	M,U	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 22	<1.4	M,U	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 36	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 39	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-3 PLOT 70							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 38	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 35	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 37	2.30	J,R	0.98	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 54	<0.51	[U]	0.51	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<0.76	[U]	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<0.77	[U]	0.77	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<0.85	[U]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 52	3.42	[J]	0.77	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<0.52	[U]	0.52	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 43	<0.94	[U]	0.94	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 69/49	0.69	M,J,R	0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<0.75	[U]	0.75	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	4.08	[J]	0.67	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	<0.55	[U]	0.55	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	<0.81	[U]	0.81	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	<0.76	[U]	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	1.70	J,R	0.54	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	<0.087	[U]	0.087	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 68	<0.083	[U]	0.083	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 57	<0.097	[U]	0.097	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 58	<0.091	M,U	0.091	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 67	<0.074	M,U	0.074	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 63	0.882	[J]	0.093	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 61/70/74/76	87.7		0.089	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 66	8.02		0.092	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 55	<0.093	[U]	0.093	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 56	0.642	[J]	0.094	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 60	11.3		0.093	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 80	<0.076	[U]	0.076	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 79	0.689	[J]	0.080	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 78	0.170	J,R	0.099	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 81	3.87		0.098	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 77	19.9		0.11	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 104	<0.59	[U]	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 96	<0.74	[U]	0.74	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	4.4	[J]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 121	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	2.8	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	12.0	J,R	0.98	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	57.0		1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<0.77	[U]	0.77	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	4.50	M,J,R	0.78	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	46.0	M,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-3 PLOT 70							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 120	<0.89	[U]	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 108/124	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 107	23.0	M,J,R	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 123	<1.7	M,U	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 106	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 118	1900		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 122	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 114	23.6	[J]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 105	262		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 127	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 126	100		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 155	<0.34	[U]	0.34	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<0.49	[U]	0.49	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.43	[U]	0.43	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	0.69	J,R	0.54	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<0.50	[U]	0.50	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<0.71	[U]	0.71	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	14.4	[J]	0.70	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 154	0.76	M,J,R	0.54	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 144	<0.75	[U]	0.75	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	22.3	[J]	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 134/143	<4.1	M,U	4.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 139/140	<3.4	[U]	3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 131	<4.0	[U]	4.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 142	<4.6	[U]	4.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 132	4.4	[J]	4.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 133	6.2	J,R	4.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 165	<2.9	[U]	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 146	58.6		3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 161	<2.8	[U]	2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 168/153	1780		2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 141	17.0	J,R	3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 130	59.2		4.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 137/164	12.0	J,R	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 138/163/129	1320		3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 160	<3.0	[U]	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 158	87.4		2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 128/166	164		3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 159	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 162	9.6	[J]	2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 167	312		2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 156/157	775		3.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 169	55.6		2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 188	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 179	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 184	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 176	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 186	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	283		2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 175	6.2	[J]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 187	1420		2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-3 PLOT 70							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 182	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 183	262	M	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 185	<2.3	M,U	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	17.4	M,J	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 177	906		2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 181	3.2	J,R	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	105		2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	256		2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 180/193	4910		2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 191	14.5	[J]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 170	794		2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	910		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 189	304		4.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 202	253		0.049	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 201	26.9		0.068	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 204	0.074	J,R	0.072	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 197	17.7		0.073	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 200	<0.075	[U]	0.075	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 198/199	4160		0.10	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 196	116		0.098	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 203	1850		0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 195	734		4.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	6340		3.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 205	298		3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	104		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 207	17.0	J,R	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 206	1490		3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	101		0.32	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 1	45.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 3	47.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 4	49.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	65.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	41.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 37	76.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 54	48.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	66.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 77	71.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 104	62.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	73.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 118	74.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 114	71.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 105	76.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	79.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 155	70.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	73.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	69.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 169	72.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	67.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 189	71.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 202	60.0		10-145	%	11-AUG-23	18-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-3 PLOT 70							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Surrogate: 13C12 PCB 205	65.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 208	70.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	63.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 209	57.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	84.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	75.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	74.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	<0.63	[U]	0.63	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	13.4	[J]	0.78	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TriCB	16.4	[J]	0.077	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TetraCB	143	[J]	0.074	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	2440	[J]	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	4700	[J]	0.34	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	10200	[J]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	13800	[J]	0.049	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	1610	[J]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	101	[J]	0.32	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	32900	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	11.8			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	11.8			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	11.8			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	0.198	M,J	0.057	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDD	1.07	M,J	0.085	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.49	M,J	0.11	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	0.86	[J]	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	0.39	M,J,R	0.11	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	0.932	M,J	0.098	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDD	1.97	M,J	0.36	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,7,8-TCDF	1.15		0.053	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDF	0.830	[J]	0.059	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,7,8-PeCDF	1.58	[J]	0.051	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	0.767	M,J	0.052	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	0.735	M,J	0.046	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	0.847	[J]	0.049	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	0.857	[J]	0.080	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	0.491	[J]	0.048	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	<0.075	[U]	0.075	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDF	<0.18	[U]	0.18	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total-TCDD	0.198		0.057	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-PeCDD	1.07		0.085	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-HxCDD	1.86		0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDD # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Total-HpCDD	1.42		0.098	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDD # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-TCDF	1.22		0.053	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDF # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-PeCDF	3.11		0.059	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDF # Homologues	4				11-AUG-23	20-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-3 PLOT 70							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
Total-HxCDF	3.80		0.080	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDF # Homologues	6				11-AUG-23	20-AUG-23	R5966396
Total-HpCDF	0.768		0.075	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDF # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	49.0		25-164	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	58.0		25-181	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	67.0		32-141	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	61.0		28-130	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	62.0		23-140	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-OCDD	38.0		17-157	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	62.0		24-169	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	68.0		21-192	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	72.0		21-178	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	77.0		26-152	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	81.0		26-123	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	80.0		29-147	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	65.0		28-136	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	72.0		28-143	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	63.0		26-138	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	56.0		31-197	%	11-AUG-23	20-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	2.35		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	2.39		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	2.39		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
L2751583-4 PLOT 71							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	73.2		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	<0.56	[U]	0.56	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 2	<0.60	[U]	0.60	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 3	<0.58	[U]	0.58	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 4	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<0.94	[U]	0.94	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 9	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<0.98	[U]	0.98	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	<0.95	[U]	0.95	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	25.5	M	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 15	<1.6	M,U	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	<0.11	[U]	0.11	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 30/18	<1.1	M,U	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<0.85	[U]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<0.97	[U]	0.97	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<0.88	[U]	0.88	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<0.14	[U]	0.14	pg/g wwt	11-AUG-23	18-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-4 PLOT 71							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 23	<0.12	[U]	0.12	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 29/26	<0.12	[U]	0.12	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 25	<0.11	[U]	0.11	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 31	1.25	[J]	0.12	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 28/20	3.27	[B]	0.12	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 21/33	0.47	J,R	0.11	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 22	0.28	J,R	0.11	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 36	<0.11	[U]	0.11	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 39	<0.13	[U]	0.13	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 38	0.27	J,R	0.12	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 35	0.30	J,R	0.13	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 37	0.40	[J]	0.12	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 54	<0.50	[U]	0.50	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 52	4.4	M,J	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<0.89	[U]	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 43	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 69/49	<1.0	M,U	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	2.1	M,J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	<0.94	[U]	0.94	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	<0.92	[U]	0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 68	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 57	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 58	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 67	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 63	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 61/70/74/76	2.6	M,J,R	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 66	<1.2	M,J,R	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 55	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 56	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 60	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 80	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 79	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 78	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 81	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 77	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 104	<0.68	[U]	0.68	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 96	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	<1.7	M,U	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-4 PLOT 71							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 121	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	2.0	M,J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	2.8	M,J	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	<1.5	M,U	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 120	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 108/124	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 107	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 123	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 106	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 118	10.3	[J]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 122	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 114	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 105	1.5	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 127	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 126	<1.5	M,U	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 155	<0.29	[U]	0.29	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<0.40	[U]	0.40	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.35	[U]	0.35	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	<0.44	[U]	0.44	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<0.41	[U]	0.41	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<0.58	[U]	0.58	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	<0.57	[U]	0.57	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 154	<0.44	[U]	0.44	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 144	<0.61	[U]	0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	1.51	[J]	0.99	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 134/143	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 139/140	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 131	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 142	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 132	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 133	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 165	<0.91	[U]	0.91	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 146	<1.0	M,U	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 161	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 168/153	10.1	M,J	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 141	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 130	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 137/164	<0.93	[U]	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 138/163/129	6.2	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 160	<0.95	[U]	0.95	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 158	<0.75	[U]	0.75	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 128/166	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 159	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 162	<0.85	[U]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 167	1.48	M,J	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 156/157	2.2	[J]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-4 PLOT 71							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 169	<0.89	[U]	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 188	<0.80	[U]	0.80	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 179	<0.90	[U]	0.90	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 184	<0.82	[U]	0.82	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 176	<0.92	[U]	0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 186	<0.91	[U]	0.91	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	1.9	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 175	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 187	5.2	J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 182	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 183	2.1	M,J	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 185	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 177	2.4	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 181	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 180/193	14.7	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 191	<0.96	[U]	0.96	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 170	1.7	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	2.15	M,J	0.86	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 189	0.64	M,J,R	0.11	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 202	1.06	[J]	0.071	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 201	<0.095	M,U	0.095	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 204	<0.099	[U]	0.099	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 197	<0.10	[U]	0.10	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 200	<0.10	[U]	0.10	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 198/199	10.6		0.14	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 196	<0.14	[U]	0.14	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 203	5.12		0.13	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 195	0.98	M,J,R	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	11.7	[J]	0.81	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 205	<0.72	[U]	0.72	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 207	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 206	<3.9	[U]	3.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	4.17	[J]	0.54	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 1	40.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 3	40.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 4	42.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	52.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	36.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 37	49.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 54	44.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	57.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 77	54.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 104	48.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	54.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 118	58.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 114	57.0		10-145	%	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-4 PLOT 71							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Surrogate: 13C12 PCB 105	64.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	57.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 155	54.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	61.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	61.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 169	65.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	57.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 189	57.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 202	51.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 205	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 208	50.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	49.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 209	41.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	73.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	63.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	66.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	<0.56	[U]	0.56	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	25.5	[J]	0.94	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TriCB	6.24	[J]	0.11	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TetraCB	9.13	[J]	0.50	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	16.6	[J]	0.68	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	21.4	[J]	0.29	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	30.7	[J]	0.11	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	29.5	[J]	0.071	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	4.17	[J]	0.54	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	143	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	0.000418			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	0.0891			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	0.178			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	<0.049	[U]	0.049	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDD	0.192	[J]	0.064	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.092	[J]	0.089	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	0.162	[J]	0.089	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	<0.088	[U]	0.088	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	0.321	[J]	0.072	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDD	<0.19	[U]	0.19	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,7,8-TCDF	<0.041	[U]	0.041	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDF	<0.054	[U]	0.054	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,7,8-PeCDF	<0.049	[U]	0.049	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	<0.043	[U]	0.043	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	<0.040	[U]	0.040	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	<0.044	[U]	0.044	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	0.074	[J]	0.060	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	<0.043	[U]	0.043	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	<0.064	[U]	0.064	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDF	<0.12	[U]	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total-TCDD	<0.049	[U]	0.049	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDD # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Total-PeCDD	0.192		0.064	pg/g wwt	11-AUG-23	20-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-4 PLOT 71							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
Total PeCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-HxCDD	0.254		0.089	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDD # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-HpCDD	0.321		0.072	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-TCDF	<0.041	[U]	0.041	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDF # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Total-PeCDF	<0.054	[U]	0.054	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDF # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Total-HxCDF	0.074		0.060	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDF # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-HpCDF	<0.064	[U]	0.064	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDF # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	63.0		25-164	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	66.0		25-181	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	69.0		32-141	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	64.0		28-130	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	64.0		23-140	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-OCDD	45.0		17-157	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	73.0		24-169	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	79.0		21-192	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	80.0		21-178	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	80.0		26-152	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	85.0		26-123	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	82.0		29-147	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	77.0		28-136	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	73.0		28-143	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	73.0		26-138	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	72.0		31-197	%	11-AUG-23	20-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	0.228		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	0.274		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	0.320		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
L2751583-5 PLOT 109							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	70.9		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	0.200	J,R	0.026	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 2	0.378	[J]	0.032	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 3	0.390	J,R	0.028	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 4	<2.2	[U]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<0.85	[U]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 9	<0.91	[U]	0.91	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<0.89	[U]	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<0.93	[U]	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<0.92	[U]	0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	2.99	[J]	0.86	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	31.7		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-5 PLOT 109							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 15	3.6	M,J,R	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	0.214	M,J	0.049	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 30/18	1.6	M,J	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<1.3	M,U	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<0.90	[U]	0.90	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<1.4	M,U	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<0.93	M,U	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 23	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 29/26	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 25	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 31	5.7	[J]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 28/20	62.3		1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 21/33	2.4	[J]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 22	2.1	[J]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 36	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 39	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 38	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 35	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 37	18.4	[J]	0.96	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 54	<0.55	[U]	0.55	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<0.88	[U]	0.88	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<0.90	[U]	0.90	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<0.99	[U]	0.99	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<0.61	[U]	0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 43	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 69/49	2.40	J,R	0.72	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	11.6	[J]	0.78	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	1.40	M,J,R	0.65	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	<0.95	M,U	0.95	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	1.70	J,R	0.88	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	3.96	[J]	0.63	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 68	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 57	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 58	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 67	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 63	6.4	[J]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 61/70/74/76	286		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 66	71.7		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 55	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 56	6.2	J,R	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 60	48.4		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 80	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 79	1.8	M,J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 78	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 81	7.5	J,R	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 77	67.4		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 104	<0.59	[U]	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-5 PLOT 109							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 96	<0.67	[U]	0.67	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	15.1	[J]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	<2.1	M,U	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	3.1	J,R	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 121	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	15.7	[J]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	62.6		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	272		2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	27.1	M	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	188	M	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	6.7	[J]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	2.1	J,R	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 120	4.6	[J]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 108/124	7.9	J,R	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 107	107	M	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 123	9.6	M,J	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 106	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 118	3540		2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 122	<3.1	[U]	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 114	57.6		2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 105	687		2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 127	<2.2	[U]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 126	159		2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 155	<0.30	[U]	0.30	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<0.36	[U]	0.36	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.32	[U]	0.32	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	4.47	[J]	0.40	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<0.37	[U]	0.37	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<0.52	[U]	0.52	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	59.8		0.52	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 154	2.40	J,R	0.40	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 144	4.90	M,J,R	0.55	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	78.5		3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 134/143	<4.7	M,U	4.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 139/140	6.4	J,R	3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 131	<4.5	[U]	4.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 142	<5.2	[U]	5.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 132	26.6		4.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 133	62.9		4.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 165	<3.3	[U]	3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 146	237		3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 161	<3.1	[U]	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 168/153	3050		3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 141	48.3		4.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 130	117		4.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 137/164	45.4		3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-5 PLOT 109							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 138/163/129	2410		3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 160	<3.4	[U]	3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 158	146		2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 128/166	254		3.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 159	5.7	[J]	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 162	27.5		3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 167	491		2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 156/157	1110		3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 169	54.3		3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 188	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 179	9.9	[J]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 184	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 176	3.0	J,R	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 186	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	409		2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 175	12.3	[J]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 187	1870		2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 182	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 183	553	M	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 185	5.5	M,J	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	49.8		2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 177	863		2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 181	5.5	J,R	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	142		2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	636		2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 180/193	6970		1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 191	16.2	[J]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 170	1140		2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	1030		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 189	244		3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 202	157		0.38	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 201	15.8	[J]	0.43	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 204	<0.45	[U]	0.45	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 197	12.7	[J]	0.45	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 200	<0.47	[U]	0.47	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 198/199	3020		0.65	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 196	193		0.62	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 203	1470		0.62	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 195	586		3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	4080		3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 205	201		2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	67.1		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 207	14.5	[J]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 206	752		3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	58.9		0.45	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 1	42.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 3	42.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 4	48.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	64.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	46.0		5-145	%	11-AUG-23	18-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-5 PLOT 109							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Surrogate: 13C12 PCB 37	64.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 54	57.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	70.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 77	65.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 104	58.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	71.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 118	75.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 114	70.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 105	73.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	74.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 155	56.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	65.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	63.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 169	70.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	55.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 189	65.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 202	60.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 205	59.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 208	60.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	56.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 209	47.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	86.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	83.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	76.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	0.968	[J]	0.026	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	38.3	[J]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TriCB	92.6	[J]	0.049	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TetraCB	529	[J]	0.040	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	5170	[J]	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	8240	[J]	0.30	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	14000	[J]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	9740	[J]	0.38	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	834	[J]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	58.9	[J]	0.45	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	38700	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	17.7			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	17.7			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	17.7			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	0.170	M,J,R	0.082	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDD	0.953	M,J	0.083	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.55	M,J	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	0.83	M,J	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	0.55	M,J	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	1.68	[J]	0.089	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDD	1.20	M,J,R	0.24	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,7,8-TCDF	6.03		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDF	2.16	[J]	0.072	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,7,8-PeCDF	6.09		0.066	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	1.11	[J]	0.075	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	0.950	J,R	0.072	pg/g wwt	11-AUG-23	20-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-5 PLOT 109							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
2,3,4,6,7,8-HxCDF	2.32	[J]	0.082	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	<0.11	M,U	0.11	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	1.24	[J]	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	<0.15	[U]	0.15	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDF	0.45	M,J	0.20	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total-TCDD	<0.082	[U]	0.082	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDD # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Total-PeCDD	0.953		0.083	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-HxCDD	2.77		0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDD # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Total-HpCDD	1.68		0.089	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-TCDF	8.40		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDF # Homologues	8				11-AUG-23	20-AUG-23	R5966396
Total-PeCDF	12.0		0.072	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDF # Homologues	7				11-AUG-23	20-AUG-23	R5966396
Total-HxCDF	5.20		0.11	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDF # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Total-HpCDF	1.85		0.15	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDF # Homologues	3				11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	49.0		25-164	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	52.0		25-181	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	52.0		32-141	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	50.0		28-130	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	51.0		23-140	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-OCDD	35.0		17-157	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	56.0		24-169	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	62.0		21-192	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	62.0		21-178	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	62.0		26-152	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	68.0		26-123	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	61.0		29-147	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	58.0		28-136	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	57.0		28-143	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	56.0		26-138	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	58.0		31-197	%	11-AUG-23	20-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	4.01		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	4.28		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	4.29		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
L2751583-6 PLOT 110							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	71.9		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	<0.63	[U]	0.63	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 2	<0.70	M,U	0.70	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 3	<0.70	[U]	0.70	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 4	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-6 PLOT 110							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 9	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	39.5	M	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 15	2.3	M,J	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	<0.12	M,U	0.12	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 30/18	1.45	M,J	0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<1.0	M,U	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<0.73	[U]	0.73	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<0.76	[U]	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 23	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 29/26	<1.8	M,U	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 25	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 31	2.4	J,R	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 28/20	17.0	J,R	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 21/33	2.5	J,R	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 22	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 36	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 39	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 38	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 35	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 37	5.3	[J]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 54	<0.66	[U]	0.66	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<0.72	[U]	0.72	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 43	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 69/49	<0.85	[U]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	4.85	M,J	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	<0.77	[U]	0.77	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	<1.1	M,U	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	2.10	M,J,R	0.75	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 68	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 57	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 58	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 67	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 63	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 61/70/74/76	60.0		1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 66	17.0	J,R	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 55	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-6 PLOT 110							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 56	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 60	8.7	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 80	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 79	<1.1	M,U	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 78	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 81	2.3	J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 77	18.2	[J]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 104	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 96	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	3.7	J,R	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	<2.1	M,U	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 121	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	17.8	[J]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	73.2		2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	7.4	M,J	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	41.4	M	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	<1.4	M,U	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 120	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 108/124	3.5	[J]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 107	23.6	M,J	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 123	3.4	M,J	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 106	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 118	852		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 122	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 114	11.8	[J]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 105	169		1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 127	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 126	31.0		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 155	<0.79	[U]	0.79	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.97	[U]	0.97	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	11.0	M,J	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 154	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 144	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	22.3	[J]	2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 134/143	<3.6	[U]	3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 139/140	<3.0	[U]	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 131	<3.5	[U]	3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 142	<4.0	[U]	4.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 132	5.5	J,R	3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-6 PLOT 110							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 133	11.0	J,R	3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 165	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 146	70.9		2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 161	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 168/153	822		2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 141	12.4	[J]	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 130	33.8		3.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 137/164	12.0	J,R	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 138/163/129	601		2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 160	<2.7	[U]	2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 158	34.6		2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 128/166	71.2		2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 159	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 162	6.4	J,R	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 167	148		2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 156/157	283		2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 169	18.4	[J]	2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 188	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 179	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 184	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 176	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 186	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	116		3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 175	<3.3	[U]	3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 187	590		3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 182	<3.1	[U]	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 183	130	M	3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 185	<3.2	M,U	3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	9.4	J,R	3.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 177	265		3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 181	<3.4	[U]	3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	33.1		3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	148		3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<3.0	[U]	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 180/193	1940		2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 191	5.4	J,R	2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 170	267		3.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	289		2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 189	73.1		0.18	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 202	54.4		0.074	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 201	5.75		0.092	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 204	<0.097	[U]	0.097	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 197	5.16		0.099	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 200	0.39	M,J,R	0.10	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 198/199	1160		0.14	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 196	55.2		1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 203	463		1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 195	180		2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	1450		0.23	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 205	51.0	R	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	28.9		2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-6 PLOT 110							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 207	6.80		0.16	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 206	244		3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	32.8		0.043	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 1	39.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 3	37.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 4	40.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	44.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	29.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 37	50.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 54	38.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	53.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 77	53.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 104	42.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 118	52.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 114	54.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 105	48.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	55.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 155	48.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	46.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	47.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 169	47.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	46.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 189	48.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 202	40.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 205	35.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 208	45.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	35.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 209	40.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	65.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	62.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	58.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	<0.63	[U]	0.63	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	41.8	[J]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TriCB	28.7	[J]	0.12	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TetraCB	123	[J]	0.11	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	1240	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	2160	[J]	0.79	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	3870	[J]	0.18	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	3420	[J]	0.074	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	280	[J]	0.16	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	32.8	[J]	0.043	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	11200	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	3.70			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	3.70			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	3.70			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	0.110	M,J,R	0.056	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDD	0.670	[J]	0.066	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.260	M,J,R	0.077	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	0.439	M,J	0.083	pg/g wwt	11-AUG-23	20-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-6 PLOT 110							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
1,2,3,7,8,9-HxCDD	0.239	M,J	0.079	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	0.800	M,J,R	0.092	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDD	<0.21	M,U	0.21	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,7,8-TCDF	2.51		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDF	0.804	[J]	0.050	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,7,8-PeCDF	1.99	M,J	0.046	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	0.29	M,J,R	0.10	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	0.370	M,J,R	0.079	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	0.630	M,J	0.096	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	0.19	[J]	0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	0.419	[J]	0.050	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	<0.070	M,U	0.070	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDF	0.14	M,J	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total-TCDD	<0.056	[U]	0.056	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDD # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Total-PeCDD	0.813		0.066	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDD # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-HxCDD	0.973		0.083	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDD # Homologues	3				11-AUG-23	20-AUG-23	R5966396
Total-HpCDD	<0.092	[U]	0.092	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDD # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Total-TCDF	3.03		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDF # Homologues	3				11-AUG-23	20-AUG-23	R5966396
Total-PeCDF	4.83		0.050	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDF # Homologues	6				11-AUG-23	20-AUG-23	R5966396
Total-HxCDF	1.26		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDF # Homologues	3				11-AUG-23	20-AUG-23	R5966396
Total-HpCDF	0.617		0.070	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDF # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	56.0		25-164	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	60.0		25-181	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	62.0		32-141	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	56.0		28-130	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	59.0		23-140	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-OCDD	41.0		17-157	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	64.0		24-169	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	74.0		21-192	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	70.0		21-178	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	71.0		26-152	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	82.0		26-123	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	72.0		29-147	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	71.0		28-136	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	68.0		28-143	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	67.0		26-138	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	72.0		31-197	%	11-AUG-23	20-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	1.70		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	1.91		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	1.91		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
L2751583-7 PLOT 114							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-7 PLOT 114							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	71.2		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	0.120	M,J,R	0.042	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 2	0.197	[J]	0.058	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 3	0.260	[J]	0.057	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 4	<2.7	[U]	2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 9	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	14.2	M,J	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<2.0	M,U	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 15	4.0	[J]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 30/18	<1.4	M,U	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<0.19	[U]	0.19	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 23	<0.17	[U]	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 29/26	0.63	J,R	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 25	0.28	[J]	0.14	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 31	2.98		0.16	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 28/20	31.5		0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 21/33	1.40	[J]	0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 22	0.91	[J]	0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 36	<0.15	[U]	0.15	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 39	<0.17	[U]	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 38	<0.16	[U]	0.16	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 35	0.20	J,R	0.17	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 37	10.2		0.16	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 54	<0.80	[U]	0.80	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<0.81	[U]	0.81	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 43	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 69/49	2.14	[J]	0.95	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	4.3	J,R	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	<0.86	[U]	0.86	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	3.28	M,J	0.84	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 68	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-7 PLOT 114							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 57	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 58	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 67	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 63	2.9	M,J,R	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 61/70/74/76	170		1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 66	31.5		1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 55	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 56	3.2	J,R	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 60	30.5		2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 80	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 79	<1.7	M,U	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 78	<2.2	[U]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 81	4.0	J,R	1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 77	53.4		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 104	<0.88	[U]	0.88	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 96	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	12.0	M,J,R	2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<3.1	[U]	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 121	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	11.8	[J]	2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	51.6		2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	168		2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	18.8	M,J	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	146	M	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	5.8	[J]	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 120	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 108/124	8.09		0.26	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 107	65.6	M	0.22	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 123	3.94	M	0.26	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 106	<0.29	[U]	0.29	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 118	2710		0.23	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 122	<0.38	[U]	0.38	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 114	41.9		0.27	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 105	490		0.26	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 127	1.70	J,R	0.25	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 126	125		0.31	pg/g wwt	11-AUG-23	18-AUG-23	R5966396
PCB 155	<0.34	[U]	0.34	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<0.50	[U]	0.50	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.44	[U]	0.44	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	4.11	M,J	0.55	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<0.51	[U]	0.51	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<0.72	[U]	0.72	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	49.7		0.71	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 154	2.02	M,J	0.54	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-7 PLOT 114							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 144	3.50	J,R	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	87.9		6.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 134/143	<8.0	M,U	8.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 139/140	<6.5	[U]	6.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 131	<7.7	[U]	7.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 142	<8.8	[U]	8.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 132	27.3		7.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 133	35.6		7.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 165	<5.6	[U]	5.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 146	183		6.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 161	<5.4	[U]	5.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 168/153	2660		5.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 141	54.1		7.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 130	116		8.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 137/164	32.1		5.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 138/163/129	2340		6.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 160	<5.8	[U]	5.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 158	140		4.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 128/166	265		6.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 159	<5.1	[U]	5.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 162	23.7	[J]	5.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 167	448		5.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 156/157	1040		6.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 169	59.0	R	6.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 188	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 179	7.3	J,R	2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 184	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 176	<2.9	[U]	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 186	<2.9	[U]	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	404		4.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 175	9.8	[J]	3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 187	1830		3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 182	<3.6	[U]	3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 183	476	M	3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 185	8.3	M,J	3.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	52.0	M,R	3.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 177	1020		4.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 181	5.5	[J]	3.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	142		4.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	550		4.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<3.4	[U]	3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 180/193	6330		3.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 191	11.0	J,R	3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 170	1060		4.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	1000		2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 189	243		5.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 202	212		0.69	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 201	21.4	[J]	0.73	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 204	<0.76	[U]	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 197	16.0	J,R	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 200	<0.80	[U]	0.80	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-7 PLOT 114							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 198/199	3180		1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 196	206		1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 203	1560		1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 195	743		4.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	4010		4.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 205	183		3.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	81.2		2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 207	23.4	[J]	2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 206	884		5.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	62.4		0.44	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 1	35.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 3	33.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 4	36.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	45.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	31.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 37	42.0		5-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 54	39.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	54.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 77	59.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 104	46.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	54.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 118	56.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 114	56.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 105	59.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	52.0		10-145	%	11-AUG-23	18-AUG-23	R5966396
Surrogate: 13C12 PCB 155	53.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	54.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 169	52.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 189	54.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 202	49.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 205	49.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 208	49.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	38.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 209	41.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	75.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	68.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	70.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	0.577	[J]	0.042	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	18.2	[J]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TriCB	48.1	[J]	0.14	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TetraCB	314	[J]	0.10	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	3860	[J]	0.22	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	7570	[J]	0.34	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	13100	[J]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	10100	[J]	0.69	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	989	[J]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	62.4	[J]	0.44	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	36100	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	12.7			pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-7 PLOT 114							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Mid Point PCB TEQ (WHO 2005)	14.4			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	14.4			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	0.145	M,J	0.089	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDD	0.526	[J]	0.061	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.33	[J]	0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	0.59	[J]	0.17	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	0.25	M,J	0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	0.94	M,J,R	0.11	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDD	<0.24	M,U	0.24	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,7,8-TCDF	2.44		0.095	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDF	0.831	[J]	0.058	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,7,8-PeCDF	2.29	[J]	0.054	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	0.532	M,J	0.095	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	0.661	M,J	0.088	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	0.991	M,J	0.098	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	0.38	[J]	0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	0.62	[J]	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	<0.16	[U]	0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDF	<0.19	[U]	0.19	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total-TCDD	0.145		0.089	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-PeCDD	0.526		0.061	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-HxCDD	1.72		0.17	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDD # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Total-HpCDD	<0.11	[U]	0.11	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDD # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Total-TCDF	3.04		0.095	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDF # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Total-PeCDF	5.07		0.058	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDF # Homologues	4				11-AUG-23	20-AUG-23	R5966396
Total-HxCDF	3.23		0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDF # Homologues	5				11-AUG-23	20-AUG-23	R5966396
Total-HpCDF	0.62		0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDF # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	42.0		25-164	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	45.0		25-181	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	45.0		32-141	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	42.0		28-130	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	42.0		23-140	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-OCDD	30.0		17-157	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	51.0		24-169	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	54.0		21-192	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	53.0		21-178	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	52.0		26-152	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	58.0		26-123	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	52.0		29-147	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	47.0		28-136	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	48.0		28-143	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	48.0		26-138	%	11-AUG-23	20-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-7 PLOT 114							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	50.0		31-197	%	11-AUG-23	20-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	2.01		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	2.02		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	2.02		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
L2751583-8 PLOT 117							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	70.9		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	0.110	M,J,R	0.025	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 2	0.160	M,J,R	0.030	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 3	0.301	M,J	0.029	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 4	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<0.82	[U]	0.82	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 9	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<0.85	[U]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<0.89	[U]	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<0.89	[U]	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	12.3	[J]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 15	<1.0	M,J,R	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	0.107	M,J	0.054	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 30/18	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<0.97	[U]	0.97	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<1.6	M,U	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 23	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 29/26	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 25	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 31	1.7	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 28/20	9.0	[J]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 21/33	<1.3	M,U	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 22	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 36	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 39	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 38	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 35	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 37	3.4	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 54	<0.47	[U]	0.47	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<0.86	[U]	0.86	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<0.96	[U]	0.96	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 52	7.61	[J]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<0.59	[U]	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 43	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-8 PLOT 117							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 69/49	1.63	[J]	0.70	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<0.84	[U]	0.84	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	3.79	[J]	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	<0.63	[U]	0.63	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	<0.92	[U]	0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	1.40	J,R	0.86	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	1.70	[J]	0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	<0.83	[U]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 68	<0.84	[U]	0.84	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 57	<0.93	[U]	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 58	<0.89	[U]	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 67	<0.78	[U]	0.78	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 63	1.50	J,R	0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 61/70/74/76	65.8		0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 66	13.8	[J]	0.90	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 55	<0.95	[U]	0.95	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 56	2.10	J,R	0.91	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 60	9.94	[J]	0.94	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 80	<0.77	[U]	0.77	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 79	<0.80	M,U	0.80	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 78	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 81	1.90	J,R	0.86	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 77	17.8	[J]	0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 104	<0.57	[U]	0.57	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 96	<0.78	[U]	0.78	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	9.1	[J]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	2.0	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 121	<0.94	[U]	0.94	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	4.7	J,R	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	25.1		1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	69.7		1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	11.6	M,J	0.88	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	72.1	M	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	3.8	J,R	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	<0.93	[U]	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 120	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 108/124	3.1	J,R	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 107	24.8	M	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 123	<1.5	M,U	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 106	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 118	924		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 122	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 114	18.5	[J]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 105	173		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 127	3.4	[J]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-8 PLOT 117							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 126	30.9		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 155	<0.29	[U]	0.29	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<0.39	[U]	0.39	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.34	[U]	0.34	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	1.80	J,R	0.43	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<0.39	[U]	0.39	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<0.56	[U]	0.56	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	24.5	[J]	0.56	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 154	0.75	J,R	0.42	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 144	2.20	J,R	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	37.3		2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 134/143	<3.5	M,U	3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 139/140	4.8	[J]	2.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 131	<3.4	[U]	3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 142	<3.9	[U]	3.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 132	8.5	J,R	3.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 133	12.0	J,R	3.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 165	<2.5	[U]	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 146	64.5		2.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 161	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 168/153	842		2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 141	18.6	[J]	3.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 130	43.1		3.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 137/164	12.8	M,J	2.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 138/163/129	798		2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 160	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 158	45.4		2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 128/166	97.9		2.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 159	<2.2	[U]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 162	9.1	[J]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 167	135		2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 156/157	358		3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 169	18.7	[J]	2.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 188	<0.85	[U]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 179	5.1	J,R	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 184	<0.95	[U]	0.95	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 176	1.3	J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 186	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	176		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 175	7.3	[J]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 187	876		1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 182	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 183	216	M	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 185	2.5	M,J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	25.0	M,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 177	472		1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 181	2.2	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	65.1		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	224		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 180/193	2450		1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-8 PLOT 117							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 191	5.6	J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 170	460		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	398		0.99	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 189	94.5		3.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 202	66.3		0.42	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 201	10.8	[J]	0.43	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 204	<0.45	[U]	0.45	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 197	6.04	[J]	0.45	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 200	<0.47	[U]	0.47	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 198/199	1070		0.65	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 196	73.9		0.63	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 203	510		0.62	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 195	223		2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	1210		2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 205	57.8		1.9	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	27.8		1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 207	5.9	J,R	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 206	228		2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	23.3	[J]	0.35	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 1	50.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 3	49.0		5-145	%	11-AUG-23	17-AUG-23	R5966396
Surrogate: 13C12 PCB 4	52.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	62.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	41.0		5-145	%	11-AUG-23	17-AUG-23	R5966396
Surrogate: 13C12 PCB 37	74.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 54	54.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	70.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 77	69.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 104	63.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	77.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 118	73.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 114	71.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 105	77.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	80.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 155	67.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	74.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	66.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 169	78.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	67.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 189	46.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 202	64.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 205	59.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 208	59.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	56.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 209	51.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	81.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	77.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	74.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	0.571	[J]	0.025	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	12.3	[J]	0.82	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TriCB	14.3	[J]	0.054	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-8 PLOT 117							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Total TetraCB	129	[J]	0.47	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	1380	[J]	0.57	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	2530	[J]	0.29	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	5480	[J]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	3230	[J]	0.42	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	262	[J]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	23.3	[J]	0.35	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	13100	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	3.70			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	3.70			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	3.70			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	<0.14	[U]	0.14	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDD	0.39	M,J,R	0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.25	M,J,R	0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	0.80	[J]	0.15	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	0.21	J,R	0.14	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	1.61	M,J	0.17	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDD	0.67	M,J,R	0.29	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,7,8-TCDF	1.13	M	0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8-PeCDF	0.671	[J]	0.084	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,7,8-PeCDF	1.19	M,J	0.069	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	0.36	J,R	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	0.580	M,J,R	0.098	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	1.20	J,R	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	0.26	J,R	0.21	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	0.63	J,R	0.12	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	<0.17	[U]	0.17	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
OCDF	<0.24	[U]	0.24	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total-TCDD	0.14		0.14	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-PeCDD	<0.13	[U]	0.13	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDD # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Total-HxCDD	1.33		0.15	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDD # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-HpCDD	1.61		0.17	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDD # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-TCDF	1.13		0.16	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total TCDF # Homologues	1				11-AUG-23	20-AUG-23	R5966396
Total-PeCDF	1.87		0.084	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total PeCDF # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-HxCDF	0.53		0.21	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HxCDF # Homologues	2				11-AUG-23	20-AUG-23	R5966396
Total-HpCDF	<0.17	[U]	0.17	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Total HpCDF # Homologues	0				11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	28.0		25-164	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	35.0		25-181	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	38.0		32-141	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	34.0		28-130	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	35.0		23-140	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-OCDD	25.0		17-157	%	11-AUG-23	20-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-8 PLOT 117							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
Surrogate: 13C12-2,3,7,8-TCDF	36.0		24-169	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	40.0		21-192	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	43.0		21-178	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	43.0		26-152	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	47.0		26-123	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	43.0		29-147	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	33.0		28-136	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	40.0		28-143	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	37.0		26-138	%	11-AUG-23	20-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	33.0		31-197	%	11-AUG-23	20-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	0.586		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	1.34		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	1.41		0	pg/g wwt	11-AUG-23	20-AUG-23	R5966396
L2751583-9 PLOT 123							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	71.8		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	<0.57	[U]	0.57	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 2	<0.61	[U]	0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 3	<0.59	[U]	0.59	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 4	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 10	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 9	<0.93	[U]	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 7	<0.91	[U]	0.91	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 6	<0.95	[U]	0.95	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 5	<0.95	[U]	0.95	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 8	1.30	M,J,R	0.89	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 14	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 11	44.8		2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 13/12	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 15	1.6	M,J,R	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 19	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 30/18	1.4	M,J	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 17	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 27	<0.81	[U]	0.81	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 24	<0.93	[U]	0.93	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 16	<1.3	M,U	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 32	<0.84	M,U	0.84	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 34	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 23	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 29/26	<1.4	M,U	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 25	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 31	<1.4	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 28/20	7.9	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 21/33	1.5	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 22	<1.5	M,U	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 36	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 39	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 38	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-9 PLOT 123							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 35	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 37	2.2	J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 54	<0.48	[U]	0.48	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 50/53	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 45/51	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 46	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 52	5.9	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 73	<0.98	[U]	0.98	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 43	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 69/49	1.2	J,R	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 48	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 44/47/65	2.0	M,J,R	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 59/62/75	<1.0	M,U	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 42	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 41/71/40	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 64	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 72	<0.78	[U]	0.78	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 68	<0.79	[U]	0.79	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 57	<0.88	[U]	0.88	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 58	<0.84	[U]	0.84	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 67	<0.74	[U]	0.74	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 63	<0.87	M,U	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 61/70/74/76	31.0		0.84	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 66	7.12	[J]	0.85	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 55	<0.90	[U]	0.90	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 56	<0.86	[U]	0.86	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 60	5.37	[J]	0.88	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 80	<0.72	[U]	0.72	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 79	<0.76	[U]	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 78	<0.98	[U]	0.98	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 81	<0.90	[U]	0.90	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 77	12.7	[J]	0.83	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 104	<0.66	[U]	0.66	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 96	<0.76	[U]	0.76	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 103	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 94	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 95	2.8	M,J	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 100/93/102/98	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 88/91	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 84	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 89	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 121	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 92	1.5	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 113/90/101	9.2	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 83/99	29.6		1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 112	<0.81	[U]	0.81	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 109/119/86/97/125/87	2.30	M,J,R	0.82	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 117/116/85/110/115	21.8	M,J	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 82	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 111	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 120	<0.92	[U]	0.92	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-9 PLOT 123							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 108/124	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 107	8.4	M,J	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 123	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 106	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 118	357		1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 122	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 114	4.5	J,R	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 105	54.2		1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 127	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 126	11.0	M,J,R	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 155	<0.41	M,U	0.41	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 152	<0.55	[U]	0.55	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 150	<0.48	[U]	0.48	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 136	<0.61	[U]	0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 145	<0.56	[U]	0.56	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 148	<0.80	[U]	0.80	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 151/135	2.90	J,R	0.79	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 154	<0.60	[U]	0.60	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 144	0.89	J,R	0.84	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 147/149	7.2	J,R	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 134/143	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 139/140	<1.7	M,U	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 131	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 142	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 132	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 133	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 165	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 146	14.7	[J]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 161	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 168/153	270		1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 141	5.5	J,R	1.8	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 130	8.6	J,R	2.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 137/164	4.1	[J]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 138/163/129	198		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 160	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 158	12.0	J,R	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 128/166	24.5	[J]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 159	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 162	1.6	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 167	39.8		1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 156/157	95.6		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 169	4.5	J,R	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 188	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 179	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 184	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 176	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 186	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 178	30.7		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 175	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 187	165		1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 182	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-9 PLOT 123							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 183	40.1	M	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 185	<1.5	M,U	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 174	4.7	M,J	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 177	84.3		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 181	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 171/173	15.6	[J]	1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 172	39.4		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 192	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 180/193	585		1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 191	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 170	99.4		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 190	89.6	M	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 189	21.0	J,R	1.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 202	18.6	[J]	0.39	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 201	1.30	M,J,R	0.42	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 204	<0.44	[U]	0.44	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 197	1.60	J,R	0.44	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 200	<0.46	[U]	0.46	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 198/199	276		0.63	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 196	16.5	[J]	0.61	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 203	134		0.60	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 195	63.7		1.7	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 194	372		1.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 205	17.0	J,R	1.4	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 208	9.4	[J]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 207	3.6	J,R	2.6	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 206	89.6		4.5	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
PCB 209	16.1	[J]	0.35	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 1	37.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 3	39.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 4	42.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 15	56.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 19	49.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 37	68.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 54	49.0		5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 81	59.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 77	60.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 104	50.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 123	65.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 118	62.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 114	62.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 105	68.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 126	66.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 155	58.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 167	65.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	63.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 169	66.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 188	53.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 189	63.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 202	56.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 205	58.0		10-145	%	11-AUG-23	28-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-9 PLOT 123							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Surrogate: 13C12 PCB 208	56.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 206	49.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 209	49.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 28	80.0	R	5-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 111	73.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Surrogate: 13C12 PCB 178	67.0		10-145	%	11-AUG-23	28-AUG-23	R5966396
Total MonoCB	<0.57	[U]	0.57	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total DiCB	47.7	[J]	0.87	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TriCB	13.0	[J]	0.81	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total TetraCB	65.3	[J]	0.48	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PentaCB	502	[J]	0.66	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HexaCB	690	[J]	0.41	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total HeptaCB	1170	[J]	1.1	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total OctaCB	901	[J]	0.39	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total NonaCB	103	[J]	2.2	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
DecaCB	16.1	[J]	0.35	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Total PCB	3510	[J]	1.0	pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	0.0177			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	1.25			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	1.25			pg/g wwt	11-AUG-23	28-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	0.069	M,J,R	0.063	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,7,8-PeCDD	0.496	M,J	0.094	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.236	M,J	0.099	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	0.475	M,J	0.099	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	0.177	M,J	0.098	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	0.632	[J]	0.098	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
OCDD	0.58	M,J	0.21	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
2,3,7,8-TCDF	0.825	M	0.083	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,7,8-PeCDF	0.426	[J]	0.060	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
2,3,4,7,8-PeCDF	1.05	[J]	0.059	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	0.218	M,J	0.048	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	0.207	M,J	0.042	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	0.283	[J]	0.049	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	0.154	M,J	0.066	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	0.140	M,J,R	0.054	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	<0.076	[U]	0.076	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
OCDF	<0.12	M,U	0.12	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total-TCDD	<0.063	[U]	0.063	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total TCDD # Homologues	0				11-AUG-23	21-AUG-23	R5966396
Total-PeCDD	0.496		0.094	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total PeCDD # Homologues	1				11-AUG-23	21-AUG-23	R5966396
Total-HxCDD	1.67		0.099	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total HxCDD # Homologues	4				11-AUG-23	21-AUG-23	R5966396
Total-HpCDD	0.904		0.098	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total HpCDD # Homologues	2				11-AUG-23	21-AUG-23	R5966396
Total-TCDF	0.825		0.083	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total TCDF # Homologues	1				11-AUG-23	21-AUG-23	R5966396
Total-PeCDF	2.84		0.060	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total PeCDF # Homologues	5				11-AUG-23	21-AUG-23	R5966396
Total-HxCDF	1.33		0.066	pg/g wwt	11-AUG-23	21-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-9 PLOT 123							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
Total HxCDF # Homologues	6				11-AUG-23	21-AUG-23	R5966396
Total-HpCDF	<0.076	[U]	0.076	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total HpCDF # Homologues	0				11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	52.0		25-164	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	54.0		25-181	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	58.0		32-141	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	54.0		28-130	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	57.0		23-140	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-OCDD	41.0		17-157	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	59.0		24-169	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	65.0		21-192	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	62.0		21-178	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	68.0		26-152	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	79.0		26-123	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	69.0		29-147	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	66.0		28-136	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	64.0		28-143	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	64.0		26-138	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	53.0		31-197	%	11-AUG-23	21-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	1.09		0	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	1.16		0	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	1.16		0	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
L2751583-10 PLOT 402							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Miscellaneous Parameters							
% Moisture	73.6		0.10	%	11-AUG-23	12-AUG-23	R5965557
All PCB congeners by GC/HRMS							
PCB 1	0.81	M,J,R	0.56	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 2	<0.58	M,U	0.58	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 3	1.30	M,J,R	0.56	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 4	<3.2	[U]	3.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 10	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 9	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 7	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 6	3.2	M,J,R	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 5	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 8	14.7	M,J	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 14	<2.2	[U]	2.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 11	37.0		2.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 13/12	3.2	M,J,R	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 15	21.9	M,J	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 19	<0.12	M,U	0.12	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 30/18	5.0	M,J	1.5	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 17	3.9	[J]	1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 27	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 24	<1.3	M,U	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 16	3.3	J,R	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 32	2.1	J,R	1.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 34	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 23	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-10 PLOT 402							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 29/26	2.6	M,J,R	1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 25	<1.8	M,U	1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 31	20.7	[J]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 28/20	30.5		1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 21/33	11.0	J,R	1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 22	10.2	[J]	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 36	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 39	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 38	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 35	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 37	25.0	R	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 54	<0.88	[U]	0.88	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 50/53	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 45/51	<1.3	M,U	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 46	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 52	14.0	[J]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 73	<0.87	[U]	0.87	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 43	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 69/49	5.8	J,R	1.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 48	<1.2	M,U	1.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 44/47/65	13.6	[J]	1.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 59/62/75	<0.93	[U]	0.93	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 42	4.3	M,J	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 41/71/40	7.0	M,J,R	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 64	6.08	[J]	0.91	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 72	<0.11	[U]	0.11	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 68	<0.10	M,U	0.10	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 57	<0.12	[U]	0.12	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 58	<0.11	[U]	0.11	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 67	<0.089	[U]	0.089	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 63	0.20	J,R	0.11	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 61/70/74/76	8.58		0.11	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 66	2.30	J,R	0.11	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 55	<0.12	[U]	0.12	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 56	0.39	[J]	0.11	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 60	1.25	[J]	0.12	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 80	<0.093	[U]	0.093	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 79	<0.11	[U]	0.11	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 78	<0.13	[U]	0.13	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 81	<0.13	M,U	0.13	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 77	1.85	[J]	0.15	pg/g wwt	11-AUG-23	17-AUG-23	R5966396
PCB 104	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 96	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 103	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 94	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 95	13.0	J,R	2.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 100/93/102/98	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 88/91	<2.1	M,U	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 84	5.2	J,R	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 89	<2.6	[U]	2.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 121	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-10 PLOT 402							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 92	5.8	M,J	2.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 113/90/101	26.1		1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 83/99	22.1	[J]	2.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 112	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 109/119/86/97/125/87	17.1	M,J	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 117/116/85/110/115	62.6	M	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 82	4.7	J,R	2.5	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 111	<1.5	M,U	1.5	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 120	<1.5	[U]	1.5	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 108/124	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 107	2.4	J,R	1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 123	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 106	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 118	135		2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 122	<2.9	[U]	2.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 114	2.8	J,R	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 105	40.0		2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 127	<2.1	[U]	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 126	3.0	[J]	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 155	<1.0	[U]	1.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 152	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 150	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 136	4.4	M,J	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 145	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 148	<1.9	[U]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 151/135	16.2	[J]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 154	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 144	2.6	J,R	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 147/149	25.3		1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 134/143	<2.4	[U]	2.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 139/140	<2.0	[U]	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 131	<2.3	[U]	2.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 142	<2.7	[U]	2.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 132	13.4	[J]	2.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 133	2.4	[J]	2.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 165	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 146	8.3	[J]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 161	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 168/153	82.8		1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 141	9.5	[J]	2.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 130	5.8	M,J	2.5	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 137/164	8.4	M,J	1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 138/163/129	105		2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 160	<1.7	[U]	1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 158	5.2	J,R	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 128/166	15.1	[J]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 159	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 162	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 167	14.0	[J]	1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 156/157	35.3	[J]	2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 169	<1.7	M,U	1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-10 PLOT 402							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
PCB 188	<1.1	[U]	1.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 179	5.1	M,J,R	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 184	<1.2	[U]	1.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 176	1.9	J,R	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 186	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 178	14.0	[J]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 175	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 187	46.8		1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 182	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 183	14.0	M,J,R	1.5	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 185	<1.9	M,U	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 174	18.5	M,J	1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 177	33.6		1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 181	<1.8	[U]	1.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 171/173	9.2	[J]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 172	15.5	[J]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 192	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 180/193	191		1.5	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 191	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 170	44.5		1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 190	27.0		1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 189	5.5	J,R	1.7	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 202	6.4	[J]	1.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 201	<1.3	[U]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 204	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 197	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 200	<1.4	[U]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 198/199	86.8		2.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 196	8.4	[J]	1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 203	45.2		1.9	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 195	19.4	[J]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 194	106		1.5	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 205	6.1	[J]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 208	4.6	[J]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 207	<1.6	[U]	1.6	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 206	33.3		2.8	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
PCB 209	8.70	J,R	0.75	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 1	44.0		5-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 3	46.0		5-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 4	46.0		5-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 15	54.0		5-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 19	39.0		5-145	%	11-AUG-23	17-AUG-23	R5966396
Surrogate: 13C12 PCB 37	59.0		5-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 54	49.0		5-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 81	57.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 77	50.0		10-145	%	11-AUG-23	17-AUG-23	R5966396
Surrogate: 13C12 PCB 104	55.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 123	62.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 118	57.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 114	57.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 105	62.0		10-145	%	11-AUG-23	27-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-10 PLOT 402							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
All PCB congeners by GC/HRMS							
Surrogate: 13C12 PCB 126	63.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 155	52.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 167	51.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 156/157	55.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 169	61.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 188	52.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 189	47.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 202	50.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 205	50.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 208	54.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 206	46.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 209	38.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 28	67.0		5-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 111	65.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Surrogate: 13C12 PCB 178	56.0		10-145	%	11-AUG-23	27-AUG-23	R5966396
Total MonoCB	2.11	[J]	0.56	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total DiCB	80.0	[J]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total TriCB	114	[J]	0.12	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total TetraCB	65.4	[J]	0.089	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total PentaCB	340	[J]	1.3	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total HexaCB	354	[J]	1.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total HeptaCB	427	[J]	1.1	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total OctaCB	278	[J]	1.2	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total NonaCB	37.9	[J]	1.4	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
DecaCB	8.70	[J]	0.75	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Total PCB	1710	[J]	1.0	pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Lower Bound PCB TEQ (WHO 2005)	0.308			pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Mid Point PCB TEQ (WHO 2005)	0.334			pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Upper Bound PCB TEQ (WHO 2005)	0.359			pg/g wwt	11-AUG-23	27-AUG-23	R5966396
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	<0.048	[U]	0.048	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,7,8-PeCDD	0.317	M,J	0.060	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,7,8-HxCDD	0.234	M,J	0.078	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,6,7,8-HxCDD	0.260	M,J,R	0.084	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,7,8,9-HxCDD	0.198	M,J	0.080	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDD	0.470	M,J,R	0.065	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
OCDD	0.45	M,J,R	0.12	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
2,3,7,8-TCDF	0.180	M,J,R	0.073	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,7,8-PeCDF	0.150	M,J,R	0.060	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
2,3,4,7,8-PeCDF	0.231	[J]	0.056	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,7,8-HxCDF	0.110	M,J,R	0.043	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,6,7,8-HxCDF	0.133	M,J	0.035	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
2,3,4,6,7,8-HxCDF	0.135	M,J	0.040	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,7,8,9-HxCDF	0.111	M,J	0.057	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,6,7,8-HpCDF	<0.10	M,J,R	0.10	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
1,2,3,4,7,8,9-HpCDF	<0.14	[U]	0.14	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
OCDF	<0.090	[U]	0.090	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total-TCDD	<0.048	[U]	0.048	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total TCDD # Homologues	0				11-AUG-23	21-AUG-23	R5966396
Total-PeCDD	0.317		0.060	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total PeCDD # Homologues	1				11-AUG-23	21-AUG-23	R5966396

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-10 PLOT 402							
Sampled By: LDB on 13-MAY-23							
Matrix: VOLE TISSUE							
Dioxins and Furans HR 1613B							
Total-HxCDD	0.812		0.084	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total HxCDD # Homologues	3				11-AUG-23	21-AUG-23	R5966396
Total-HpCDD	<0.065	[U]	0.065	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total HpCDD # Homologues	0				11-AUG-23	21-AUG-23	R5966396
Total-TCDF	<0.073	[U]	0.073	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total TCDF # Homologues	0				11-AUG-23	21-AUG-23	R5966396
Total-PeCDF	0.476		0.060	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total PeCDF # Homologues	2				11-AUG-23	21-AUG-23	R5966396
Total-HxCDF	0.481		0.057	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total HxCDF # Homologues	4				11-AUG-23	21-AUG-23	R5966396
Total-HpCDF	<0.14	[U]	0.14	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Total HpCDF # Homologues	0				11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDD	62.0		25-164	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDD	65.0		25-181	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	61.0		32-141	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	59.0		28-130	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	64.0		23-140	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-OCDD	52.0		17-157	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-2,3,7,8-TCDF	70.0		24-169	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8-PeCDF	79.0		21-192	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-2,3,4,7,8-PeCDF	75.0		21-178	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	72.0		26-152	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	81.0		26-123	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	75.0		29-147	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	71.0		28-136	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	71.0		28-143	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	73.0		26-138	%	11-AUG-23	21-AUG-23	R5966396
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	68.0		31-197	%	11-AUG-23	21-AUG-23	R5966396
Lower Bound PCDD/F TEQ (WHO 2005)	0.467		0	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Mid Point PCDD/F TEQ (WHO 2005)	0.557		0	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
Upper Bound PCDD/F TEQ (WHO 2005)	0.582		0	pg/g wwt	11-AUG-23	21-AUG-23	R5966396
L2751583-11 PLOT 70 RE-EXTRACTION							
Sampled By: LB on 13-MAY-23							
Matrix: Vole tissue							
Miscellaneous Parameters							
% Moisture	71.7		0.10	%	15-NOV-23	16-NOV-23	R5971119
All PCB congeners by GC/HRMS							
PCB 1	0.240	M,J,R	0.097	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 2	0.18	M,J,R	0.11	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 3	0.38	M,J	0.11	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 4	<0.63	[U]	0.63	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 10	<0.29	[U]	0.29	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 9	<0.34	[U]	0.34	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 7	<0.32	[U]	0.32	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 6	<0.31	[U]	0.31	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 5	<0.35	[U]	0.35	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 8	1.30	J,R	0.29	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 14	<0.30	[U]	0.30	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 11	11.9	M,J,B	0.32	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 13/12	<0.32	[U]	0.32	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 15	1.16	[J]	0.30	pg/g wwt	15-NOV-23	22-NOV-23	R5972017

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-11 PLOT 70 RE-EXTRACTION							
Sampled By: LB on 13-MAY-23							
Matrix: Vole tissue							
All PCB congeners by GC/HRMS							
PCB 19	<0.22	[U]	0.22	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 30/18	1.10	J,B	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 17	0.56	M,J,R	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 27	<0.15	[U]	0.15	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 24	<0.17	[U]	0.17	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 16	0.29	J,R	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 32	0.31	[J]	0.14	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 34	<0.22	[U]	0.22	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 23	<0.21	[U]	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 29/26	0.47	[J]	0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 25	<0.18	J,R	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 31	2.06	J,B	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 28/20	13.5	[J]	0.22	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 21/33	1.16	[J]	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 22	0.91	J,B	0.23	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 36	<0.18	[U]	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 39	<0.23	[U]	0.23	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 38	<0.21	[U]	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 35	0.29	[J]	0.22	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 37	2.48	[J]	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 54	<0.068	[U]	0.068	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 50/53	<0.13	[U]	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 45/51	0.16	M,J,R	0.14	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 46	<0.14	[U]	0.14	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 52	3.01	J,B	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 73	<0.091	[U]	0.091	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 43	<0.15	[U]	0.15	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 69/49	0.75	J,R	0.10	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 48	<0.13	[U]	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 44/47/65	2.23	[J]	0.12	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 59/62/75	0.400	J,R	0.093	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 42	0.26	M,J,R	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 41/71/40	0.51	M,J,R	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 64	0.775	[J]	0.088	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 72	<0.19	[U]	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 68	<0.18	[U]	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 57	<0.20	[U]	0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 58	<0.21	[U]	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 67	<0.16	[U]	0.16	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 63	1.17	[J]	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 61/70/74/76	90.3		0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 66	7.37	[J]	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 55	<0.20	[U]	0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 56	0.57	[J]	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 60	11.5	[J]	0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 80	<0.15	[U]	0.15	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 79	0.54	J,R	0.16	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 78	<0.18	[U]	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 81	4.41	[J]	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 77	22.5	[J]	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 104	<0.089	[U]	0.089	pg/g wwt	15-NOV-23	22-NOV-23	R5972017

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-11 PLOT 70 RE-EXTRACTION							
Sampled By: LB on 13-MAY-23							
Matrix: Vole tissue							
All PCB congeners by GC/HRMS							
PCB 96	<0.099	[U]	0.099	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 103	<0.17	[U]	0.17	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 94	<0.20	[U]	0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 95	3.75	[J]	0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 100/93/102/98	<0.17	[U]	0.17	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 88/91	0.74	[J]	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 84	0.58	J,R	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 89	<0.21	[U]	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 121	<0.12	[U]	0.12	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 92	3.08	[J]	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 113/90/101	11.3	[J]	0.14	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 83/99	64.5		0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 112	<0.11	[U]	0.11	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 109/119/86/97/125/87	4.20	M,J,R	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 117/116/85/110/115	42.9	M,J	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 82	0.45	J,R	0.19	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 111	<0.12	[U]	0.12	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 120	1.28	[J]	0.11	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 108/124	1.86	[J]	0.39	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 107	24.5	M,J	0.30	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 123	1.35	M,J	0.36	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 106	<0.37	[U]	0.37	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 118	1970		0.33	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 122	<0.48	[U]	0.48	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 114	28.7	[J]	0.36	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 105	289		0.35	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 127	1.19	[J]	0.31	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 126	114		0.34	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 155	<0.086	[U]	0.086	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 152	<0.10	[U]	0.10	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 150	<0.091	[U]	0.091	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 136	0.887	[J]	0.098	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 145	<0.099	[U]	0.099	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 148	<0.13	[U]	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 151/135	13.6	M,J	0.14	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 154	0.540	M,J,R	0.095	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 144	1.25	[J]	0.13	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 147/149	21.7	[J]	0.28	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 134/143	0.69	[J]	0.35	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 139/140	3.61	[J]	0.30	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 131	<0.34	[U]	0.34	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 142	<0.32	[U]	0.32	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 132	4.95	[J]	0.35	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 133	5.47	[J]	0.32	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 165	1.74	[J]	0.25	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 146	57.4		0.26	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 161	<0.21	[U]	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 168/153	1680		0.23	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 141	26.2	[J]	0.27	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 130	60.5		0.33	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 137/164	12.5	[J]	0.24	pg/g wwt	15-NOV-23	22-NOV-23	R5972017

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-11 PLOT 70 RE-EXTRACTION							
Sampled By: LB on 13-MAY-23							
Matrix: Vole tissue							
All PCB congeners by GC/HRMS							
PCB 138/163/129	1400		0.27	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 160	<0.20	[U]	0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 158	96.1		0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 128/166	159		0.23	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 159	2.10	[J]	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 162	9.87	[J]	0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 167	320		0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 156/157	723		0.23	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 169	11.5		0.16	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 188	<0.21	[U]	0.21	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 179	1.89	[J]	0.22	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 184	<0.23	[U]	0.23	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 176	0.55	[J]	0.22	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 186	<0.23	[U]	0.23	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 178	304		0.30	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 175	5.07	[J]	0.28	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 187	1570		0.28	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 182	<0.26	[U]	0.26	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 183	205		0.25	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 185	<0.31	[U]	0.31	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 174	13.8	[J]	0.25	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 177	886		0.27	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 181	5.54	[J]	0.30	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 171/173	97.5		0.27	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 172	211		0.25	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 192	0.46	J,R	0.22	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 180/193	4650		0.20	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 191	5.10	J,R	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 170	736		0.24	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 190	876		0.15	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 189	293		0.27	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 202	235	M	0.077	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 201	18.2	[J]	0.077	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 204	<0.076	[U]	0.076	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 197	11.6	[J]	0.082	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 200	0.755	[J]	0.079	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 198/199	3460		0.10	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 196	104		0.095	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 203	1810		0.095	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 195	733		0.33	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 194	6010		0.31	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 205	300		0.27	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 208	94.7		0.17	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 207	17.0	[J]	0.18	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 206	1550		0.30	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
PCB 209	104		0.058	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 1	26.0		5-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 3	27.0		5-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 4	28.0		5-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 15	30.0		5-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 19	32.0		5-145	%	15-NOV-23	22-NOV-23	R5972017

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-11 PLOT 70 RE-EXTRACTION							
Sampled By: LB on 13-MAY-23							
Matrix: Vole tissue							
All PCB congeners by GC/HRMS							
Surrogate: 13C12 PCB 37	38.0		5-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 54	35.0		5-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 81	47.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 77	49.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 104	39.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 123	50.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 118	53.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 114	50.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 105	52.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 126	48.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 155	45.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 167	50.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 156/157	52.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 169	47.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 188	44.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 189	51.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 202	54.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 205	48.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 208	50.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 206	50.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 209	41.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 28	39.0		5-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 111	58.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Surrogate: 13C12 PCB 178	63.0		10-145	%	15-NOV-23	22-NOV-23	R5972017
Total MonoCB	0.804	[J]	0.097	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total DiCB	14.4	[J]	0.29	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total TriCB	23.1	[J]	0.14	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total TetraCB	146	[J]	0.068	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total PentaCB	2560	[J]	0.089	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total HexaCB	4610	[J]	0.086	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total HeptaCB	9860	[J]	0.15	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total OctaCB	12700	[J]	0.076	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total NonaCB	1660	[J]	0.17	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
DecaCB	104	[J]	0.058	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Total PCB	31700	[J]	1.0	pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Lower Bound PCB TEQ (WHO 2005)	11.9			pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Mid Point PCB TEQ (WHO 2005)	11.9			pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Upper Bound PCB TEQ (WHO 2005)	11.9			pg/g wwt	15-NOV-23	22-NOV-23	R5972017
Dioxins and Furans HR 1613B							
2,3,7,8-TCDD	<0.14	[U]	0.14	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,7,8-PeCDD	0.90	[J]	0.24	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,4,7,8-HxCDD	0.47	M,J	0.27	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,6,7,8-HxCDD	0.80	M,J,R	0.27	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,7,8,9-HxCDD	0.37	M,J,B	0.26	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,4,6,7,8-HpCDD	1.10	J,R	0.29	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
OCDD	3.49	M,J	0.55	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
2,3,7,8-TCDF	0.960	J,R	0.083	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,7,8-PeCDF	0.76	[J]	0.13	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
2,3,4,7,8-PeCDF	1.32	M,J	0.13	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,4,7,8-HxCDF	0.530	J,R	0.056	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,6,7,8-HxCDF	0.622	[J]	0.052	pg/g wwt	15-NOV-23	01-DEC-23	R5972017

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2751583-11 PLOT 70 RE-EXTRACTION							
Sampled By: LB on 13-MAY-23							
Matrix: Vole tissue							
Dioxins and Furans HR 1613B							
2,3,4,6,7,8-HxCDF	1.02	[J]	0.057	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,7,8,9-HxCDF	0.421	[J]	0.082	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,4,6,7,8-HpCDF	0.38	M,J,R	0.16	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
1,2,3,4,7,8,9-HpCDF	<0.22	[U]	0.22	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
OCDF	1.40	M,J,R	0.31	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total-TCDD	<0.14	[U]	0.14	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total TCDD # Homologues	0				15-NOV-23	01-DEC-23	R5972017
Total-PeCDD	0.90		0.24	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total PeCDD # Homologues	1				15-NOV-23	01-DEC-23	R5972017
Total-HxCDD	0.84		0.27	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total HxCDD # Homologues	2				15-NOV-23	01-DEC-23	R5972017
Total-HpCDD	<0.29	[U]	0.29	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total HpCDD # Homologues	0				15-NOV-23	01-DEC-23	R5972017
Total-TCDF	<0.083	[U]	0.083	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total TCDF # Homologues	0				15-NOV-23	01-DEC-23	R5972017
Total-PeCDF	2.55		0.13	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total PeCDF # Homologues	3				15-NOV-23	01-DEC-23	R5972017
Total-HxCDF	2.06		0.082	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total HxCDF # Homologues	3				15-NOV-23	01-DEC-23	R5972017
Total-HpCDF	<0.22	[U]	0.22	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Total HpCDF # Homologues	0				15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-2,3,7,8-TCDD	93.0		25-164	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,7,8-PeCDD	87.0		25-181	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,4,7,8-HxCDD	108.0		32-141	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,6,7,8-HxCDD	112.0		28-130	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD	94.0		23-140	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-OCDD	78.0		17-157	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-2,3,7,8-TCDF	82.0		24-169	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,7,8-PeCDF	87.0		21-192	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-2,3,4,7,8-PeCDF	85.0		21-178	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,4,7,8-HxCDF	114.0		26-152	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,6,7,8-HxCDF	119.0		26-123	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-2,3,4,6,7,8-HxCDF	116.0		29-147	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,7,8,9-HxCDF	102.0		28-136	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF	87.0		28-143	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF	85.0		26-138	%	15-NOV-23	01-DEC-23	R5972017
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)	96.0		31-197	%	15-NOV-23	01-DEC-23	R5972017
Lower Bound PCDD/F TEQ (WHO 2005)	1.61		0	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Mid Point PCDD/F TEQ (WHO 2005)	1.93		0	pg/g wwt	15-NOV-23	01-DEC-23	R5972017
Upper Bound PCDD/F TEQ (WHO 2005)	2.00		0	pg/g wwt	15-NOV-23	01-DEC-23	R5972017

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
A	Method Blank exceeds ALS DQO. Refer to narrative comments for further information.
G	QC result did not meet ALS DQO. Refer to narrative comments for further information.
J,B	The analyte was detected below the calibrated range but above the EDL, and was detected in the Method Blank at >10% of the sample concentration.
J,R	The analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M	A peak has been manually integrated.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.
M,J,B	A peak has been manually integrated. Target analyte was detected below the calibrated range but above the EDL. Compound was detected in the method blank at >10% of the sample concentration.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,R	A peak has been manually integrated, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
R	The ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
[B]	The analyte was detected in the Method Blank at >10% of the sample concentration.
[J]	The analyte was detected below the calibrated range but above the EDL.
[U]	The analyte was not detected above the EDL.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
DX-1613B-HRMS-BU	Tissue	Dioxins and Furans HR 1613B	USEPA 1613B
Samples are extracted by Soxhlet. The extracts are prepared using column chromatography, reduced in volume and analyzed by isotope-dilution GC/HRMS.			
MOISTURE-BU	Tissue	% Moisture	ASTM METHOD D2794-00
This method is used to determine the percent moisture in a sample. Samples are homogenized, moisture is removed by heating at 105°C until constant mass is achieved. The residues are measured gravimetrically and the difference in weight between the wet sample and the dried sample is used to determine the moisture content. This percent moisture can be used, in conjunction with analytical results, to report data on a dry weight basis.			
PCB-1668C-O2-HRMS-BU	Tissue	All PCB congeners by GC/HRMS	USEPA 1668C
Samples are extracted by liquid/liquid extraction and the targets are isolated via multiple cleanup steps then analyzed by gas chromatography/high-resolution mass spectrometry using an SPB-Octyl column by isotope dilution.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
BU	ALS ENVIRONMENTAL - BURLINGTON, ONTARIO, CANADA

Chain of Custody Numbers:

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: Wildland Management Consultants Ltd.
50345 Range Road 222
Leduc County AB T0B 3M2
Contact: Lawrence Brusnyk

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-2 LCS								
2,3,7,8-TCDD			95.0		%		67-158	20-AUG-23
1,2,3,7,8-PeCDD			110.0		%		70-142	20-AUG-23
1,2,3,4,7,8-HxCDD			103.0		%		70-164	20-AUG-23
1,2,3,6,7,8-HxCDD			105.0		%		76-134	20-AUG-23
1,2,3,7,8,9-HxCDD			107.0		%		64-162	20-AUG-23
1,2,3,4,6,7,8-HpCDD			93.0		%		70-140	20-AUG-23
OCDD			91.0		%		78-144	20-AUG-23
2,3,7,8-TCDF			96.0		%		75-158	20-AUG-23
1,2,3,7,8-PeCDF			104.0		%		80-134	20-AUG-23
2,3,4,7,8-PeCDF			99.0		%		68-160	20-AUG-23
1,2,3,4,7,8-HxCDF			102.0		%		72-134	20-AUG-23
1,2,3,6,7,8-HxCDF			112.0		%		84-130	20-AUG-23
2,3,4,6,7,8-HxCDF			95.0		%		70-156	20-AUG-23
1,2,3,7,8,9-HxCDF			107.0		%		78-130	20-AUG-23
1,2,3,4,6,7,8-HpCDF			102.0		%		82-122	20-AUG-23
1,2,3,4,7,8,9-HpCDF			92.0		%		78-138	20-AUG-23
OCDF			107.0		%		63-170	20-AUG-23
WG3786333-1 MB								
2,3,7,8-TCDD			<0.21	[U]	pg/g wwt		0.5	24-AUG-23
1,2,3,7,8-PeCDD			<0.16	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,4,7,8-HxCDD			<0.18	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,6,7,8-HxCDD			<0.19	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,7,8,9-HxCDD			<0.18	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,4,6,7,8-HpCDD			<0.15	[U]	pg/g wwt		2.5	24-AUG-23
OCDD			0.55	M,J,R	pg/g wwt		5	24-AUG-23
2,3,7,8-TCDF			<0.19	[U]	pg/g wwt		0.5	24-AUG-23
1,2,3,7,8-PeCDF			<0.10	[U]	pg/g wwt		2.5	24-AUG-23
2,3,4,7,8-PeCDF			<0.10	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,4,7,8-HxCDF			<0.10	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,6,7,8-HxCDF			<0.11	[U]	pg/g wwt		2.5	24-AUG-23
2,3,4,6,7,8-HxCDF			<0.11	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,7,8,9-HxCDF			<0.14	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,4,6,7,8-HpCDF			<0.13	[U]	pg/g wwt		2.5	24-AUG-23
1,2,3,4,7,8,9-HpCDF			<0.17	[U]	pg/g wwt		2.5	24-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-1 MB								
OCDF			<0.28	M,U	pg/g wwt		5	24-AUG-23
Total-TCDD			<0.21	[U]	pg/g wwt		0.21	24-AUG-23
Total-PeCDD			<0.16	[U]	pg/g wwt		0.16	24-AUG-23
Total-HxCDD			<0.19	[U]	pg/g wwt		0.19	24-AUG-23
Total-HpCDD			<0.15	[U]	pg/g wwt		0.15	24-AUG-23
Total-TCDF			<0.19	[U]	pg/g wwt		0.19	24-AUG-23
Total-PeCDF			<0.10	[U]	pg/g wwt		0.1	24-AUG-23
Total-HxCDF			<0.14	[U]	pg/g wwt		0.14	24-AUG-23
Total-HpCDF			<0.17	[U]	pg/g wwt		0.17	24-AUG-23
Surrogate: 13C12-2,3,7,8-TCDD			62.0		%		25-164	24-AUG-23
Surrogate: 13C12-1,2,3,7,8-PeCDD			61.0		%		25-181	24-AUG-23
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			67.0		%		32-141	24-AUG-23
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			65.0		%		28-130	24-AUG-23
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			77.0		%		23-140	24-AUG-23
Surrogate: 13C12-OCDD			88.0		%		17-157	24-AUG-23
Surrogate: 13C12-2,3,7,8-TCDF			67.0		%		24-169	24-AUG-23
Surrogate: 13C12-1,2,3,7,8-PeCDF			73.0		%		21-192	24-AUG-23
Surrogate: 13C12-2,3,4,7,8-PeCDF			67.0		%		21-178	24-AUG-23
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			76.0		%		26-152	24-AUG-23
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			72.0		%		26-123	24-AUG-23
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			78.0		%		29-147	24-AUG-23
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			76.0		%		28-136	24-AUG-23
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			75.0		%		28-143	24-AUG-23
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			84.0		%		26-138	24-AUG-23
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			73.0		%		31-197	24-AUG-23
WG3786333-4 MB								
2,3,7,8-TCDD			<0.15	[U]	pg/g wwt		0.5	20-AUG-23
1,2,3,7,8-PeCDD			<0.14	[U]	pg/g wwt		2.5	20-AUG-23
1,2,3,4,7,8-HxCDD			<0.21	[U]	pg/g wwt		2.5	20-AUG-23
1,2,3,6,7,8-HxCDD			<0.21	[U]	pg/g wwt		2.5	20-AUG-23
1,2,3,7,8,9-HxCDD			<0.21	[U]	pg/g wwt		2.5	20-AUG-23
1,2,3,4,6,7,8-HpCDD			<0.17	[U]	pg/g wwt		2.5	20-AUG-23
OCDD			<0.25	[U]	pg/g wwt		5	20-AUG-23
2,3,7,8-TCDF			0.16	M,J	pg/g wwt		0.5	20-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	**Tissue**							
Batch	**R5966396**							
WG3786333-4	**MB**							
1,2,3,7,8-PeCDF			<0.074	[U]	pg/g wwt		2.5	20-AUG-23
2,3,4,7,8-PeCDF			<0.069	M,U	pg/g wwt		2.5	20-AUG-23
1,2,3,4,7,8-HxCDF			<0.087	[U]	pg/g wwt		2.5	20-AUG-23
1,2,3,6,7,8-HxCDF			<0.079	[U]	pg/g wwt		2.5	20-AUG-23
2,3,4,6,7,8-HxCDF			<0.086	[U]	pg/g wwt		2.5	20-AUG-23
1,2,3,7,8,9-HxCDF			<0.12	[U]	pg/g wwt		2.5	20-AUG-23
1,2,3,4,6,7,8-HpCDF			<0.090	[U]	pg/g wwt		2.5	20-AUG-23
1,2,3,4,7,8,9-HpCDF			<0.12	[U]	pg/g wwt		2.5	20-AUG-23
OCDF			<0.25	[U]	pg/g wwt		5	20-AUG-23
Total-TCDD			<0.15	[U]	pg/g wwt		0.15	20-AUG-23
Total-PeCDD			<0.14	[U]	pg/g wwt		0.14	20-AUG-23
Total-HxCDD			<0.21	[U]	pg/g wwt		0.21	20-AUG-23
Total-HpCDD			<0.17	[U]	pg/g wwt		0.17	20-AUG-23
Total-TCDF			0.16	A	pg/g wwt		0.12	20-AUG-23
Total-PeCDF			<0.074	[U]	pg/g wwt		0.074	20-AUG-23
Total-HxCDF			<0.12	[U]	pg/g wwt		0.12	20-AUG-23
Total-HpCDF			<0.12	[U]	pg/g wwt		0.12	20-AUG-23
Surrogate: 13C12-2,3,7,8-TCDD			25.0		%		25-164	20-AUG-23
Surrogate: 13C12-1,2,3,7,8-PeCDD			30.0		%		25-181	20-AUG-23
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			28.0	G	%		32-141	20-AUG-23
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			27.0	G	%		28-130	20-AUG-23
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			31.0		%		23-140	20-AUG-23
Surrogate: 13C12-OCDD			26.0		%		17-157	20-AUG-23
Surrogate: 13C12-2,3,7,8-TCDF			28.0		%		24-169	20-AUG-23
Surrogate: 13C12-1,2,3,7,8-PeCDF			36.0		%		21-192	20-AUG-23
Surrogate: 13C12-2,3,4,7,8-PeCDF			35.0		%		21-178	20-AUG-23
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			33.0		%		26-152	20-AUG-23
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			36.0		%		26-123	20-AUG-23
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			35.0		%		29-147	20-AUG-23
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			32.0		%		28-136	20-AUG-23
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			34.0		%		28-143	20-AUG-23
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			36.0		%		26-138	20-AUG-23
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			27.0	G	%		31-197	20-AUG-23

COMMENTS: There were low levels of select targets in the reagent blank that were within the reference method control limits. The recoveries of two of

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-2 LCS								
2,3,7,8-TCDD			79.0		%		67-158	01-DEC-23
1,2,3,7,8-PeCDD			100.0		%		70-142	01-DEC-23
1,2,3,4,7,8-HxCDD			93.0		%		70-164	01-DEC-23
1,2,3,6,7,8-HxCDD			88.0		%		76-134	01-DEC-23
1,2,3,7,8,9-HxCDD			86.0		%		64-162	01-DEC-23
1,2,3,4,6,7,8-HpCDD			88.0		%		70-140	01-DEC-23
OCDD			83.0		%		78-144	01-DEC-23
2,3,7,8-TCDF			90.0		%		75-158	01-DEC-23
1,2,3,7,8-PeCDF			90.0		%		80-134	01-DEC-23
2,3,4,7,8-PeCDF			87.0		%		68-160	01-DEC-23
1,2,3,4,7,8-HxCDF			96.0		%		72-134	01-DEC-23
1,2,3,6,7,8-HxCDF			90.0		%		84-130	01-DEC-23
2,3,4,6,7,8-HxCDF			87.0		%		70-156	01-DEC-23
1,2,3,7,8,9-HxCDF			99.0		%		78-130	01-DEC-23
1,2,3,4,6,7,8-HpCDF			98.0		%		82-122	01-DEC-23
1,2,3,4,7,8,9-HpCDF			91.0		%		78-138	01-DEC-23
OCDF			84.0		%		63-170	01-DEC-23
WG3787294-1 MB								
2,3,7,8-TCDD			<0.036	[U]	pg/g wwt		0.83	01-DEC-23
1,2,3,7,8-PeCDD			<0.076	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,4,7,8-HxCDD			<0.041	M,U	pg/g wwt		4.2	01-DEC-23
1,2,3,6,7,8-HxCDD			<0.042	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,7,8,9-HxCDD			0.074	J,R	pg/g wwt		4.2	01-DEC-23
1,2,3,4,6,7,8-HpCDD			0.240	M,J,R	pg/g wwt		4.2	01-DEC-23
OCDD			1.22	[J]	pg/g wwt		8.3	01-DEC-23
2,3,7,8-TCDF			<0.030	[U]	pg/g wwt		0.83	01-DEC-23
1,2,3,7,8-PeCDF			<0.030	[U]	pg/g wwt		4.2	01-DEC-23
2,3,4,7,8-PeCDF			<0.027	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,4,7,8-HxCDF			<0.046	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,6,7,8-HxCDF			<0.043	[U]	pg/g wwt		4.2	01-DEC-23
2,3,4,6,7,8-HxCDF			<0.052	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,7,8,9-HxCDF			0.098	M,J	pg/g wwt		4.2	01-DEC-23
1,2,3,4,6,7,8-HpCDF			<0.13	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,4,7,8,9-HpCDF			<0.19	M,U	pg/g wwt		4.2	01-DEC-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	**Tissue**							
Batch	**R5972017**							
WG3787294-1	**MB**							
OCDF			<0.21	[U]	pg/g wwt		8.3	01-DEC-23
Total-TCDD			<0.036	[U]	pg/g wwt		0.036	01-DEC-23
Total-PeCDD			<0.076	[U]	pg/g wwt		0.076	01-DEC-23
Total-HxCDD			<0.042	[U]	pg/g wwt		0.042	01-DEC-23
Total-HpCDD			<0.080	[U]	pg/g wwt		0.08	01-DEC-23
Total-TCDF			<0.030	[U]	pg/g wwt		0.03	01-DEC-23
Total-PeCDF			<0.030	[U]	pg/g wwt		0.03	01-DEC-23
Total-HxCDF			0.098	A	pg/g wwt		0.064	01-DEC-23
Total-HpCDF			<0.19	[U]	pg/g wwt		0.19	01-DEC-23
Surrogate: 13C12-2,3,7,8-TCDD			78.0		%		25-164	01-DEC-23
Surrogate: 13C12-1,2,3,7,8-PeCDD			75.0		%		25-181	01-DEC-23
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			93.0		%		32-141	01-DEC-23
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			95.0		%		28-130	01-DEC-23
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			83.0		%		23-140	01-DEC-23
Surrogate: 13C12-OCDD			71.0		%		17-157	01-DEC-23
Surrogate: 13C12-2,3,7,8-TCDF			67.0		%		24-169	01-DEC-23
Surrogate: 13C12-1,2,3,7,8-PeCDF			75.0		%		21-192	01-DEC-23
Surrogate: 13C12-2,3,4,7,8-PeCDF			70.0		%		21-178	01-DEC-23
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			95.0		%		26-152	01-DEC-23
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			99.0		%		26-123	01-DEC-23
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			89.0		%		29-147	01-DEC-23
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			85.0		%		28-136	01-DEC-23
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			79.0		%		28-143	01-DEC-23
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			74.0		%		26-138	01-DEC-23
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			73.0		%		31-197	01-DEC-23

COMMENTS: Criteria for the sample showed as outside the method limits for one parameter. The affected parameter was homologue group totals, for which there is no set DQO.

WG3787294-4	**MB**							
2,3,7,8-TCDD			<0.049	[U]	pg/g wwt		0.83	01-DEC-23
1,2,3,7,8-PeCDD			0.048		pg/g wwt		4.2	01-DEC-23
1,2,3,4,7,8-HxCDD			<0.025	M,U	pg/g wwt		4.2	01-DEC-23
1,2,3,6,7,8-HxCDD			0.037	M,J	pg/g wwt		4.2	01-DEC-23
1,2,3,7,8,9-HxCDD			0.062	M,J,R	pg/g wwt		4.2	01-DEC-23
1,2,3,4,6,7,8-HpCDD			0.150	J,R	pg/g wwt		4.2	01-DEC-23
OCDD			1.09	M,J	pg/g wwt		8.3	01-DEC-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-4 MB								
2,3,7,8-TCDF			<0.046	[U]	pg/g wwt		0.83	01-DEC-23
1,2,3,7,8-PeCDF			<0.034	[U]	pg/g wwt		4.2	01-DEC-23
2,3,4,7,8-PeCDF			<0.030	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,4,7,8-HxCDF			<0.044	M,U	pg/g wwt		4.2	01-DEC-23
1,2,3,6,7,8-HxCDF			<0.044	[U]	pg/g wwt		4.2	01-DEC-23
2,3,4,6,7,8-HxCDF			<0.043	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,7,8,9-HxCDF			<0.059	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,4,6,7,8-HpCDF			<0.11	[U]	pg/g wwt		4.2	01-DEC-23
1,2,3,4,7,8,9-HpCDF			<0.15	[U]	pg/g wwt		4.2	01-DEC-23
OCDF			0.57	J,R	pg/g wwt		8.3	01-DEC-23
Total-TCDD			<0.049	[U]	pg/g wwt		0.049	01-DEC-23
Total-PeCDD			0.048	A	pg/g wwt		0.037	01-DEC-23
Total-HxCDD			0.037	A	pg/g wwt		0.025	01-DEC-23
Total-HpCDD			<0.070	[U]	pg/g wwt		0.07	01-DEC-23
Total-TCDF			<0.046	[U]	pg/g wwt		0.046	01-DEC-23
Total-PeCDF			<0.034	[U]	pg/g wwt		0.034	01-DEC-23
Total-HxCDF			<0.059	[U]	pg/g wwt		0.059	01-DEC-23
Total-HpCDF			<0.15	[U]	pg/g wwt		0.15	01-DEC-23
Surrogate: 13C12-2,3,7,8-TCDD			100.0		%		25-164	01-DEC-23
Surrogate: 13C12-1,2,3,7,8-PeCDD			108.0		%		25-181	01-DEC-23
Surrogate: 13C12-1,2,3,4,7,8-HxCDD			119.0		%		32-141	01-DEC-23
Surrogate: 13C12-1,2,3,6,7,8-HxCDD			124.0		%		28-130	01-DEC-23
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDD			124.0		%		23-140	01-DEC-23
Surrogate: 13C12-OCDD			128.0		%		17-157	01-DEC-23
Surrogate: 13C12-2,3,7,8-TCDF			88.0		%		24-169	01-DEC-23
Surrogate: 13C12-1,2,3,7,8-PeCDF			102.0		%		21-192	01-DEC-23
Surrogate: 13C12-2,3,4,7,8-PeCDF			102.0		%		21-178	01-DEC-23
Surrogate: 13C12-1,2,3,4,7,8-HxCDF			116.0		%		26-152	01-DEC-23
Surrogate: 13C12-1,2,3,6,7,8-HxCDF			118.0		%		26-123	01-DEC-23
Surrogate: 13C12-2,3,4,6,7,8-HxCDF			120.0		%		29-147	01-DEC-23
Surrogate: 13C12-1,2,3,7,8,9-HxCDF			109.0		%		28-136	01-DEC-23
Surrogate: 13C12-1,2,3,4,6,7,8-HpCDF			113.0		%		28-143	01-DEC-23
Surrogate: 13C12-1,2,3,4,7,8,9-HpCDF			113.0		%		26-138	01-DEC-23
Surrogate: 37Cl4-2,3,7,8-TCDD (Cleanup)			93.0		%		31-197	01-DEC-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DX-1613B-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-4 MB								
COMMENTS: Criteria for the sample showed as outside the method limits for two parameters. The affected parameters were homologue group totals, for which there is no set DQO.								
MOISTURE-BU	**Tissue**							
Batch R5965557								
WG3786350-3 DUP		**L2751583-1**						
% Moisture		71.9	71.4		%	0.7	50	12-AUG-23
WG3786350-2 LCS								
% Moisture			100.6		%		50-150	12-AUG-23
WG3786350-1 MB								
% Moisture			<0.10		%		0.1	12-AUG-23
Batch R5971119								
WG3787295-2 LCS								
% Moisture			102.2		%		50-150	16-NOV-23
WG3787295-1 MB								
% Moisture			<0.10		%		0.1	16-NOV-23
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-5 DUP		**L2751583-1**						
PCB 1		0.334	<0.52	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 2		0.477	<0.59	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 3		0.518	0.64	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 4		<6.7	<2.8	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 10		<2.4	<1.0	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 9		<2.5	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 7		<2.5	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 6		<2.6	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 5		<2.6	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 8		3.6	3.2		pg/g wwt	12	50	28-AUG-23
PCB 14		<4.6	<1.7	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 11		30.0	35.6		pg/g wwt	17	50	28-AUG-23
PCB 13/12		<3.8	<1.4	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 15		4.1	5.1		pg/g wwt	22	50	28-AUG-23
PCB 19		0.310	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 30/18		<2.6	2.30	G	pg/g wwt	N/A	50	28-AUG-23
PCB 17		<2.9	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-5 DUP		**L2751583-1**						
PCB 27		<2.0	<0.78	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 24		<2.3	<0.89	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 16		<3.3	1.6	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 32		<2.1	<0.81	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 54		<1.5	<0.49	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 50/53		<2.9	<0.70	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 45/51		<2.9	<0.71	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 46		<3.2	<0.78	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 52		37.9	34.3		pg/g wwt	10	50	28-AUG-23
PCB 73		<2.0	<0.48	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 43		<3.5	<0.87	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 69/49		9.1	7.70		pg/g wwt	17	50	28-AUG-23
PCB 48		<2.8	<0.69	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 44/47/65		37.6	40.5		pg/g wwt	7.4	50	28-AUG-23
PCB 59/62/75		8.1	6.47		pg/g wwt	22	50	28-AUG-23
PCB 42		<3.1	2.50	G	pg/g wwt	N/A	50	28-AUG-23
PCB 41/71/40		3.2	3.10		pg/g wwt	3.2	50	28-AUG-23
PCB 64		10.9	8.94		pg/g wwt	20	50	28-AUG-23
PCB 72		1.69	1.8		pg/g wwt	8.5	50	28-AUG-23
PCB 68		0.44	<1.2	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 57		<0.18	<1.3	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 58		1.39	<1.3	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 67		0.86	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 63		15.6	16.3		pg/g wwt	4.4	50	28-AUG-23
PCB 61/70/74/76		861	858		pg/g wwt	0.3	50	28-AUG-23
PCB 66		354	327		pg/g wwt	7.9	50	28-AUG-23
PCB 55		<0.18	<1.4	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 56		12.5	12.4		pg/g wwt	0.8	50	28-AUG-23
PCB 60		179	181		pg/g wwt	1.1	50	28-AUG-23
PCB 80		<0.14	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 79		4.43	4.1		pg/g wwt	7.7	50	28-AUG-23
PCB 78		<0.19	<1.5	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 81		28.5	23.7		pg/g wwt	18	50	28-AUG-23

COMMENTS: Sample and duplicate do not meet replication criteria for select low level targets. The results below the lower quantitation limit are not

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-5 DUP		**L2751583-1**						
PCB 77		195	185		pg/g wwt	5.3	50	28-AUG-23
PCB 104		<1.6	<0.70	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 96		<2.3	<0.84	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 103		<3.0	<1.6	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 94		<3.2	<1.7	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 95		51.9	49.8		pg/g wwt	4.1	50	28-AUG-23
PCB 100/93/102/98		<2.9	<1.6	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 88/91		6.2	9.0		pg/g wwt	37	50	28-AUG-23
PCB 84		10.7	7.4		pg/g wwt	36	50	28-AUG-23
PCB 89		<4.0	<2.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 121		<2.2	<1.2	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 92		58.5	59.2		pg/g wwt	1.2	50	28-AUG-23
PCB 113/90/101		251	265		pg/g wwt	5.4	50	28-AUG-23
PCB 83/99		1370	1410		pg/g wwt	2.9	50	28-AUG-23
PCB 112		<2.0	<1.1	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 109/119/86/97/125/87		90.0	93.8		pg/g wwt	4.1	50	28-AUG-23
PCB 117/116/85/110/115		651	662		pg/g wwt	1.7	50	28-AUG-23
PCB 82		17.0	16.8		pg/g wwt	1.2	50	28-AUG-23
PCB 111		5.5	3.9		pg/g wwt	33	50	28-AUG-23
PCB 120		18.8	16.0		pg/g wwt	16	50	28-AUG-23
PCB 108/124		24.0	24.2		pg/g wwt	0.8	50	28-AUG-23
PCB 107		425	419		pg/g wwt	1.4	50	28-AUG-23
PCB 123		33.0	46.9		pg/g wwt	35	50	28-AUG-23
PCB 106		<5.8	<3.8	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 118		13400	13200		pg/g wwt	1.5	50	28-AUG-23
PCB 122		<6.9	<4.5	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 114		272	245		pg/g wwt	10	50	28-AUG-23
PCB 105		3020	3080		pg/g wwt	2.0	50	28-AUG-23
PCB 127		<0.34	25.2	G	pg/g wwt	N/A	50	28-AUG-23
PCB 126		888	801		pg/g wwt	10	50	28-AUG-23
PCB 155		<0.83	<0.68	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 152		<1.0	<0.85	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 150		<0.93	<0.75	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 136		14.0	12.5		pg/g wwt	11	50	28-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-5 DUP		**L2751583-1**						
PCB 145		<1.1	<0.86	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 148		<1.5	<1.2	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 151/135		224	229		pg/g wwt	2.2	50	28-AUG-23
PCB 154		14.0	18.6		pg/g wwt	28	50	28-AUG-23
PCB 144		17.0	19.0		pg/g wwt	11	50	28-AUG-23
PCB 147/149		300	344		pg/g wwt	14	50	28-AUG-23
PCB 134/143		9.76	<10	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 139/140		31.2	31.2		pg/g wwt	0.0	50	28-AUG-23
PCB 131		2.16	<9.7	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 142		<0.75	<11	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 132		59.3	88.7		pg/g wwt	40	50	28-AUG-23
PCB 133		216	175		pg/g wwt	21	50	28-AUG-23
PCB 165		10.2	10.1		pg/g wwt	1.0	50	28-AUG-23
PCB 146		1260	1200		pg/g wwt	4.9	50	28-AUG-23
PCB 161		<0.47	<6.8	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 168/153		10600	10700		pg/g wwt	0.9	50	28-AUG-23
PCB 141		174	182		pg/g wwt	4.5	50	28-AUG-23
PCB 130		481	535		pg/g wwt	11	50	28-AUG-23
PCB 137/164		232	246		pg/g wwt	5.9	50	28-AUG-23
PCB 138/163/129		8850	8940		pg/g wwt	1.0	50	28-AUG-23
PCB 160		<0.44	<7.4	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 158		490	496		pg/g wwt	1.2	50	28-AUG-23
PCB 128/166		937	898		pg/g wwt	4.3	50	28-AUG-23
PCB 159		16.8	17.5		pg/g wwt	4.1	50	28-AUG-23
PCB 162		79.9	88.6		pg/g wwt	10	50	28-AUG-23
PCB 167		1800	1740		pg/g wwt	3.4	50	28-AUG-23
PCB 156/157		3840	3680		pg/g wwt	4.3	50	28-AUG-23
PCB 169		232	177		pg/g wwt	27	50	28-AUG-23
PCB 188		0.86	<4.7	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 179		37.5	33.2		pg/g wwt	12	50	28-AUG-23
PCB 184		1.22	<4.8	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 176		15.0	9.3		pg/g wwt	47	50	28-AUG-23
PCB 186		<5.5	<5.3	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 178		1880	1570		pg/g wwt	18	50	28-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-5 DUP		**L2751583-1**						
PCB 175		51.7	53.6		pg/g wwt	3.6	50	28-AUG-23
PCB 187		6720	7190		pg/g wwt	6.8	50	28-AUG-23
PCB 182		<6.8	<6.7	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 183		2860	2390		pg/g wwt	18	50	28-AUG-23
PCB 185		9.1	22.0	J	pg/g wwt	12.9	14	28-AUG-23
PCB 174		239	218		pg/g wwt	9.2	50	28-AUG-23
PCB 177		4200	3890		pg/g wwt	7.7	50	28-AUG-23
PCB 181		28.0	31.5		pg/g wwt	12	50	28-AUG-23
PCB 171/173		563	598		pg/g wwt	6.0	50	28-AUG-23
PCB 172		2390	2430		pg/g wwt	1.7	50	28-AUG-23
PCB 192		<0.25	<6.3	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 180/193		22500	22900		pg/g wwt	1.8	50	28-AUG-23
PCB 191		78.0	60.4		pg/g wwt	25	50	28-AUG-23
PCB 170		4510	4710		pg/g wwt	4.3	50	28-AUG-23
PCB 190		3820	3260		pg/g wwt	16	50	28-AUG-23
PCB 189		878	834		pg/g wwt	5.1	50	28-AUG-23
PCB 202		631	653		pg/g wwt	3.4	50	28-AUG-23
PCB 201		75.2	66.0		pg/g wwt	13	50	28-AUG-23
PCB 204		<1.0	<0.56	RPD-NA	pg/g wwt	N/A	50	28-AUG-23
PCB 197		54.0	50.0		pg/g wwt	7.7	50	28-AUG-23
PCB 200		7.0	6.48		pg/g wwt	8.3	50	28-AUG-23
PCB 198/199		10700	9870		pg/g wwt	8.1	50	28-AUG-23
PCB 196		824	808		pg/g wwt	2.0	50	28-AUG-23
PCB 203		4850	4600		pg/g wwt	5.3	50	28-AUG-23
PCB 195		2110	1870		pg/g wwt	12	50	28-AUG-23
PCB 194		13500	12500		pg/g wwt	7.7	50	28-AUG-23
PCB 205		626	567		pg/g wwt	9.9	50	28-AUG-23
PCB 208		230	216		pg/g wwt	6.3	50	28-AUG-23
PCB 207		59.3	55.0		pg/g wwt	7.5	50	28-AUG-23
PCB 206		2440	2090		pg/g wwt	15	50	28-AUG-23
PCB 209		161	150		pg/g wwt	7.1	50	28-AUG-23
Total MonoCB		1.33	0.64	J	pg/g wwt	0.69	1.04	28-AUG-23
Total DiCB		37.7	43.9		pg/g wwt	15	50	28-AUG-23
Total TriCB		196	228		pg/g wwt	15	50	28-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-5 DUP		**L2751583-1**						
Total TetraCB		1760	1710		pg/g wwt	2.9	50	28-AUG-23
Total PentaCB		20600	20400		pg/g wwt	1.0	50	28-AUG-23
Total HexaCB		29900	29800		pg/g wwt	0.3	50	28-AUG-23
Total HeptaCB		50800	50200		pg/g wwt	1.2	50	28-AUG-23
Total OctaCB		33400	31000		pg/g wwt	7.5	50	28-AUG-23
Total NonaCB		2730	2360		pg/g wwt	15	50	28-AUG-23
DecaCB		161	150		pg/g wwt	7.1	50	28-AUG-23
Total PCB		140000	136000		pg/g wwt	2.9	50	28-AUG-23
COMMENTS: Sample and duplicate do not meet replication criteria for select low level targets. The results below the lower quantitation limit are not required to meet these criteria.								
WG3786333-5 DUP		**L2751583-1**						
PCB 34		<3.4	<0.22	RPD-NA	pg/g wwt	N/A	50	18-AUG-23
PCB 23		<3.3	<0.20	RPD-NA	pg/g wwt	N/A	50	18-AUG-23
PCB 29/26		<3.1	1.86	G	pg/g wwt	N/A	50	18-AUG-23
PCB 25		<3.0	0.53	G	pg/g wwt	N/A	50	18-AUG-23
PCB 31		11.0	11.3		pg/g wwt	2.7	50	18-AUG-23
PCB 28/20		149	182		pg/g wwt	20	50	18-AUG-23
PCB 21/33		5.9	4.56		pg/g wwt	26	50	18-AUG-23
PCB 22		5.2	2.40	J	pg/g wwt	2.80	6.8	18-AUG-23
PCB 36		<3.0	<0.17	RPD-NA	pg/g wwt	N/A	50	18-AUG-23
PCB 39		<3.3	<0.20	RPD-NA	pg/g wwt	N/A	50	18-AUG-23
PCB 38		<3.3	<0.19	RPD-NA	pg/g wwt	N/A	50	18-AUG-23
PCB 35		<3.5	1.00	G	pg/g wwt	N/A	50	18-AUG-23
PCB 37		24.5	20.7		pg/g wwt	17	50	18-AUG-23
WG3786333-2 LCS								
PCB 1			88.0		%		60-135	18-AUG-23
PCB 3			81.0		%		60-135	18-AUG-23
PCB 4			110.0		%		60-135	18-AUG-23
PCB 15			88.0		%		60-135	18-AUG-23
PCB 19			103.0		%		60-135	18-AUG-23
PCB 37			93.0		%		60-135	18-AUG-23
PCB 54			105.0		%		60-135	18-AUG-23
PCB 81			90.0		%		60-135	18-AUG-23
PCB 77			89.0		%		60-135	18-AUG-23
PCB 104			92.0		%		60-135	18-AUG-23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-2 LCS								
PCB 123			91.0		%		60-135	18-AUG-23
PCB 118			90.0		%		60-135	18-AUG-23
PCB 114			95.0		%		60-135	18-AUG-23
PCB 105			88.0		%		60-135	18-AUG-23
PCB 126			89.0		%		60-135	18-AUG-23
PCB 155			95.0		%		60-135	18-AUG-23
PCB 167			97.0		%		60-135	18-AUG-23
PCB 156/157			95.0		%		60-135	18-AUG-23
PCB 169			97.0		%		60-135	18-AUG-23
PCB 188			96.0		%		60-135	18-AUG-23
PCB 189			86.0		%		60-135	18-AUG-23
PCB 202			99.0		%		60-135	18-AUG-23
PCB 205			89.0		%		60-135	18-AUG-23
PCB 208			87.0		%		60-135	18-AUG-23
PCB 206			83.0		%		60-135	18-AUG-23
PCB 209			104.0		%		60-135	18-AUG-23
WG3786333-1 MB								
PCB 1			0.17	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 2			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 3			0.62	J,R	pg/g wwt		8.788	18-AUG-23
PCB 4			<0.76	[U]	pg/g wwt		8.788	18-AUG-23
PCB 10			<0.38	[U]	pg/g wwt		8.788	18-AUG-23
PCB 9			<0.41	[U]	pg/g wwt		8.788	18-AUG-23
PCB 7			<0.39	[U]	pg/g wwt		8.788	18-AUG-23
PCB 6			<0.41	[U]	pg/g wwt		8.788	18-AUG-23
PCB 5			<0.41	[U]	pg/g wwt		8.788	18-AUG-23
PCB 8			0.73	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 14			<0.97	[U]	pg/g wwt		8.788	18-AUG-23
PCB 11			3.50	M,J	pg/g wwt		8.788	18-AUG-23
PCB 13/12			<0.84	[U]	pg/g wwt		8.788	18-AUG-23
PCB 15			<0.81	M,U	pg/g wwt		8.788	18-AUG-23
PCB 19			<0.43	[U]	pg/g wwt		8.788	18-AUG-23
PCB 30/18			0.63	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 17			<0.40	M,U	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-1 MB								
PCB 27			<0.42	[U]	pg/g wwt		8.788	18-AUG-23
PCB 24			<0.41	[U]	pg/g wwt		8.788	18-AUG-23
PCB 16			<0.57	[U]	pg/g wwt		8.788	18-AUG-23
PCB 32			<0.37	M,U	pg/g wwt		8.788	18-AUG-23
PCB 34			<0.53	[U]	pg/g wwt		8.788	18-AUG-23
PCB 23			<0.47	[U]	pg/g wwt		8.788	18-AUG-23
PCB 29/26			<0.47	M,U	pg/g wwt		8.788	18-AUG-23
PCB 25			<0.40	[U]	pg/g wwt		8.788	18-AUG-23
PCB 31			0.90	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 28/20			1.59	M,J	pg/g wwt		8.788	18-AUG-23
PCB 21/33			0.64	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 22			<0.41	M,U	pg/g wwt		8.788	18-AUG-23
PCB 36			<0.41	[U]	pg/g wwt		8.788	18-AUG-23
PCB 39			<0.48	[U]	pg/g wwt		8.788	18-AUG-23
PCB 38			<0.45	[U]	pg/g wwt		8.788	18-AUG-23
PCB 35			<0.49	[U]	pg/g wwt		8.788	18-AUG-23
PCB 37			<0.48	[U]	pg/g wwt		8.788	18-AUG-23
PCB 54			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 50/53			<0.36	M,U	pg/g wwt		8.788	18-AUG-23
PCB 45/51			0.61	[J]	pg/g wwt		8.788	18-AUG-23
PCB 46			<0.39	[U]	pg/g wwt		8.788	18-AUG-23
PCB 52			1.10	J,R	pg/g wwt		8.788	18-AUG-23
PCB 73			<0.23	[U]	pg/g wwt		8.788	18-AUG-23
PCB 43			<0.47	[U]	pg/g wwt		8.788	18-AUG-23
PCB 69/49			<0.29	[U]	pg/g wwt		8.788	18-AUG-23
PCB 48			<0.35	[U]	pg/g wwt		8.788	18-AUG-23
PCB 44/47/65			3.00	J,R	pg/g wwt		8.788	18-AUG-23
PCB 59/62/75			<0.27	[U]	pg/g wwt		8.788	18-AUG-23
PCB 42			<0.38	[U]	pg/g wwt		8.788	18-AUG-23
PCB 41/71/40			<0.38	M,U	pg/g wwt		8.788	18-AUG-23
PCB 64			<0.25	[U]	pg/g wwt		8.788	18-AUG-23
PCB 72			<0.22	[U]	pg/g wwt		8.788	18-AUG-23
PCB 68			<0.21	M,U	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch	**R5966396**							
WG3786333-1	**MB**							
PCB 57			<0.24	[U]	pg/g wwt		8.788	18-AUG-23
PCB 58			<0.23	[U]	pg/g wwt		8.788	18-AUG-23
PCB 67			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 63			<0.23	[U]	pg/g wwt		8.788	18-AUG-23
PCB 61/70/74/76			0.64	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 66			0.40	M,J	pg/g wwt		8.788	18-AUG-23
PCB 55			<0.23	[U]	pg/g wwt		8.788	18-AUG-23
PCB 56			0.25	J,R	pg/g wwt		8.788	18-AUG-23
PCB 60			<0.23	[U]	pg/g wwt		8.788	18-AUG-23
PCB 80			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 79			<0.20	[U]	pg/g wwt		8.788	18-AUG-23
PCB 78			<0.25	[U]	pg/g wwt		8.788	18-AUG-23
PCB 81			<0.25	[U]	pg/g wwt		8.788	18-AUG-23
PCB 77			<0.27	[U]	pg/g wwt		8.788	18-AUG-23
PCB 104			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 96			<0.23	[U]	pg/g wwt		8.788	18-AUG-23
PCB 103			<0.55	[U]	pg/g wwt		8.788	18-AUG-23
PCB 94			<0.58	[U]	pg/g wwt		8.788	18-AUG-23
PCB 95			0.84	M,J	pg/g wwt		8.788	18-AUG-23
PCB 100/93/102/98			<0.53	[U]	pg/g wwt		8.788	18-AUG-23
PCB 88/91			<0.58	[U]	pg/g wwt		8.788	18-AUG-23
PCB 84			<0.60	M,U	pg/g wwt		8.788	18-AUG-23
PCB 89			<0.74	[U]	pg/g wwt		8.788	18-AUG-23
PCB 121			<0.40	[U]	pg/g wwt		8.788	18-AUG-23
PCB 92			<0.68	[U]	pg/g wwt		8.788	18-AUG-23
PCB 113/90/101			<0.38	M,U	pg/g wwt		8.788	18-AUG-23
PCB 83/99			<0.62	[U]	pg/g wwt		8.788	18-AUG-23
PCB 112			<0.37	[U]	pg/g wwt		8.788	18-AUG-23
PCB 109/119/86/97/125/87			<0.39	[U]	pg/g wwt		8.788	18-AUG-23
PCB 117/116/85/110/115			0.99	M,J	pg/g wwt		8.788	18-AUG-23
PCB 82			<0.78	[U]	pg/g wwt		8.788	18-AUG-23
PCB 111			<0.40	[U]	pg/g wwt		8.788	18-AUG-23
PCB 120			<0.40	[U]	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-1 MB								
PCB 108/124			<0.29	[U]	pg/g wwt		8.788	18-AUG-23
PCB 107			<0.25	[U]	pg/g wwt		8.788	18-AUG-23
PCB 123			<0.29	[U]	pg/g wwt		8.788	18-AUG-23
PCB 106			<0.33	[U]	pg/g wwt		8.788	18-AUG-23
PCB 118			0.55	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 122			<0.42	[U]	pg/g wwt		8.788	18-AUG-23
PCB 114			<0.30	[U]	pg/g wwt		8.788	18-AUG-23
PCB 105			<0.29	M,U	pg/g wwt		8.788	18-AUG-23
PCB 127			<0.27	[U]	pg/g wwt		8.788	18-AUG-23
PCB 126			<0.33	[U]	pg/g wwt		8.788	18-AUG-23
PCB 155			<0.058	M,U	pg/g wwt		8.788	18-AUG-23
PCB 152			<0.079	[U]	pg/g wwt		8.788	18-AUG-23
PCB 150			<0.076	[U]	pg/g wwt		8.788	18-AUG-23
PCB 136			<0.088	M,U	pg/g wwt		8.788	18-AUG-23
PCB 145			<0.083	[U]	pg/g wwt		8.788	18-AUG-23
PCB 148			<0.12	[U]	pg/g wwt		8.788	18-AUG-23
PCB 151/135			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 154			<0.085	[U]	pg/g wwt		8.788	18-AUG-23
PCB 144			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 147/149			0.26	J,R	pg/g wwt		8.788	18-AUG-23
PCB 134/143			<0.24	[U]	pg/g wwt		8.788	18-AUG-23
PCB 139/140			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 131			<0.25	[U]	pg/g wwt		8.788	18-AUG-23
PCB 142			<0.26	[U]	pg/g wwt		8.788	18-AUG-23
PCB 132			<0.23	M,U	pg/g wwt		8.788	18-AUG-23
PCB 133			<0.24	[U]	pg/g wwt		8.788	18-AUG-23
PCB 165			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 146			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 161			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 168/153			0.60	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 141			<0.20	[U]	pg/g wwt		8.788	18-AUG-23
PCB 130			<0.21	[U]	pg/g wwt		8.788	18-AUG-23
PCB 137/164			<0.20	[U]	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-1 MB								
PCB 138/163/129			0.67	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 160			<0.15	[U]	pg/g wwt		8.788	18-AUG-23
PCB 158			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 128/166			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 159			<0.15	[U]	pg/g wwt		8.788	18-AUG-23
PCB 162			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 167			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 156/157			<0.21	M,U	pg/g wwt		17.574	18-AUG-23
PCB 169			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 188			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 179			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 184			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 176			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 186			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 178			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 175			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 187			0.26	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 182			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 183			<0.18	M,U	pg/g wwt		8.788	18-AUG-23
PCB 185			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 174			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 177			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 181			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 171/173			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 172			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 192			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 180/193			0.88	J,R	pg/g wwt		8.788	18-AUG-23
PCB 191			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 170			0.24	J,R	pg/g wwt		8.788	18-AUG-23
PCB 190			<0.12	[U]	pg/g wwt		8.788	18-AUG-23
PCB 189			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 202			<0.11	[U]	pg/g wwt		8.788	18-AUG-23
PCB 201			<0.12	[U]	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch	**R5966396**							
WG3786333-1	**MB**							
PCB 204			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 197			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 200			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 198/199			0.34	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 196			0.19	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 203			0.20	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 195			<0.20	[U]	pg/g wwt		8.788	18-AUG-23
PCB 194			0.51	J,R	pg/g wwt		8.788	18-AUG-23
PCB 205			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 208			<0.30	[U]	pg/g wwt		8.788	18-AUG-23
PCB 207			<0.37	[U]	pg/g wwt		8.788	18-AUG-23
PCB 206			<0.50	[U]	pg/g wwt		8.788	18-AUG-23
PCB 209			<0.094	[U]	pg/g wwt		8.788	18-AUG-23
Surrogate: 13C12 PCB 1			40.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 3			37.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 4			41.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 15			46.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 19			34.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 37			48.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 54			44.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 81			55.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 77			53.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 104			47.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 123			54.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 118			53.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 114			52.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 105			53.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 126			53.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 155			53.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 167			59.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 156/157			58.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 169			64.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 188			54.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 189			66.0		%		10-145	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch	**R5966396**							
WG3786333-1	**MB**							
Surrogate: 13C12 PCB 202			52.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 205			61.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 208			58.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 206			63.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 209			43.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 28			58.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 111			64.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 178			58.0		%		10-145	18-AUG-23
Total MonoCB			0.79	[J]	pg/g wwt		17.575	18-AUG-23
Total DiCB			4.23	[J]	pg/g wwt		35.149	18-AUG-23
Total TriCB			3.76	[J]	pg/g wwt		35.149	18-AUG-23
Total TetraCB			6.00	[J]	pg/g wwt		70.299	18-AUG-23
Total PentaCB			2.38	[J]	pg/g wwt		70.299	18-AUG-23
Total HexaCB			1.53	[J]	pg/g wwt		70.299	18-AUG-23
Total HeptaCB			1.38	[J]	pg/g wwt		35.149	18-AUG-23
Total OctaCB			1.24	[J]	pg/g wwt		35.149	18-AUG-23
Total NonaCB			<0.30	[U]	pg/g wwt		17.575	18-AUG-23
DecaCB			<0.094	[U]	pg/g wwt		17.575	18-AUG-23
Total PCB			21.3	[J]	pg/g wwt		140.598	18-AUG-23
WG3786333-4	**MB**							
PCB 1			0.48	M,J	pg/g wwt		8.788	18-AUG-23
PCB 2			0.55	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 3			0.60	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 4			<1.6	[U]	pg/g wwt		8.788	18-AUG-23
PCB 10			<0.62	[U]	pg/g wwt		8.788	18-AUG-23
PCB 9			<0.66	[U]	pg/g wwt		8.788	18-AUG-23
PCB 7			0.97	J,R	pg/g wwt		8.788	18-AUG-23
PCB 6			<0.67	[U]	pg/g wwt		8.788	18-AUG-23
PCB 5			<0.67	[U]	pg/g wwt		8.788	18-AUG-23
PCB 8			<0.60	[U]	pg/g wwt		8.788	18-AUG-23
PCB 14			<1.6	[U]	pg/g wwt		8.788	18-AUG-23
PCB 11			3.7	M,J	pg/g wwt		8.788	18-AUG-23
PCB 13/12			<1.3	[U]	pg/g wwt		8.788	18-AUG-23
PCB 15			<1.1	[U]	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-4 MB								
PCB 19			<0.85	[U]	pg/g wwt		8.788	18-AUG-23
PCB 30/18			0.46	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 17			<0.36	[U]	pg/g wwt		8.788	18-AUG-23
PCB 27			<0.37	[U]	pg/g wwt		8.788	18-AUG-23
PCB 24			<0.36	[U]	pg/g wwt		8.788	18-AUG-23
PCB 16			<0.51	M,U	pg/g wwt		8.788	18-AUG-23
PCB 32			<0.32	M,U	pg/g wwt		8.788	18-AUG-23
PCB 34			<0.54	[U]	pg/g wwt		8.788	18-AUG-23
PCB 23			<0.47	[U]	pg/g wwt		8.788	18-AUG-23
PCB 29/26			<0.47	[U]	pg/g wwt		8.788	18-AUG-23
PCB 25			<0.41	[U]	pg/g wwt		8.788	18-AUG-23
PCB 31			0.63	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 28/20			1.00	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 21/33			<0.43	M,U	pg/g wwt		8.788	18-AUG-23
PCB 22			<0.42	M,U	pg/g wwt		8.788	18-AUG-23
PCB 36			<0.42	[U]	pg/g wwt		8.788	18-AUG-23
PCB 39			<0.49	[U]	pg/g wwt		8.788	18-AUG-23
PCB 38			<0.46	[U]	pg/g wwt		8.788	18-AUG-23
PCB 35			<0.50	[U]	pg/g wwt		8.788	18-AUG-23
PCB 37			<0.38	M,U	pg/g wwt		8.788	18-AUG-23
PCB 54			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 50/53			<0.22	[U]	pg/g wwt		8.788	18-AUG-23
PCB 45/51			<0.22	M,U	pg/g wwt		8.788	18-AUG-23
PCB 46			<0.23	[U]	pg/g wwt		8.788	18-AUG-23
PCB 52			0.58	J,R	pg/g wwt		8.788	18-AUG-23
PCB 73			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 43			<0.28	[U]	pg/g wwt		8.788	18-AUG-23
PCB 69/49			0.22	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 48			<0.21	[U]	pg/g wwt		8.788	18-AUG-23
PCB 44/47/65			1.00	M,J	pg/g wwt		8.788	18-AUG-23
PCB 59/62/75			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 42			<0.23	[U]	pg/g wwt		8.788	18-AUG-23
PCB 41/71/40			<0.23	M,U	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-4 MB								
PCB 64			<0.15	[U]	pg/g wwt		8.788	18-AUG-23
PCB 72			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 68			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 57			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 58			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 67			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 63			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 61/70/74/76			0.54	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 66			0.21	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 55			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 56			<0.18	M,U	pg/g wwt		8.788	18-AUG-23
PCB 60			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 80			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 79			<0.15	[U]	pg/g wwt		8.788	18-AUG-23
PCB 78			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 81			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 77			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 104			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 96			<0.20	[U]	pg/g wwt		8.788	18-AUG-23
PCB 103			<0.27	[U]	pg/g wwt		8.788	18-AUG-23
PCB 94			<0.28	[U]	pg/g wwt		8.788	18-AUG-23
PCB 95			<0.31	[U]	pg/g wwt		8.788	18-AUG-23
PCB 100/93/102/98			<0.26	[U]	pg/g wwt		8.788	18-AUG-23
PCB 88/91			<0.28	[U]	pg/g wwt		8.788	18-AUG-23
PCB 84			<0.30	M,U	pg/g wwt		8.788	18-AUG-23
PCB 89			<0.36	[U]	pg/g wwt		8.788	18-AUG-23
PCB 121			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 92			<0.33	[U]	pg/g wwt		8.788	18-AUG-23
PCB 113/90/101			0.63	M,J	pg/g wwt		8.788	18-AUG-23
PCB 83/99			0.35	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 112			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 109/119/86/97/125/87			0.41	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 117/116/85/110/115			0.77	M,J,R	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-4 MB								
PCB 82			<0.38	M,U	pg/g wwt		8.788	18-AUG-23
PCB 111			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 120			<0.20	[U]	pg/g wwt		8.788	18-AUG-23
PCB 108/124			<0.22	[U]	pg/g wwt		8.788	18-AUG-23
PCB 107			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 123			<0.20	[U]	pg/g wwt		8.788	18-AUG-23
PCB 106			<0.24	[U]	pg/g wwt		8.788	18-AUG-23
PCB 118			0.75	M,J	pg/g wwt		8.788	18-AUG-23
PCB 122			<0.31	[U]	pg/g wwt		8.788	18-AUG-23
PCB 114			<0.21	[U]	pg/g wwt		8.788	18-AUG-23
PCB 105			<0.19	M,U	pg/g wwt		8.788	18-AUG-23
PCB 127			<0.20	[U]	pg/g wwt		8.788	18-AUG-23
PCB 126			<0.21	[U]	pg/g wwt		8.788	18-AUG-23
PCB 155			<0.065	[U]	pg/g wwt		8.788	18-AUG-23
PCB 152			<0.072	[U]	pg/g wwt		8.788	18-AUG-23
PCB 150			<0.070	[U]	pg/g wwt		8.788	18-AUG-23
PCB 136			<0.081	M,U	pg/g wwt		8.788	18-AUG-23
PCB 145			<0.076	[U]	pg/g wwt		8.788	18-AUG-23
PCB 148			<0.11	[U]	pg/g wwt		8.788	18-AUG-23
PCB 151/135			0.22	M,J	pg/g wwt		8.788	18-AUG-23
PCB 154			<0.077	[U]	pg/g wwt		8.788	18-AUG-23
PCB 144			<0.12	[U]	pg/g wwt		8.788	18-AUG-23
PCB 147/149			0.34	M,J	pg/g wwt		8.788	18-AUG-23
PCB 134/143			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 139/140			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 131			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 142			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 132			0.18	J,R	pg/g wwt		8.788	18-AUG-23
PCB 133			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 165			<0.12	[U]	pg/g wwt		8.788	18-AUG-23
PCB 146			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 161			<0.11	[U]	pg/g wwt		8.788	18-AUG-23
PCB 168/153			0.65	[J]	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5966396								
WG3786333-4 MB								
PCB 141			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 130			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 137/164			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 138/163/129			0.64	J,R	pg/g wwt		8.788	18-AUG-23
PCB 160			<0.10	[U]	pg/g wwt		8.788	18-AUG-23
PCB 158			<0.090	[U]	pg/g wwt		8.788	18-AUG-23
PCB 128/166			0.16	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 159			<0.10	[U]	pg/g wwt		8.788	18-AUG-23
PCB 162			<0.11	[U]	pg/g wwt		8.788	18-AUG-23
PCB 167			<0.10	[U]	pg/g wwt		8.788	18-AUG-23
PCB 156/157			<0.14	M,U	pg/g wwt		17.574	18-AUG-23
PCB 169			<0.10	M,U	pg/g wwt		8.788	18-AUG-23
PCB 188			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 179			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 184			<0.12	[U]	pg/g wwt		8.788	18-AUG-23
PCB 176			<0.13	[U]	pg/g wwt		8.788	18-AUG-23
PCB 186			<0.12	[U]	pg/g wwt		8.788	18-AUG-23
PCB 178			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 175			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 187			0.27	J,R	pg/g wwt		8.788	18-AUG-23
PCB 182			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 183			<0.17	M,U	pg/g wwt		8.788	18-AUG-23
PCB 185			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 174			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 177			<0.17	[U]	pg/g wwt		8.788	18-AUG-23
PCB 181			<0.18	[U]	pg/g wwt		8.788	18-AUG-23
PCB 171/173			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 172			<0.19	[U]	pg/g wwt		8.788	18-AUG-23
PCB 192			<0.16	[U]	pg/g wwt		8.788	18-AUG-23
PCB 180/193			0.33	M,J	pg/g wwt		8.788	18-AUG-23
PCB 191			<0.14	[U]	pg/g wwt		8.788	18-AUG-23
PCB 170			<0.20	[U]	pg/g wwt		8.788	18-AUG-23
PCB 190			<0.12	[U]	pg/g wwt		8.788	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch	**R5966396**							
WG3786333-4	**MB**							
PCB 189			<0.097	[U]	pg/g wwt		8.788	18-AUG-23
PCB 202			0.057	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 201			<0.059	[U]	pg/g wwt		8.788	18-AUG-23
PCB 204			<0.062	[U]	pg/g wwt		8.788	18-AUG-23
PCB 197			<0.064	[U]	pg/g wwt		8.788	18-AUG-23
PCB 200			<0.065	[U]	pg/g wwt		8.788	18-AUG-23
PCB 198/199			<0.087	[U]	pg/g wwt		8.788	18-AUG-23
PCB 196			<0.085	[U]	pg/g wwt		8.788	18-AUG-23
PCB 203			<0.080	[U]	pg/g wwt		8.788	18-AUG-23
PCB 195			<0.11	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 194			0.28	M,J,R	pg/g wwt		8.788	18-AUG-23
PCB 205			<0.074	[U]	pg/g wwt		8.788	18-AUG-23
PCB 208			<0.21	[U]	pg/g wwt		8.788	18-AUG-23
PCB 207			<0.26	[U]	pg/g wwt		8.788	18-AUG-23
PCB 206			<0.37	[U]	pg/g wwt		8.788	18-AUG-23
PCB 209			0.119	[J]	pg/g wwt		8.788	18-AUG-23
Surrogate: 13C12 PCB 1			17.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 3			21.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 4			17.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 15			28.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 19			15.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 37			49.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 54			23.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 81			67.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 77			67.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 104			41.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 123			68.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 118			68.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 114			64.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 105			72.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 126			76.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 155			57.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 167			84.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 156/157			84.0		%		10-145	18-AUG-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch	**R5966396**							
WG3786333-4	**MB**							
Surrogate: 13C12 PCB 169			92.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 188			74.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 189			91.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 202			72.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 205			86.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 208			89.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 206			85.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 209			78.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 28			43.0		%		5-145	18-AUG-23
Surrogate: 13C12 PCB 111			79.0		%		10-145	18-AUG-23
Surrogate: 13C12 PCB 178			83.0		%		10-145	18-AUG-23
Total MonoCB			1.63	[J]	pg/g wwt		17.575	18-AUG-23
Total DiCB			4.67	[J]	pg/g wwt		35.149	18-AUG-23
Total TriCB			2.09	[J]	pg/g wwt		35.149	18-AUG-23
Total TetraCB			2.55	[J]	pg/g wwt		70.299	18-AUG-23
Total PentaCB			2.91	[J]	pg/g wwt		70.299	18-AUG-23
Total HexaCB			2.19	[J]	pg/g wwt		70.299	18-AUG-23
Total HeptaCB			0.603	[J]	pg/g wwt		35.149	18-AUG-23
Total OctaCB			0.337	[J]	pg/g wwt		35.149	18-AUG-23
Total NonaCB			<0.21	[U]	pg/g wwt		17.575	18-AUG-23
DecaCB			0.119	[J]	pg/g wwt		17.575	18-AUG-23
Total PCB			17.1	[J]	pg/g wwt		140.598	18-AUG-23
Batch	**R5972017**							
WG3787294-2	**LCS**							
PCB 1			104.0		%		60-135	21-NOV-23
PCB 3			95.0		%		60-135	21-NOV-23
PCB 4			106.0		%		60-135	21-NOV-23
PCB 15			99.0		%		60-135	21-NOV-23
PCB 19			104.0		%		60-135	21-NOV-23
PCB 37			104.0		%		60-135	21-NOV-23
PCB 54			105.0		%		60-135	21-NOV-23
PCB 81			96.0		%		60-135	21-NOV-23
PCB 77			97.0		%		60-135	21-NOV-23
PCB 104			93.0		%		60-135	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-2 LCS								
PCB 123			96.0		%		60-135	21-NOV-23
PCB 118			95.0		%		60-135	21-NOV-23
PCB 114			102.0		%		60-135	21-NOV-23
PCB 105			95.0		%		60-135	21-NOV-23
PCB 126			95.0		%		60-135	21-NOV-23
PCB 155			97.0		%		60-135	21-NOV-23
PCB 167			97.0		%		60-135	21-NOV-23
PCB 156/157			95.0		%		60-135	21-NOV-23
PCB 169			96.0		%		60-135	21-NOV-23
PCB 188			94.0		%		60-135	21-NOV-23
PCB 189			98.0		%		60-135	21-NOV-23
PCB 202			92.0		%		60-135	21-NOV-23
PCB 205			94.0		%		60-135	21-NOV-23
PCB 208			95.0		%		60-135	21-NOV-23
PCB 206			95.0		%		60-135	21-NOV-23
PCB 209			110.0		%		60-135	21-NOV-23
WG3787294-1 MB								
PCB 1			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 2			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 3			0.22	M,J,R	pg/g wwt		10	21-NOV-23
PCB 4			<0.83	[U]	pg/g wwt		10	21-NOV-23
PCB 10			<0.41	[U]	pg/g wwt		10	21-NOV-23
PCB 9			<0.44	[U]	pg/g wwt		10	21-NOV-23
PCB 7			<0.46	[U]	pg/g wwt		10	21-NOV-23
PCB 6			<0.43	[U]	pg/g wwt		10	21-NOV-23
PCB 5			<0.54	[U]	pg/g wwt		10	21-NOV-23
PCB 8			0.73	M,J,R	pg/g wwt		10	21-NOV-23
PCB 14			<0.65	[U]	pg/g wwt		10	21-NOV-23
PCB 11			2.63	M,J	pg/g wwt		10	21-NOV-23
PCB 13/12			<0.63	[U]	pg/g wwt		10	21-NOV-23
PCB 15			<0.53	[U]	pg/g wwt		10	21-NOV-23
PCB 19			<0.31	[U]	pg/g wwt		10	21-NOV-23
PCB 30/18			0.45	M,J	pg/g wwt		10	21-NOV-23
PCB 17			<0.29	[U]	pg/g wwt		10	21-NOV-23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-1 MB								
PCB 27			<0.20	[U]	pg/g wwt		10	21-NOV-23
PCB 24			<0.23	[U]	pg/g wwt		10	21-NOV-23
PCB 16			<0.30	[U]	pg/g wwt		10	21-NOV-23
PCB 32			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 34			<0.22	[U]	pg/g wwt		10	21-NOV-23
PCB 23			<0.22	[U]	pg/g wwt		10	21-NOV-23
PCB 29/26			<0.21	[U]	pg/g wwt		10	21-NOV-23
PCB 25			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 31			0.63	M,J	pg/g wwt		10	21-NOV-23
PCB 28/20			0.63	M,J	pg/g wwt		10	21-NOV-23
PCB 21/33			0.28	M,J,R	pg/g wwt		10	21-NOV-23
PCB 22			0.25	M,J	pg/g wwt		10	21-NOV-23
PCB 36			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 39			<0.22	[U]	pg/g wwt		10	21-NOV-23
PCB 38			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 35			<0.21	[U]	pg/g wwt		10	21-NOV-23
PCB 37			<0.20	M,U	pg/g wwt		10	21-NOV-23
PCB 54			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 50/53			<0.20	[U]	pg/g wwt		10	21-NOV-23
PCB 45/51			0.23	M,J,R	pg/g wwt		10	21-NOV-23
PCB 46			<0.22	[U]	pg/g wwt		10	21-NOV-23
PCB 52			0.93	M,J	pg/g wwt		10	21-NOV-23
PCB 73			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 43			<0.24	[U]	pg/g wwt		10	21-NOV-23
PCB 69/49			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 48			<0.20	[U]	pg/g wwt		10	21-NOV-23
PCB 44/47/65			0.67	M,J,R	pg/g wwt		10	21-NOV-23
PCB 59/62/75			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 42			<0.20	[U]	pg/g wwt		10	21-NOV-23
PCB 41/71/40			0.23	M,J,R	pg/g wwt		10	21-NOV-23
PCB 64			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 72			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 68			<0.17	[U]	pg/g wwt		10	21-NOV-23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-1 MB								
PCB 57			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 58			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 67			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 63			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 61/70/74/76			0.32	M,J,R	pg/g wwt		10	21-NOV-23
PCB 66			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 55			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 56			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 60			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 80			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 79			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 78			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 81			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 77			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 104			<0.097	[U]	pg/g wwt		10	21-NOV-23
PCB 96			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 103			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 94			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 95			0.34	M,J	pg/g wwt		10	21-NOV-23
PCB 100/93/102/98			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 88/91			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 84			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 89			<0.21	[U]	pg/g wwt		10	21-NOV-23
PCB 121			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 92			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 113/90/101			0.38	M,J,R	pg/g wwt		10	21-NOV-23
PCB 83/99			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 112			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 109/119/86/97/125/87			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 117/116/85/110/115			0.30	J,R	pg/g wwt		10	21-NOV-23
PCB 82			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 111			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 120			<0.11	[U]	pg/g wwt		10	21-NOV-23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-1 MB								
PCB 108/124			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 107			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 123			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 106			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 118			0.40	[J]	pg/g wwt		10	21-NOV-23
PCB 122			<0.21	[U]	pg/g wwt		10	21-NOV-23
PCB 114			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 105			0.27	M,J,R	pg/g wwt		10	21-NOV-23
PCB 127			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 126			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 155			<0.055	[U]	pg/g wwt		10	21-NOV-23
PCB 152			<0.074	[U]	pg/g wwt		10	21-NOV-23
PCB 150			<0.064	[U]	pg/g wwt		10	21-NOV-23
PCB 136			<0.070	[U]	pg/g wwt		10	21-NOV-23
PCB 145			<0.072	[U]	pg/g wwt		10	21-NOV-23
PCB 148			<0.092	[U]	pg/g wwt		10	21-NOV-23
PCB 151/135			<0.095	[U]	pg/g wwt		10	21-NOV-23
PCB 154			<0.072	[U]	pg/g wwt		10	21-NOV-23
PCB 144			<0.093	[U]	pg/g wwt		10	21-NOV-23
PCB 147/149			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 134/143			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 139/140			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 131			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 142			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 132			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 133			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 165			<0.10	[U]	pg/g wwt		10	21-NOV-23
PCB 146			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 161			<0.089	[U]	pg/g wwt		10	21-NOV-23
PCB 168/153			0.395	[J]	pg/g wwt		10	21-NOV-23
PCB 141			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 130			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 137/164			<0.10	[U]	pg/g wwt		10	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-1 MB								
PCB 138/163/129			0.57	[J]	pg/g wwt		10	21-NOV-23
PCB 160			<0.087	[U]	pg/g wwt		10	21-NOV-23
PCB 158			<0.073	[U]	pg/g wwt		10	21-NOV-23
PCB 128/166			<0.096	[U]	pg/g wwt		10	21-NOV-23
PCB 159			<0.075	[U]	pg/g wwt		10	21-NOV-23
PCB 162			<0.085	[U]	pg/g wwt		10	21-NOV-23
PCB 167			<0.078	[U]	pg/g wwt		10	21-NOV-23
PCB 156/157			0.130	J,R	pg/g wwt		20	21-NOV-23
PCB 169			<0.069	[U]	pg/g wwt		10	21-NOV-23
PCB 188			<0.069	[U]	pg/g wwt		10	21-NOV-23
PCB 179			<0.075	[U]	pg/g wwt		10	21-NOV-23
PCB 184			<0.077	[U]	pg/g wwt		10	21-NOV-23
PCB 176			<0.074	[U]	pg/g wwt		10	21-NOV-23
PCB 186			<0.079	[U]	pg/g wwt		10	21-NOV-23
PCB 178			<0.10	[U]	pg/g wwt		10	21-NOV-23
PCB 175			<0.097	[U]	pg/g wwt		10	21-NOV-23
PCB 187			<0.097	[U]	pg/g wwt		10	21-NOV-23
PCB 182			<0.089	[U]	pg/g wwt		10	21-NOV-23
PCB 183			<0.088	[U]	pg/g wwt		10	21-NOV-23
PCB 185			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 174			<0.088	[U]	pg/g wwt		10	21-NOV-23
PCB 177			<0.091	[U]	pg/g wwt		10	21-NOV-23
PCB 181			<0.10	[U]	pg/g wwt		10	21-NOV-23
PCB 171/173			<0.095	[U]	pg/g wwt		10	21-NOV-23
PCB 172			<0.088	[U]	pg/g wwt		10	21-NOV-23
PCB 192			<0.077	[U]	pg/g wwt		10	21-NOV-23
PCB 180/193			0.135	[J]	pg/g wwt		10	21-NOV-23
PCB 191			<0.062	[U]	pg/g wwt		10	21-NOV-23
PCB 170			<0.085	[U]	pg/g wwt		10	21-NOV-23
PCB 190			<0.054	[U]	pg/g wwt		10	21-NOV-23
PCB 189			0.17	M,J,R	pg/g wwt		10	21-NOV-23
PCB 202			<0.056	[U]	pg/g wwt		10	21-NOV-23
PCB 201			<0.062	[U]	pg/g wwt		10	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-1 MB								
PCB 204			<0.061	[U]	pg/g wwt		10	21-NOV-23
PCB 197			<0.066	[U]	pg/g wwt		10	21-NOV-23
PCB 200			<0.064	[U]	pg/g wwt		10	21-NOV-23
PCB 198/199			<0.084	[U]	pg/g wwt		10	21-NOV-23
PCB 196			<0.077	[U]	pg/g wwt		10	21-NOV-23
PCB 203			<0.078	[U]	pg/g wwt		10	21-NOV-23
PCB 195			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 194			0.31	M,J,R	pg/g wwt		10	21-NOV-23
PCB 205			<0.093	[U]	pg/g wwt		10	21-NOV-23
PCB 208			<0.28	[U]	pg/g wwt		10	21-NOV-23
PCB 207			<0.30	[U]	pg/g wwt		10	21-NOV-23
PCB 206			<0.50	[U]	pg/g wwt		10	21-NOV-23
PCB 209			<0.081	[U]	pg/g wwt		10	21-NOV-23
Surrogate: 13C12 PCB 1			23.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 3			23.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 4			27.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 15			31.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 19			32.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 37			36.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 54			32.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 81			42.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 77			42.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 104			37.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 123			43.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 118			44.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 114			44.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 105			45.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 126			49.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 155			43.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 167			45.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 156/157			46.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 169			56.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 188			41.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 189			45.0		%		10-145	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch	**R5972017**							
WG3787294-1	**MB**							
Surrogate: 13C12 PCB 202			51.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 205			43.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 208			46.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 206			46.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 209			38.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 28			34.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 111			47.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 178			45.0		%		10-145	21-NOV-23
Total MonoCB			0.22	[J]	pg/g wwt		20	21-NOV-23
Total DiCB			3.36	[J]	pg/g wwt		40	21-NOV-23
Total TriCB			2.24	[J]	pg/g wwt		40	21-NOV-23
Total TetraCB			2.38	[J]	pg/g wwt		80	21-NOV-23
Total PentaCB			1.69	[J]	pg/g wwt		80	21-NOV-23
Total HexaCB			1.09	[J]	pg/g wwt		80	21-NOV-23
Total HeptaCB			0.305	[J]	pg/g wwt		40	21-NOV-23
Total OctaCB			0.310	[J]	pg/g wwt		40	21-NOV-23
Total NonaCB			<0.28	[U]	pg/g wwt		20	21-NOV-23
DecaCB			<0.081	[U]	pg/g wwt		20	21-NOV-23
Total PCB			11.6	[J]	pg/g wwt		160	21-NOV-23
WG3787294-4	**MB**							
PCB 1			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 2			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 3			0.19	M,J,R	pg/g wwt		10	21-NOV-23
PCB 4			<1.3	[U]	pg/g wwt		10	21-NOV-23
PCB 10			<0.77	[U]	pg/g wwt		10	21-NOV-23
PCB 9			<0.82	[U]	pg/g wwt		10	21-NOV-23
PCB 7			<0.86	[U]	pg/g wwt		10	21-NOV-23
PCB 6			<0.80	[U]	pg/g wwt		10	21-NOV-23
PCB 5			<1.0	[U]	pg/g wwt		10	21-NOV-23
PCB 8			<0.72	[U]	pg/g wwt		10	21-NOV-23
PCB 14			<1.1	[U]	pg/g wwt		10	21-NOV-23
PCB 11			2.3	M,J,R	pg/g wwt		10	21-NOV-23
PCB 13/12			<1.0	[U]	pg/g wwt		10	21-NOV-23
PCB 15			<1.0	[U]	pg/g wwt		10	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-4 MB								
PCB 19			<0.36	[U]	pg/g wwt		10	21-NOV-23
PCB 30/18			<0.29	M,U	pg/g wwt		10	21-NOV-23
PCB 17			<0.35	[U]	pg/g wwt		10	21-NOV-23
PCB 27			<0.24	[U]	pg/g wwt		10	21-NOV-23
PCB 24			<0.27	[U]	pg/g wwt		10	21-NOV-23
PCB 16			<0.35	[U]	pg/g wwt		10	21-NOV-23
PCB 32			<0.23	[U]	pg/g wwt		10	21-NOV-23
PCB 34			<0.35	[U]	pg/g wwt		10	21-NOV-23
PCB 23			<0.35	[U]	pg/g wwt		10	21-NOV-23
PCB 29/26			<0.33	[U]	pg/g wwt		10	21-NOV-23
PCB 25			<0.28	[U]	pg/g wwt		10	21-NOV-23
PCB 31			0.36	M,J,R	pg/g wwt		10	21-NOV-23
PCB 28/20			<0.34	M,U	pg/g wwt		10	21-NOV-23
PCB 21/33			0.40	M,J	pg/g wwt		10	21-NOV-23
PCB 22			<0.37	[U]	pg/g wwt		10	21-NOV-23
PCB 36			<0.29	[U]	pg/g wwt		10	21-NOV-23
PCB 39			<0.36	[U]	pg/g wwt		10	21-NOV-23
PCB 38			<0.31	[U]	pg/g wwt		10	21-NOV-23
PCB 35			<0.33	[U]	pg/g wwt		10	21-NOV-23
PCB 37			<0.34	[U]	pg/g wwt		10	21-NOV-23
PCB 54			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 50/53			<0.34	[U]	pg/g wwt		10	21-NOV-23
PCB 45/51			<0.36	[U]	pg/g wwt		10	21-NOV-23
PCB 46			<0.38	[U]	pg/g wwt		10	21-NOV-23
PCB 52			0.52	M,J	pg/g wwt		10	21-NOV-23
PCB 73			<0.24	[U]	pg/g wwt		10	21-NOV-23
PCB 43			<0.41	[U]	pg/g wwt		10	21-NOV-23
PCB 69/49			<0.27	[U]	pg/g wwt		10	21-NOV-23
PCB 48			<0.35	[U]	pg/g wwt		10	21-NOV-23
PCB 44/47/65			0.51	M,J	pg/g wwt		10	21-NOV-23
PCB 59/62/75			<0.24	[U]	pg/g wwt		10	21-NOV-23
PCB 42			<0.34	[U]	pg/g wwt		10	21-NOV-23
PCB 41/71/40			<0.34	[U]	pg/g wwt		10	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-4 MB								
PCB 64			<0.23	[U]	pg/g wwt		10	21-NOV-23
PCB 72			<0.20	[U]	pg/g wwt		10	21-NOV-23
PCB 68			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 57			<0.20	[U]	pg/g wwt		10	21-NOV-23
PCB 58			<0.21	[U]	pg/g wwt		10	21-NOV-23
PCB 67			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 63			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 61/70/74/76			0.37	M,J	pg/g wwt		10	21-NOV-23
PCB 66			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 55			<0.21	[U]	pg/g wwt		10	21-NOV-23
PCB 56			<0.20	[U]	pg/g wwt		10	21-NOV-23
PCB 60			<0.21	[U]	pg/g wwt		10	21-NOV-23
PCB 80			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 79			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 78			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 81			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 77			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 104			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 96			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 103			<0.23	[U]	pg/g wwt		10	21-NOV-23
PCB 94			<0.26	[U]	pg/g wwt		10	21-NOV-23
PCB 95			0.28	M,J,R	pg/g wwt		10	21-NOV-23
PCB 100/93/102/98			<0.22	[U]	pg/g wwt		10	21-NOV-23
PCB 88/91			<0.23	[U]	pg/g wwt		10	21-NOV-23
PCB 84			<0.25	[U]	pg/g wwt		10	21-NOV-23
PCB 89			<0.29	[U]	pg/g wwt		10	21-NOV-23
PCB 121			<0.17	[U]	pg/g wwt		10	21-NOV-23
PCB 92			<0.26	[U]	pg/g wwt		10	21-NOV-23
PCB 113/90/101			0.20	M,J,R	pg/g wwt		10	21-NOV-23
PCB 83/99			<0.24	M,U	pg/g wwt		10	21-NOV-23
PCB 112			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 109/119/86/97/125/87			0.19	M,J,R	pg/g wwt		10	21-NOV-23
PCB 117/116/85/110/115			0.30	M,J,R	pg/g wwt		10	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-4 MB								
PCB 82			<0.26	[U]	pg/g wwt		10	21-NOV-23
PCB 111			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 120			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 108/124			<0.22	[U]	pg/g wwt		10	21-NOV-23
PCB 107			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 123			<0.19	[U]	pg/g wwt		10	21-NOV-23
PCB 106			<0.20	[U]	pg/g wwt		10	21-NOV-23
PCB 118			0.40	[J]	pg/g wwt		10	21-NOV-23
PCB 122			<0.26	[U]	pg/g wwt		10	21-NOV-23
PCB 114			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 105			0.19	J,R	pg/g wwt		10	21-NOV-23
PCB 127			<0.18	[U]	pg/g wwt		10	21-NOV-23
PCB 126			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 155			<0.088	[U]	pg/g wwt		10	21-NOV-23
PCB 152			<0.084	[U]	pg/g wwt		10	21-NOV-23
PCB 150			<0.073	[U]	pg/g wwt		10	21-NOV-23
PCB 136			<0.080	[U]	pg/g wwt		10	21-NOV-23
PCB 145			<0.082	[U]	pg/g wwt		10	21-NOV-23
PCB 148			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 151/135			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 154			<0.082	[U]	pg/g wwt		10	21-NOV-23
PCB 144			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 147/149			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 134/143			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 139/140			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 131			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 142			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 132			<0.16	[U]	pg/g wwt		10	21-NOV-23
PCB 133			<0.14	[U]	pg/g wwt		10	21-NOV-23
PCB 165			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 146			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 161			<0.098	[U]	pg/g wwt		10	21-NOV-23
PCB 168/153			0.21	M,J	pg/g wwt		10	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-4 MB								
PCB 141			<0.13	[U]	pg/g wwt		10	21-NOV-23
PCB 130			<0.15	[U]	pg/g wwt		10	21-NOV-23
PCB 137/164			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 138/163/129			0.31	J,R	pg/g wwt		10	21-NOV-23
PCB 160			<0.096	[U]	pg/g wwt		10	21-NOV-23
PCB 158			<0.081	[U]	pg/g wwt		10	21-NOV-23
PCB 128/166			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 159			<0.083	[U]	pg/g wwt		10	21-NOV-23
PCB 162			<0.094	[U]	pg/g wwt		10	21-NOV-23
PCB 167			<0.081	[U]	pg/g wwt		10	21-NOV-23
PCB 156/157			0.11	M,J,R	pg/g wwt		20	21-NOV-23
PCB 169			<0.071	[U]	pg/g wwt		10	21-NOV-23
PCB 188			<0.078	[U]	pg/g wwt		10	21-NOV-23
PCB 179			<0.074	[U]	pg/g wwt		10	21-NOV-23
PCB 184			<0.076	[U]	pg/g wwt		10	21-NOV-23
PCB 176			<0.073	[U]	pg/g wwt		10	21-NOV-23
PCB 186			<0.078	[U]	pg/g wwt		10	21-NOV-23
PCB 178			<0.10	[U]	pg/g wwt		10	21-NOV-23
PCB 175			<0.096	[U]	pg/g wwt		10	21-NOV-23
PCB 187			<0.095	[U]	pg/g wwt		10	21-NOV-23
PCB 182			<0.088	[U]	pg/g wwt		10	21-NOV-23
PCB 183			<0.087	[U]	pg/g wwt		10	21-NOV-23
PCB 185			<0.11	[U]	pg/g wwt		10	21-NOV-23
PCB 174			<0.087	[U]	pg/g wwt		10	21-NOV-23
PCB 177			<0.090	[U]	pg/g wwt		10	21-NOV-23
PCB 181			<0.10	[U]	pg/g wwt		10	21-NOV-23
PCB 171/173			<0.094	[U]	pg/g wwt		10	21-NOV-23
PCB 172			<0.087	[U]	pg/g wwt		10	21-NOV-23
PCB 192			0.220	M,J,R	pg/g wwt		10	21-NOV-23
PCB 180/193			<0.070	[U]	pg/g wwt		10	21-NOV-23
PCB 191			<0.061	[U]	pg/g wwt		10	21-NOV-23
PCB 170			<0.084	[U]	pg/g wwt		10	21-NOV-23
PCB 190			<0.053	[U]	pg/g wwt		10	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch R5972017								
WG3787294-4 MB								
PCB 189			<0.077	[U]	pg/g wwt		10	21-NOV-23
PCB 202			<0.054	[U]	pg/g wwt		10	21-NOV-23
PCB 201			<0.058	[U]	pg/g wwt		10	21-NOV-23
PCB 204			<0.058	[U]	pg/g wwt		10	21-NOV-23
PCB 197			<0.062	[U]	pg/g wwt		10	21-NOV-23
PCB 200			<0.060	[U]	pg/g wwt		10	21-NOV-23
PCB 198/199			<0.079	[U]	pg/g wwt		10	21-NOV-23
PCB 196			<0.073	[U]	pg/g wwt		10	21-NOV-23
PCB 203			<0.073	[U]	pg/g wwt		10	21-NOV-23
PCB 195			<0.12	[U]	pg/g wwt		10	21-NOV-23
PCB 194			0.30	M,J	pg/g wwt		10	21-NOV-23
PCB 205			<0.095	[U]	pg/g wwt		10	21-NOV-23
PCB 208			<0.29	[U]	pg/g wwt		10	21-NOV-23
PCB 207			<0.30	[U]	pg/g wwt		10	21-NOV-23
PCB 206			<0.50	[U]	pg/g wwt		10	21-NOV-23
PCB 209			<0.076	[U]	pg/g wwt		10	21-NOV-23
Surrogate: 13C12 PCB 1			25.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 3			25.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 4			25.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 15			21.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 19			25.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 37			26.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 54			24.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 81			36.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 77			40.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 104			26.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 123			42.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 118			44.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 114			43.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 105			48.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 126			54.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 155			34.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 167			48.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 156/157			50.0		%		10-145	21-NOV-23

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-1668C-O2-HRMS-BU	**Tissue**							
Batch	**R5972017**							
WG3787294-4	**MB**							
Surrogate: 13C12 PCB 169			61.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 188			37.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 189			51.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 202			52.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 205			46.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 208			50.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 206			49.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 209			38.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 28			23.0		%		5-145	21-NOV-23
Surrogate: 13C12 PCB 111			40.0		%		10-145	21-NOV-23
Surrogate: 13C12 PCB 178			43.0		%		10-145	21-NOV-23
Total MonoCB			0.19	[J]	pg/g wwt		20	21-NOV-23
Total DiCB			2.30	[J]	pg/g wwt		40	21-NOV-23
Total TriCB			0.76	[J]	pg/g wwt		40	21-NOV-23
Total TetraCB			1.40	[J]	pg/g wwt		80	21-NOV-23
Total PentaCB			1.56	[J]	pg/g wwt		80	21-NOV-23
Total HexaCB			0.629	[J]	pg/g wwt		80	21-NOV-23
Total HeptaCB			0.220	[J]	pg/g wwt		40	21-NOV-23
Total OctaCB			0.296	[J]	pg/g wwt		40	21-NOV-23
Total NonaCB			<0.29	[U]	pg/g wwt		20	21-NOV-23
DecaCB			<0.076	[U]	pg/g wwt		20	21-NOV-23
Total PCB			7.4	[J]	pg/g wwt		160	21-NOV-23

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
A	Method Blank exceeds ALS DQO. Refer to narrative comments for further information.
G	QC result did not meet ALS DQO. Refer to narrative comments for further information.
J	Duplicate results and limits are expressed in terms of absolute difference.
J,R	The analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,J	A peak has been manually integrated, and the analyte was detected below the calibrated range but above the EDL.
M,J,R	A peak has been manually integrated, the analyte was detected below the calibrated range but above the EDL, and the ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
M,U	A peak has been manually integrated, and the analyte was not detected above the EDL.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
[J]	The analyte was detected below the calibrated range but above the EDL.
[U]	The analyte was not detected above the EDL.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 14 -

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Report To	
Company:	Wildland Management Consultants Ltd.
Contact:	Lawrence Brusnyk
Address:	50345 Range Road 222 Leduc County, Alberta, T0B 3M2
Phone:	780.915.4856

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ Yes ☐ No
☐ Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	lbrusnyk@xplornet.com
Email 2	

Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)	
R	☑ Regular (Standard TAT if received by 3 pm - business days)
P	☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
E	☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
E2	☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Specify Date Required for E2,E or P:	

Invoice To	Same as Report To ☑ Yes ☐ No
	Copy of Invoice with Report ☑ Yes ☐ No
Company:	
Contact:	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	lbrusnyk@xplornet.com
Email 2	

Project Information	
ALS Quote #:	Q90177
Job #:	SHTC 11-086
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)	
Approver ID:	Cost Center:
GL Account:	Routing Code:
Activity Code:	
Location:	

ALS Lab Work Order # (lab use only)	ALS Contact: Dana Bush	Sampler: LdB/JK

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Dioxins and Furans	PCB Congeners		Number of Containers
	Plot 4 - 4 jars	May 13 - June 24		Tissue	R	R		3
	Plot 11 - 3 jars	May 13 - June 24		Tissue	R	R		3
	Plot 70 - 3 jars	May 13 - June 24		Tissue	R	R		5
	Plot 71 - 5 jars	May 13 - June 24		Tissue	R	R		6
	Plot 109 - 6 jars	May 13 - June 24		Tissue	R	R		4
	Plot 110 - 4 jars	May 13 - June 24		Tissue	R	R		5
	Plot 114 - 5 jars	May 13 - June 24		Tissue	R	R		6
	Plot 117 - 6 hars	May 13 - June 24		Tissue	R	R		6
	Plot 123 - 6 jars	May 13 - June 24		Tissue	R	R		6
	Plot 402 - 6 jars	May 13 - June 24		Tissue	R	R		6
	Total No. Jars							48

L2751583-COFC

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☐ No Are samples for human drinking water use? ☐ Yes ☐ No	Composite vole tissue samples by plot and report % moisture. **Note: Jars inadvertently labelled as Plot 104 in the field. Please report the results as Plot 4 (not Plot 104).**

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☑	SIF Observations	Yes ☐	No ☐	
Ice packs	Yes ☐	No ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
0.8					

SHIPMENT RELEASE (client use)		
Released by: Lawrence Brusnyk	Date: June 28/23	Time: 1200 hr

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by: VA	Date: 28-June-23	Time: 12:04 pm

FINAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0326e v09 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Appendix 2. 2023 Wildlife research permit and collection license.

Alberta

#23-248

General Permit - GP

RESEARCH PERMIT
FEE $ NIL

Region: Upper Athabasca

PERMITTEE: Lawrence M Brusnyk, Wildland Management Consultants Ltd.

ADDRESS: 50345 Range Road 222, Leduc County, AB T0B 3M2

IS AUTHORIZED TO: Live-trap and release red-backed voles in the vicinity of Swan Hills Treatment Centre (age, sex, ear tag with a numbered aluminum tag). Non-target species will only be identified and released alive unless accidentally mortality occurs. Holder is also authorized to kill up to 60 voles for tissue sampling.

DATE OF ISSUE: April 17, 2023

DATE OF EXPIRY: December 31, 2023

Signature of Permittee

Kevin Downing

Mr. Kevin KGD Downing

IN ACCORDANCE WITH: The approved research plan (application # 24311123) and Class Protocol(s) #007

Class Protocols are reviewed by the Alberta Wildlife Animal Care Committee and approved by the Director of Fish and Wildlife Policy.Class Protocols are available at http://aep.alberta.ca/fish-wildlife/wildlife-research-collection/default.aspx.

Conditions:

1. The Permit is subject to all conditions listed in the attached Appendix 1.

Alberta

#23-248

Licence - CN

COLLECTION LICENCE
FEE $ NIL

Region: Upper Athabasca

NAME: Lawrence M Brusnyk, Wildland Management Consultants Ltd.

ADDRESS: 50345 Range Road 222, Leduc County, AB T0B 3M2

Is authorized, subject to the conditions of this licence, and in accordance with the approved research plan # 24311123, to hunt* or collect, the following wildlife species: Small mammals (targeting red-backed voles).

This Licence authorizes the use of the following equipment and methods: Aluminum non-folding Sherman live traps and wooden Victor metal pedal snap traps.

This Licence is valid (location): Upper Athabasca

EFFECTIVE DATE: May 01, 2023 DATE OF EXPIRY: December 31, 2023

Hunting and/or collection is to be conducted by: Lawrence M Brusnyk, Daniel Boscheven, Hailey Dunsmire, Daryl Jacura, and/or other staff as required.

Date of issue: April 17, 2023

Signature of Licencee (not valid until signed by the Licencee)

Licence must be carried while hunting or collecting.

Kevin Downing

Mr. Kevin KGD Downing

**The meaning of the word "hunt" is inclusive of activities within the definition of "hunt" in the Wildlife Act except that the activity authorized by this licence is limited to what is expressly stated in it and, to be lawful, that activity must occur in accordance with the approved research plan and licence conditions.*

Appendix 1: Research Permit General Permit Conditions
Addendum to Research Permit #23-248

1. The permit is valid only for research and collection activities in the specific area and for the dates identified on the permit.
2. All research must be conducted according to the approved Research Plan (the approved application) along with any special conditions outlined on the permit and/or licence; all captured animals must be handled in a humane manner and according any additional approvals or instructions provided by the Alberta Wildlife Animal Care Committee.
3. Animals captured using immobilization drugs must follow the Chemical Immobilization of Wildlife: Drug Volume Calculation Tables: http://aep.alberta.ca/fish-wildlife/wildlife-research-collection/documents/WR-ChemicalImmobilizationWildlife-DrugVolumeCalculation-2016.pdf
4. For all projects, a report of activities from the past year is required before permits will be renewed. If the project has finished and the permit will not be renewed, the report is due within 30 days of the expiry of the permit. Reports are to be uploaded via the Online Permitting and Clearance system (OPaC) https://www.opac.alberta.ca/, and must include:

   a) A Progress Report with a general summary of project activities
   b) All wildlife observations made during the project, uploaded via OPaC using either:

   i) a FWMIS Load Form (for the appropriate data type), or
   ii) where USFWS bands are used in the project, a BANDIT digital export. Note: Banding data locations are to be provided as Latitude/Longitude in Degrees-Minutes-Seconds.

   FWMIS.xls digital files can be accessed at the following web site:
   https://www.alberta.ca/wildlife-loadforms.aspx

   c) Any accidental mortalities, oversampling exceeding 10%, and incidental captures.
   d) If radio telemetry is a component of the research, the report must include the following information:

   i) frequencies used, date, general location, species, transmitter type, manufacturer, and expected transmitter life.
   ii) last known whereabouts of transmitters still deployed.
5. Notwithstanding the authorization that this permit confers, while conducting wildlife research activities, the permit holder is responsible for the following:
   a) For activities in any Provincial Park, Ecological Reserve, Wildland Provincial Park, Natural Area, or Wilderness Area, additional approvals for access may be required; please contact your local Alberta Environment and Parks, Parks Division authority or visit https://albertaparks.ca/albertaparksca/science-research/
   b) The issuance of this Permit does not exempt the permit holder from any other Canadian Laws that might otherwise apply, including, but not limited to, requirements under the federal Migratory Birds Convention Act or Species at Risk Act.
   c) This Permit does not exempt the Permit Holder from the need to obtain permission to access private or leased land.
   d) The Permit Holder is responsible for ensuring that public safety is not endangered by activities associated with the project.
   e) The Permit Holder may be held accountable for damages to resources or property arising directly or indirectly from the project.