

Sediment Contaminant Concentrations from Disposal at Sea Sites at Point Grey and Sand Heads and inside and outside Southern Resident Killer Whale Critical Habitat, British Columbia in 2019

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RESIDENT KILLER WHALE CRITICAL HABITAT, BRITISH COLUMBIA IN 2019**

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LIST OF ACRONYMS

| Acronyms/Abbreviations/Symbols | Meaning |
|--------------------------------|--|
| ANOVA | analysis of variance |
| BC | British Columbia |
| CCGS | Canadian Coast Guard Ship |
| CCME | Canadian Council of Ministers of the Environment |
| CEPA | Canadian Environmental Protection Act |
| CSSF | Canadian Scientific Submersible Facility |
| DAS | Disposal at Sea |
| DDT | Dichlorodiphenyltrichloroethane |
| DFO | Fisheries and Oceans Canada |
| DL | detection limit |
| dw | dry weight |
| EC | Environment Canada |
| ECCC | Environment and Climate Change Canada |
| HBCDD | hexabromocyclododecane |
| HDPE | High density polyethylene |
| HRGC/HRMS | high resolution gas chromatography / high resolution mass spectrometry |
| mg/kg | milligrams per kilograms |
| NCAG | National Contaminants Advisory Group |
| ND | not detected |
| ng/g | nanograms per gram |
| NRKW | Northern Resident Killer Whales |
| PAHs | polycyclic aromatic hydrocarbons |
| PBDE | polybrominated diphenyl ether |
| PCB | polychlorinated biphenyl |
| PCDD | polychlorinated dibenzo-p-dioxin |
| PCDF | polychlorinated dibenzo-p-furan |
| PFASs | per- and polyfluoroalkyl substances |
| PG | Point Grey |
| pg/g | picograms per gram |
| PPCPs | pharmaceuticals and Personal Care Products |
| SARA | Species At Risk Act |
| SH | Sands Heads |
| SQG | sediment quality guideline |
| SRKW | Southern Resident Killer Whales |
| TBBPA | tetrabromobisphenol A |
| TBT | tributyltin |
| TEQ | toxic equivalent quotient |
| TOC | Total Organic Carbon |

US EPA

ww

$\mu\text{g}/\text{kg}$

United States Environmental Protection Agency

wet weight

microgram per kilogram

ABSTRACT

Brown, T.M., Holbert, S., Gallilee, C.A., Colbourne, K. 2022. Sediment contaminant concentrations from Disposal at Sea sites at Point Grey and Sand Heads and inside and outside Southern Resident Killer Whale Critical Habitat, British Columbia in 2019. *Can. Data Rep. Fish. Aquat. Sci.* 1346: ix + 100 p.

The measurement of contaminants of concern in marine sediments in British Columbia (BC) helps to inform the administration of Disposal at Sea (DAS) by Environment and Climate Change Canada (ECCC) in accordance with the *Canadian Environmental Protection Act* (CEPA) and helps ECCC and Fisheries and Oceans Canada (DFO) to protect the habitat of the *endangered* Southern Resident killer whales (SRKW) and their primary prey Chinook salmon under the terms of the *Species at Risk Act* (SARA). Surficial sediment samples (n = 24) were collected by ECCC and DFO from two Disposal at Sea sites (Point Grey and Sand Heads) and at sites located both inside and outside SRKW Critical Habitat. Samples were analyzed for 13 contaminant classes. Results reveal lower concentrations of PCBs, PBDEs, PCDDs, PCDFs, DDT, Alkylphenols, and metals inside Critical Habitat compared to outside Critical Habitat. PCBs, PBDEs, PCDDs, PCDFs, and DDT concentrations were higher at the Point Grey disposal site than at the Sand Heads site, whereas alkylphenols and metals (copper, lead, antimony, barium, selenium, silver) were higher at the Sand Heads site compared to the Point Grey site. Average PCB concentrations inside and outside Critical Habitat and at both disposal site locations exceeded the PCB interim sediment quality guideline (0.0037 ng/g dw) deemed to be protective of resident killer whales. Average PBDE, PCDD, PCDF, and arsenic sediment concentrations outside Critical Habitat exceeded the PBDE interim sediment quality guideline (1 ng/g dw) protective of resident killer whales and the PCDD and PCDF (0.85 ng TEQ fish/kg) and arsenic (7.24 mg/kg) CCME sediment quality guidelines to protect aquatic biota. A pilot comparison of two analytical laboratories revealed relatively good alignment when comparing the concentrations of a list of shared or common congeners, but notable differences when ‘totals’ were calculated. These data provide a baseline for future assessments relevant to the recovery of Resident killer whales.

RÉSUMÉ

Brown, T.M., Holbert, S., Gallilee, C.A., Colbourne, K. 2022. Sediment contaminant concentrations from Disposal at Sea sites at Point Grey and Sand Heads and inside and outside Southern Resident Killer Whale Critical Habitat, British Columbia in 2019. Can. Data Rep. Fish. Aquat. Sci. 1346: ix + 100 p.

La mesure des contaminants préoccupants dans les sédiments marins en Colombie-Britannique contribue à éclairer l'administration de l'immersion en mer par Environnement et Changement climatique Canada (ECCC), conformément à la *Loi canadienne sur la protection de l'environnement*. De plus, ce travail aide ECCC et Pêches et Océans Canada (MPO) à protéger l'habitat de l'épaulard résident du sud, *une espèce en voie de disparition*, et de sa principale proie, le saumon chinook, en vertu de la *Loi sur les espèces en péril*. ECCC et le MPO ont prélevé des échantillons de sédiments superficiels (n = 24) sur deux sites d'immersion en mer (Point Grey et Sand Heads) et sur des sites situés à l'intérieur et à l'extérieur de l'habitat essentiel de l'épaulard résident du sud. L'analyse des échantillons a porté sur 13 classes de contaminants. Les résultats révèlent des concentrations relativement plus faibles de BPC, de PBDE, de PCDD, de PCDF, de DDT, d'alkylphénols et de métaux à l'intérieur de l'habitat essentiel comparativement à l'extérieur de celui-ci. Les concentrations de BPC, de PBDE, de PCDD, de PCDF et de DDT étaient plus élevées au site d'élimination de Point Grey qu'au site de Sand Heads, tandis que les alkylphénols et les métaux (cuivre, plomb, antimoine, baryum, sélénium, argent) étaient plus élevés au site de Sand Heads qu'au site de Point Grey. Les concentrations moyennes de BPC à l'intérieur et à l'extérieur de l'habitat essentiel et aux deux sites d'élimination dépassaient la recommandation provisoire pour la qualité des sédiments pour les BPC (0,0037 ng/g p.s.), qui, estime-t-on, assure la protection des épaulards résidents. Les concentrations moyennes de PBDE, de PCDD, de PCDF et d'arsenic dans les sédiments à l'extérieur de l'habitat essentiel dépassaient la recommandation provisoire pour la qualité des sédiments pour les PBDE (1 ng/g p.s.) visant à protéger les épaulards résidents ainsi que la recommandation du CCME pour la qualité des sédiments pour les PCDD et les PCDF (0,85 ng EQT/kg pour les poissons) et l'arsenic (7,24 mg/kg) visant à protéger le biote aquatique. Une comparaison pilote de deux laboratoires d'analyse a révélé un alignement relativement bon lors de la comparaison des concentrations d'une liste de congénères partagés ou communs, mais des différences notables lorsque les « totaux » étaient calculés. Ces données fournissent une base de référence pour les évaluations futures des objectifs pour le rétablissement des épaulards résidents inscrits sur la liste de la *Loi sur les espèces en péril*.

1.0 Introduction

Environment and Climate Change Canada (ECCC) regulates Disposal at Sea (DAS) in Canadian waters, ensuring consistency with the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London Convention) and the 1996 Protocol to the Convention (London Protocol). Disposal at Sea is managed under a permit system under the *Disposal at Sea Regulations* under the *Canadian Environmental Protection Act* (CEPA 1999; Porebski and Osborne 1999). As part of its administration of Disposal at Sea activities, ECCC monitors sediment concentrations for contaminants of concern at representative disposal sites.

Fisheries and Oceans Canada (DFO) operates a Whale Contaminants Research Program which has implemented research and partnership initiatives to inform mitigation and recovery actions for Southern Resident killer whales (SRKW), including research to investigate contaminants of greatest concern to SRKW and their prey. DFO is focusing research efforts on both Southern and Northern Resident killer whales (NRKW) and their prey in "critical" and surrounding habitats in partnership with First Nations, NGOs, universities, and other agencies. Research carried out under this program are providing guidance on the recovery of at-risk species identified under the terms of the *Species at Risk Act* (SARA).

DFO has partnered with ECCC's DAS program to study contaminant distribution in local resident killer whale habitats. DFO's National Contaminants Advisory Group (NCAG) has funded a contaminant sediment monitoring program (i.e., *PollutionTracker*

Program) through partnerships with Ocean Wise Conservation Association. Together, this multi-sectoral effort will allow DFO to conduct a more rigorous risk-based evaluation of different contaminants in Southern Resident killer whale habitat, identify hot spots, and will enable a prioritization of contaminants of concern to the whales and their prey. Further, this sediment data will be used in food web bioaccumulation models for killer whales and their prey (salmon) and will support the development of a protocol for the derivation of environmental quality guidelines for the protection of marine mammals from bioaccumulative substances. Collectively results from this work will contribute to the Government of Canada's initiative to implement measures for the protection and recovery of endangered SRKW.

Polychlorinated biphenyls (PCBs) were banned in Canada in 1977, but their legacy persists in environmental compartments and continued scrutiny is both required under CEPA Disposal at Sea regulations and warranted from an environmental health perspective. A prolonged period of exponential increases in polybrominated diphenyl ethers (PBDEs) in biota in the NE Pacific region (Rayne et al., 2003; Ross et al., 2013), and the increasing dominance of this contaminant in municipal wastewater (Dinn et al., 2012), marine water (Frouin et al., 2013), and marine sediments (Grant et al., 2011) in British Columbia has required that this contaminant class be assessed and monitored for any dredging and/or disposal of dredged material in SRKW critical habitat, as per draft joint DFO-ECCC SOP. Polycyclic aromatic hydrocarbons (PAHs), and metals are also assessed and monitored under CEPA Disposal at Sea regulations. Other pollutants, including Alkylphenols, Per- and Polyfluoroalkyl Substances (PFASs), tributyltin (TBT), Pharmaceuticals and Personal Care Products (PPCPs), Chlorinated Alkanes, tetrabromobisphenol A (TBBPA), PBDEs, and legacy and current use pesticides have been

highlighted in the killer whale recovery strategy as a chemical of concern and suggests that assessment of sediment samples for these contaminants is warranted.

Sediment dredged from the lower Fraser River and other locations is periodically disposed of at marine sites in coastal British Columbia. Currently, the Disposal at Sea Regulations uses two Action Levels to evaluate material proposed for Disposal at Sea. The 'Lower Level' of the National Action List identifies screening criteria for specified substances to determine whether the material is acceptable for disposal (CEPA 2001; Environment Canada 2006). There are Lower Action Levels identified for the following substances: total PCBs at 100 $\mu\text{g}\cdot\text{kg}^{-1}$ dry weight, mercury (Hg; 750 $\mu\text{g}\cdot\text{kg}^{-1}$, dry weight), cadmium (Cd; 600 $\mu\text{g}\cdot\text{kg}^{-1}$ dry weight), and total PAHs (2,500 $\mu\text{g}\cdot\text{kg}^{-1}$ dry weight) (Environment Canada 2006). Any sediments proposed for Disposal at Sea with concentrations above the Lower Levels of the National Action List must additionally be assessed with: (1) an acute lethality test, (2) two sub-lethal tests or (3) one sub-lethal test and one bioaccumulation test. If the acute lethality test or the other two tests fail to meet the criteria set out for those tests, then the sediments shall be considered to be above the Upper Level of the National Action List, and Disposal at Sea is prohibited (CEPA 2001; Environment Canada 2006).

Other criteria used for screening sediment for Disposal at Sea includes the Interim Sediment Quality Guidelines (ISQG) for the protection of aquatic biota developed by the Canadian Council of Ministers of the Environment (CCME) for the following five substances: arsenic at 7.24 $\text{mg}\cdot\text{kg}^{-1}$ dry weight, chromium at 52.3 $\text{mg}\cdot\text{kg}^{-1}$ dry weight, copper at 18.7 $\text{mg}\cdot\text{kg}^{-1}$ dry weight, lead at 30.2 $\text{mg}\cdot\text{kg}^{-1}$ dry weight, zinc at 124 $\text{mg}\cdot\text{kg}^{-1}$ dry weight, and polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) at 0.85 ng TEQ fish/kg.

In addition, food web bioaccumulation modelling work led to the development of a PCB and PBDE concentrations in sediments of 0.0037 $\mu\text{g}\cdot\text{kg}^{-1}$ dry weight (Alava et al. 2012; Lachmuth et al. 2010) and 1.0 $\mu\text{g}\cdot\text{kg}^{-1}$ dry weight (Alava et al. 2016) that would reduce health risks to resident killer whales. These criteria are currently not used by the DAS Program to screen sediment. In accordance with the Standard Operating procedures developed with DFO, material is assessed and screened against background levels found at the disposal site.

This report provides a detailed summary of PCBs, PBDEs, PCDD/Fs, alkylphenols, Hexabromocyclododecane (HBCDD), legacy and current-use pesticides, Per- and polyfluoroalkyl substances (PFASs), pharmaceuticals and personal care products, Tetrabromobisphenol A (TBBPA), PAHs, TBT, and metals. PCDD and PCDF data from surficial sediment samples collected by Environment and Climate Change Canada and Fisheries and Oceans Canada in 2019 at two Disposal at Sea sites in the Strait of Georgia: Point Grey and Sand Heads, as well as inside and outside SRKW critical habitat. Contaminant analyses were carried out by SGS AXYS Analytical Ltd. in Sidney, BC. This data report represents the third such collaboration between ECCC and DFO on the monitoring of Disposal at Sea sites, with the first having evaluated PCBs, PBDEs, PCDDs and PCDFs from Point Grey and Sand Heads in the Strait of Georgia in 2010 (Ross et al. 2011) and the second having evaluated the PCBs, PBDEs, PCDDs and PCDFs at Brown Passage and Douglas Channel in 2011 (Ross et al. 2012) and is the first collaboration under the Government of Canada's Whale Initiative to inform priority contaminant actions for Southern Resident killer whales (SRKWs).

Methods

2.1 Sample collection

A total of 34 sediment samples were collected by ECCC and DFO staff from two marine disposal sites (Point Grey and Sand Heads), as well as from additional stations inside and outside SRKW critical habitat (Figures 1 and 2). Samples were collected using a Smith-McIntyre grab sampler aboard the Canadian Coast Guard Ship (CCGS) Vector June 12 to 15, 2019 and using a Petit-Ponar grab sampler aboard a Hurricane rib October 23, 2019 and November 18, 2019. Sample penetration was typically 10-15 cm for Smith-McIntyre and Petit-Ponar grab samples.

2.2 Sample analysis

2.2.1 Point Grey (SRKW-19-12) and Sand Heads (SRKW-19-005) disposal sites and sites located inside and outside Southern Resident Killer Whale (SRKW) critical habitat

A total of 24 samples from the Point Grey and Sand Heads Disposal at Sea sites and inside and outside SRKW critical habitat were submitted to SGS AXYS Analytical Ltd. in Sidney, British Columbia, ALS Canada Ltd. in Burnaby, British Columbia, and Pacific Rim Laboratories in Surrey, British Columbia and analyzed for PCBs, PBDEs, PCDDs, PCDFs, alkylphenols, HBCDD, legacy and current-use pesticides, PFASs, pharmaceuticals and personal care products, TBBPA, PAHs, TBT, and metals (Table 1). Of these 24 samples collected, only one was within the Point Grey disposal site and one was within the Point Grey disposal site.

2.2.2 SGS AXYS Analytical Ltd. vs Maxxam Analytics Inc.

A total of 10 samples from Point Grey and Sand Heads Disposal at Sea sites were submitted to SGS AXYS Analytical Ltd. and Maxxam Analytics Inc. and analyzed for PCBs, PBDEs, PCDDs, PCDFs, and PAHs.

2.3 Data analysis

2.3.1 Point Grey (SRKW-19-12) and Sand Heads (SRKW-19-005) disposal sites and sites located inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat

Values in summary tables (Tables 4, 5 and 22) are presented on a dry weight basis and have been blank corrected. When congeners or analytes were undetected, detection limit substitutions were substituted with 0. Concentrations of sumPCBs denotes 159 congeners (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12/13, 14, 15, 16, 17, 18/30, 19, 20/28, 21/33, 22, 23, 24, 25, 26/29, 27, 31, 32, 34, 35, 36, 37, 38, 39, 40/41/71, 42, 43, 44/47/65, 45/51, 46, 48, 49/69, 50/53, 52, 54, 55, 56, 57, 58, 59/62/75, 60, 61/70/74/76, 63, 64, 66, 67, 68, 72, 73, 77, 78, 79, 80, 81, 82, 83/99, 84, 85/116/117, 86/87/97/109/119/125, 88/91, 89, 90/101/113, 92, 93/95/98/100/102, 94, 96, 103, 104, 105, 106, 107, 108/124, 110/115, 111, 112, 114, 118, 120, 121, 122, 123, 126, 127, 128/166, 129/138/160/163, 130, 131, 132, 133, 134/143, 135/151/154, 136, 137, 139/140, 141, 142, 144, 145, 146, 147/149, 148, 150, 152, 153/168, 155, 156/157, 158, 159, 161, 162, 164, 165, 167, 169, 170, 171/173, 172, 174, 175, 176, 177, 178, 179, 180/193, 181, 182, 183/185, 184, 186, 187, 188, 189, 190, 191, 192, 194, 195, 196, 197/200, 198/199, 201, 202, 203, 204,

205, 206, 207, 208, 209), sumPBDEs denotes 40 congeners (7, 8/11, 10, 12/13, 15, 17/25, 28/33, 30, 32, 35, 37, 47, 49, 51, 66, 71, 75, 77, 79, 85, 99, 100, 105, 116, 119/120, 126, 128, 138/166, 140, 153, 154, 155, 181, 183, 190, 203, 206, 207, 208, 209), sumPFAS denotes 33 congeners (PFBA, PFeA, PFHxA, PFHpA, PFOA, PFNA, PFDA, PFUnA, PFDoA, PFTTrDA, PFTeDA, PFBS, PFPeS, PFHxS, PFOS, PFNS, PFDS, PFDoS, 4:2 FTS, 8:2 FTS, PFOSA, N-MeFOSA, N-EtFOSA, MeFOSAA EtFOSAA, N-MeFOSE, N-EtFOSE, HFPO-DA, ADONA, 9Cl-PF3ONS, 11Cl-PF3OUdS), SumPAHs denotes 75 congeners (naphthalene, acenaphthylene, acenaphthene, 2-methylfluorene, C2 phenanthrenes/anthracenes, fluorene, phenanthrene, C1 phenanthrenese/anthracenes, fluoranthene, pyrene, ben[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[j,k]fluoranthenes, benzo[e]pyrene, benzo[a]pyrene, perylene, dibenzo[a,h]anthracene, benzo[ghi]perylene, 2-methylnaphthalene, 1-methylnaphthalene, C1-naphthalenes, biphenyl, C1-biphenyls, C2-biphenyls, C2-naphthalenes, 1,2-dimethylnaphthalene, 2,6-dimethylnaphthalene, C3-naphthalenes, 2,3,6-trimethylnaphthalene, 2,3,5-trimethylnaphthalene, C4-naphthalenes, C1-acenaphthenes, C1-fluorenes, 1,7-dimethylfluorene, C2-fluorene, C3-fluorene, dibenzothiophene, C1-dibenzothiophenes, 2/3-methyldibenzothiophenes, C2-dibenzothiophenes, 2,4-dimethyldibenzothiophene, 4,6-dimethyldibenzothiophene, C3-dibenzothiophenes, C4-dibenzothiophenes, 3-methylphenanthrene, 2-methylphenanthrene, 2-methylanthracene, 9/4-methylphenanthrene, 1-methylphenanthrene, 3,6-dimethylphenanthrene, 2,6-dimethylphenanthrene, 1,7-dimethylphenanthrene, 1,8-dimethylphenanthrene, C3-phenanthrenes/anthracenes, 1,2,6-trimethylphenanthrene, retene, C4-phenanthrenes/anthracenes, C1-fluoranthenes/pyrenes, 3-methylfluoranthene/benzo[a]fluorene, C2-fluoranthenes/pyrenes, C3-fluoranthenes/pyrenes, C4-fluoranthenes/pyrenes, C1-benzo[a]anthracenes/chrysenes, 5/6-methylchrysene, 1-methylchrysene, C2-benzo[a]anthracenes/chrysenes, 5,9-dimethylchrysene, C3-benzo[a]anthracenes/chrysenes, C4-benzo[a]anthracenes/chrysenes, C1-benzofluoranthenes/benzopyrenes, 7-methylbenzo[a]pyrene, C2-benzofluoranthenes/benzopyrenes, 1,4,6,7-Tetramethylnaphthalene) legacy pesticides (sumHCH denotes (alpha-, beta-, gamma-, delta-hexachlorocyclohexane); sumChlordanes denotes (alpha- and gamma-chlordane; cis-nonachlor; trans-nonachlor; oxychlordane; heptachlor epoxide); sumEndosulphan denotes (alpha-, gamma-endosulphan; endosulphan sulphate); sumDDT denotes dichlorodiphenyldichloroethane [2, 4'-DDD; 4, 4'-DDD]; dichlorodiphenyldichloroethylene [2, 4'-DDE; 4, 4'-DDE]; dichlorodiphenyltrichloroethane [2, 4'-DDT; 4, 4'-DDT]; hexachlorobenzene [HCB]; dieldrin); current-use pesticides (alachlor; sumEndrin denotes endrin ketone and endrin); sumHBCDD denotes alpha-, beta-, gamma-hexabromocyclododecane; sumPCDDs denotes 7 congeners (2,3,7,8-TCDD, 1,2,3,7,8-PECDD, 1,2,3,4,7,8-HXCDD, 1,2,3,6,7,8-HXCDD, 1,2,3,7,8,9-HXCDD, 1,2,3,4,6,7,8-HPCDD, OCDD) and sumPCDFs denotes 10 congeners (2,3,7,8-TCDF, 1,2,3,7,8-PECDF, 2,3,4,7,8-PECDF, 1,2,3,4,7,8-HXCDF, 1,2,3,6,7,8-HXCDF, 1,2,3,7,8,9-HXCDF, 2,3,4,6,7,8-HXCDF, 1,2,3,4,6,7,8-HPCDF, 1,2,3,4,7,8,9-HPCDF, OCDF); sumAlkylphenols (4-Nonylphenols, 4-Nonylphenol monoethoxylates, 4-Nonylphenol diethoxylates, 4-n-Octylphenol). Data presented in Tables 5-7 and 9-21 are presented on a dry weight basis with procedural blank subtraction only, with no detection limit substitutions.

Analysis of Variance (ANOVA) were carried out for sediment contaminant concentration comparisons for sites located inside and outside critical habitat. Differences were considered significant when $p < 0.05$.

2.3.2 SGS AXYS Analytical Ltd. and ALS Canada Ltd. vs Maxxam Analytics Inc.

Values in summary tables (Table 22) are presented on a dry weight basis and have been blank corrected. When congeners or analytes were undetected, detection limit substitutions were substituted with 0. Concentrations of sumPCBs analyzed by Maxxam Analytics Inc. denotes 165 congeners (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12/13, 14, 15, 16, 17, 18/30, 19, 20/28, 21/33, 22, 23, 24, 25, 26/29, 27, 31, 32, 34, 35, 36, 37, 38, 39, 40/41/71, 42, 43, 44/47/65, 45/51, 46, 48, 49/69, 50/53, 52, 54, 55, 56, 57, 58, 59/62/75, 60, 61/70/74/76, 63, 64, 66, 67, 68, 72, 73, 77, 78, 79, 80, 81, 82, 83/99, 84, 85/116/117, 86/87/97/109/119/125, 88/91, 89, 90/101/113, 92, 93/98/100/102, 94, 95, 96, 103, 104, 105, 106, 107, 108/124, 110/115, 111, 112, 114, 118, 120, 121, 122, 123, 126, 127, 128/166, 129/138/163, 130, 131, 132, 133, 134/143, 135/151, 136, 137, 139/140, 141, 142, 144, 145, 146, 147/149, 148, 150, 152, 153/168, 154, 155, 156/157, 158, 159, 160, 161, 162, 164, 165, 167, 169, 170, 171/173, 172, 174, 175, 176, 177, 178, 179, 180/193, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 194, 195, 196, 197, 198/199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209), sumPBDEs denotes 36 congeners (10, 7, 15, 30, 17, 28, 49, 71, 47, 66, 77, 100, 119, 99, 85, 126, 154, 153, 139, 140, 138, 156, 184, 183, 191, 180, 171, 201, 197, 203, 196, 205, 208, 207, 206, 209), sumPCDDs denotes 7 congeners (2,3,7,8-Tetra CDD, 1,2,3,7,8-Penta CDD, 1,2,3,4,7,8-Hexa CDD, 1,2,3,6,7,8-Hexa CDD, 1,2,3,7,8,9-Hexa CDD, 1,2,3,4,6,7,8-Hepta CDD, Octa CDD), sumPCDFs denotes 10 congeners (2,3,7,8-Tetra CDF, 1,2,3,7,8-Penta CDF, 2,3,4,7,8-Penta CDF, 1,2,3,4,7,8-Hexa CDF, 1,2,3,6,7,8-Hexa CDF, 2,3,4,6,7,8-Hexa CDF, 1,2,3,7,8,9-Hexa CDF, 1,2,3,4,6,7,8-Hepta CDF, 1,2,3,4,7,8,9-Hepta CDF, Octa CDF), sumPAHs denotes 16 congeners (Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene). For the comparison assessment, concentrations of PCBs, PBDEs, PAHs, PCDD/Fs, were only included in the sum if each congener was detected at both sites. For example, PCB-153 had to be detected at SH19-R15 in the SGS AXYS Analytical Ltd. and Maxxam Analytics Inc. results.

3.0 Results

3.3.1 Point Grey (SRKW-19-12) and Sand Heads (SRKW-19-005) disposal sites and sites located inside and outside Southern Resident Killer Whale (SRKW) critical habitat

PCBs were detected in all sediment samples inside and outside SRKW critical habitat and at the Point Grey and Sand Heads disposal sites (Table 9). Of the 159 congeners, 72 were detected in all 24 of the samples. The top six PCB congeners inside and outside critical habitat ranked as PCB-129 + 138 + 160 + 163 > PCB-61 + 70 + 74 + 76 > PCB-153 + 168 > PCB-118 > PCB-110 + 115 > PCB-20 + 28 (Table 7), respectively. Sediment PCB concentrations did not differ outside and inside SRKW critical habitat (Table 5). The PCB sediment concentration at the Point Grey disposal site (0.5506 ng/g dw) was 2.5-fold greater than the concentration at the Sand Heads disposal site (0.2184 ng/g dw). Average concentrations inside and outside critical habitat exceeded the interim sediment quality guideline (0.0037 ng/g dw) for PCBs protective of killer whales by 320- and 634-fold, respectively. The Point Grey site and Sand Heads site exceeded the guideline by 148- and 59-fold, respectively.

Of the 40 PBDE congeners, 13 were detected in all of the 24 samples. The top six PBDE congeners inside and outside critical habitat ranked as PBDE-209 > PBDE-47 > PBDE-99 > PBDE-207 > PBDE-208 > PCB-206 (Table 7), respectively. PBDE concentrations were 3.4-fold higher ($p < 0.001$) outside SRKW critical habitat (1.284 ± 0.8930 ng/g dw) than inside critical habitat (0.3951 ± 0.5740 ng/g dw) (Figure 3; Table 5). The PBDE sediment concentration at the Point Grey disposal site (0.2902 ng/g dw) was 1.5-fold greater than the concentration at the Sand Heads disposal site (0.1986 ng/g dw). Average concentrations outside critical habitat exceeded the interim sediment quality guideline (1 ng/g dw) for PBDEs protective of killer whales by 1.3-fold

PCDF concentrations were 5.0-fold higher outside SRKW critical habitat (0.0256 ± 0.0236 ng/g dw) than inside critical habitat (0.0052 ± 0.0023 ng/g dw) (Figure 3; Table 5). The PCDF sediment concentration at the Point Grey disposal site (0.0030 ng/g dw) was 1.5-fold greater than the concentration at the Sand Heads disposal site (0.0020 ng/g dw). PCDD concentrations were 3.7-fold higher outside SRKW critical habitat (0.2234 ± 0.1480 ng/g dw) than inside critical habitat (0.0600 ± 0.0377 ng/g dw) (Figure 3; Table 5). The PCDD sediment concentration at the Point Grey disposal site (0.0431 ng/g dw) was 2.5-fold greater than the concentration at the Sand Heads disposal site (0.0684 ng/g dw). Average concentrations inside critical habitat and at the Disposal at Sea sites were below the PCDD and PCDF CCME sediment quality guideline (0.85 ng TEQ fish/kg), whereas average concentrations outside critical habitat were 2.9-fold above the guideline.

SumDDT concentrations were 2.2-fold higher outside SRKW critical habitat (0.1689 ± 0.1110 ng/g dw) than inside critical habitat (0.0767 ± 0.0567 ng/g dw) (Figure 3; Table 5). The DDT sediment concentration at the Point Grey disposal site (0.3940 ng/g dw) was 17-fold greater than the concentration at the Sand Heads disposal site (0.0230 ng/g dw). Average concentrations inside and outside critical habitat and at the two disposal sites were below the DDT CCME sediment quality guideline (1.19 ng/g dw) (Table 5).

SumAlkylphenol concentrations were 1.8-fold higher outside SRKW critical habitat (9.897 ± 9.944 ng/g dw) than inside critical habitat (5.622 ± 7.984 ng/g dw) (Figure 3; Table 5). The Alkylphenol sediment concentration at the Point Grey disposal site (0.4770 ng/g dw) was 3-fold greater than the concentration at the Sand Heads disposal site (1.420 ng/g dw).

Sediment PAH concentrations did not differ outside and inside SRKW critical habitat (Table 5). The PAH sediment concentration at the Point Grey disposal site (626.24 ng/g dw) was 1.3 fold greater than the concentration at the Sand Heads disposal site (498.63 ng/g dw).

SumPFASs and TBBPA was only detected in sediments outside SRKW critical habitat (Table 5).

Of the 35 organochlorine legacy pesticide analytes, none were detected in any of the 24 samples. Alpha-HBCDD was the only HBCDD analyte detected was detected in sites located inside and outside critical habitat. Alpha-HBCDD was not detected at the Point Grey and Sand Heads disposal site. SumChlordanes, SumEndosulphan, and HCB concentrations did not differ outside and inside critical habitat.

Of the 42 current-use pesticide analytes, only one analyte (Alachlor) was detected in 16.6% of the 24 samples.

TBT was not detected in any of the 24 sediment samples.

Copper (Cu) concentrations were 2-fold higher ($p = 0.02$) outside SRKW critical habitat (36.37 ± 19.53 mg/kg dw) than inside critical habitat (18.70 ± 10.688 mg/kg dw) (Figure 4; Table 6). The Cu sediment concentration at the Sand Heads disposal site (28.70 mg/kg dw) was 1.6-fold greater than the concentration at the Point Grey disposal site (17.60 mg/kg dw). Average concentrations inside and outside critical habitat were equal to or exceeded the CCME sediment quality guideline (18.7 mg/kg dw) for Cu by 2-fold, respectively. The sediment Cu concentration at the Point Grey disposal site was below the SQG, whereas the concentration at Sand Heads exceeded the SQG by 1.5-fold.

Lead (Pb) concentrations were 1.8-fold higher ($p = 0.03$) outside SRKW critical habitat (11.81 ± 5.152 mg/kg dw) than inside critical habitat (6.565 ± 2.162 mg/kg dw) (Figure 4; Table 6). The Pb sediment concentration at the Sand Heads disposal site (6.330 mg/kg dw) was 1.6-fold greater than the concentration at the Point Grey disposal site (3.850 mg/kg dw). Average concentrations inside and outside critical habitat were below the CCME sediment quality guideline (30.2 mg/kg dw) for Pb. The Pb concentration at the Point Grey and Sand Heads disposal sites were below the SQG.

Antimony (Sb) concentrations were 2-fold higher ($p = 0.04$) outside SRKW critical habitat (0.5231 ± 0.3376 mg/kg dw) than inside critical habitat (0.2533 ± 0.1350 mg/kg dw) (Figure 4; Table 6). The Sb sediment concentration at the Sand Heads disposal site (0.4700 mg/kg dw) was 2.4-fold greater than the concentration at the Point Grey disposal site (0.2000 mg/kg dw).

Barium (Ba) concentrations were 1.6-fold higher ($p < 0.01$) outside SRKW critical habitat (57.84 ± 15.52 mg/kg dw) than inside critical habitat (36.47 ± 14.28 mg/kg dw) (Figure 4; Table 6). The Ba sediment concentration at the Sand Heads disposal site (65.80 mg/kg dw) was 1.4-fold greater than the concentration at the Point Grey disposal site (48.30 mg/kg dw).

Selenium (Se) concentrations were 2.6-fold higher ($p = 0.04$) outside SRKW critical habitat (0.6413 ± 0.4069 mg/kg dw) than inside critical habitat (0.2500 ± 0.2051 mg/kg dw) (Figure 4; Table 6). Selenium was detected at the Sand Heads disposal site (0.2800 mg/kg dw) and not at the Point Grey disposal site.

Silver (Ag) concentrations were 4-fold higher ($p = 0.03$) outside SRKW critical habitat (0.1150 ± 0.0802 mg/kg dw) than inside critical habitat (0.0283 ± 0.0694 mg/kg dw) (Figure 4; Table 6). Selenium was detected at the Sand Heads disposal site (0.1000 mg/kg dw) and not at the Point Grey disposal site.

Average concentrations of sediments inside and outside SRKW critical habitat and at the two Disposal at Sea sites were below the CCME sediment quality guideline for chromium (52.3 mg/kg dw) and zinc (124 mg/kg dw) (Table 6). Average concentrations of sediments inside SRKW critical habitat and at the two Disposal at Sea sites were below the CCME sediment

quality guideline for arsenic (7.24 mg/kg dw), whereas average sediment concentrations outside critical habitat were 1.2-fold greater than the guideline (Table 6).

3.3.2 SGS AXYS Analytical Ltd. and ALS Canada Ltd. vs Maxxam Analytics Inc.

Ten sediments samples were split for comparative analysis at SGS AXYS Analytical Ltd. and Maxxam Analytics Inc. 159 PCB congeners were measured at SGS AXYS Analytical Ltd. (Table 1), and 165 PCB congeners were measured at Maxxam Analytics Inc. Average total PCB concentrations at SGS AXYS Analytical Ltd. (0.8653 ± 0.1294 ng/g dw) were 2.06-fold greater than average total Maxxam Analytics Inc. concentrations (0.4209 ± 0.0668 ng/g dw; Table 22). 7 PCB congeners were detected at all 10 sites for both labs. Total PCBs revealed a strong relationship ($r^2=0.6994$; p-value= 0.003) between the two labs (Figure 5). Regarding the common congeners, average total PCBs at SGS AXYS Analytical Ltd. (0.2446 ± 0.0387 ng/g dw) were 1.54-fold greater than average total Maxxam Analytics Inc. concentrations (0.1586 ± 0.0254 ng/g dw).

40 PBDE congeners were measured by SGS AXYS Analytical Ltd., and 36 PBDE congeners were measured by Maxxam Analytics Inc. Average total PBDE concentrations at Maxxam Analytics Inc. (1.1241 ± 0.2532 ng/g dw) were 1.18 times greater than AXYS (0.9524 ± 0.2581 ng/g dw; Table 22). Five PBDE congeners were detected at all 10 sites for both labs. Total PBDEs revealed a strong relationship ($r^2=0.6599$; p-value= 0.004) between the two labs (Figure 5). Regarding the common congeners, average total PBDEs at Maxxam Analytics Inc. (0.9333 ± 0.2097 ng/g dw) were 1.16-fold greater than SGS AXYS Analytical Ltd. (0.8040 ± 0.2214 ng/g dw).

SGS AXYS Analytical Ltd. measured 76 PAH congeners, while Maxxam Analytics Inc. measured 16 PAH congeners. Average total PAHs were 6.72-fold greater at SGS AXYS Analytical Ltd. (719.33 ± 77.57 ng/g dw) than average total Maxxam Analytics Inc. concentrations (107.0 ± 12.26 ng/g dw; Table 22). 11 PAH congeners were detected at all 10 sites for both labs. Total PAHs revealed a strong relationship ($r^2=0.6209$; p-value= 0.007) between the two labs (Figure 5). Regarding the common congeners, average total PAHs at Maxxam Analytics Inc. (95.93 ± 10.72 ng/g dw) were 1.05-fold greater than SGS AXYS Analytical Ltd. (91.06 ± 10.76 ng/g dw).

7 PCDD congeners were measured by SGS AXYS Analytical Ltd. and Maxxam Analytics Inc. labs, and 4 congeners were detected at all 10 sites for both labs. Average total PCDD concentrations at Maxxam Analytics Inc. (0.1198 ± 0.0160 ng/g dw) were 1.11-fold greater than concentrations measured at SGS AXYS Analytical Ltd. (0.1076 ± 0.0159 ng/g dw; Table 22). Total PCDDs, measured at the two labs were not correlated with one another. ($r^2=0.2915$; p-value= 0.107) (Figure 5). Regarding the common congeners, average total PCDDs at Maxxam Analytics Inc. (0.1191 ± 0.0159 ng/g dw) were 1.11-fold greater than at SGS AXYS Analytical Ltd. (0.1070 ± 0.0159 ng/g dw).

SGS AXYS Analytical Ltd. and Maxxam Analytics Inc. measured 10 PCDF congeners but there was no overlap in detection among all 10 sites. Average total PCDF concentrations measured at

SGS AXYS Analytical Ltd. (0.0254 ± 0.0186 ng/g dw) were 2.49-fold higher than Maxxam Analytics Inc. concentrations (0.0102 ± 0.0021 ng/g dw; Table 22).

4.0 Acknowledgements

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References

- Alava, J.J., Ross, P.S., Lachmuth, C.L., Ford, J.K.B., Hickie, B.E., and Gobas, F.A.P.C. 2012. Habitat-based PCB environmental quality criteria for the protection of endangered killer whales (*Orcinus orca*). *Environ. Sci. Technol.* 46: 12655-12663.
- Alava, J.J., Ross, P.S., Gobas, F.A.P.C. 2016. Food web bioaccumulation model for resident killer whales from the Northeastern Pacific Ocean as a tool for the derivation of PBDE-sediment quality guidelines. *Arch. Environ. Contam. Toxicol.* 70: 155-168.
- Canadian Environmental Protection Act (CEPA) 2001. Disposal at Sea regulations and regulations respecting applications for permits for Disposal at Sea. SOR/2001-275 and 276.
- Dinn, P.M., Johannessen, S.C., Ross, P.S., Macdonald, R.W., Whitticar, M.J., Lowe, C.J., and van Roodselaar, A. 2012. PBDE and PCB bioaccumulation near marine wastewater outfalls shaped by sediment organic carbon, not concentration. *Environ. Pollut.* 171: 241-8.
- Environment Canada 2006. Compendium of Monitoring Activities at Disposal at Sea Sites in 2004-2005. Disposal at Sea Program, Environmental Protection Service, Environment Canada.
- Frouin, H., Dangerfield, N., Macdonald, R.W., Galbraith, M., Crewe, N., Shaw, P., Mackas, D., and Ross, P.S. 2013. Partitioning and bioaccumulation of PCBs and PBDEs in marine plankton from Strait of Georgia, British Columbia, Canada. *Prog. Oceanogr.* 115: 65-75.
- Grant, P.B.C., Johannessen, S.C., Macdonald, R.W., Yunker, M.B., Sanborn, M., Dangerfield, N., Wright, C., and Ross, P.S. 2011. Environmental fractionation of PCBs and PBDEs during particle transport as recorded by sediments in coastal waters. *Environ. Toxicol. Chem.* 30: 1522-153.
- Lachmuth, C.L., Alava, J.J., Hickie, B.E., Johannessen, S.C., Macdonald, R.W., Ford, J.K.B., Ellis, G.M., Gobas, F.A.P.C., and Ross, P.S. 2010. Ocean disposal in resident killer whale (*Orcinus orca*) Critical Habitat: science in support of risk management. Fisheries and Oceans Canada, Canadian Science Assessment Secretariat (CSAS) Research Document 2010/116.
- London Convention 1996. Protocol to the convention on the prevention of marine pollution by dumping of wastes and other matter (London Protocol). IMO.
- Porebski, L.M. and Osborne, J.M. 1998. The application of a tiered testing approach to the management of dredged sediments for Disposal at Sea in Canada. *Chem. Ecol.* 14: 197-214.
- Rayne, S., Ikononou, M.G., and Antcliffe, B. 2003. Rapidly increasing polybrominated diphenyl ether concentrations in the Columbia River system from 1992 to 2000. *Environ. Sci. Technol.* 36: 2847-2854.
- Ross, P.S. 2010. Impact of at sea disposal on resident killer whale (*Orcinus orca*) Critical Habitat: Science in support of risk management. Fisheries and Oceans Canada, Science Advisory Report no. 2010-046.

- Ross, P. S., Harris, K. A., Dangerfield, N. J., Crewe, N. F., Dubetz, C., Fischer, M. B., Fraser, T. L., and Ross, A. R. S. 2011. Sediment concentrations of PCBs, PBDEs, PCDDs and PCDFs from Disposal at Sea sites at Point Grey and Sand Heads, British Columbia in 2010. Fisheries and Oceans Canada, Ottawa, Canada. Can. Data Rep. Fish. Aquat. Sci. 1239: vii + 115 p.
- Ross, P.S., Frouin, H., Dangerfield, N.J., Crewe, N.F., Dubetz, C., Fischer, M.B., Fraser, T.L., Ross, A.R.S. 2012. Sediment concentrations of PCBs, PBDEs, PCDDs and PCDFs from Disposal at Sea Sites at Brown Passage and Douglas Channel, British Columbia in 2011. Fisheries and Oceans Canada, Ottawa, Canada. Can. Data Rep. Fish. Aquat. Sci. 1243: vii + 113 p.
- Ross, P.S., Noël, M., Lambourn, D., Dangerfield, N., Calambokidis, J., and Jeffries, S. 2013. Declining concentrations of persistent PCBs, PBDEs, PCDEs, and PCNs in harbor seals from the Salish Sea. Prog. Oceanogr. 15: 160-170.

Figure 1. Locations of sediment sampling at Point Grey (SRKW-19-12) and Sand Heads (SRKW-19-005) disposal sites and sites located inside and outside Southern Resident Killer Whale (SRKW) critical habitat in the Strait of Georgia, British Columbia. Five sites were sampled in less than 20 m depth and data was made available via the *PollutionTracker* Program website: <https://pollutiontracker.org>.

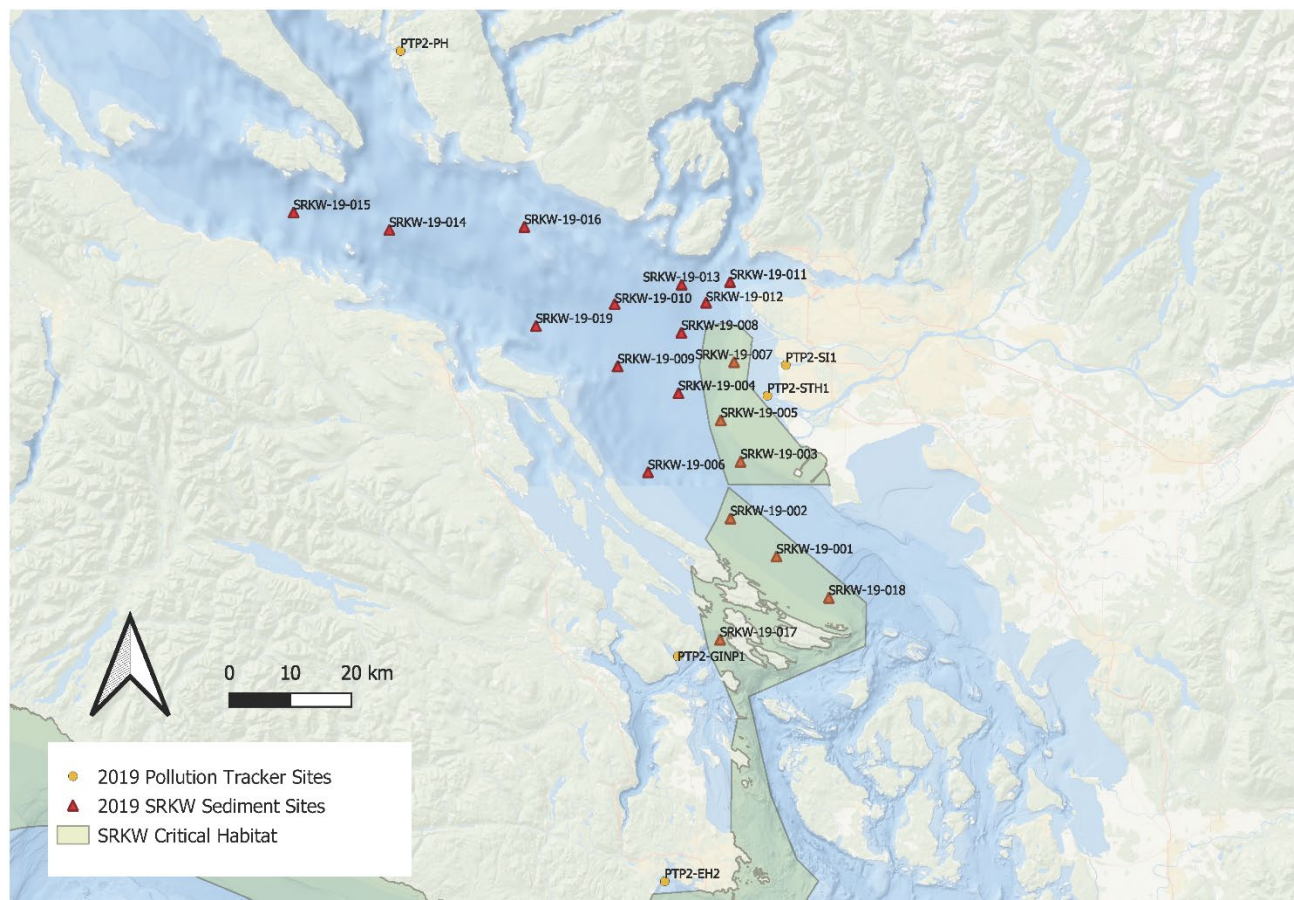


Figure 2. Surficial sediment samples at Point Grey and Sand Heads disposal sites for contaminant analysis of PCBs, PBDEs, D/Fs, PAHs, and metals at SGS AXYS Analytical Ltd. and Maxxam Analytics Inc.

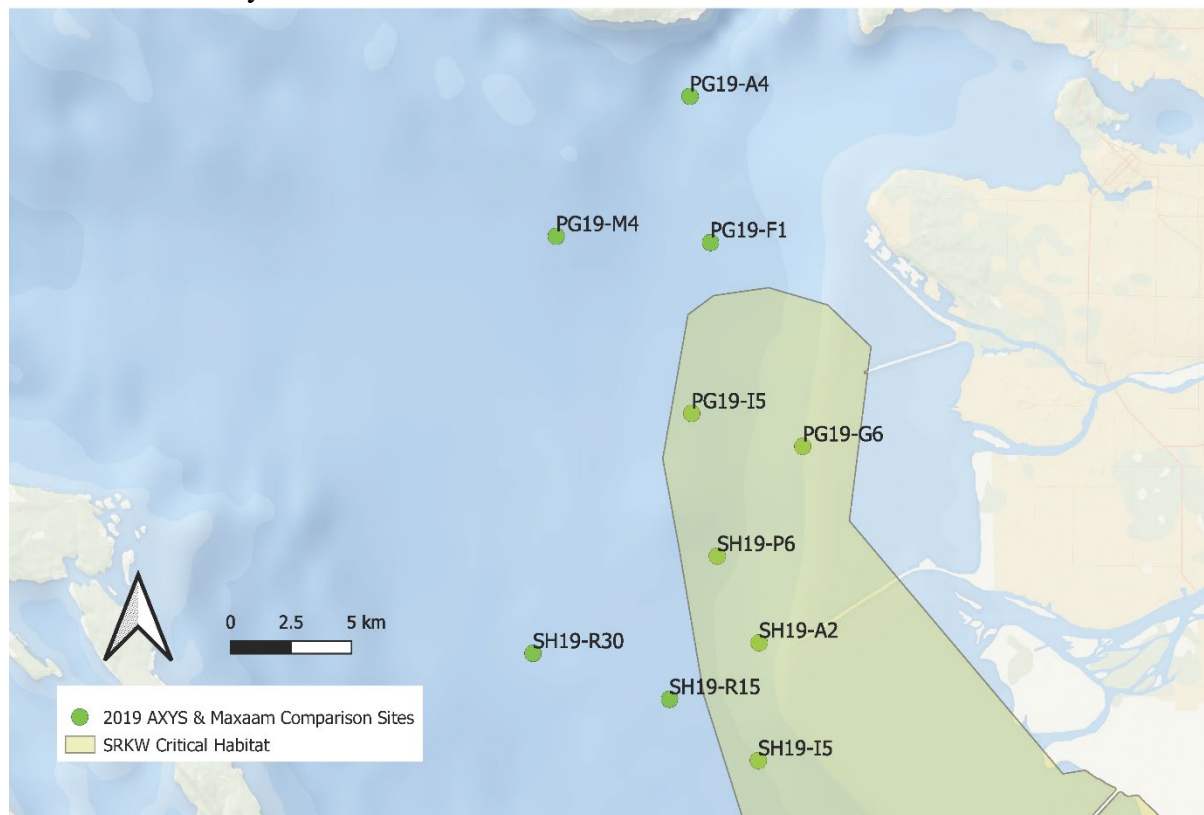


Figure 3. Priority contaminant (PCBs, PBDEs, PCDDs, PCDFs, , DDTs, Alkylphenols) concentrations inside and outside Southern Resident Killer Whale (SRKW) critical habitat and in two Disposal at Sea sites. * denotes a significant difference between sediment concentrations inside and outside critical habitat. Interim sediment quality guideline for PCBs and PBDEs protective of killer whales is denoted by the horizontal line.

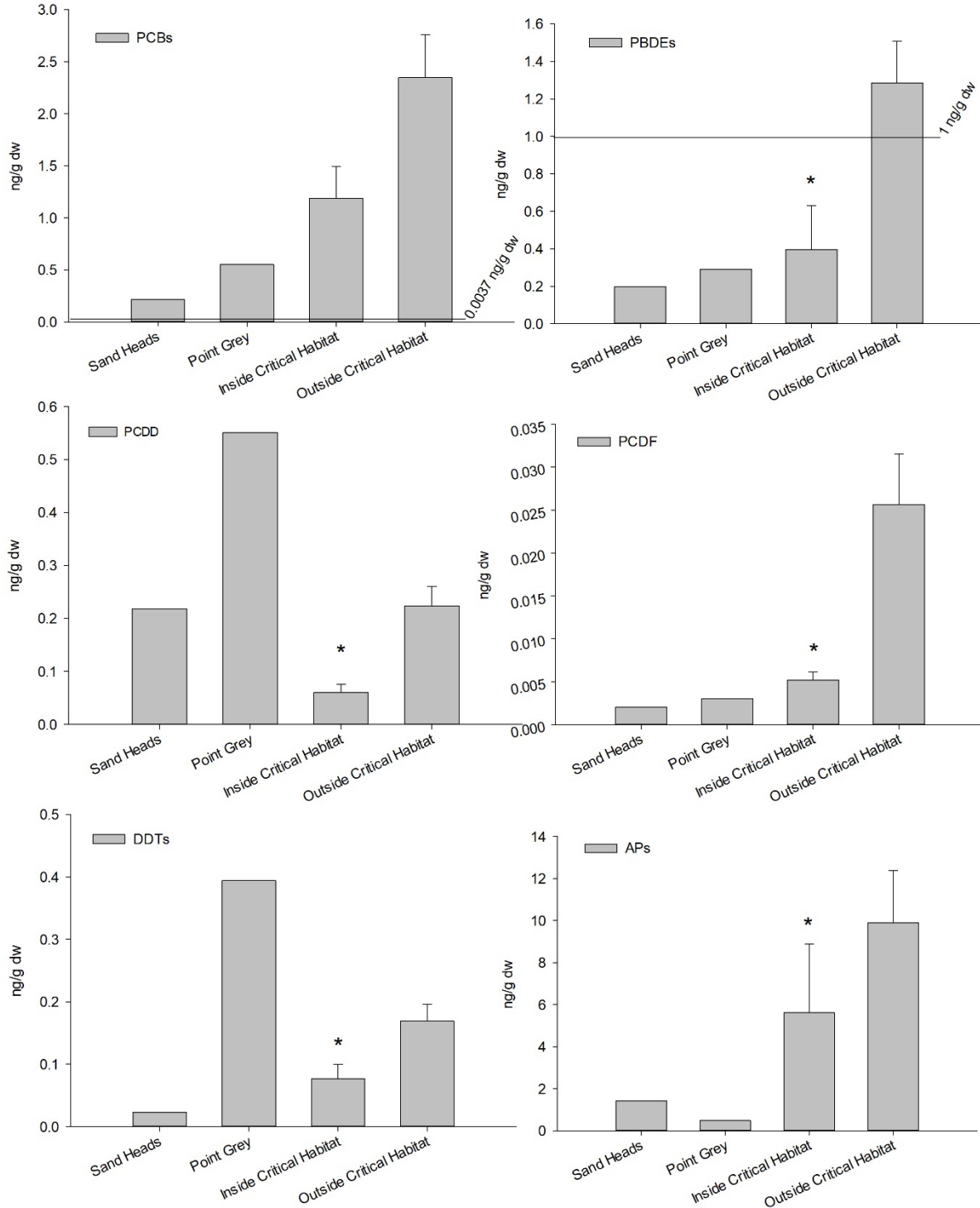


Figure 4. Metal (Copper, lead, antimony, barium, selenium, silver) concentrations inside and outside Southern Resident Killer Whale (SRKW) critical habitat and in two Disposal at Sea sites. * denotes a significant difference between sediment concentrations inside and outside critical habitat. CCME interim sediment quality guideline for copper and lead is indicated by the horizontal line.

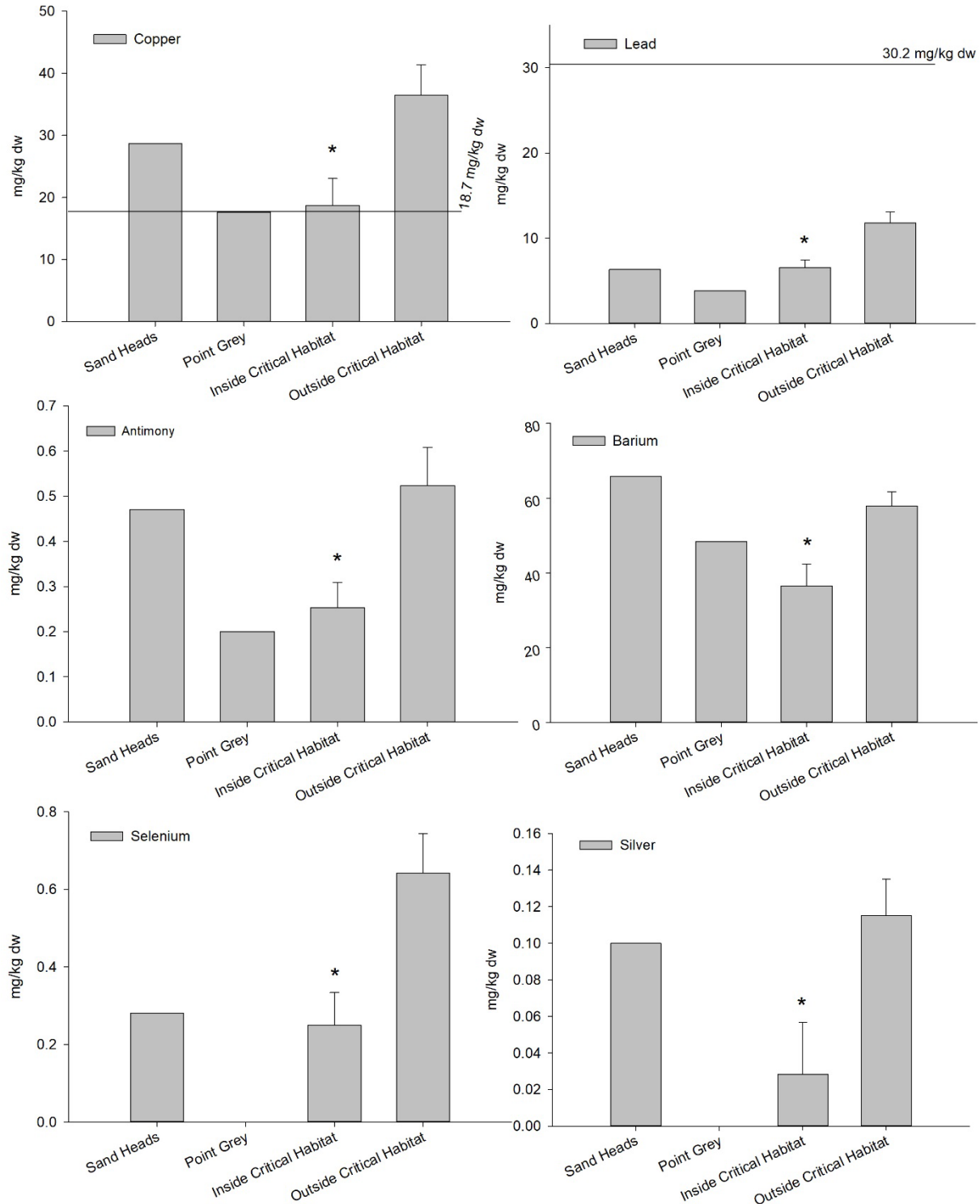


Figure 5. Total PCBs (A), PBDEs (B), PAHs (C), and PCDD (D) concentrations measured in 10 sediment samples at SGS AXYS Analytical Ltd. (AXYS) and Maxxam Analytics Inc. (Maxxam). Totals are comprised of adding the concentrations of the same congeners measured at both labs. Axes units are reported in ng/g dry weight.

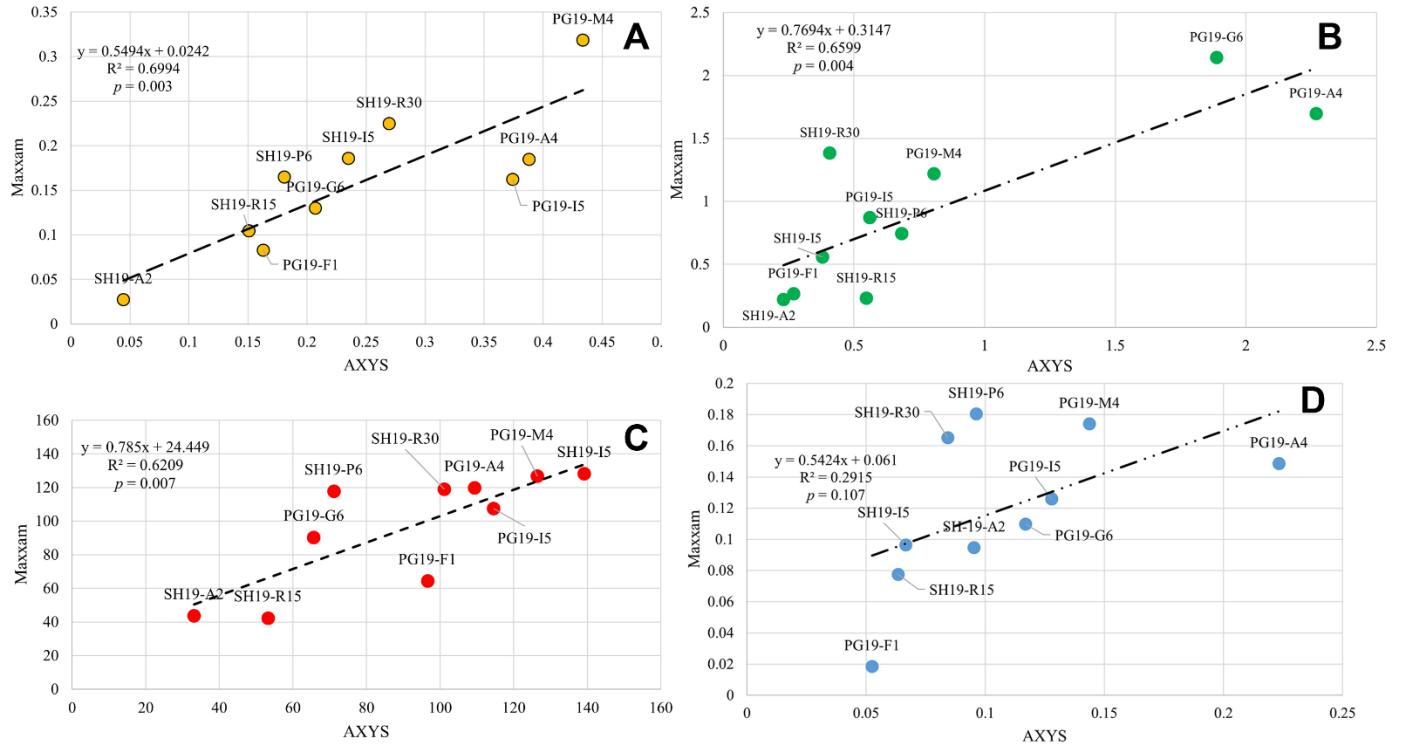


Table 1. Analyte group, method, and laboratory used for contaminant analyses in sediment samples.

| Analyte Group (where applicable published reference method indicated) | Laboratory |
|---|--------------------------|
| Legacy and Current Use Pesticides by HRMS (EPA 1699) | SGS AXYS Analytical Ltd. |
| 209 PCB Congeners by HRMS (EPA 1668C or Equivalent) | SGS AXYS Analytical Ltd. |
| 165 PCB Congeners by HRMS/MS | Maxxam Analytics Inc. |
| PBDE Congeners by HRMS (EPA 1614A) | SGS AXYS Analytical Ltd. |
| 36 PBDE Congeners by HRGC/HRMS | Maxxam Analytics Inc. |
| Dioxins and Furans by HRMS (EPA 1613B) | SGS AXYS Analytical Ltd. |
| Dioxin and Furans by HRMS/MS | Maxxam Analytics Inc. |
| PFAS by LC MS/MS Isotope Dilution (40 compound minimum) | SGS AXYS Analytical Ltd. |
| PAHs, Alkylated PAHs, Alkylated PAH Groups by Isotope Dilution GC/MS (8270D modified by EPA 1625) | SGS AXYS Analytical Ltd. |
| PAHs GC/MS Low Level | Maxxam Analytics Inc. |
| PPCPs by LC MS/MS (Modified EPA 1694) | SGS AXYS Analytical Ltd. |
| Alkylphenols by Isotope dilution GC/MS or LC MS/MS | SGS AXYS Analytical Ltd. |
| HBCDD isomers by LC-MS/MS using LC MS/MS isotope dilution quantification | SGS AXYS Analytical Ltd. |
| TBBPA by LC-MS/MS | SGS AXYS Analytical Ltd. |
| Polychlorinated paraffins by LR-GC-MS | SGS AXYS Analytical Ltd. |
| Mercury by CVAAS, methylmercury by GCAFS and metals by CRC ICPMS | ALS Canada Ltd. |

| | |
|-----------------------------------|-----------------------------|
| Total mercury and metals by ICPMS | Maxxam Analytics Inc. |
| Tributyltin | Pacific Rim Laboratories |

Table 2. Surficial sediment samples collected by Smith-McIntyre and Petit-Ponar grabs at Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat (CH) from June 13 to November 18, 2019. Two shallow (<20 m) sites were collected in February 2018.

| Sample ID | Date | Latitude | Longitude | Depth (m) | Area | Collection Method |
|------------------|-------------|-----------------|------------------|------------------|----------------------|--------------------------|
| SRKW19-001 | 15-Jun-19 | 48.898 | -123.209 | -139 | Ambient within KWCH | GRB-(Smith-Mac) |
| SRKW19-002 | 15-Jun-19 | 48.953 | -123.311 | -180 | Ambient within KWCH | GRB-(Smith-Mac) |
| SRKW19-003 | 13-Jun-19 | 49.036 | -123.289 | -127 | Ambient within KWCH | GRB-(Smith-Mac) |
| SRKW19-004 | 14-Jun-19 | 49.135 | -123.426 | -262 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-005 | 14-Jun-19 | 49.096 | -123.333 | -100 | Within Disposal Site | GRB-(Smith-Mac) |
| SRKW19-006 | 15-Jun-19 | 49.020 | -123.494 | -246 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-007 | 14-Jun-19 | 49.180 | -123.303 | -92 | Ambient within KWCH | GRB-(Smith-Mac) |
| SRKW19-008 | 12-Jun-19 | 49.222 | -123.420 | -295 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-009 | 12-Jun-19 | 49.174 | -123.561 | -375 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-010 | 12-Jun-19 | 49.264 | -123.568 | -347 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-011 | 12-Jun-19 | 49.296 | -123.312 | -135 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-012 | 11-Oct-19 | 49.266 | -123.365 | -246 | Within Disposal Site | GRB-(Smith-Mac) |
| SRKW19-013 | 12-Oct-19 | 49.292 | -123.419 | -199 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-014 | 14-Oct-19 | 49.371 | -124.067 | -253 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-015 | 14-Oct-19 | 49.396 | -124.279 | -345 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-016 | 14-Oct-19 | 49.375 | -123.768 | -192 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SRKW19-017 | 15-Oct-19 | 48.777 | -123.334 | -99 | Ambient within KWCH | GRB-(Smith-Mac) |
| SRKW19-018 | 15-Oct-19 | 48.838 | -123.093 | -196 | Ambient within KWCH | GRB-(Smith-Mac) |
| SRKW19-019 | 14-Oct-19 | 49.232 | -123.742 | -400 | Ambient outside KWCH | GRB-(Smith-Mac) |
| PTP2-STH1 | 23-Oct-19 | 49.131 | -123.229 | -15 | Outside KWCH | GRB-(Petit-Ponar) |
| PTP2-SI1 | 18-Nov-19 | 49.176 | -123.188 | -8 | Outside KWCH | GRB-(Petit-Ponar) |
| PTP2-GNP1 | 22-Feb-18 | 48.753 | -123.428 | -15.5 | Outside KWCH | GRB-(Petit-Ponar) |
| PTP2-EH2 | 21-Feb-18 | 48.423 | -123.457 | -19 | Outside KWCH | GRB-(Petit-Ponar) |
| PTP2-PH | 13-Nov-19 | 49.628 | -124.042 | -20 | Outside KWCH | GRB-(Petit-Ponar) |

Table 3. Surficial sediment samples collected by Smith-McIntyre grab at Sand Heads (SH) and Point Grey (PG) sites, including within the disposal site from June 13 to October 12, 2019.

| Sample ID | Date | Latitude | Longitude | Depth (m) | Area | Collection Method |
|-----------|-----------|----------|-----------|-----------|----------------------|-------------------|
| SH19-A2 | 13-Jun-19 | 49.105 | -123.326 | -179 | Ambient within KWCH | GRB-(Smith-Mac) |
| SH19-I5 | 15-Jun-19 | 49.061 | -123.326 | -143 | Ambient within KWCH | GRB-(Smith-Mac) |
| SH19-P6 | 14-Jun-19 | 49.137 | -123.349 | -168 | Ambient within KWCH | GRB-(Smith-Mac) |
| SH19-R15 | 13-Jun-19 | 49.084 | -123.376 | -204 | Ambient outside KWCH | GRB-(Smith-Mac) |
| SH19-R30 | 15-Jun-19 | 49.101 | -123.454 | -312 | Ambient outside KWCH | GRB-(Smith-Mac) |
| PG19-A4 | 13-Oct-19 | 49.307 | -123.365 | -221 | Ambient outside KWCH | GRB-(Smith-Mac) |
| PG19-F1 | 11-Oct-19 | 49.253 | -123.353 | -228 | Within Disposal Site | GRB-(Smith-Mac) |
| PG19-G6 | 13-Oct-19 | 49.178 | -123.301 | -83 | Ambient within KWCH | GRB-(Smith-Mac) |
| PG19-I5 | 13-Oct-19 | 49.190 | -123.364 | -220 | Ambient within KWCH | GRB-(Smith-Mac) |
| PG19-M4 | 12-Oct-19 | 49.255 | -123.441 | -243 | Ambient outside KWCH | GRB-(Smith-Mac) |

Table 4. Surficial sediment properties for Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites included % total organic carbon (TOC), % moisture, and percentages of gravel, sand, silt, and clay.

| Sample | % TOC | % moisture | % sand | % silt | % clay | $\delta^{15}\text{N}$ | $\delta^{13}\text{C}$ |
|-------------|-------|------------|--------|--------|--------|-----------------------|-----------------------|
| SRKW-19-001 | 0.526 | 34.1 | 72.6 | 22.5 | 4.9 | 5.834 | -22.31 |
| SRKW-19-002 | 1.08 | 47.6 | 34.8 | 53.4 | 11.7 | 5.948 | -21.37 |
| SRKW-19-003 | 0.753 | 31.5 | 85.2 | 10.9 | 3.9 | 5.023 | -22.08 |
| SRKW-19-004 | 1.49 | 59.5 | 4.4 | 72.2 | 23.4 | 5.117 | -21.76 |
| SRKW-19-005 | 0.401 | 40.3 | 38 | 50 | 12 | 1.959 | -25.43 |
| SRKW-19-006 | 1.34 | 63.2 | 1 | 71.1 | 27.9 | 5.255 | -22.96 |
| SRKW-19-007 | 1.18 | 55.4 | 5 | 72.2 | 22.8 | 3.922 | -24.36 |
| SRKW-19-008 | 1.63 | 69.1 | <1.0 | 68 | 31.4 | 5.429 | -22.35 |
| SRKW-19-009 | 1.59 | 67.1 | <1.0 | 67.3 | 32.4 | 5.718 | -22.03 |
| SRKW-19-010 | 1.55 | 70.8 | <1.0 | 64.2 | 35.4 | 5.368 | -22.52 |
| SRKW-19-011 | 1.28 | 59.9 | 1.2 | 69.1 | 29.7 | 4.505 | -23.37 |
| SRKW-19-012 | 0.401 | 30.2 | 52.9 | 27.3 | 10 | 4.724 | -24.94 |
| SRKW-19-013 | 1.42 | 63.7 | 3 | 63.6 | 33.4 | 5.155 | -23.39 |
| SRKW-19-014 | 1.85 | 73.1 | 1.4 | 54.9 | 43.7 | 5.956 | -21.87 |
| SRKW-19-015 | 2.46 | 79.5 | <1.0 | 60.8 | 38.6 | 6.565 | -21.79 |
| SRKW-19-016 | 1.54 | 67 | 2.3 | 58.1 | 39.6 | 6.111 | -22.02 |
| SRKW-19-017 | 0.699 | 35.7 | 70.3 | 23.2 | 6.1 | 6.208 | -21.76 |
| SRKW-19-018 | 1.18 | 55.1 | 33.2 | 54.2 | 12.5 | 5.565 | -21.55 |
| SRKW-19-019 | 1.85 | 78.5 | <1.0 | 60.4 | 39.4 | 6.397 | -22.07 |

Table 5. Average \pm standard deviation (range, ng/g dw) for PCBs, PBDEs, TBBPA, HBCDD, PFASs, PAHs, APs, PCDD, PCDF, and legacy and current-use pesticides for Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites.

| Class | Analytes | Within Disposal at Sea Sites | | Inside SRKW Critical Habitat | Outside SRKW Critical Habitat |
|--------------------------|------------------------|------------------------------|-------------------------|---|---|
| | | Sand Heads SRKW19-5 | Point Grey SRKW19-12 | <i>n</i> =6 | <i>n</i> =16 |
| PCBs | SumPCBs | 0.2184 | 0.5506 | 1.184 \pm 0.753 (0.3775 - 2.469) | 2.348 \pm 1.644 (0.179 - 6.798) |
| PBDEs | SumPBDEs | 0.1986 | 0.2902 | 0.3951 \pm 0.574* (0.0511 - 1.547) | 1.284 \pm 0.893 (0.243 - 3.596) |
| TBBPA | TBBPA | ND | ND | ND | 0.0731 \pm 0.292 (0.00 - 1.170) |
| HBCDD | SumHBCDD | ND | ND | 0.1137 \pm 0.278 (0.00 - 0.682) | 1.343 \pm 5.256 (0.00 - 21.05) |
| PFASs | SumPFASs | ND | ND | ND | 0.357 \pm 0.569 (0.00 - 2.160) |
| PAHs | SumPAHs | 498.63 | 626.24 | 1025 \pm 513.7 (292.5 - 1727) | 1191 \pm 851 (53.01 - 3515) |
| Alkylphenols | SumAPs | 1.420 | 0.4770 | 5.622 \pm 7.984* (0.688 - 21.43) | 9.897 \pm 9.944 (0 - 39.95) |
| Dioxin /Furans | SumPCDDs | 0.0684 | 0.0431 | 0.0600 \pm 0.0377* (0.0255 - 0.1154) | 0.2234 \pm 0.148 (0.0145 - 0.5015) |
| | SumPCDFs | 0.0020 | 0.0030 | 0.0052 \pm 0.0023* (0.0014 - 0.0075) | 0.0256 \pm 0.0236 (0.0019 - 0.0960) |
| Legacy Pesticides | TEQs | 0.0003 | 0.0001 | 0.0007 \pm 0.0003 (0.0003 - 0.0009) | 0.0024 \pm 0.0022 (0.00002 - 0.0089) |
| | SumDDTs | 0.0230 | 0.3940 | 0.0767 \pm 0.0567* (0.00 - 0.150) | 0.169 \pm 0.111 (0.00 - 0.390) |
| | SumChlordanes | ND | 0.028 | 0.0027 \pm 0.0042 (0.00 - 0.009) | 0.0015 \pm 0.0038 (0.00 - 0.014) |
| | SumEndosulphan | 0.067 | 0.008 | 0.0723 \pm 0.0898 (0.00 - 0.225) | 0.101 \pm 0.0808 (0.00 - 0.297) |
| | SumHCH | ND | ND | 0.0137 \pm 0.0173 (0.00 - 0.042) | 0.0116 \pm 0.0173 (0.00 - 0.048) |
| | Hexachlorobenzene | 0.015 | 0.009 | 0.0309 \pm 0.015 (0.013 - 0.047) | 0.0471 \pm 0.0292 (0.00 - 0.107) |
| | Octachlorostyrene | ND | ND | ND | 0.0011 \pm 0.0045 (0 - 0.018) |
| | Dieldrin | 0.00 | 0.0130 | 0.0008 \pm 0.002 (0.00 - 0.005) | 0.0022 \pm 0.007 (0 - 0.028) |
| | Mirex | ND | ND | 0.0003 \pm 0.0008 (0.00 - 0.002) | ND |
| | Hepatochlor Epoxide | 0.014 | 0.001 | ND | 0.0216 \pm 0.0472 (0.00 - 0.179) |
| SumEndrin | ND | ND | ND | 0.0060 \pm 0.0237 (0 - 0.095) | |
| Current-use pesticide | Alachlor | 1.640 | 0.0850 | ND | 0.1001 \pm 0.2548 (0 - 0.9235) |

*Denotes significant difference between inside and outside SRKW Critical Habitat sites.

Table 6. Average \pm standard deviation (range, mg/kg dw) for metals in Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites.

| Analytes | Within Disposal at Sea Sites | | Inside SRKW Critical Habitat | Outside SRKW Critical Habitat |
|-------------------------|------------------------------|-------------------------|--|--|
| | Sand Heads SRKW19-5 | Point Grey SRKW19-12 | <i>n</i> =6 | <i>n</i> =16 |
| Aluminum | 13900 | 11800 | 14367 \pm 3800 (9600 - 20200) | 19019 \pm 4945 (9160 - 24100) |
| Antimony | 0.4700 | 0.2000 | 0.2533 \pm 0.135* (0.150 - 0.520) | 0.5231 \pm 0.3376 (0.1200 - 1.560) |
| Arsenic | 6.830 | 3.680 | 6.350 \pm 1.319 (5.190 - 8.840) | 8.716 \pm 3.023 (3.00 - 13.80) |
| Barium | 65.80 | 48.30 | 36.47 \pm 14.28* (24.10 - 62.90) | 57.84 \pm 15.52 (25.10 - 77.00) |
| Beryllium | 0.3400 | 0.1900 | 0.3317 \pm 0.765 (0.280 - 0.440) | 0.4212 \pm 0.1319 (0.1900 - 0.5800) |
| Bismuth | 0.00 | 0.00 | 0.0367 \pm 0.0898 (0.00 - 0.22) | 0.09125 \pm 0.1218 (0.00 - 0.2600) |
| Boron | 12.00 | 9.000 | 21.15 \pm 5.826 (11.40 - 28.50) | 33.61 \pm 18.44 (0.00 - 73.40) |
| Cadmium | 0.1690 | 0.0770 | 0.1458 \pm 0.0423 (0.0640 - 0.182) | 0.3883 \pm 0.7724 (0.0780 - 3.260) |
| Calcium | 7920 | 4600 | 8720 \pm 5170 (4960 - 18900) | 11705 \pm 17046 (4400 - 75400) |
| Chromium | 38.20 | 21.20 | 32.88 \pm 8.189 (27.10 - 49.10) | 40.80 \pm 11.33 (17.00 - 58.20) |
| Cobalt | 11.90 | 6.940 | 8.817 \pm 2.721 (7.330 - 14.30) | 13.10 \pm 5.44 (4.410 - 24.40) |
| Copper | 28.70 | 17.60 | 18.70 \pm 10.688* (11.30 - 39.50) | 36.47 \pm 19.53 (9.170 - 95.20) |
| Iron | 28000 | 19700 | 26450 \pm 5128 (20300 - 35600) | 31194 \pm 8235 (15400 - 40900) |
| Lead | 6.330 | 3.850 | 6.565 \pm 2.162* (3.830 - 7.920) | 11.81 \pm 5.152 (3.820 - 20.30) |
| Lithium | 14.00 | 7.900 | 18.17 \pm 4.203 (10.90 - 21.40) | 20.61 \pm 5.996 (8.100 - 27.60) |
| Magnesium | 10600 | 6210 | 9228 \pm 2417 (7510 - 14000) | 12546 \pm 3642 (6190 - 18900) |
| Manganese | 406.0 | 289.0 | 274.3 \pm 77.927 (219.0 - 430.0) | 1101 \pm 1709 (151.0 - 6100) |
| Methylmercury (MeHg) | 0.0760 | 0.00 | 0.1620 \pm 0.175 (0.00 - 0.4560) | 0.2026 \pm 0.2223 (0.00 - 0.7410) |
| Mercury | 0.0415 | 0.0276 | 0.0435 \pm 0.0175 (0.0278 - 0.0702) | 0.0778 \pm 0.0361 (0.0160 - 0.1550) |
| Molybdenum | 0.8100 | 0.3900 | 0.5167 \pm 0.2695 (0.2700 - 0.4700) | 1.1437 \pm 1.259 (0.03400 - 5.680) |
| Nickel | 41.10 | 15.90 | 27.75 \pm 10.144 (19.70 - 46.90) | 37.71 \pm 14.16 (11.90 - 46.20) |
| Phosphorus | 683.0 | 465.0 | 719.7 \pm 159.0 (580.0 - 1020) | 917.1 \pm 206.0 (549.0 - 1410) |
| Potassium | 1600 | 1380 | 2063 \pm 570.8 (1220 - 2730) | 3153 \pm 1279 (640.0 - 5330) |
| Selenium | 0.2800 | 0.00 | 0.2500 \pm 0.2051* | 0.6412 \pm 0.4069 |

| | | | | |
|-----------|--------|--------|-------------------|-------------------|
| | | | (0.00 - 0.4400) | (0.00 - 1.470) |
| Silver | 0.1000 | 0.00 | 0.0283 ± 0.0694* | 0.115 ± 0.0802 |
| | | | (0.00 - 0.1700) | (0.00 - 0.3400) |
| Sodium | 8300 | 5270 | 9415 ± 3978 | 18292 ± 9439 |
| | | | (5130 - 14400) | (1470 - 38200) |
| Strontium | 48.60 | 39.10 | 52.02 ± 14.97 | 96.09 ± 134.6 |
| | | | (34.40 - 74.30) | (23.00 - 597.0) |
| Sulfur | 0.00 | 0.00 | 1400 ± 1131 | 2544 ± 2154 |
| | | | (0.00 - 2600) | (0.00 - 9700) |
| Thallium | 0.0760 | 0.00 | 0.0982 ± 0.0152 | 0.1144 ± 0.0797 |
| | | | (0.0820 - 0.1220) | (0.0560 - 0.4000) |
| Tin | 0.00 | 0.00 | 0.00 ± 0.00 | 0.3937 ± 1.575 |
| | | | (n/a) | (0.00 - 9700) |
| Titanium | 906.0 | 715.0 | 887.7 ± 126.3 | 918.0 ± 145.3 |
| | | | (755.0 - 1100) | (666.0 - 1100) |
| Tungsten | 0.00 | 0.00 | 0.00 ± 0.00 | 0.00 ± 0.00 |
| | | | (n/a) | (n/a) |
| Uranium | 0.6320 | 0.4640 | 0.5865 ± 0.1856 | 1.012 ± 0.540 |
| | | | (0.4060 - 0.9220) | (0.3200 - 2.780) |
| Vanadium | 50.30 | 49.30 | 50.43 ± 8.630 | 64.08 ± 18.84 |
| | | | (41.10 - 66.00) | (32.50 - 106.0) |
| Zinc | 66.00 | 40.60 | 60.42 ± 15.93 | 83.80 ± 25.26 |
| | | | (45.90 - 89.00) | (36.00 - 136.0) |
| Zirconium | 7.700 | 4.600 | 6.150 ± 1.445 | 6.587 ± 2.113 |
| | | | (4.100 - 8.400) | (3.00 - 11.00) |

*Denotes significant difference between inside and outside SRKW Critical Habitat sites.

Table 7. Top six PCB & PBDE congeners by concentration at all sites, as well as the Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites. Average \pm standard deviation (ng/g dw).

| | All Sites (n = 24) | | Sands Head | Point Grey | | Inside SRKW Critical Habitat (n =6) | | Outside SRKW Critical Habitat (n = 16) | | |
|--------------|------------------------------|---------------------|------------------------------|------------|--------------------------|-------------------------------------|------------------------------|--|------------------------------|---------------------|
| PCBs | 129 + 138 + 160 + 163 | 0.1014 \pm 0.1015 | 20 + 28 | 0.0177 | 20 + 28 | 0.0291 | 152 | 0.1383 \pm 0.3093 | 129 + 138 + 160 + 163 | 0.1310 \pm 0.1108 |
| | 61 + 70 + 74 + 76 | 0.0978 \pm 0.0834 | 61 + 70 + 74 + 76 | 0.0093 | 61 + 70 + 74 + 76 | 0.0271 | 129 + 138 + 160 + 163 | 0.0518 \pm 0.0365 | 61 + 70 + 74 + 76 | 0.1280 \pm 0.0869 |
| | 153 + 168 | 0.0838 \pm 0.0831 | 8 | 0.0086 | 31 | 0.0241 | 153 + 168 | 0.0439 \pm 0.0373 | 153 + 168 | 0.1077 \pm 0.0899 |
| | 118 | 0.0798 \pm 0.0738 | 153 + 168 | 0.0086 | 118 | 0.0183 | 61 + 70 + 74 + 76 | 0.0438 \pm 0.0176 | 118 | 0.1048 \pm 0.0786 |
| | 110 + 115 | 0.0707 \pm 0.0665 | 129 + 138 + 160 + 163 | 0.0086 | 44 + 47 + 65 | 0.0181 | 180 + 193 | 0.0413 \pm 0.0603 | 110 + 115 | 0.0913 \pm 0.0725 |
| | 20 + 28 | 0.0679 \pm 0.0523 | 44 + 47 + 65 | 0.0067 | 52 | 0.0180 | 147 + 149 | 0.0398 \pm 0.0459 | 66 | 0.0866 \pm 0.0583 |
| PBDEs | 209 | 0.7066 \pm 0.7298 | 209 | 0.1077 | 209 | 0.2280 | 209 | 0.2404 \pm 0.4235 | 209 | 0.9488 \pm 0.7538 |
| | 47 | 0.0668 \pm 0.0452 | 47 | 0.0263 | 47 | 0.0185 | 47 | 0.0466 \pm 0.0399 | 47 | 0.0800 \pm 0.0446 |
| | 99 | 0.0354 \pm 0.0270 | 99 | 0.0249 | 99 | 0.0127 | 99 | 0.0234 \pm 0.0254 | 99 | 0.0419 \pm 0.0275 |
| | 207 | 0.0245 \pm 0.0241 | 206 | 0.0066 | 49 | 0.0045 | 206 | 0.0128 \pm 0.0183 | 207 | 0.0318 \pm 0.0250 |
| | 208 | 0.0211 \pm 0.0235 | 207 | 0.0063 | 100 | 0.0044 | 207 | 0.0117 \pm 0.0164 | 208 | 0.0290 \pm 0.0249 |
| | 206 | 0.0204 \pm 0.0193 | 100 | 0.0057 | 207 | 0.0033 | 49 | 0.0100 \pm 0.0101 | 206 | 0.0254 \pm 0.0193 |

Table 8. Percent detect for PCB (n = 159) and PBDE (n = 40) congener data.

| PCBs | Frequency Detected | Number of Congeners |
|--------------------|--------------------|---------------------|
| All Sites (n = 24) | 0% | 2 |
| | >0 to <70% | 28 |
| | $70 \leq 100\%$ | 57 |
| | 100% | 72 |
| PBDEs | | |
| All Sites (n = 24) | 0% | 1 |
| | >0 to <70% | 13 |
| | $70 \leq 100\%$ | 13 |
| | 100% | 13 |

Table 9. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for 159 polychlorinated biphenyls (PCBs). All values are reported in pg/g dry weight. < = values below reporting limit (RL). NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.

| | SRKW19-1 | SRKW19-1 (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
|------------------|------------|-------------------------|-----------|------------|----------|------------|------------|------------|
| PCB-1 | 1.75 | 1.68 | 3.29 | 0.79 | 2.92 | 0.73 | 5.72 | 1.58 |
| PCB-2 | 8.036 | 9.326 | 15.086 | 4.166 | 18.686 | 1.166 | 17.7 | 8.106 |
| PCB-3 | 0.89 | 1.42 | 2.28(NDR) | 0.4 | 2.01 | 0.2(NDR) | 0.3 | 1.65(NDR) |
| PCB-4 | 4.06 | 3.75 | 5.45 | 1.69 | 4.66 | 3.2 | 6.4 | 3.86 |
| PCB-5 | 0.198 | < 0.167 | 0.233 | < 0.11 | < 0.373 | < 0.253 | 0.209 | < 0.294 |
| PCB-6 | 2.1 | 1.68 | 2.78 | 0.968 | 3.16 | 0.995 | 3.78 | 1.95 |
| PCB-7 | 0.527 | 0.508 | 0.735 | 0.381 | 0.7 | < 0.237 | 1.04 | 0.551 |
| PCB-8 | 14.4 | 13.3 | 19.8 | 6.19 | 20.3 | 8.63 | 23.7 | 12.4 |
| PCB-9 | 0.46 | 0.411 | 0.529 | 0.201 | 0.593 | < 0.227 | 0.78 | 0.389 |
| PCB-10 | 0.138 | < 0.147 | 0.146 | < 0.0966 | < 0.314 | < 0.237 | 0.229 | < 0.276 |
| PCB-11 | 14.43 | 14.73 | 31.73 | 6.43 | 39.03 | 2.27 | 31.5 | 20.63 |
| PCB-12 + 13 | 2.47 | 2.33 | 3.43 | 1.15 | 4.13 | 0.769 | 4.98 | 2.22 |
| PCB-14 | 0.197 | 0.151 | 0.301 | < 0.0991 | < 0.352 | < 0.227 | 0.391 | < 0.265 |
| PCB-15 | 13.8 | 13 | 19.9 | 6.71 | 15.5 | 5.56 | 32.6 | 14.5 |
| PCB-16 | 5.49 | 5.74(NDR) | 5.11 | 3.58(NDR) | 4.64 | 1.87 | 3.985 | 3.68(NDR) |
| PCB-17 | 6.423 | 5.913 | 7.773 | 2.563(NDR) | 5.543 | 4.203 | 5.759 | 4.663 |
| PCB-18 + 30 | 10.878 | 8.198 | 15.278 | 3.048(NDR) | 9.328 | 2.438 | 9.88 | 7.808(NDR) |
| PCB-19 | 1.05(NDR) | 1.61(NDR) | 1.35 | 0.792 | 1.49 | 1.42(NDR) | 1.43 | 1.63(NDR) |
| PCB-20 + 28 | 44.919 | 44.519 | 58.719 | 17.119 | 48.419 | 17.719 | 68.516 | 33.119 |
| PCB-21 + 33 | 20.479 | 21.479 | 25.179 | 7.899 | 18.679 | 4.199 | 23.8 | 17.079 |
| PCB-22 | 13.424 | 11.624 | 15.924 | 6.224(NDR) | 14.324 | 2.234 | 18.9 | 8.904 |
| PCB-23 | < 0.879 | < 0.717 | < 1.13 | < 1.22 | < 0.0657 | < 0.636 | < 0.076 | < 0.738 |
| PCB-24 | 0.106(NDR) | < 0.29 | < 0.457 | < 0.466 | 0 | < 0.181 | 0.119(NDR) | < 0.308 |
| PCB-25 | 2.767 | 2.197 | 3.527 | 1.087 | 3.697 | < 0.506 | 4.18 | 2.327 |
| PCB-26 + 29 | 4.784 | 5.214 | 5.804 | 1.214 | 5.804 | 1.254 | 8.56 | 3.944 |
| PCB-27 | 1.02(NDR) | 0.662(NDR) | 1.03(NDR) | < 0.473 | 1.03 | 0.998(NDR) | 1.13 | 0.75 |
| PCB-31 | 26.74 | 27.04 | 34.34 | 10.34 | 29.14 | 6.0 | 43.183 | 21.04 |
| PCB-32 | 5.88 | 5.34 | 7.01 | 1.92 | 5.25 | 3.97 | 6.43 | 4.19 |
| PCB-34 | < 0.865 | < 0.706 | < 1.14 | < 1.2 | 0.159 | < 0.626 | 0.242 | < 0.727 |
| PCB-35 | 1.778 | 2.298 | < 1.22 | < 1.41 | 1.918 | < 0.736 | 2.84 | < 0.855 |
| PCB-36 | < 0.889 | < 0.726 | < 1.09 | < 1.23 | 1.11 | < 0.643 | 1.35 | < 0.747 |
| PCB-37 | 11.839 | 10.339 | 16.039 | 4.719 | 11.539 | 1.149(NDR) | 25.2 | 9.189(NDR) |
| PCB-38 | < 0.832 | < 0.68 | < 1.08 | < 1.15 | 0.521 | < 0.602 | 0.537 | < 0.699 |
| PCB-39 | < 0.87 | < 0.71 | < 1.09 | < 1.2 | 0.284 | < 0.629 | 0.475 | < 0.731 |
| PCB-40 + 41 + 71 | 15.31 | 16.31 | 16.01 | 5.35 | 11.91 | 3.51 | 17 | 10.01 |
| PCB-42 | 7.069(NDR) | 6.879 | 8.529 | 2.589(NDR) | 6.479 | 1.409 | 9.305 | 5.099 |

| | SRKW19-1 | | | | | | | |
|------------------------------------|------------|-------------|------------|------------|-----------|------------|------------|------------|
| | SRKW19-1 | (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
| PCB-43 | 0.697 | 1.36(NDR) | 0.656 | < 0.116 | 0.747 | 0.595(NDR) | 0.737(NDR) | < 0.104 |
| PCB-44 + 47 + 65 | 24.538 | 21.638 | 25.938 | 8.358 | 20.238 | 6.668 | 32.3 | 15.438 |
| PCB-45 + 51 | 3.076 | 2.366 | 3.686 | 0.44(NDR) | 2.266 | 1.036(NDR) | 3.131 | 2.486 |
| PCB-46 | 1.638(NDR) | 0.928 | 0.838(NDR) | < 0.103 | 0.807 | 0.481 | 1.07 | 0.864(NDR) |
| PCB-48 | 4.324 | 4.644 | 5.444 | 1.984(NDR) | 3.514 | 0.356(NDR) | 5.447 | 2.714 |
| PCB-49 + 69 | 13.745 | 14.645 | 17.245 | 6.265 | 13.145 | 3.385(NDR) | 21.748 | 7.975 |
| PCB-50 + 53 | 2.25(NDR) | 2.21(NDR) | 2.48 | 0.797 | 1.98 | 0.57 | 2.63 | 2.17(NDR) |
| PCB-52 | 22.3 | 23.3 | 25.5(NDR) | 7.47 | 19.7 | 5.74 | 31.42 | 14.9 |
| PCB-54 | 0.319(NDR) | 0.187(NDR) | < 0.0482 | < 0.0656 | 0.076 | 0.065(NDR) | < 0.046 | < 0.0534 |
| PCB-55 | < 0.479 | 1.41 | 1.08 | 0.792(NDR) | 0.816 | 0.388 | 1.39 | 1.02 |
| PCB-56 | 18.096 | 19.496 | 25.496 | 7.536 | 19.596 | 3.056 | 35.174 | 11.696 |
| PCB-57 | < 0.424 | < 0.97 | < 0.622 | < 0.254 | 0.243 | < 0.249 | 0.298 | < 0.321 |
| PCB-58 | < 0.429 | < 0.982 | < 0.625 | < 0.258 | 0.169 | < 0.253 | 0.215 | < 0.325 |
| PCB-59 + 62 + 75 | 2.593 | 2.263 | 2.693 | 0.973 | 1.723 | 0.135(NDR) | 2.99 | 1.563(NDR) |
| PCB-60 | 14.623 | 14.123 | 16.623 | 5.163 | 12.723 | 1.343(NDR) | < 0.128 | 9.343 |
| PCB-61 + 70 + 74 + 76 | 54.6 | 51.6 | 69.3 | 23.2 | 58.7 | 9.33 | 125.164 | 33.1 |
| PCB-63 | 1.4 | 1.16 | 1.46 | 0.706(NDR) | 1.32 | < 0.244 | 2.69 | 0.731(NDR) |
| PCB-64 | 12.325 | 12.025 | 14.525 | 4.355 | 9.735 | 2.725 | 14.708 | 7.155 |
| PCB-66 | 39.386 | 39.886 | 49.286 | 15.486 | 40.386 | 6.236 | 78.357 | 27.386 |
| PCB-67 | 1.02 | 0.864(NDR) | 1.35 | 0.633 | 0.988 | < 0.208 | 1.94 | 0.574(NDR) |
| PCB-68 | 0.437(NDR) | < 0.935 | 0.63 | < 0.245 | 0.407 | < 0.241 | 0.75 | < 0.31 |
| PCB-72 | < 0.414 | < 0.946 | < 0.604 | 0.361(NDR) | 0.425 | < 0.243 | 0.551 | 0.374(NDR) |
| PCB-73 | 0.225 | 0.265(NDR) | 0.307(NDR) | 0.166(NDR) | < 0.0493 | 0.231(NDR) | < 0.046 | 0.27 |
| PCB-77 | 4.97 | 5.05 | 7.06 | 1.87 | 4.85 | 0.643 | 11.645 | 3.25 |
| PCB-78 | < 0.482 | < 1.1 | < 0.672 | < 0.289 | < 0.114 | < 0.284 | < 0.125 | < 0.365 |
| PCB-79 | 1.56 | < 0.828 | 0.671 | < 0.217 | 0.554 | < 0.213 | 0.895 | < 0.274 |
| PCB-80 | < 0.421 | < 0.963 | < 0.613 | < 0.253 | < 0.0972 | < 0.248 | 0.433 | < 0.319 |
| PCB-81 | 0.182 | 0.243 | 0.247 | 0.092 | 0.2 | < 0.0463 | 0.428 | 0.097 |
| PCB-82 | 7.794 | 5.434 | 11.794 | 2.204 | 4.424 | 0.844(NDR) | 6.52 | 5.324 |
| PCB-83 + 99 | 23.378 | 21.578 | 29.878 | 7.858 | 22.278 | 2.918(NDR) | 39.754 | 15.678 |
| PCB-84 | 7.267 | 5.737 | 9.087 | 1.407 | 6.517 | 0.788(NDR) | 9.813 | 4.447 |
| PCB-85 + 116 + 117 | 7.76 | 9.39 | 10.1 | 2.36 | 8.07 | 1.13 | 11.368 | 4.19 |
| PCB-86 + 87 + 97 + 109 + 119 + 125 | 25.5 | 21.7 | 30.6 | 8.48(NDR) | 22.8 | 4.91 | 35.886 | 16.8 |
| PCB-88 + 91 | 4.85 | 4.08 | 5.04 | 1.36(NDR) | 4.07 | 0.534(NDR) | 6.409 | 2(NDR) |
| PCB-89 | 0.673(NDR) | 0.545(NDR) | 0.522(NDR) | < 0.097 | 0.331 | 0.323(NDR) | 0.459 | 0.368(NDR) |
| PCB-90 + 101 + 113 | 28.732 | 29.432 | 49.232 | 11.232 | 30.632 | 4.062(NDR) | 51.637 | 19.232 |
| PCB-92 | 6.67 | 6.12 | 9.98 | 1.17 | 5.71 | < 0.0699 | < 0.115 | 3.37 |
| PCB-93 + 95 + 98 + 100 + 102 | 23.566 | 23.866 | 38.066 | 7.616 | 18.066 | 3.866 | 30.9 | 14.766 |
| PCB-94 | < 0.0719 | 0.231(NDR) | < 0.0568 | 0.243(NDR) | 0.161 | 0.1(NDR) | 0.285 | 0.17(NDR) |
| PCB-96 | 0.149(NDR) | 0.22(NDR) | 0.223(NDR) | 0.106(NDR) | 0.166 | < 0.0463 | 0.197 | 0.135(NDR) |
| PCB-103 | 0.405 | 0.348(NDR) | 0.27(NDR) | 0.42(NDR) | 0.24(NDR) | 0.219(NDR) | 0.381 | < 0.0551 |
| PCB-104 | < 0.0482 | 0.078(NDR) | < 0.0482 | < 0.0646 | < 0.0493 | < 0.0508 | < 0.046 | < 0.0495 |
| PCB-105 | 20.293 | 20.193 | 28.193 | 6.633 | 18.693 | 2.693 | 39.626 | 12.093 |

| | SRKW19-1 | SRKW19-1 (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
|---------------------------|------------|-------------------------|------------|------------|------------|------------|----------|------------|
| PCB-106 | < 0.515 | 0.357(NDR) | < 0.493 | 0.417(NDR) | < 0.218 | 0.205(NDR) | < 0.164 | < 0.478 |
| PCB-107 | 3.978 | 2.798 | 4.748 | 0.728 | 3.978 | 0.428(NDR) | 7.1 | 1.138 |
| PCB-108 + 124 | 1.67 | 1.51(NDR) | 2.58 | 0.858(NDR) | 1.43(NDR) | 0.623(NDR) | 2.798 | 1.39 |
| PCB-110 + 115 | 43.767 | 40.267 | 61.067 | 13.967 | 38.767 | 6.447 | 55.766 | 23.267 |
| PCB-111 | 0.209 | 0.195(NDR) | 0.101(NDR) | < 0.0659 | 0.075 | 0.138(NDR) | 0.112 | 0.197(NDR) |
| PCB-112 | < 0.0527 | < 0.0634 | < 0.0482 | < 0.0706 | < 0.0607 | < 0.051 | < 0.0866 | 0.263(NDR) |
| PCB-114 | 0.808 | 0.922 | 1.15 | 0.307 | 0.908 | 0.142 | 1.498 | 0.476 |
| PCB-118 | 39.16 | 39.96 | 55.56 | 13.36 | 38.46 | 5.92 | 82.418 | 25.66 |
| PCB-120 | 0.326(NDR) | < 0.0602 | 0.069(NDR) | 0.068 | 0.21 | 0.134(NDR) | 0.214 | 0.195(NDR) |
| PCB-121 | 0.184(NDR) | < 0.0629 | < 0.0482 | 0.135(NDR) | < 0.0618 | < 0.0505 | < 0.0869 | 0.306(NDR) |
| PCB-122 | 0.788 | 0.99(NDR) | < 0.591 | 0.537(NDR) | 0.631 | 0.278(NDR) | 0.754 | < 0.574 |
| PCB-123 | 0.783 | 0.867 | 0.989 | 0.214 | 0.833 | 0.129 | 1.706 | 0.554 |
| PCB-126 | 0.291 | 0.335 | 0.487 | 0.122 | 0.263 | 0.059 | 0.589 | 0.222 |
| PCB-127 | < 0.572 | < 0.363 | < 0.534 | 0.201(NDR) | < 0.232 | 0.15(NDR) | < 0.174 | < 0.531 |
| PCB-128 + 166 | 9.91 | 9.94 | 20.3 | 3.71(NDR) | 10.5 | < 0.0607 | 16.421 | 7.69 |
| PCB-129 + 138 + 160 + 163 | 41.819 | 44.419 | 129.719 | 19.819 | 50.819 | 8.569 | 97.19 | 35.219 |
| PCB-130 | 3.09 | 4.23 | 4.94 | 0.845(NDR) | 3.03 | < 0.08 | 5.24 | < 0.116 |
| PCB-131 | 0.111(NDR) | < 0.531 | 0.878(NDR) | < 0.103 | 0.274 | 0.173 | 0.671 | 0.593 |
| PCB-132 | 15.843 | 15.743(NDR) | 50.543 | 4.973 | 12.643 | 2.573(NDR) | 21.9 | 10.343 |
| PCB-133 | 0.898(NDR) | < 0.545 | 1.86 | < 0.106 | 0.768 | 0.137(NDR) | 1.44 | < 0.106 |
| PCB-134 + 143 | 1.12 | 2.47(NDR) | 5.14 | < 0.111 | 1.75 | < 0.0769 | 2.6 | 0.978(NDR) |
| PCB-135 + 151 + 154 | 11.3(NDR) | 12 | 54.8 | 4.36(NDR) | 9.93 | 3.11(NDR) | 15.116 | 9.46 |
| PCB-136 | 3.668 | 2.758(NDR) | 20.538 | 1.128(NDR) | 2.918 | 0.573(NDR) | 4.363 | 2.148 |
| PCB-137 | 1.8(NDR) | < 0.572 | < 0.251 | 1.16 | 2.04 | 0.433(NDR) | 2.64 | 1.33(NDR) |
| PCB-139 + 140 | 1.65(NDR) | 0.924(NDR) | < 0.231 | 0.211(NDR) | 0.713(NDR) | 0.192(NDR) | 0.984 | 0.538(NDR) |
| PCB-141 | 6.33 | 6.5 | 32.8 | 2.6 | 4.4 | 1.56(NDR) | 6.97 | 3.26 |
| PCB-142 | < 0.0769 | < 0.567 | < 0.254 | < 0.11 | < 0.138 | < 0.0765 | < 0.21 | < 0.111 |
| PCB-144 | 2.02 | < 0.085 | 7.38 | 0.926(NDR) | 1.11 | < 0.0882 | 1.67 | 0.549(NDR) |
| PCB-145 | < 0.0525 | 0.091(NDR) | 0.058(NDR) | 0.136(NDR) | < 0.0493 | < 0.0695 | < 0.046 | < 0.0754 |
| PCB-146 | 6.88 | 7.37 | 18.6 | 1.89 | 7.61 | 1.44(NDR) | 13.54 | < 0.0875 |
| PCB-147 + 149 | 26.947 | 25.147 | 141.447 | 11.647 | 25.247 | 5.087 | 53.23 | 21.947 |
| PCB-148 | 0.446(NDR) | 0.209(NDR) | 0.979(NDR) | < 0.0896 | 0.381 | < 0.0884 | 2.389 | < 0.0958 |
| PCB-150 | < 0.0502 | < 0.0641 | < 0.0482 | < 0.0675 | 0.083(NDR) | < 0.0665 | 0 | 0.129(NDR) |
| PCB-152 | 0.147(NDR) | < 0.0544 | < 0.0482 | 0.071(NDR) | < 0.0493 | < 0.0565 | 0.051 | 0.083(NDR) |
| PCB-153 + 168 | 34.159 | 35.259 | 124.759 | 14.259 | 40.859 | 8.579 | 81.19 | 26.259 |
| PCB-155 | < 0.0482 | < 0.0573 | < 0.0482 | 0.076 | 0.113 | < 0.0597 | 0.029 | < 0.0615 |
| PCB-156 + 157 | 3.973 | 3.973 | 9.443 | 1.343 | 5.263 | 0.659 | 8.81 | 3.023 |
| PCB-158 | 2.82 | 3.03 | 8.45 | 1.14 | 3.13 | 0.917 | 5.43 | 1.7(NDR) |
| PCB-159 | 0.155(NDR) | < 0.402 | 3.71(NDR) | 0.479 | 0.476(NDR) | 0.143(NDR) | 0.661 | < 0.0783 |
| PCB-161 | 0.322(NDR) | < 0.383 | < 0.172 | 0.261(NDR) | < 0.0957 | < 0.0517 | < 0.146 | < 0.0747 |
| PCB-162 | 0.611(NDR) | < 0.37 | 0.452 | 0.101(NDR) | 0.16 | < 0.0498 | < 0.136 | < 0.072 |
| PCB-164 | 2.18 | 3.04(NDR) | 8.96 | 1.12(NDR) | 2.65 | 0.896(NDR) | 4.77 | 1.92 |
| PCB-165 | 0.222(NDR) | < 0.448 | 0.901(NDR) | 0.199(NDR) | < 0.109 | 0.103(NDR) | 0 | < 0.0872 |

| | SRKW19-1 | | | | | | | |
|-----------------------------|------------|-------------|------------|------------|------------|------------|------------|------------|
| | SRKW19-1 | (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
| PCB-167 | 1.5 | 1.59 | 3.6 | 0.514 | 1.91 | 0.261 | 3.5 | 1.19 |
| PCB-169 | < 0.08 | < 0.1 | < 0.18 | < 0.0472 | < 0.2 | < 0.0463 | < 0.23 | < 0.055 |
| PCB-170 | 6.96(NDR) | 7.91 | 53.9 | 2.51 | 8.12 | 1.74(NDR) | 10.457 | 5.6 |
| PCB-171 + 173 | 1.65(NDR) | 3.34 | 20.4 | 0.686(NDR) | 2.89 | 1.18(NDR) | 3.421 | 1.41 |
| PCB-172 | 0.772(NDR) | 0.862 | 13.8(NDR) | < 0.138 | 1.38 | 0.802(NDR) | 1.48 | 0.957(NDR) |
| PCB-174 | 7.28 | 6.66 | 77.1 | 2.42(NDR) | 6.69 | 2.05 | 10.065 | 5.52 |
| PCB-175 | 0.628(NDR) | 0.104(NDR) | 3.04 | < 0.13 | 0.29 | 0.597(NDR) | 0.347 | 0.165(NDR) |
| PCB-176 | 1.53(NDR) | 0.89(NDR) | 10.7 | 0.495(NDR) | 0.936 | 0.387 | 1.72 | 0.788(NDR) |
| PCB-177 | 3.49 | 3.86 | 27.7 | 1.43 | 5.38 | 1.39(NDR) | 8.785 | < 0.0574 |
| PCB-178 | 2.08 | 2.2 | 14 | 1.31 | 2.73 | 0.195(NDR) | 4.27 | 1.88(NDR) |
| PCB-179 | 3.68 | 4.52(NDR) | 33.4 | 0.546(NDR) | 3.83 | 0.577 | 6.52 | 2.69(NDR) |
| PCB-180 + 193 | 14.6 | 15.4(NDR) | 176 | 8.08 | 17.4 | 4.51 | 25.382 | 15.9 |
| PCB-181 | < 0.0951 | 0.146(NDR) | 0.51(NDR) | < 0.125 | 0.107(NDR) | < 0.0922 | 0.115 | 0.369 |
| PCB-182 | < 0.0973 | < 0.0932 | < 0.0771 | 0.404(NDR) | 0.096(NDR) | 0.391(NDR) | < 0.046 | < 0.097 |
| PCB-183 + 185 | 5.89 | 5.02 | 53.4 | 0.539(NDR) | 4.81 | 1.58 | 7.73 | 5.75 |
| PCB-184 | < 0.0701 | < 0.0671 | 0.262 | 0.346(NDR) | 0.069 | < 0.0679 | 0.133 | 0.566(NDR) |
| PCB-186 | 0.385(NDR) | < 0.0775 | < 0.0641 | < 0.106 | < 0.0493 | < 0.0784 | < 0.046 | < 0.0806 |
| PCB-187 | 13.5 | 16.1 | 105 | 5.58 | 15.7 | 4.02 | 27.39 | 9.99 |
| PCB-188 | < 0.0697 | < 0.0669 | 0.17(NDR) | 0.095(NDR) | 0.084 | 0.178(NDR) | 0.022(NDR) | < 0.074 |
| PCB-189 | 0.276 | 0.282 | 1.81 | 0.103(NDR) | 0.32 | 0.049 | 0.523 | 0.172(NDR) |
| PCB-190 | < 0.0792 | < 0.0759 | 12.8 | 0.346 | 2.07 | 0.797(NDR) | 2.62 | 1.75(NDR) |
| PCB-191 | 0.493 | 0.45(NDR) | 1.36(NDR) | < 0.103 | 0.178(NDR) | < 0.0755 | 0.294 | 0.168(NDR) |
| PCB-192 | < 0.0873 | < 0.0836 | 0.566(NDR) | < 0.115 | < 0.0493 | < 0.0846 | < 0.046 | 0.128(NDR) |
| PCB-194 | 2.74(NDR) | 5.18 | 47.6 | 2.5(NDR) | 4.48 | 0.83(NDR) | 6.8 | 3.97 |
| PCB-195 | 1.73(NDR) | 1.54 | 30.2 | 0.577(NDR) | 3.09 | 0.743(NDR) | 4.428 | 2.33 |
| PCB-196 | 1.83(NDR) | 2.24(NDR) | 26.8 | 0.99(NDR) | 2.48 | 0.858(NDR) | 2.84 | < 0.129 |
| PCB-197 + 200 | < 0.0916 | < 0.0712 | 8.71 | 1.5(NDR) | 1.02 | < 0.0664 | 1.21 | 1.67 |
| PCB-198 + 199 | 6.85 | 3.97(NDR) | 62.4 | 3.46 | 8.75 | 1.37(NDR) | 10.8 | 4.67(NDR) |
| PCB-201 | 0.872 | 0.776(NDR) | 7.21 | < 0.0929 | 0.914(NDR) | 0.115(NDR) | 1.102 | < 0.0949 |
| PCB-202 | 2.57(NDR) | < 0.0879 | 12.2 | < 0.115 | 2.15 | 0.26(NDR) | 4.73 | 2.23(NDR) |
| PCB-203 | 2.88 | 3.86 | 44.6 | 1.39(NDR) | 5.05 | 0.748 | 6.17 | 4.48 |
| PCB-204 | < 0.0988 | < 0.0768 | < 0.0642 | 0.386(NDR) | < 0.0493 | < 0.0717 | 0 | < 0.1 |
| PCB-205 | 0.423(NDR) | 0.281(NDR) | 1.51(NDR) | < 0.0779 | 0.358 | < 0.0693 | 0.493(NDR) | < 0.0712 |
| PCB-206 | 2.555 | 3.145 | 12.535 | 0.74(NDR) | 4.345 | 0.544 | 7.82 | 2.985(NDR) |
| PCB-207 | 0.758(NDR) | 0.26(NDR) | 1.98 | 0.509(NDR) | 0.917 | 0.309(NDR) | 0.962 | 0.355 |
| PCB-208 | 1.13 | 0.924 | 4.0 | 0.412(NDR) | 1.66 | 0.242(NDR) | 2.829 | 1.89 |
| PCB-209 | 2.582 | 2.822 | 3.852 | 0.972 | 4.302 | 0.66(NDR) | 7.663 | 2.392 |
| Total Monochloro Biphenyls | 10.72 | 12.42 | 16.72 | 5.36 | 23.62 | 0.2 | 28.3 | 8.02 |
| Total Dichloro Biphenyls | 52.83 | 49.83 | 85.03 | 23.73 | 88.03 | 21.43 | 106 | 56.53 |
| Total Trichloro Biphenyls | 154.65 | 143.65 | 195.65 | 43.55 | 162.65 | 43.25 | 227.68 | 94.85 |
| Total Tetrachloro Biphenyls | 235.29 | 238.29 | 270.29 | 87.39 | 234.29 | 40.29 | 404.53 | 152.29 |
| Total Pentachloro Biphenyls | 249.04 | 234.04 | 350.04 | 70.34 | 227.04 | 25.44 | 390.3 | 150.04 |
| Total Hexachloro Biphenyls | 162.8 | 153.8 | 643.8 | 59.9 | 187.8 | 24.2 | 358.73 | 122.8 |

| | SRKW19-1 | | | | | | | |
|-----------------------------|----------|-------------|----------|----------|----------|----------|----------|----------|
| | SRKW19-1 | (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
| Total Heptachloro Biphenyls | 51.3 | 46.2 | 590 | 19.3 | 72.7 | 13.2 | 114 | 44.5 |
| Total Octachloro Biphenyls | 10.6 | 10.6 | 240 | 3.46 | 27.4 | 0.748 | 38.5 | 12.5 |
| Total Nonachloro Biphenyls | 3.75 | 4.13 | 18.6 | | 6.99 | 0.609 | 11.8 | 2.25 |
| Decachloro Biphenyl | 2.582 | 2.822 | 3.852 | 0.972 | 4.302 | | 8.0 | 2.392 |
| TOTAL PCBs | 932.5 | 895.5 | 2413.5 | 313.5 | 1033.5 | 169.5 | 1682.25 | 645.5 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|-------------|----------|----------|-----------|-----------|-----------|-----------|-------------|-----------|
| PCB-1 | 3.74 | 4.17 | 5.14 | 5.27 | 3.09 | 8.93 | 16.3 | 22.33 |
| PCB-2 | 22.686 | 17.286 | 21.486 | 16.686 | 4.39 | 20.3 | 19 | 23.886 |
| PCB-3 | 2.26 | 2.69 | 3.66 | 5.55 | 2.44 | 6.14 | 11.3 | 7.41 |
| PCB-4 | 6.42 | 5.96 | 6.57 | 9.1 | 7.95 | 8.43 | 21.3 | 32.1 |
| PCB-5 | < 0.405 | 0.401 | 0.339 | 0.565 | 0.361 | 0.314 | 0.602 | 0.678 |
| PCB-6 | 3.74 | 4.3 | 4.55 | 6.4 | < 0.0805 | 4.72 | 6.96 | 6.0 |
| PCB-7 | 0.972 | 1.17 | 1.32 | 1.62 | 0.787 | 1.37 | 1.79 | 1.54 |
| PCB-8 | 24 | 27.3 | 31.9 | 39.2 | 15.6 | 22.3 | 49.4 | 36.3 |
| PCB-9 | 0.732 | 0.88 | 0.938 | 1.3 | 0.985 | 1.08 | 1.6 | 1.46 |
| PCB-10 | < 0.381 | 0.259 | 0.218 | 0.287 | 0.253 | 0.253 | 0.633 | 0.635 |
| PCB-11 | 39.33 | 48.23 | 60.23 | 36.33 | 3.23 | 27.94 | 50.04 | 38.03 |
| PCB-12 + 13 | 4.08 | 5.63 | 7.41 | 5.84 | 2.38(NDR) | 5.4(NDR) | 25.1(NDR) | 13.8 |
| PCB-14 | < 0.365 | 0.438 | 0.503 | 0.313 | < 0.0829 | 0.365 | 0.826(NDR) | 0.884 |
| PCB-15 | 28.9 | 26.1 | 33.4 | 40.7 | 10.9 | 33 | 57.4 | 55.3 |
| PCB-16 | 6.22 | 6.86 | 7.78 | 13.3 | 8.329 | 7.329 | 12.449 | 11.4 |
| PCB-17 | 8.833 | 7.903 | 9.133 | 16.423 | 7.307 | 7.737 | 13.157 | 10.323 |
| PCB-18 + 30 | 18.678 | 12.778 | 14.578 | 33.678 | 13.425 | 11.925 | 39.925(NDR) | 19.278 |
| PCB-19 | 1.27 | 1.9 | 2.3 | 3.28 | 2.74 | 2.11 | 4.67 | 4.6 |
| PCB-20 + 28 | 69.919 | 77.619 | 105.019 | 116.019 | 29.06 | 74.36 | 108.86 | 146.019 |
| PCB-21 + 33 | 27.079 | 29.179 | 36.179 | 60.679 | 14.645 | 26.645 | 40.445 | 54.579 |
| PCB-22 | 19.524 | 21.424 | 28.424 | 33.524 | 9.453 | 19.653 | 26.653 | 36.924 |
| PCB-23 | < 1.04 | < 0.0682 | < 0.0735 | < 1.28 | < 0.0588 | < 0.0858 | < 0.122 | 0.105 |
| PCB-24 | < 0.355 | 0.061 | 0.052 | < 0.344 | 0.004 | 0 | 0.029(NDR) | 0.113 |
| PCB-25 | 3.517 | 4.797 | 6.097 | 7.177 | 2.449 | 5.019 | 6.789 | 7.387 |
| PCB-26 + 29 | 7.844 | 8.724 | 10.644 | 13.844 | 5.149 | 9.199 | 11.819 | 14.544 |
| PCB-27 | 1.64 | 1.45 | 1.69 | 3.46(NDR) | 0.864 | 1.26 | 5.7 | 2.8 |
| PCB-31 | 42.14 | 45.74 | 58.44 | 87.84 | 24.073 | 47.673 | 67.973 | 80.54 |
| PCB-32 | 8.69 | 8.05 | 10.5 | 15.6 | 5.336 | 7.206 | 16.086 | 14 |
| PCB-34 | < 1.03 | 0.293 | 0.4 | < 1.26 | 0.145 | 0.292 | 0.462 | 0.499 |
| PCB-35 | 3.118 | 3.318 | 4.838 | 2.698 | 0.629 | 3.045 | 5.695 | 7.568 |
| PCB-36 | 1.42 | 1.61 | 2.06 | < 1.29 | 0.227 | 1.23 | 1.37 | 1.96 |
| PCB-37 | 22.839 | 20.339 | 27.839 | 33.539 | 7.531 | 29.271 | 56.571 | 51.439 |
| PCB-38 | < 0.987 | 0.507 | 0.617 | < 1.21 | 0.135 | 0.424 | 0.777 | 0.891 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|------------------------------------|------------|----------|------------|------------|-----------|------------|------------|------------|
| PCB-39 | < 1.03 | 0.553 | 0.797 | < 1.26 | 0.227 | 0.533 | 1.05 | 1.29 |
| PCB-40 + 41 + 71 | 18.11 | 20.11 | 25.91 | 29.71 | 11.015 | 22.415 | 50.815 | 53.91 |
| PCB-42 | 8.059 | 11.019 | 14.119 | 14.819 | 5.458 | 11.698 | 24.498 | 26.019 |
| PCB-43 | < 0.0779 | 1.07 | 1.44 | < 0.11 | 0.847 | 1.19 | 1.88 | 2.47 |
| PCB-44 + 47 + 65 | 28.638 | 34.738 | 45.138 | 48.038 | 18.111 | 38.611 | 77.311 | 85.138 |
| PCB-45 + 51 | 3.426 | 3.506 | 4.216 | 7.436(NDR) | 3.702 | 4.272 | 10.792 | 9.686 |
| PCB-46 | 1.208(NDR) | 1.188 | 1.498 | 2.238 | 1.26 | 1.51 | 3.56 | 3.518 |
| PCB-48 | 5.884 | 5.584 | 7.324 | 10.374 | 4.171 | 6.611 | 11.261 | 10.974 |
| PCB-49 + 69 | 19.445 | 21.745 | 28.345 | 28.245 | 11.77 | 25.37 | 53.47 | 51.545 |
| PCB-50 + 53 | 3.19(NDR) | 2.9 | 3.32 | 5.71(NDR) | 2.55 | 3.48 | 8.89 | 9.34 |
| PCB-52 | 29.3 | 32.4 | 41.6 | 48.7 | 17.996 | 39.396 | 73.996 | 82.1 |
| PCB-54 | < 0.0526 | 0.074 | 0.099 | 0.363(NDR) | 0.093 | < 0.0858 | 0.136 | 0.156 |
| PCB-55 | 1.95 | 1.21 | 1.73 | 2.58 | 0.261 | 1.1 | 1.96 | 2.7 |
| PCB-56 | 25.696 | 33.096 | 46.096 | 36.696 | 6.244 | 31.364 | 57.564 | 82.296 |
| PCB-57 | < 0.564 | 0.318 | 0.352 | < 1.34 | 0.109 | 0.271(NDR) | 0.434 | 0.665 |
| PCB-58 | < 0.572 | 0.244 | 0.321 | < 1.36 | 0.077 | 0.227 | 0.474 | 0.419 |
| PCB-59 + 62 + 75 | 2.533 | 3.143 | 4.043 | 4.103(NDR) | 1.808 | 3.758 | 7.088 | 8.033 |
| PCB-60 | 18.023 | 23.823 | 32.223 | 25.823 | 3.068 | 18.228 | 33.528 | 52.723 |
| PCB-61 + 70 + 74 + 76 | 77.4 | 101.4 | 145.4 | 119.4 | 27.081 | 109.381 | 184.381 | 248.4 |
| PCB-63 | 1.5 | 2.27 | 3.07 | 2.37 | 0.755 | 2.55 | 4.53 | 5.55 |
| PCB-64 | 14.025 | 16.125 | 20.625 | 23.725 | 7.993 | 17.443 | 28.043 | 35.225 |
| PCB-66 | 59.486 | 71.086 | 99.786 | 86.186 | 14.855 | 70.155 | 131.755 | 198.786 |
| PCB-67 | 0.872 | 1.66 | 2.23 | 1.57 | 0.59 | 1.93 | 3.11 | 3.79 |
| PCB-68 | < 0.544 | 0.64 | 0.767 | < 1.29 | 0.163 | 0.54 | 1.217 | 1.33 |
| PCB-72 | < 0.551 | 0.675 | 0.839 | < 1.31 | 0.236 | 0.629 | 1.37 | 1.55 |
| PCB-73 | 0.321 | 0.136 | 0.147 | 1.23(NDR) | < 0.0588 | < 0.0858 | < 0.122 | 0.28 |
| PCB-77 | 9.63 | 9.66 | 13.22 | 11.42 | 2.21 | 11.3 | 26.5 | 27.52 |
| PCB-78 | < 0.641 | < 0.14 | < 0.131 | < 1.53 | < 0.0588 | < 0.115 | 0.243(NDR) | 0.238(NDR) |
| PCB-79 | < 0.482 | 0.939 | 1.3 | < 1.15 | 0.236 | 1.05 | 2.52 | 2.81 |
| PCB-80 | < 0.56 | < 0.119 | < 0.112 | < 1.33 | < 0.0588 | < 0.0969 | < 0.122 | 0.156 |
| PCB-81 | 0.378 | 0.368 | 0.477 | 0.413 | 0.079 | 0.372 | 1.05 | 0.935 |
| PCB-82 | 7.334 | 7.814 | 11.194 | 10.594 | 1.51 | 5.17 | 47.9 | 24.294 |
| PCB-83 + 99 | 32.778 | 40.678 | 59.078 | 43.278 | 9.625 | 45.225 | 92.125 | 113.778 |
| PCB-84 | 8.507 | 9.867 | 15.017 | 13.317 | 3.55 | 12.8 | 26.6 | 32.617 |
| PCB-85 + 116 + 117 | 12.5 | 14.2 | 20.2 | 12.2 | 2.938 | 14.908 | 30.408 | 42.6 |
| PCB-86 + 87 + 97 + 109 + 119 + 125 | 31.3 | 37.1 | 54.6 | 43.7 | 9.548 | 41.998 | 79.498 | 106 |
| PCB-88 + 91 | 5.02 | 6.48 | 9.34 | 8.46 | 2.28 | 7.4 | 16.5 | 19.5 |
| PCB-89 | 0.441 | 0.615 | 0.943 | < 0.473 | 0.178 | 0.783 | 2.18 | 2 |
| PCB-90 + 101 + 113 | 43.132 | 48.732 | 71.032 | 52.232 | 14.126 | 59.026 | 109.626 | 131.732 |
| PCB-92 | 7.54 | 8.5 | 12.7 | 8.2 | 2.696 | 10.716 | 20.616 | 25.2 |
| PCB-93 + 95 + 98 + 100 + 102 | 31.366 | 28.166 | 40.566 | 49.566 | 10.593 | 39.793 | 83.793 | 91.466 |
| PCB-94 | 0.536(NDR) | 0.226 | 0.278 | < 0.47 | 0.105 | 0.305 | 0.707 | 0.708 |
| PCB-96 | 0.334(NDR) | 0.236 | 0.295 | 0.245(NDR) | 0.139 | 0.306 | 0.619 | 0.704 |
| PCB-103 | 0.359 | 0.41 | 0.626(NDR) | 0.459 | 0.181 | 0.569 | 1.47 | 1.27 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| PCB-104 | < 0.0526 | < 0.0598 | < 0.0691 | < 0.067 | < 0.0588 | < 0.0858 | < 0.122 | < 0.0522 |
| PCB-105 | 32.693 | 32.393 | 46.693 | 38.693 | 7.89 | 39.83 | 79.93 | 92.493 |
| PCB-106 | < 0.423 | < 0.181 | < 0.27 | < 0.976 | < 0.0588 | < 0.0858 | < 0.149 | < 0.193 |
| PCB-107 | 4.578 | 6.298 | 9.908 | 5.948 | 1.46 | 6.97 | 13.6 | 18.928 |
| PCB-108 + 124 | 2.64 | 3.21 | 4.14 | 2.88 | 0.655 | 3.02 | 5.48 | 7.68 |
| PCB-110 + 115 | 58.467 | 61.967 | 92.467 | 77.467 | 16.762 | 71.162 | 124.562 | 176.667 |
| PCB-111 | < 0.0526 | 0.082 | 0.132 | 0.328 | < 0.0588 | 0.093(NDR) | 0.218 | 0.223 |
| PCB-112 | < 0.0526 | < 0.0707 | < 0.0691 | < 0.344 | < 0.0588 | < 0.0858 | < 0.122 | < 0.0522 |
| PCB-114 | 1.37 | 1.17 | 1.85 | 1.88 | 0.415 | 1.88 | 3.29 | 3.32 |
| PCB-118 | 71.36 | 66.16 | 98.76 | 92.26 | 18.252 | 87.252 | 164.652 | 188.76 |
| PCB-120 | 0.218 | 0.351 | 0.513 | 0.299 | 0.086(NDR) | 0.401 | 1.03 | 0.934 |
| PCB-121 | < 0.0526 | < 0.072 | 0.083 | < 0.341 | < 0.0588 | < 0.0858 | 0.133 | 0.15(NDR) |
| PCB-122 | < 0.508 | 1.07 | 1.56 | < 1.17 | 0.223 | 1.07 | 2.14 | 2.99 |
| PCB-123 | 1.65 | 1.39 | 2.02 | 1.85 | 0.33 | 1.53 | 3.05 | 3.75 |
| PCB-126 | 0.614 | 0.548 | 0.694 | 0.685 | 0.13 | 0.572 | 1.23 | 1.37 |
| PCB-127 | < 0.47 | < 0.193 | < 0.288 | < 1.09 | < 0.0588 | < 0.0858 | < 0.164 | < 0.206 |
| PCB-128 + 166 | 21.7 | 17 | 24.3 | 20.5 | 3.057 | 15.827 | 31.927 | 46.5 |
| PCB-129 + 138 + 160 + 163 | 87.219 | 87.419 | 131.719 | 104.719 | 16.788 | 89.588 | 195.688 | 252.719 |
| PCB-130 | 5.32(NDR) | 4.76 | 7.86 | < 0.62 | 1.27 | 6.38 | 13.2 | 14.2 |
| PCB-131 | 0.835(NDR) | 0.51 | 0.975 | 1.27 | 0.159 | 0.665 | 1.37 | 1.5 |
| PCB-132 | 23.043 | 21.543 | 30.443 | 30.743 | 5.13 | 24.17 | 47.67 | 62.143 |
| PCB-133 | 1.32 | 1.34 | 2.01 | 2.15(NDR) | 0.342 | 1.48 | 3.03 | 3.68 |
| PCB-134 + 143 | 2.44(NDR) | 2.94 | 4.14 | 4.28 | 0.777 | 3.48 | 7.34 | 8.21 |
| PCB-135 + 151 + 154 | 17.2 | 16.1 | 23.8 | 23.5 | 4.519 | 20.859 | 51.659 | 48.4 |
| PCB-136 | 4.188 | 4.728 | 6.958 | 6.718 | 1.58 | 6.71 | 14.9 | 14.838 |
| PCB-137 | 3.68 | 2.63 | 3.84 | 4.12(NDR) | 0.833 | 2.89 | 4.9 | 6.2 |
| PCB-139 + 140 | 1.14 | 0.956 | 1.42 | 1.72(NDR) | 0.312 | 1.28 | 2.7 | 2.55 |
| PCB-141 | 8.47 | 5.8 | 9.64 | 9.45 | 2.101 | 7.151 | 12.511 | 13.9 |
| PCB-142 | < 0.0971 | < 0.16 | < 0.23 | < 0.593 | < 0.0588 | < 0.128 | < 0.152 | < 0.331 |
| PCB-144 | 1.31(NDR) | 1.48 | 2.45 | 2.04 | 0.552 | 2.23 | 4.71 | 4.03 |
| PCB-145 | 0.232(NDR) | < 0.0543 | < 0.0691 | 0.129(NDR) | < 0.0588 | < 0.0858 | < 0.122 | 0.071(NDR) |
| PCB-146 | 14.5 | 12.5 | 17.3 | 16.4 | 2.521 | 11.331 | 29.331 | 32.8 |
| PCB-147 + 149 | 47.247 | 43.447 | 65.847 | 55.747 | 9.231 | 47.151 | 118.851 | 134.447 |
| PCB-148 | 0.775(NDR) | 0.432(NDR) | 0.538(NDR) | 0.557(NDR) | 0.185(NDR) | 0.431 | < 0.137 | 0.479 |
| PCB-150 | 0.394(NDR) | 0.091(NDR) | 0.134(NDR) | < 0.071 | < 0.0588 | 0.168(NDR) | 0.51 | 0.301 |
| PCB-152 | 0.124(NDR) | < 0.0543 | < 0.0691 | 0.074(NDR) | < 0.0588 | < 0.0858 | < 0.122 | 0.11 |
| PCB-153 + 168 | 67.159 | 68.959 | 102.759 | 79.259 | 16.005 | 81.305 | 167.605 | 197.759 |
| PCB-155 | < 0.059 | 0.08 | 0.119(NDR) | 0.314(NDR) | < 0.0588 | 0.125(NDR) | 0.134 | 0.117 |
| PCB-156 + 157 | 7.643 | 7.903 | 12.333 | 10.533 | 2.203 | 10.003 | 17.303 | 19.633 |
| PCB-158 | 4.24 | 4.85 | 7.63 | 8.43 | 1.49 | 5.96 | 9.95 | 11.1 |
| PCB-159 | < 0.0688 | 0.549 | 0.938 | < 0.42 | < 0.0588 | < 0.0957 | < 0.122 | 1.2 |
| PCB-161 | < 0.0656 | < 0.111 | < 0.159 | < 0.401 | < 0.0588 | < 0.0878 | < 0.122 | < 0.23 |
| PCB-162 | < 0.0633 | 0.35 | 0.507 | 0.461(NDR) | 0.083(NDR) | 1.3 | 0.533(NDR) | 0.916 |
| PCB-164 | 5.14(NDR) | 4.14 | 6.96 | 5.98 | 1.11 | 5.43 | 10.7 | 12.4 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|-----------------------------|------------|------------|------------|------------|------------|-----------|------------|-----------|
| PCB-165 | < 0.0766 | < 0.127 | < 0.182 | < 0.468 | < 0.0588 | 0.11 | 0.597(NDR) | 0.429 |
| PCB-167 | 3.15 | 3.15 | 5.21 | 4.1 | 0.812 | 3.93 | 7.39 | 8.67 |
| PCB-169 | < 0.23 | < 0.14 | < 0.149 | < 0.17 | < 0.0588 | < 0.159 | < 0.406 | < 0.34 |
| PCB-170 | 13.6 | 11.8 | 18.9 | 13.2 | 3.217 | 12.807 | 26.707 | 21.2 |
| PCB-171 + 173 | 3.85(NDR) | 4.19 | 7.15 | 5.89 | 1.13 | 5.48 | 12.6 | 9.44 |
| PCB-172 | 2.84(NDR) | 2.08 | 3.12 | 3.58(NDR) | 0.602 | 2.26 | 4.7 | 3.27 |
| PCB-174 | 12.7 | 10.6 | 17.5 | 15.1 | 3.658 | 16.448 | 38.048 | 25.7 |
| PCB-175 | 0.611(NDR) | 0.524 | 0.927 | 0.68(NDR) | 0.173(NDR) | 0.782 | 1.89 | 1.16 |
| PCB-176 | 2.58(NDR) | 1.78 | 2.61 | 2.8(NDR) | 0.504 | 2.76 | 6.98 | 4.79 |
| PCB-177 | 7.47 | 9.02 | 13.7 | 8.37 | 2.67 | 16.1 | 37.1 | 25.4 |
| PCB-178 | 4.59(NDR) | 4.74 | 7.16 | 5.4 | 1.12 | 6.6 | 16.4 | 14 |
| PCB-179 | 6.79 | 7.13 | 10.2 | 7.99 | 1.82 | 9.87 | 25.5 | 20.4 |
| PCB-180 + 193 | 31.1 | 25.2 | 41.3 | 42.9 | 7.452 | 26.352 | 59.752 | 49.9 |
| PCB-181 | 0.242(NDR) | 0.183 | 0.239(NDR) | 0.508(NDR) | < 0.0588 | 0.191 | 0.459 | 0.379 |
| PCB-182 | 0.658(NDR) | 0.135 | 0.153 | 0.458(NDR) | < 0.0588 | 0.135 | 0.386 | 0.268 |
| PCB-183 + 185 | 1.71(NDR) | 7.25 | 11.9 | 11.2 | 2.527 | 10.337 | 26.137 | 17 |
| PCB-184 | 0.097 | 0.129 | 0.113(NDR) | 0.546(NDR) | < 0.0588 | 0.214 | 0.214 | 0.149 |
| PCB-186 | < 0.0813 | < 0.0543 | < 0.0691 | < 0.0891 | < 0.0588 | < 0.0858 | < 0.122 | < 0.0522 |
| PCB-187 | 40.1 | 27.4 | 39.6 | 38.9 | 6.608 | 38.668 | 98.368 | 72.9 |
| PCB-188 | 0.09(NDR) | 0.103(NDR) | 0.137 | < 0.0833 | < 0.0588 | 0.109 | 0.328 | 0.251 |
| PCB-189 | 0.558 | 0.459 | 0.688 | 0.727 | 0.176 | 0.642 | 1.46 | 0.775 |
| PCB-190 | 5.21(NDR) | 3.1 | 5.03 | 3.92 | 0.763 | 4.28 | 9.17 | 7.65 |
| PCB-191 | 0.905 | 0.322 | 0.628 | 0.656(NDR) | 0.123(NDR) | 0.506 | 1.04 | 0.649 |
| PCB-192 | 0.154(NDR) | < 0.0543 | < 0.0691 | < 0.0961 | < 0.0588 | < 0.0858 | < 0.122 | 0.083 |
| PCB-194 | 8.07 | 7.45 | 11.5 | 10.6 | 1.7 | 5.41 | 15.4 | 10.5 |
| PCB-195 | 2.82 | 4.71 | 7.77 | 8.2 | 0.834 | 4.44 | 11.3 | 11.6 |
| PCB-196 | < 0.119 | 3.51 | 6.31 | 5.33(NDR) | 1.07 | 3.52 | 10.1 | 7.2 |
| PCB-197 + 200 | < 0.086 | 1.48 | 2.41 | 3.43 | 0.283 | 1.2 | 7.07(NDR) | 3.84 |
| PCB-198 + 199 | 16.4(NDR) | 13.3 | 22.4 | 17.7 | 3.42 | 15.3 | 44.2 | 36.7 |
| PCB-201 | 1.12(NDR) | 1.53 | 2.54 | 2.2(NDR) | 0.373 | 1.72 | 5.08 | 3.62 |
| PCB-202 | 2.19(NDR) | 4.1 | 6.4 | 5.16(NDR) | 0.737 | 3.61 | 10.7 | 12 |
| PCB-203 | 6.74(NDR) | 7.51 | 12.3 | 11.6 | 1.84 | 8.04 | 23.8 | 20.5 |
| PCB-204 | < 0.0928 | < 0.0543 | < 0.0691 | 0.153(NDR) | < 0.0588 | < 0.0858 | < 0.122 | < 0.0522 |
| PCB-205 | < 0.0722 | 0.45 | 0.739 | 0.425(NDR) | 0.111 | 0.545 | 1.35 | 1.11 |
| PCB-206 | 7.905 | 7.515 | 11.335 | 8.645 | 2.32 | 7.62 | 21.7 | 17.735 |
| PCB-207 | 0.569 | 0.95 | 1.54 | 1.24 | 0.296 | 0.974 | 2.93 | 2.39 |
| PCB-208 | 3.84 | 2.8 | 4.38 | 3.35(NDR) | 0.856 | 2.76 | 7.4 | 7.95 |
| PCB-209 | 5.792 | 6.922 | 11.622 | 6.632 | 2.693 | 8.713 | 18.763 | 18.522 |
| Total Monochloro Biphenyls | 28.72 | 24.12 | 30.32 | 27.52 | 9.92 | 35.4 | 46.6 | 53.62 |
| Total Dichloro Biphenyls | 108.13 | 121.13 | 147.13 | 142.13 | 44.7 | 104 | 194 | 187.13 |
| Total Trichloro Biphenyls | 242.65 | 252.65 | 327.65 | 437.65 | 132.07 | 255.07 | 380.07 | 466.65 |
| Total Tetrachloro Biphenyls | 324.29 | 401.29 | 546.29 | 492.29 | 142.75 | 424.75 | 802.75 | 1007.29 |
| Total Pentachloro Biphenyls | 355.04 | 379.04 | 555.04 | 465.04 | 104.39 | 453.39 | 912.39 | 1089.04 |
| Total Hexachloro Biphenyls | 311.8 | 312.8 | 468.8 | 383.8 | 70.98 | 349.78 | 753.78 | 898.8 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|-----------------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Heptachloro Biphenyls | 113 | 116 | 181 | 154 | 32.748 | 154.948 | 367.948 | 275 |
| Total Octachloro Biphenyls | 10.9 | 44 | 72.4 | 51.5 | 10.4 | 43.8 | 122 | 107 |
| Total Nonachloro Biphenyls | 12.4 | 11.3 | 17.3 | 9.95 | 3.47 | 11.4 | 32 | 28.1 |
| Decachloro Biphenyl | 5.792 | 6.922 | 11.622 | 6.632 | 2.693 | 8.713 | 18.763 | 18.522 |
| TOTAL PCBs | 1513.5 | 1673.5 | 2353.5 | 2173.5 | 554.8 | 1837.8 | 3627.8 | 4133.5 |

| | SRKW19-16 | SRKW19-17 | SRKW19-17 (Duplicate) | SRKW19-18 | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) |
|-------------|-----------|------------|--------------------------|------------|------------|-------------------|-----------|-------------------|
| PCB-1 | 12.1 | 3.01 | 3.68 | 4.97 | 17.2 | 6.76 | 3.87 | 2.82 |
| PCB-2 | 28.4 | 10.7 | 18.7 | 20.8 | 19.8 | 28.8 | 14.2 | 7.25 |
| PCB-3 | 9.92 | 1.73 | 6.62(NDR) | 2.83 | 7.18 | 4.67 | 2.62 | 5.27(NDR) |
| PCB-4 | 12.1 | 3.12 | 3.65 | 5.88 | 23.2 | 7.35 | 6.16 | 3.65 |
| PCB-5 | 0.554 | 0.114 | 0.118 | 0.188 | 0.428 | 0.282 | 0.237 | 0.139 |
| PCB-6 | 6.66 | 1.28 | 0.976 | 4.46 | 5.63 | 3.31 | 3.16 | 1.73 |
| PCB-7 | 1.83 | 0.348 | 0.414 | 0.732 | 1.53 | 1.03 | 0.812 | 0.446 |
| PCB-8 | 35.9 | 6.89 | 9.47 | 20.7 | 33.8 | 26.5 | 16.8 | 10.3 |
| PCB-9 | 1.44 | 0.31 | 0.153 | 0.555 | 1.31 | 0.765 | 0.688 | 0.419 |
| PCB-10 | 0.394 | 0.079 | < 0.0613 | 0.144 | 0.581 | 0.179 | 0.175 | 0.115 |
| PCB-11 | 35.04 | 25.54 | 16.94 | 56.94 | 40.94 | 58.44 | 19.34 | 14.64 |
| PCB-12 + 13 | 8.7(NDR) | 6.49(NDR) | 2.07(NDR) | 9.71 | 7.85(NDR) | 7.71(NDR) | 3.05(NDR) | 7.38(NDR) |
| PCB-14 | 0.671 | 0.392(NDR) | 0.122(NDR) | 0.395(NDR) | 0.615(NDR) | 0.531(NDR) | 0.26 | 0.239(NDR) |
| PCB-15 | 53.8 | 7.66 | 8.46 | 16.3 | 48.5 | 22.3 | 14.4 | 6.72 |
| PCB-16 | 9.779 | 2.329 | 2.669 | 4.779 | 11.849 | 5.189 | 4.939 | 3.699 |
| PCB-17 | 11.257 | 3.357(NDR) | 1.657 | 4.477 | 11.557 | 7.887 | 5.497 | 5.417(NDR) |
| PCB-18 + 30 | 17.525 | 8.375 | 2.155 | 17.825 | 19.825 | 17.825 | 9.185 | 15.425 |
| PCB-19 | 3.01 | 0.571 | 0.698 | 1.02(NDR) | 2.95 | 1.32 | 1.29 | 1.23 |
| PCB-20 + 28 | 107.86 | 17.16 | 21.56 | 39.76 | 109.86 | 49.36 | 36.36 | 17.86 |
| PCB-21 + 33 | 37.645 | 6.545 | 6.425 | 15.045 | 39.345 | 19.045 | 14.145 | 7.575 |
| PCB-22 | 27.953 | 4.563 | 6.053 | 10.953 | 28.853 | 13.753 | 10.553 | 4.573 |
| PCB-23 | < 0.0869 | < 0.0606 | < 0.0613 | < 0.0769 | 0.098 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-24 | 0.004 | < 0.0606 | < 0.0613 | 0 | 0.066 | 0 | 0 | 0 |
| PCB-25 | 6.739 | 1.239 | 0.839 | 2.709 | 6.509 | 3.649 | 2.509 | 1.909 |
| PCB-26 + 29 | 12.319 | 2.359 | 1.019 | 4.999 | 12.519 | 6.639 | 4.869 | 3.299 |
| PCB-27 | 2.18 | 1.16(NDR) | 0.351 | 1.73 | 2.13 | 2.27 | 0.838 | 1.61(NDR) |
| PCB-31 | 68.373 | 12.173 | 7.553 | 26.873 | 66.273 | 33.873 | 24.773 | 14.373 |
| PCB-32 | 12.486 | 1.786 | 2.116 | 3.826 | 11.086 | 4.776 | 4.006 | 2.816 |
| PCB-34 | 0.474 | 0.077 | 0.068 | 0.186 | 0.413 | 0.216 | 0.168 | 0.089 |
| PCB-35 | 5.265 | 0.955 | 1.075 | 1.805 | 4.625 | 2.245 | 1.345 | 0.59 |
| PCB-36 | 1.59 | 0.593 | 0.439 | 1.13 | 1.93 | 1.27 | 0.77 | 0.229 |
| PCB-37 | 51.871 | 6.561 | 7.061 | 14.571 | 45.571 | 18.671 | 12.471 | 5.861 |
| PCB-38 | 0.677 | 0.199 | 0.219 | 0.268 | 0.58(NDR) | 0.478 | 0.286 | 0.161 |

| | SRKW19-16 | SRKW19-17 | SRKW19-17 (Duplicate) | SRKW19-18 | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) |
|------------------------------------|------------|------------|--------------------------|------------|-----------|-------------------|----------|-------------------|
| PCB-39 | 0.948 | 0.179 | 0.157 | 0.347 | 0.945 | 0.388 | 0.29 | 0.167 |
| PCB-40 + 41 + 71 | 38.815 | 7.325 | 7.235 | 12.715 | 45.315 | 16.215 | 12.215 | 10.415 |
| PCB-42 | 20.398 | 3.698 | 3.958 | 6.498 | 21.498 | 8.768 | 6.208 | 5.328 |
| PCB-43 | 1.81 | 0.423 | 0.224 | 0.658 | 2.41 | 0.994 | 0.783 | 0.759 |
| PCB-44 + 47 + 65 | 64.511 | 12.611 | 8.971 | 22.111 | 72.911 | 28.711 | 20.411 | 18.311 |
| PCB-45 + 51 | 7.462 | 1.032 | 1.132 | 1.822 | 8.432 | 2.702 | 2.402 | 3.142 |
| PCB-46 | 2.46 | 0.493 | 0.536 | 0.787 | 3.02 | 1.05 | 0.864 | 1.09 |
| PCB-48 | 9.721 | 2.061 | 0.836 | 3.881 | 11.561 | 5.171 | 4.041 | 3.471 |
| PCB-49 + 69 | 42.87 | 8.37 | 3.9 | 14.87 | 45.37 | 19.37 | 14.17 | 12.07 |
| PCB-50 + 53 | 6.14 | 1.24 | 0.738 | 1.96 | 7.28 | 2.61 | 2.08 | 2.45 |
| PCB-52 | 58.896 | 14.196 | 5.936 | 24.696 | 75.996 | 30.196 | 20.796 | 20.296 |
| PCB-54 | 0.13 | < 0.0606 | 0.076 | 0.081 | 0.143 | < 0.0805 | < 0.0688 | 0.068 |
| PCB-55 | 2.07 | 0.281 | 0.349 | 0.599 | 2.27 | 0.83 | 0.653 | 0.316 |
| PCB-56 | 54.664 | 9.644 | 10.464 | 17.964 | 56.664 | 22.964 | 15.864 | 9.314 |
| PCB-57 | 0.425(NDR) | 0.108 | < 0.0613 | 0.138 | 0.481 | 0.222 | 0.184 | 0.092 |
| PCB-58 | 0.417 | 0.081 | < 0.0613 | 0.13 | 0.348 | 0.198 | 0.141 | 0.076(NDR) |
| PCB-59 + 62 + 75 | 6.078 | 1.448 | 1.618(NDR) | 1.998 | 6.958 | 2.858 | 1.588 | 1.738 |
| PCB-60 | 32.428 | 5.608 | 6.158 | 10.028 | 34.028 | 13.428 | 9.288 | 4.648 |
| PCB-61 + 70 + 74 + 76 | 186.381 | 32.481 | 17.681 | 59.381 | 194.381 | 75.181 | 55.081 | 29.481 |
| PCB-63 | 4.32 | 0.87 | 0.37 | 1.45 | 4.71 | 2.01 | 1.4 | 0.877 |
| PCB-64 | 27.743 | 5.493 | 6.103 | 9.943 | 31.643 | 12.843 | 9.353 | 8.143 |
| PCB-66 | 126.755 | 20.955 | 21.855 | 39.755 | 129.755 | 50.455 | 33.355 | 19.855 |
| PCB-67 | 3.1 | 0.611 | 0.27 | 1.05 | 3.34 | 1.41 | 1.02 | 0.599 |
| PCB-68 | 1.027 | 0.204 | 0.033 | 0.383 | 1.017 | 0.518 | 0.281 | 0.226 |
| PCB-72 | 1.2 | 0.281 | 0.121 | 0.429 | 1.21 | 0.569 | 0.362 | 0.27 |
| PCB-73 | < 0.0869 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.0944 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-77 | 23.6 | 3.31 | 3.48 | 6.94 | 20 | 8.14 | 5.07 | 2.71 |
| PCB-78 | < 0.118 | < 0.0676 | < 0.0613 | < 0.0769 | < 0.0977 | < 0.109 | < 0.0688 | < 0.0591 |
| PCB-79 | 2.08 | 0.387 | 0.232 | 0.678(NDR) | 1.95 | 0.746 | 0.474 | 0.312 |
| PCB-80 | < 0.0997 | < 0.0641 | < 0.0613 | < 0.0769 | 0.112 | < 0.103 | < 0.0688 | < 0.0591 |
| PCB-81 | 0.761 | 0.107 | 0.283 | 0.265 | 0.704 | 0.253 | 0.182 | 0.075 |
| PCB-82 | 12.8 | 6.74 | 10.3 | 16.5 | 11.3 | 12.6(NDR) | 2.05 | 6.36(NDR) |
| PCB-83 + 99 | 78.625 | 13.525 | 9.925 | 26.525 | 77.825 | 28.825 | 18.425 | 12.125 |
| PCB-84 | 20.3 | 3.99 | 7.02 | 7.24 | 24.9 | 8.15 | 5.23 | 5.49 |
| PCB-85 + 116 + 117 | 26.508 | 4.108 | 7.138 | 8.718 | 27.208 | 8.968 | 5.788 | 3.518 |
| PCB-86 + 87 + 97 + 109 + 119 + 125 | 68.698 | 12.398 | 14.198 | 26.198 | 73.298 | 26.298 | 16.298 | 12.598 |
| PCB-88 + 91 | 12.9 | 2.3 | 3.87 | 4.12 | 15 | 4.68 | 3.38 | 3.53(NDR) |
| PCB-89 | 1.5 | 0.238 | 0.392 | 0.37 | 1.46 | 0.486 | 0.324 | 0.381 |
| PCB-90 + 101 + 113 | 93.626 | 18.826 | 13.326 | 37.126 | 106.626 | 40.526 | 24.226 | 21.126 |
| PCB-92 | 17.316 | 3.446 | 2.326 | 6.586 | 19.716 | 7.356 | 4.406 | 4.196 |
| PCB-93 + 95 + 98 + 100 + 102 | 66.793 | 11.893 | 11.993 | 22.093 | 74.393 | 25.893 | 15.493 | 17.293 |
| PCB-94 | 0.576 | 0.109(NDR) | 0.077(NDR) | 0.152 | 0.559 | 0.217 | 0.135 | 0.133(NDR) |
| PCB-96 | 0.467 | 0.09(NDR) | 0.158 | 0.172 | 0.527 | 0.212(NDR) | 0.133 | 0.2 |

| | SRKW19-16 | SRKW19-17 | SRKW19-17 (Duplicate) | SRKW19-18 | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) |
|---------------------------|------------|-------------|--------------------------|------------|------------|-------------------|------------|-------------------|
| PCB-103 | 1.22 | 0.209 | 0.157 | 0.324 | 1 | 0.433 | 0.271 | 0.382 |
| PCB-104 | < 0.0869 | < 0.0606 | 0.115 | < 0.0769 | < 0.0944 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-105 | 73.63 | 11.33 | 12.03 | 24.73 | 71.53 | 25.13 | 15.53 | 8.67 |
| PCB-106 | < 0.151 | < 0.0606 | < 0.0613 | < 0.0779 | < 0.119 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-107 | 12.8 | 2.1 | 1.45 | 4.4 | 10.8 | 4.23 | 2.58 | 1.57 |
| PCB-108 + 124 | 5.06 | 0.856 | 0.647 | 1.92 | 4.55 | 1.76 | 1.11 | 0.792 |
| PCB-110 + 115 | 115.562 | 20.162 | 35.962 | 44.262 | 121.562 | 42.862 | 26.262 | 22.862 |
| PCB-111 | 0.187(NDR) | < 0.0606 | < 0.0613 | < 0.0769 | 0.183(NDR) | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-112 | < 0.0869 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.0944 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-114 | 3.11 | 0.565 | 0.719 | 1.25 | 3.22 | 1.25 | 0.767 | 0.499 |
| PCB-118 | 154.652 | 24.352 | 26.452 | 54.452 | 151.652 | 54.352 | 32.852 | 19.952 |
| PCB-120 | 0.854 | 0.186(NDR) | 0.107 | 0.314(NDR) | 0.796 | 0.387(NDR) | 0.215(NDR) | < 0.0591 |
| PCB-121 | 0.108 | < 0.0606 | < 0.0613 | < 0.0769 | 0.095(NDR) | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-122 | 1.91 | 0.314 | 0.363 | 0.704 | 1.74 | 0.659 | 0.451 | 0.269 |
| PCB-123 | 2.74 | 0.451 | 0.652 | 0.974 | 2.88 | 1.1 | 0.722 | 0.306 |
| PCB-126 | 1.29 | 0.212 | 0.373 | 0.399 | 1.02 | 0.394 | 0.24 | 0.144 |
| PCB-127 | < 0.166 | < 0.0606 | < 0.0613 | < 0.0854 | < 0.116 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-128 + 166 | 27.427 | 4.097 | 6.687 | 9.537 | 27.227 | 9.127 | 5.167 | 3.527 |
| PCB-129 + 138 + 160 + 163 | 166.688 | 25.788 | 31.788 | 54.388 | 163.688 | 68.088 | 26.288 | 38.588(NDR) |
| PCB-130 | 11.4 | 1.76 | 1.28 | 3.9 | 10.1 | 3.93 | 2.16 | 1.72 |
| PCB-131 | 1.05 | 0.226(NDR) | 0.175 | 0.465 | 1.39 | 0.454 | 0.282 | 0.218 |
| PCB-132 | 39.37 | 6.46 | 10.47 | 12.67 | 45.27 | 14.77 | 7.8 | 9.12 |
| PCB-133 | 2.56 | 0.467 | 0.272 | 0.797 | 2.82 | 1.14 | 0.587 | 0.636 |
| PCB-134 + 143 | 5.81 | 0.948 | 0.976(NDR) | 1.89 | 5.96 | 1.9 | 1.24 | 1.23 |
| PCB-135 + 151 + 154 | 39.759 | 6.529 | 4.029 | 11.159 | 43.159 | 15.759 | 7.719 | 11.659 |
| PCB-136 | 11.2 | 2.08 | 1.83(NDR) | 2.68 | 13.3 | 4.05(NDR) | 2.36 | 4.42(NDR) |
| PCB-137 | 4.2 | 1 | 0.476 | 2.48 | 3.88 | 1.7 | 0.959 | 0.873 |
| PCB-139 + 140 | 2.04 | 0.422 | 0.281 | 0.817 | 2.24 | 0.842 | 0.508 | 0.465 |
| PCB-141 | 12.111 | 2.531 | 1.661 | 5.541 | 13.311 | 5.411 | 2.941 | 4.671 |
| PCB-142 | < 0.156 | < 0.0606 | < 0.0613 | < 0.0804 | < 0.231 | < 0.11 | < 0.0688 | < 0.0591 |
| PCB-144 | 4.22 | 0.74 | 0.422 | 1.54 | 4.3 | 1.59 | 0.863 | 1.04 |
| PCB-145 | < 0.0869 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.0944 | < 0.0805 | < 0.0688 | < 0.108 |
| PCB-146 | 22.231 | 6.091 | 2.531 | 9.601(NDR) | 22.231 | 7.711 | 4.391 | 6.191(NDR) |
| PCB-147 + 149 | 94.751 | 15.551 | 6.081 | 27.151 | 105.851 | 32.351 | 15.651 | 16.951 |
| PCB-148 | 0.812 | 0.598(NDR) | 0.521(NDR) | 1.5(NDR) | 1.06(NDR) | 0.543(NDR) | 0.372 | < 0.144 |
| PCB-150 | 0.317 | 0.062 | < 0.0613 | 0.085 | 0.271 | 0.131 | 0.076 | 0.066 |
| PCB-152 | < 0.0869 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.0944 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-153 + 168 | 149.605 | 27.605(NDR) | 14.305 | 42.605 | 147.605 | 58.905 | 29.005 | 34.805 |
| PCB-155 | 0.125 | < 0.0606 | 0.215 | < 0.0769 | 0.12(NDR) | 0.115 | 0.073(NDR) | < 0.0591 |
| PCB-156 + 157 | 15.703 | 2.773 | 2.873 | 6.483 | 15.903 | 5.983 | 3.523 | 2.633 |
| PCB-158 | 9 | 1.89 | 1.36 | 4.29 | 9.44 | 3.61 | 2.25 | 2.22 |
| PCB-159 | < 0.117 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.15 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-161 | < 0.108 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.158 | < 0.0805 | < 0.0688 | < 0.0591 |

| | SRKW19-16 | SRKW19-17 | SRKW19-17 (Duplicate) | SRKW19-18 | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) |
|----------------------------|-----------|------------|--------------------------|------------|------------|-------------------|------------|-------------------|
| PCB-162 | < 0.119 | 0.103(NDR) | 0.082(NDR) | 0.243(NDR) | 2.12 | 0.24 | 0.157(NDR) | < 0.0591 |
| PCB-164 | 9.55 | 1.32 | 1 | 2.97 | 8.86 | 3.2 | 1.66 | 1.77 |
| PCB-165 | 0.369 | < 0.0606 | < 0.0613 | 0.095(NDR) | 0.266(NDR) | < 0.0818 | < 0.0688 | < 0.0591 |
| PCB-167 | 6.88 | 1.16 | 1.33 | 2.51 | 6.66 | 2.37 | 1.45 | 1.09 |
| PCB-169 | < 0.303 | < 0.068 | < 0.0613 | < 0.086 | < 0.262 | < 0.104 | < 0.0688 | < 0.0591 |
| PCB-170 | 22.107 | 5.157 | 5.937 | 10.207 | 21.607 | 10.107 | 6.407 | 7.407 |
| PCB-171 + 173 | 9.98 | 1.62 | 3.52 | 3.82 | 8.39 | 3.81 | 2.36 | 2.5 |
| PCB-172 | 3.94 | 0.83 | 0.898 | 1.97 | 3.45 | 1.56 | 1.18 | 1.36 |
| PCB-174 | 30.848 | 3.948 | 5.608 | 9.288 | 22.648 | 9.788 | 5.668 | 14.048 |
| PCB-175 | 1.54 | 0.242 | 0.26 | 0.553 | 1.07 | 0.476 | 0.379 | 0.408 |
| PCB-176 | 5.28 | 0.61 | 0.767 | 1.31 | 4.27 | 1.57 | 0.889 | 1.29 |
| PCB-177 | 29.5 | 3.77 | 8.26 | 8.39 | 25.6 | 9.82 | 5.83 | 5.47 |
| PCB-178 | 12.5 | 1.59 | 1.71 | 3.23 | 10.8 | 4.16 | 2.44 | 2.34 |
| PCB-179 | 18.4 | 2.32 | 2.81 | 4.46 | 17.4 | 6.15 | 3.67 | 5.07 |
| PCB-180 + 193 | 51.352 | 11.352 | 13.352 | 20.652 | 47.652 | 21.452 | 13.552 | 19.452 |
| PCB-181 | 0.327 | < 0.0606 | < 0.0613 | 0.106 | 0.264 | < 0.0805 | < 0.0688 | 0.065 |
| PCB-182 | 0.243 | < 0.0606 | 0.246(NDR) | 0.138 | 0.199(NDR) | 0.11(NDR) | 0.071(NDR) | 0.077(NDR) |
| PCB-183 + 185 | 20.737 | 3.097 | 3.587 | 7.757 | 15.637 | 6.787 | 4.917 | 5.787 |
| PCB-184 | 0.213 | < 0.0606 | < 0.0613 | 0.077 | 0.215 | 0.165(NDR) | 0.086(NDR) | 0.062(NDR) |
| PCB-186 | < 0.0869 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.0944 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-187 | 75.268 | 8.228 | 9.438 | 18.868 | 59.168 | 21.968 | 12.868 | 12.968 |
| PCB-188 | 0.223 | < 0.0606 | 0.222 | < 0.0769 | 0.155 | 0.109 | < 0.0688 | < 0.0591 |
| PCB-189 | 1.19 | 0.269 | 0.529 | 0.525 | 1.11 | 0.526 | 0.305 | 0.327 |
| PCB-190 | 7.47 | 0.888 | 1.48 | 2.32 | 6.35 | 2.36 | 1.38 | 1.64 |
| PCB-191 | 0.914 | 0.179 | 0.187 | 0.414 | 0.73 | 0.31 | 0.252 | 0.29 |
| PCB-192 | < 0.0869 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.0944 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-194 | 10.6 | 2.78 | 3.3 | 5.09 | 9.69 | 4.75 | 3.39 | 4.21 |
| PCB-195 | 8.1 | 1.17 | 3.03 | 2.35 | 6.94 | 2.79 | 1.52 | 1.72 |
| PCB-196 | 7.2 | 1.41 | 1.77 | 3.05 | 5.38 | 2.5 | 1.71 | 2.23 |
| PCB-197 + 200 | 2.78 | 0.695(NDR) | < 0.191 | 1.52 | 1.99 | 1.11(NDR) | 0.466 | 1.34(NDR) |
| PCB-198 + 199 | 30.7 | 4.27 | 4.92 | 8.56 | 22.5 | 9.31 | 5.35 | 6.13 |
| PCB-201 | 3.52 | 0.582 | 0.654 | 1.06 | 2.54 | 1.1 | 0.681 | 0.792 |
| PCB-202 | 7.14 | 1.04 | 1.3 | 1.89 | 6.33 | 2.5 | 1.29 | 1.32 |
| PCB-203 | 15.7 | 2.02 | 2.33 | 4.31 | 12 | 4.65 | 2.55 | 3.24 |
| PCB-204 | < 0.0869 | < 0.0606 | < 0.0613 | < 0.0769 | < 0.0944 | < 0.0805 | < 0.0688 | < 0.0591 |
| PCB-205 | 1.03 | 0.164 | 0.406 | 0.311 | 0.92 | 0.347 | 0.182 | 0.238 |
| PCB-206 | 14.7 | 2.71 | 2.96 | 4.59 | 12.2 | 5.44 | 3.13 | 3.1 |
| PCB-207 | 2.52 | 0.35 | 0.419 | 1 | 2.02 | 1.43(NDR) | 0.825 | 0.665(NDR) |
| PCB-208 | 5.66 | 0.94 | 1.21 | 1.56 | 4.48 | 2.02 | 1.11 | 0.99 |
| PCB-209 | 17.463 | 3.153 | 3.653 | 4.893 | 14.763 | 6.663 | 3.643 | 1.953 |
| Total Monochloro Biphenyls | 50.4 | 15.4 | 22.4 | 28.6 | 44.2 | 40.2 | 20.7 | 10.1 |
| Total Dichloro Biphenyls | 153 | 50 | 44.8 | 120 | 161 | 125 | 66.7 | 42.8 |
| Total Trichloro Biphenyls | 378.07 | 65.17 | 61.97 | 151.07 | 376.07 | 189.07 | 134.07 | 79.47 |

| | SRKW19-16 | SRKW19-17 | SRKW19-17 (Duplicate) | SRKW19-18 | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) |
|-----------------------------|-----------|-----------|--------------------------|-----------|-----------|-------------------|---------|-------------------|
| Total Tetrachloro Biphenyls | 725.75 | 133.75 | 100.75 | 240.75 | 783.75 | 308.75 | 218.75 | 156.75 |
| Total Pentachloro Biphenyls | 774.39 | 139.39 | 160.39 | 290.39 | 804.39 | 284.39 | 177.39 | 133.39 |
| Total Hexachloro Biphenyls | 637.78 | 81.48 | 87.48 | 193.78 | 655.78 | 239.78 | 117.78 | 94.58 |
| Total Heptachloro Biphenyls | 292.948 | 44.648 | 59.148 | 94.648 | 246.948 | 101.948 | 62.648 | 80.948 |
| Total Octachloro Biphenyls | 86.8 | 13.4 | 17.7 | 28.1 | 68.3 | 27.9 | 17.1 | 19.9 |
| Total Nonachloro Biphenyls | 22.9 | 4.0 | 4.59 | 7.15 | 18.7 | 7.46 | 5.07 | 4.09 |
| Decachloro Biphenyl | 17.463 | 3.153 | 3.653 | 4.893 | 14.763 | 6.663 | 3.643 | 1.953 |
| TOTAL PCBs | 3137.8 | 549.8 | 563.8 | 1157.8 | 3177.8 | 1327.8 | 823.8 | 623.8 |

| | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-SI1 | SH19-A2 | SH19-P6 | SH19-R15 |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|
| PCB-1 | 11.3 | 2.49 | 5.86 | 7.38 | 2.65 | | | |
| PCB-2 | 95.6 | 14 | 11.3 | 1.43 | 1.21 | | | |
| PCB-3 | 13.9 | 1.81 | 3.41 | 2.31 | 4.27(NDR) | | | |
| PCB-4 | 20.2 | 2.9 | 6.7 | 7.46 | 3.85 | 3.07 | 4.38 | 3.87 |
| PCB-5 | 0.52 | 0.106 | 0.226 | 0.084 | < 1.7 | < 0.196 | 0.137 | < 0.151 |
| PCB-6 | 6.11 | 1.41 | 3.14 | 1.22 | 2.81 | 0.955 | 2.15 | 2.16 |
| PCB-7 | 3.49 | 0.41 | 1.04 | 0.272 | < 1.57 | 0.25(NDR) | 0.512 | 0.463 |
| PCB-8 | 67.5 | 6.91 | 23.8 | 6.19 | 9.76 | 4.69 | 11.2 | 10.4 |
| PCB-9 | 1.27 | 0.29 | 0.67 | 0.275 | < 1.48 | 0.234 | 0.423 | 0.347 |
| PCB-10 | 0.651 | 0.089 | 0.186 | 0.22 | < 1.48 | < 0.182 | 0.137 | < 0.14 |
| PCB-11 | 18.44 | 7.94 | 15.84 | 2.7 | 0.21(NDR) | 5.51 | 19.7 | 15.5 |
| PCB-12 + 13 | 13.9 | 2.45 | 3.5(NDR) | 1.68(NDR) | < 1.82 | 1.61(NDR) | 2.62(NDR) | 2.25(NDR) |
| PCB-14 | 2.81 | 0.316(NDR) | 0.352(NDR) | 0.153(NDR) | < 1.68 | < 0.181 | 0.409(NDR) | 0.193(NDR) |
| PCB-15 | 66.9 | 8.8 | 16 | 6.19 | 6.34 | 3.69 | 11 | 10.1 |
| PCB-16 | 7.839 | 1.599 | 4.659 | 0.877 | 3.309 | 0.992 | 3.4 | 2.85 |
| PCB-17 | 15.757 | 1.687 | 7.307 | 1.647 | 3.807(NDR) | 2.018(NDR) | 4.468 | 4.128 |
| PCB-18 + 30 | 22.225 | 2.885 | 7.145 | 1.495 | 6.805 | 2.664 | 7.454 | 6.824 |
| PCB-19 | 3.17 | 0.586(NDR) | 1.98 | 1.15 | 1.22(NDR) | 0.561(NDR) | 1.11(NDR) | 0.941 |
| PCB-20 + 28 | 234.86 | 21.56 | 51.86 | 6.05 | 24.26 | 6.082 | 25.812 | 23.512 |
| PCB-21 + 33 | 52.745 | 6.585 | 19.245 | 1.945 | 8.435 | 2.395 | 10.115 | 8.925 |
| PCB-22 | 37.453 | 5.403 | 13.953 | 1.893 | 8.563 | 1.974 | 7.634 | 6.574 |
| PCB-23 | < 0.132 | < 0.0599 | < 0.0613 | < 0.0632 | < 0.581 | < 0.0536 | < 0.0745 | < 0.076 |
| PCB-24 | 0.007(NDR) | 0.007(NDR) | 0.007(NDR) | < 0.0632 | < 0.194 | < 0.0471 | 0.114 | < 0.0481 |
| PCB-25 | 9.909 | 1.479 | 3.239 | 0.999 | 2.119 | 0.789 | 2.23 | 1.94 |
| PCB-26 + 29 | 13.419 | 2.579 | 5.659 | 1.619 | 4.629 | 1.4(NDR) | 4.03 | 3.74 |
| PCB-27 | 2.01 | 0.285 | 1.01 | 0.27 | 0.9(NDR) | 0.351 | 0.106 | 0.711(NDR) |
| PCB-31 | 87.673 | 12.773 | 27.973 | 4.753 | 17.173 | 4.762 | 17.112 | 15.212 |
| PCB-32 | 18.586 | 2.106 | 6.986 | 1.306 | 2.996 | 1.212 | 3.302 | 3.002 |
| PCB-34 | 0.725 | 0.093 | 0.249 | < 0.0632 | < 0.559 | < 0.0517 | 0.128 | 0.115(NDR) |
| PCB-35 | 5.525 | 1.015 | 2.105 | 0.233 | < 0.694 | 0.239(NDR) | 1.28 | 0.929(NDR) |

| | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-SI1 | SH19-A2 | SH19-P6 | SH19-R15 |
|------------------------------------|----------|------------|------------|------------|------------|------------|------------|------------|
| PCB-36 | 0.685 | 0.472 | 0.712 | < 0.0632 | < 0.593 | 0.111 | 0.493 | 0.505(NDR) |
| PCB-37 | 44.671 | 7.271 | 15.671 | 1.541 | 6.541 | 1.772 | 9.242 | 7.662 |
| PCB-38 | 0.764 | 0.193 | 0.372 | 0.451 | < 0.636 | 0.614 | 0.462 | 0.194(NDR) |
| PCB-39 | 2.02 | 0.232 | 0.618 | 0.084 | < 0.62 | < 0.0495 | 0.239 | 0.13(NDR) |
| PCB-40 + 41 + 71 | 63.215 | 6.035 | 21.815 | 2.245 | 7.965 | 2.832 | 8.632 | 7.732 |
| PCB-42 | 40.698 | 3.618 | 10.698 | 1.358 | 4.838 | 1.499 | 4.469 | 3.609 |
| PCB-43 | 3.4 | 0.358 | 1.02 | 0.194(NDR) | 0.514 | 0.146(NDR) | 0.542(NDR) | 0.558(NDR) |
| PCB-44 + 47 + 65 | 130.111 | 11.611 | 37.011 | 4.561 | 13.311 | 4.84 | 16.49 | 13.29 |
| PCB-45 + 51 | 11.792 | 1.072 | 3.362 | 0.663 | 2.162 | 0.665(NDR) | 2.099(NDR) | 1.589 |
| PCB-46 | 4.18 | 0.378 | 1.62 | 0.181(NDR) | 0.706 | 0.312(NDR) | 0.694(NDR) | 0.538(NDR) |
| PCB-48 | 21.861 | 2.001 | 7.031 | 0.861 | 2.731 | 0.917(NDR) | 2.651 | 2.821 |
| PCB-49 + 69 | 100.67 | 8.46 | 28.57 | 3.08 | 7.88 | 3.692 | 11.212 | 9.622 |
| PCB-50 + 53 | 10.58 | 0.95 | 4.1 | 0.481 | 1.48 | 0.631(NDR) | 1.605 | 1.435 |
| PCB-52 | 139.196 | 11.396 | 42.996 | 4.396 | 12.596 | 5.494 | 15.604 | 13.804 |
| PCB-54 | 0.455 | < 0.0599 | 0.206(NDR) | < 0.0632 | < 0.0578 | 0.051(NDR) | < 0.0491 | < 0.0481 |
| PCB-55 | 2.57 | 0.315 | 1.05 | 0.093(NDR) | < 0.0578 | < 0.137 | 0.624(NDR) | 0.42 |
| PCB-56 | 82.064 | 8.634 | 25.564 | 2.074 | 8.064 | 2.2 | 10.9 | 9.32 |
| PCB-57 | 0.53 | 0.086 | 0.178 | < 0.0632 | 0.105 | < 0.126 | < 0.19 | < 0.108 |
| PCB-58 | 0.665 | < 0.0599 | 0.276 | < 0.0632 | 0.076 | < 0.129 | < 0.194 | < 0.111 |
| PCB-59 + 62 + 75 | 11.008 | 1.038 | 3.308 | 0.359 | 1.588 | 0.498(NDR) | 1.366 | 1.236(NDR) |
| PCB-60 | 43.728 | 5.508 | 14.728 | 1.098 | 3.578 | 1.21 | 6.05 | 5.29 |
| PCB-61 + 70 + 74 + 76 | 335.381 | 29.881 | 102.381 | 7.621 | 22.781 | 9.065 | 34.465 | 32.665 |
| PCB-63 | 7.42 | 0.81 | 2.12 | 0.255 | 0.584 | 0.23(NDR) | 0.891 | 0.818(NDR) |
| PCB-64 | 61.943 | 5.463 | 17.443 | 2.433 | 7.193 | 2.406 | 7.036 | 6.306 |
| PCB-66 | 196.755 | 18.555 | 58.455 | 4.325 | 16.455 | 5.071 | 23.631 | 21.831 |
| PCB-67 | 4.24 | 0.5 | 1.48 | 0.154 | 0.51 | 0.121(NDR) | 0.701 | 0.559(NDR) |
| PCB-68 | 2.177 | 0.177 | 0.603 | 0.032 | 0.128 | 0.109(NDR) | < 0.181 | 0.159 |
| PCB-72 | 2.23 | 0.228 | 1.02 | 0.071 | 0.172 | < 0.118 | 0.24(NDR) | 0.198(NDR) |
| PCB-73 | < 0.0903 | < 0.0599 | < 0.0613 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-77 | 28.2 | 3.28 | 8.16 | 0.59 | 1.5 | 0.566 | 3.79 | 2.97 |
| PCB-78 | < 0.182 | < 0.0599 | < 0.0919 | < 0.0632 | < 0.0578 | < 0.128 | < 0.192 | < 0.109 |
| PCB-79 | 4.38 | 0.48 | 1.76 | 0.106 | 0.137 | < 0.108 | 0.26(NDR) | 0.147 |
| PCB-80 | < 0.159 | < 0.0599 | < 0.0801 | < 0.0632 | < 0.0578 | < 0.112 | < 0.168 | < 0.0957 |
| PCB-81 | 0.906 | 0.12 | 0.352 | < 0.0632 | < 0.0578 | < 0.105 | 0.136(NDR) | < 0.104 |
| PCB-82 | 46.6 | 1.76 | 7.78 | 0.625 | 0.673(NDR) | 0.843 | 2.8(NDR) | 2.02 |
| PCB-83 + 99 | 196.825 | 14.125 | 73.825 | 3.655 | 3.685 | 3.677 | 15.217 | 11.517 |
| PCB-84 | 59.7 | 3.24 | 21.5 | 1.41 | 1.88 | 1.48 | 4.29 | 3.37 |
| PCB-85 + 116 + 117 | 63.008 | 4.498 | 21.708 | 1.218 | 1.148 | 1.346 | 5.606 | 3.826 |
| PCB-86 + 87 + 97 + 109 + 119 + 125 | 174.698 | 12.798 | 70.798 | 3.948 | 4.078 | 3.987 | 15.317 | 11.517 |
| PCB-88 + 91 | 40.1 | 2.08 | 13.4 | 0.916 | 0.977 | 1.04 | 2.92 | 2.19 |
| PCB-89 | 3.03 | 0.174(NDR) | 0.945 | 0.101 | 0.15(NDR) | < 0.0532 | 0.278(NDR) | 0.144(NDR) |
| PCB-90 + 101 + 113 | 253.626 | 17.726 | 106.626 | 5.056 | 5.506 | 5.83 | 21.23 | 16.23 |
| PCB-92 | 44.916 | 3.326 | 19.816 | 1.026 | < 0.0578 | 1.242 | < 0.0491 | 2.712 |
| PCB-93 + 95 + 98 + 100 + 102 | 151.593 | 9.283 | 67.193 | 3.973 | 4.423 | 4.484 | 13.954 | 9.654 |

| | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-SI1 | SH19-A2 | SH19-P6 | SH19-R15 |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| PCB-94 | 0.938 | 0.068(NDR) | 0.429 | < 0.0632 | < 0.0578 | < 0.056 | 0.133(NDR) | 0.086(NDR) |
| PCB-96 | 1.04 | 0.079(NDR) | 0.369 | < 0.0632 | < 0.0578 | < 0.0471 | 0.133(NDR) | 0.101(NDR) |
| PCB-103 | 2.42 | 0.187 | 1.23 | < 0.0632 | 0.095(NDR) | 0.081(NDR) | 0.257(NDR) | 0.148 |
| PCB-104 | < 0.0903 | < 0.0599 | < 0.0613 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-105 | 135.73 | 11.93 | 55.53 | 2.42 | 2.68 | 2.68 | 12.02 | 9.49 |
| PCB-106 | < 0.219 | < 0.0599 | < 0.12 | < 0.0632 | < 0.0578 | < 0.0604 | < 0.0949 | < 0.118 |
| PCB-107 | 29.8 | 2.64 | 11.9 | 0.588 | 0.627 | 0.432 | 2.28 | 1.79 |
| PCB-108 + 124 | 10.5 | 0.863 | 4.83 | 0.251(NDR) | 0.297 | 0.221(NDR) | 0.654(NDR) | 0.789 |
| PCB-110 + 115 | 294.562 | 20.962 | 136.562 | 6.682 | 8.402 | 6.473 | 24.073 | 18.073 |
| PCB-111 | 0.222 | < 0.0599 | 0.162(NDR) | < 0.0632 | 0.081(NDR) | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-112 | < 0.0903 | < 0.0599 | < 0.0613 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-114 | 6.28 | 0.559 | 2.41 | 0.202 | 0.164 | 0.166(NDR) | 0.654(NDR) | 0.444 |
| PCB-118 | 311.652 | 25.452 | 132.652 | 5.652 | 6.312 | 5.978 | 24.228 | 20.828 |
| PCB-120 | 1.33 | 0.18 | 0.884 | < 0.0632 | < 0.0578 | 0.051 | 0.169(NDR) | 0.156 |
| PCB-121 | 0.133 | < 0.0599 | < 0.0613 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-122 | 3.7 | 0.33 | 1.62 | 0.102 | 0.104 | 0.068(NDR) | 0.186 | 0.222(NDR) |
| PCB-123 | 6.88 | 0.487 | 2.22 | 0.111(NDR) | 0.153(NDR) | 0.163 | 0.715 | 0.397(NDR) |
| PCB-126 | 1.91 | 0.25 | 0.582 | < 0.0632 | < 0.0578 | < 0.0569 | 0.176(NDR) | 0.115(NDR) |
| PCB-127 | < 0.229 | < 0.0599 | < 0.126 | < 0.0632 | < 0.0578 | < 0.0564 | 0.161(NDR) | < 0.11 |
| PCB-128 + 166 | 78.427 | 4.637 | 30.727 | 0.858 | 0.902 | 1.18 | 4.94 | 3.03 |
| PCB-129 + 138 + 160 + 163 | 454.688 | 27.888 | 176.688 | 5.678 | 4.638 | 6.993 | 31.323 | 18.723 |
| PCB-130 | 28.3 | 1.82 | 11.8 | 0.405 | 0.378 | 0.553(NDR) | 2.47 | 1.28 |
| PCB-131 | 4.09 | 0.24 | 1.83 | 0.1 | < 0.0578 | < 0.0673 | < 0.0634 | 0.098(NDR) |
| PCB-132 | 115.87 | 6.23 | 50.27 | 1.7 | 1.67 | 1.69(NDR) | 6.4 | 4.41 |
| PCB-133 | 6.03 | 0.441(NDR) | 2.31 | 0.09(NDR) | 0.111 | < 0.0645 | < 0.0608 | 0.384(NDR) |
| PCB-134 + 143 | 17.4 | 0.838 | 6.42 | 0.249 | 0.224 | 0.31(NDR) | 0.798(NDR) | 0.777(NDR) |
| PCB-135 + 151 + 154 | 90.459 | 6.479 | 42.659 | 1.439 | 1.429 | 1.898 | 6.708 | 3.868 |
| PCB-136 | 28.5 | 1.56 | 13.2 | 0.511 | < 0.0578 | 0.578 | 2.33 | 1.14(NDR) |
| PCB-137 | 15.4 | 0.951 | 6.63 | 0.308 | 0.239 | 0.384(NDR) | 1.13 | 0.794 |
| PCB-139 + 140 | 7.46 | 0.43 | 2.53 | 0.128 | 0.119 | 0.126 | 0.405(NDR) | 0.214(NDR) |
| PCB-141 | 39.611 | 2.381 | 17.311 | 0.809 | 0.708 | 0.838 | 2.59 | 1.87 |
| PCB-142 | < 0.448 | < 0.0599 | < 0.171 | < 0.0632 | < 0.0578 | < 0.0699 | < 0.0659 | < 0.0868 |
| PCB-144 | 13.5 | 0.796 | 6.12 | 0.244 | 0.289(NDR) | 0.348(NDR) | 0.543(NDR) | 0.566(NDR) |
| PCB-145 | 0.151(NDR) | < 0.0599 | 0.066 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-146 | 57.731 | 4.341 | 22.431 | 0.567 | 0.814 | 1.27(NDR) | 4.81 | 3.26 |
| PCB-147 + 149 | 271.851 | 13.951 | 108.851 | 3.641 | 2.461 | 4.146 | 17.126 | 10.626 |
| PCB-148 | 0.621 | 0.102(NDR) | 0.178 | < 0.0632 | < 0.0578 | < 0.0471 | 0.197(NDR) | 0.073(NDR) |
| PCB-150 | 1.21 | < 0.0599 | 0.322 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-152 | 0.4 | < 0.0599 | 0.109(NDR) | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-153 + 168 | 366.605 | 24.505 | 140.605 | 4.565 | 4.025 | 5.416 | 26.446 | 17.546 |
| PCB-155 | 0.123 | < 0.0599 | 0.075(NDR) | < 0.0632 | < 0.0578 | 0.049(NDR) | 0.089(NDR) | < 0.0481 |
| PCB-156 + 157 | 43.803 | 2.903 | 20.203 | 0.638 | 0.57(NDR) | 0.88(NDR) | 3.271 | 2.511(NDR) |
| PCB-158 | 32.7 | 1.94 | 15 | 0.58(NDR) | 0.531 | 0.547(NDR) | 2.168 | 1.358 |
| PCB-159 | < 0.323 | < 0.0599 | < 0.124 | < 0.0632 | < 0.0578 | < 0.0481 | < 0.0491 | < 0.0598 |

| | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-SI1 | SH19-A2 | SH19-P6 | SH19-R15 |
|----------------------------|-----------|------------|------------|------------|------------|------------|------------|------------|
| PCB-161 | < 0.318 | < 0.0599 | < 0.122 | < 0.0632 | < 0.0578 | < 0.0506 | < 0.0491 | < 0.0629 |
| PCB-162 | 1.45 | 0.103 | 0.55 | < 0.0632 | < 0.0578 | < 0.0483 | 0.189(NDR) | 0.074(NDR) |
| PCB-164 | 24.2 | 1.43 | 10.5 | 0.461 | 0.44 | 0.445 | 1.69 | 0.989 |
| PCB-165 | < 0.37 | < 0.0599 | 0.319 | < 0.0632 | < 0.0578 | < 0.057 | < 0.0537 | < 0.0708 |
| PCB-167 | 15.9 | 1.18 | 7.42 | 0.262 | 0.293 | 0.312 | 1.33 | 0.93 |
| PCB-169 | < 0.379 | < 0.0599 | < 0.176 | < 0.0632 | < 0.0578 | < 0.0636 | < 0.0512 | < 0.0616 |
| PCB-170 | 75.107 | 5.287 | 37.407 | 0.957 | 0.871 | 1.11(NDR) | 4.85 | 4.56 |
| PCB-171 + 173 | 28.9 | 1.91 | 15.4 | 0.416 | 0.323(NDR) | 0.431 | 2.27 | 1.48 |
| PCB-172 | 12.8 | 0.96 | 6.81 | 0.206(NDR) | 0.167 | 0.217(NDR) | 0.926 | 0.743 |
| PCB-174 | 68.948 | 4.478 | 37.048 | 1.278 | 0.998 | 1.34 | 4.98 | 3.51 |
| PCB-175 | 3.86 | 0.256 | 2.11 | < 0.0632 | 0.064 | < 0.0471 | 0.195(NDR) | 0.279(NDR) |
| PCB-176 | 8.96 | 0.655 | 5.23 | 0.166 | 0.128(NDR) | 0.222(NDR) | 0.802(NDR) | 0.577(NDR) |
| PCB-177 | 48.4 | 4.14 | 26.8 | 0.699 | 0.57 | 0.926(NDR) | 5.02 | 3.31 |
| PCB-178 | 19.1 | 1.61 | 9.87 | 0.329 | 0.226(NDR) | 0.495 | 1.89(NDR) | 1.26 |
| PCB-179 | 30 | 2.39 | 16.3 | 0.531 | 0.398 | 0.599 | 2.91 | 2.02 |
| PCB-180 + 193 | 167.752 | 11.552 | 75.252 | 2.512 | 2.172 | 3.136 | 11.536 | 10.236 |
| PCB-181 | 0.76 | < 0.0599 | 0.357 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-182 | 0.851 | 0.063 | 0.386 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | 0.073(NDR) |
| PCB-183 + 185 | 58.137 | 3.707 | 27.337 | 0.797 | 0.635 | 0.792 | 3.957 | 2.407 |
| PCB-184 | 0.311 | < 0.0599 | 0.129(NDR) | 0.089(NDR) | < 0.0578 | 0.07(NDR) | 0.13(NDR) | < 0.0481 |
| PCB-186 | < 0.0903 | < 0.0599 | < 0.0613 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-187 | 135.868 | 10.368 | 59.868 | 1.788 | 1.418 | 1.71 | 9.67 | 7.33 |
| PCB-188 | 2.81 | < 0.0599 | 0.201 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-189 | 3.04 | 0.273 | 1.58 | < 0.0632 | 0.076(NDR) | < 0.0471 | 0.246(NDR) | 0.27(NDR) |
| PCB-190 | 14.9 | 0.998 | 7.34 | 0.3(NDR) | 0.217(NDR) | 0.288 | 1.05 | 0.898 |
| PCB-191 | 2.9 | 0.176 | 1.55 | < 0.0632 | < 0.0578 | 0.052(NDR) | 0.296(NDR) | 0.139(NDR) |
| PCB-192 | < 0.0903 | < 0.0599 | < 0.0613 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-194 | 44.8 | 3.12 | 20.4 | 0.692 | 0.528 | 0.703(NDR) | 3.02 | 2.5 |
| PCB-195 | 18.5 | 1.39 | 9.5 | 0.264 | 0.23 | 0.248(NDR) | 1.44 | 1.13 |
| PCB-196 | 19.9 | 1.41 | 9.0 | 0.321 | 0.145(NDR) | 0.394 | 1.59 | 1.4(NDR) |
| PCB-197 + 200 | 4.84 | 0.387 | 2.41 | < 0.0632 | 0.058(NDR) | 0.117(NDR) | 0.616 | 0.524 |
| PCB-198 + 199 | 39 | 3.2 | 21.8 | 0.723 | 0.367(NDR) | 0.949 | 4.97(NDR) | 4.25 |
| PCB-201 | 6.53 | 0.503 | 2.71 | 0.079 | 0.065(NDR) | 0.129 | 0.616(NDR) | 0.547(NDR) |
| PCB-202 | 13.1 | 1.09 | 5.95 | 0.201 | 0.138 | 0.187(NDR) | 1.37 | 0.848 |
| PCB-203 | 26.7 | 1.53 | 12.5 | 0.366 | 0.199 | 0.512 | 2.24 | 1.97 |
| PCB-204 | 0.17(NDR) | < 0.0599 | < 0.0613 | < 0.0632 | < 0.0578 | < 0.0471 | < 0.0491 | < 0.0481 |
| PCB-205 | 2.47 | 0.162 | 0.773 | < 0.0632 | < 0.0578 | 0.065(NDR) | 0.201(NDR) | 0.148(NDR) |
| PCB-206 | 57.2 | 2.37 | 15.6 | 0.393 | 0.23 | 0.508 | 2.92 | 2.28 |
| PCB-207 | 7.21 | 0.343 | 2.07 | < 0.0632 | < 0.0612 | 0.083(NDR) | 0.351 | 0.412(NDR) |
| PCB-208 | 22.3 | 0.903 | 6.03 | 0.141 | < 0.0593 | 0.23 | 0.907 | 0.813(NDR) |
| PCB-209 | 97.063 | 2.673 | 16.463 | 0.293 | 0.188 | 0.5(NDR) | 2.851 | 2.631 |
| Total Monochloro Biphenyls | 121 | 18.3 | 20.6 | 11.1 | 3.86 | | | |
| Total Dichloro Biphenyls | 206 | 33.5 | 72.3 | 29.3 | 22.8 | 18.1 | 49.6 | 42.8 |
| Total Trichloro Biphenyls | 560.07 | 68.17 | 171.07 | 26.17 | 84.27 | 23.94 | 97.94 | 85.64 |

| | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-SI1 | SH19-A2 | SH19-P6 | SH19-R15 |
|-----------------------------|---------|------------|----------|-----------|----------|---------|---------|----------|
| Total Tetrachloro Biphenyls | 1305.75 | 121.75 | 397.75 | 37.05 | 117.75 | 39.55 | 150.05 | 134.05 |
| Total Pentachloro Biphenyls | 1838.39 | 133.39 | 755.39 | 38.49 | 41.09 | 40.883 | 143.483 | 115.483 |
| Total Hexachloro Biphenyls | 1718.78 | 104.78 | 694.78 | 22.78 | 19.08 | 22.4 | 115 | 69.3 |
| Total Heptachloro Biphenyls | 683.948 | 49.348 | 330.948 | 10.048 | 7.828 | 8.91 | 47.3 | 37.9 |
| Total Octachloro Biphenyls | 176 | 12.8 | 85 | 2.65 | 1.1 | 1.98 | 10.3 | 11.2 |
| Total Nonachloro Biphenyls | 86.7 | 3.62 | 23.7 | 0.534 | 0.23 | 0.738 | 4.18 | 2.28 |
| Decachloro Biphenyl | 97.063 | 2.673 | 16.463 | 0.293 | 0.188 | | 2.851 | 2.631 |
| TOTAL PCBs | 6797.8 | 547.8 | 2567.8 | 178.8 | 297.8 | 156.39 | 621.39 | 502.39 |

| | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) Duplicate | PG19-M4 (AXYS) |
|-------------|------------|-------------------|-------------------|--------------------------------|-------------------|
| PCB-1 | | | | | |
| PCB-2 | | | | | |
| PCB-3 | | | | | |
| PCB-4 | 4.67 | 5.35 | 3.32 | 3.63 | 8.83 |
| PCB-5 | 0.217 | 0.323 | 0.191 | < 0.249 | 0.332 |
| PCB-6 | 2.94 | 3.86 | 2.32 | 2.3 | 5.1 |
| PCB-7 | 0.704 | 0.971 | 0.559 | 0.721 | 1.16 |
| PCB-8 | 17 | 20.2 | 10.4 | 10.7 | 26.2 |
| PCB-9 | 0.691 | 0.794 | 0.482 | 0.549 | 1.2 |
| PCB-10 | < 0.183 | < 0.201 | < 0.143 | < 0.231 | 0.387 |
| PCB-11 | 29.6 | 31.7 | 18.2 | 20.7 | 32.4 |
| PCB-12 + 13 | 3.36(NDR) | 4.04(NDR) | 3.23(NDR) | 2.93(NDR) | 4.46(NDR) |
| PCB-14 | 0.362(NDR) | 0.359 | 0.335(NDR) | 0.312(NDR) | 0.468(NDR) |
| PCB-15 | 17.1 | 21.9 | 11.2 | 12.2 | 23.5 |
| PCB-16 | 5.18 | 5.73 | 4.33 | 3.52 | 13.2 |
| PCB-17 | 6.028 | 7.698 | 6.048 | 4.478 | 13.598 |
| PCB-18 + 30 | 11.074 | 12.174 | 10.074 | 7.144 | 25.774 |
| PCB-19 | 1.47(NDR) | 1.5(NDR) | 1.23(NDR) | 0.974 | 3.89 |
| PCB-20 + 28 | 41.312 | 53.112 | 31.912 | 27.812 | 73.012 |
| PCB-21 + 33 | 16.315 | 21.415 | 13.315 | 11.615 | 31.215 |
| PCB-22 | 11.884 | 15.284 | 9.314 | 8.504 | 22.884 |
| PCB-23 | < 0.069 | < 0.0932 | < 0.088 | < 0.101 | < 0.0923 |
| PCB-24 | 0.169 | 0.141 | 0.137(NDR) | 0.089(NDR) | 0.526 |
| PCB-25 | 3.04 | 4.23 | 2.88 | 2.38 | 5.51 |
| PCB-26 + 29 | 5.79 | 7.56 | 5.72 | 4.23 | 10.3 |
| PCB-27 | 1.33 | 1.44 | 0.746 | 0.591 | 2.33 |
| PCB-31 | 26.812 | 34.012 | 20.612 | 18.312 | 47.512 |
| PCB-32 | 4.522 | 5.742 | 4.132 | 3.152 | 10.432 |
| PCB-34 | 0.212 | 0.219(NDR) | 0.138(NDR) | 0.121(NDR) | 0.328 |

| | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) Duplicate | PG19-M4 (AXYS) |
|------------------------------------|------------|-------------------|-------------------|--------------------------------|-------------------|
| PCB-35 | 1.61 | 2.05 | 1.04 | 0.999 | 2.38 |
| PCB-36 | 1.01 | 0.953 | 0.56 | 0.578 | 0.933 |
| PCB-37 | 13.612 | 20.012 | 10.612 | 10.112 | 22.912 |
| PCB-38 | 0.317 | 0.426 | 0.386 | 0.428 | 0.272 |
| PCB-39 | 0.3(NDR) | 0.312 | 0.147 | 0.159(NDR) | 0.531 |
| PCB-40 + 41 + 71 | 13.062 | 17.162 | 13.262 | 9.462 | 24.662 |
| PCB-42 | 6.649 | 9.499 | 6.169 | 4.709 | 11.929 |
| PCB-43 | 0.814(NDR) | 1.13(NDR) | 0.858 | 0.475(NDR) | 1.6(NDR) |
| PCB-44 + 47 + 65 | 22.49 | 31.29 | 23.39 | 15.59 | 41.29 |
| PCB-45 + 51 | 2.599 | 3.309 | 3.319 | 1.919(NDR) | 6.219 |
| PCB-46 | 1.05 | 1.42 | 1.26(NDR) | 0.636 | 2.09 |
| PCB-48 | 4.001 | 5.601 | 4.391 | 3.401 | 8.731 |
| PCB-49 + 69 | 15.412 | 21.412 | 15.512 | 11.112 | 27.212 |
| PCB-50 + 53 | 2.395 | 2.685 | 2.765 | 1.735(NDR) | 5.015 |
| PCB-52 | 21.904 | 30.504 | 23.004 | 17.004 | 39.304 |
| PCB-54 | 0.102(NDR) | 0.065(NDR) | 0.055(NDR) | 0.066(NDR) | 0.099(NDR) |
| PCB-55 | 0.75 | < 0.168 | < 0.167 | < 0.214 | < 0.273 |
| PCB-56 | 16.4 | 22.2 | 12.7 | 11.1 | 26.9 |
| PCB-57 | < 0.136 | 0.175(NDR) | 0.188(NDR) | < 0.198 | 0.276(NDR) |
| PCB-58 | < 0.14 | < 0.159 | < 0.158 | < 0.202 | < 0.259 |
| PCB-59 + 62 + 75 | 2.116 | 3.006 | 2.296 | 1.456(NDR) | 4.066 |
| PCB-60 | 9.84 | 12.9 | 6.05 | 5.97 | 15.6 |
| PCB-61 + 70 + 74 + 76 | 55.765 | 78.065 | 46.165 | 39.065 | 90.065 |
| PCB-63 | 1.35 | 1.89 | 1.24(NDR) | 0.951 | 2.17 |
| PCB-64 | 9.486 | 14.176 | 10.176 | 7.626 | 17.876 |
| PCB-66 | 35.931 | 51.631 | 31.231 | 25.631 | 59.831 |
| PCB-67 | 0.933 | 1.4 | 0.828 | 0.684(NDR) | 1.72 |
| PCB-68 | 0.258 | 0.375 | 0.228(NDR) | 0.225(NDR) | 0.381 |
| PCB-72 | 0.374 | 0.443 | 0.282 | 0.214 | 0.455 |
| PCB-73 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0504 | < 0.0498 |
| PCB-77 | 5.38 | 7.56 | 3.87 | 3.45 | 8.11 |
| PCB-78 | < 0.138 | < 0.157 | < 0.156 | < 0.2 | < 0.256 |
| PCB-79 | 0.482(NDR) | 0.547 | 0.23 | 0.242 | 0.528 |
| PCB-80 | < 0.121 | < 0.138 | < 0.137 | < 0.175 | < 0.224 |
| PCB-81 | 0.177(NDR) | 0.21(NDR) | < 0.136 | < 0.17 | 0.323 |
| PCB-82 | 3.81 | 5.46 | 3.19 | 2.68 | 5.82 |
| PCB-83 + 99 | 21.717 | 31.617 | 17.217 | 16.517 | 30.717 |
| PCB-84 | 5.72 | 9.55 | 6.24 | 5.55 | 10.1 |
| PCB-85 + 116 + 117 | 7.306 | 10.806 | 5.516 | 5.296 | 10.606 |
| PCB-86 + 87 + 97 + 109 + 119 + 125 | 20.317 | 31.217 | 17.317 | 16.917 | 31.317 |
| PCB-88 + 91 | 3.88 | 5.61 | 3.53 | 2.92 | 5.79 |
| PCB-89 | 0.342(NDR) | 0.5 | 0.237(NDR) | 0.283 | 0.681 |

| | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) Duplicate | PG19-M4 (AXYS) |
|------------------------------|------------|-------------------|-------------------|--------------------------------|-------------------|
| PCB-90 + 101 + 113 | 28.93 | 43.33 | 24.93 | 23.73 | 42.13 |
| PCB-92 | 4.762 | 7.662 | 4.282 | 4.102 | 7.452 |
| PCB-93 + 95 + 98 + 100 + 102 | 18.954 | 27.954 | 17.654 | 16.054 | 30.154 |
| PCB-94 | 0.168 | 0.164 | 0.192(NDR) | 0.146(NDR) | 0.232(NDR) |
| PCB-96 | 0.154 | 0.251(NDR) | 0.168(NDR) | 0.144 | 0.239(NDR) |
| PCB-103 | 0.359(NDR) | 0.455 | 0.307(NDR) | 0.231(NDR) | 0.486(NDR) |
| PCB-104 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0504 | < 0.0498 |
| PCB-105 | 17.42 | 27.52 | 12.52 | 13.32 | 25.92 |
| PCB-106 | < 0.138 | < 0.214 | < 0.16 | < 0.0921 | < 0.205 |
| PCB-107 | 3.47 | 5.55 | 2.26(NDR) | 2.39 | 4.66 |
| PCB-108 + 124 | 1.53 | 2.03 | 0.933 | 1.16 | 1.9 |
| PCB-110 + 115 | 32.373 | 50.573 | 28.573 | 26.173 | 49.373 |
| PCB-111 | < 0.0487 | 0.069 | < 0.0508 | < 0.0504 | < 0.0498 |
| PCB-112 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0504 | < 0.0498 |
| PCB-114 | 0.694 | 1.17(NDR) | 0.536 | 0.787 | 1.21 |
| PCB-118 | 36.828 | 59.428 | 27.428 | 27.128 | 53.328 |
| PCB-120 | 0.217(NDR) | 0.365(NDR) | 0.164(NDR) | 0.117 | 0.239(NDR) |
| PCB-121 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0513 | 0.074(NDR) |
| PCB-122 | 0.573(NDR) | 0.596 | 0.19 | 0.259(NDR) | 0.617 |
| PCB-123 | 0.708 | 1.11(NDR) | 0.579 | 0.502(NDR) | 1.14(NDR) |
| PCB-126 | 0.254(NDR) | 0.375 | 0.282(NDR) | 0.264 | 0.352 |
| PCB-127 | < 0.129 | < 0.2 | 0.363(NDR) | 0.396(NDR) | < 0.192 |
| PCB-128 + 166 | 7.18 | 10.6 | 5.85 | 5.67 | 11.2 |
| PCB-129 + 138 + 160 + 163 | 40.523 | 61.123 | 32.523 | 31.423 | 60.523 |
| PCB-130 | 2.49 | 4.27 | 2.27 | 2.15(NDR) | 4.1 |
| PCB-131 | 0.342(NDR) | 0.443(NDR) | 0.288(NDR) | 0.311(NDR) | 0.596(NDR) |
| PCB-132 | 9.61 | 15.91 | 8.31 | 8.33 | 15.61 |
| PCB-133 | 0.803 | 0.879(NDR) | 0.552 | 0.563(NDR) | 1.09(NDR) |
| PCB-134 + 143 | 1.5(NDR) | 2.39 | 1.2 | 1.36(NDR) | 2.54 |
| PCB-135 + 151 + 154 | 9.018 | 13.648 | 7.248 | 7.028 | 13.648 |
| PCB-136 | 2.7 | 4.38 | 2.33 | 2.44 | 0.671(NDR) |
| PCB-137 | 1.23 | 2.1 | 1.35 | 1.32(NDR) | 1.8(NDR) |
| PCB-139 + 140 | 0.552(NDR) | 0.761 | 0.481(NDR) | 0.54 | 0.739 |
| PCB-141 | 3.28(NDR) | 5.14 | 3.62 | 3.11 | 5.49 |
| PCB-142 | < 0.156 | < 0.168 | < 0.114 | < 0.0721 | < 0.227 |
| PCB-144 | 1.04 | 1.51 | 0.722(NDR) | 0.806 | 1.27 |
| PCB-145 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0504 | < 0.0498 |
| PCB-146 | 7.04 | 10 | 4.45 | 5.23 | 9.71 |
| PCB-147 + 149 | 23.826 | 35.026 | 17.226 | 16.926 | 34.326 |
| PCB-148 | 0.164(NDR) | 0.343(NDR) | 0.132(NDR) | 0.096(NDR) | 0.216(NDR) |
| PCB-150 | 0.066(NDR) | 0.091(NDR) | < 0.0508 | < 0.0504 | 0.062(NDR) |
| PCB-152 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0504 | < 0.0498 |

| | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) Duplicate | PG19-M4 (AXYS) |
|---------------|------------|-------------------|-------------------|--------------------------------|-------------------|
| PCB-153 + 168 | 36.446 | 52.446 | 27.546 | 26.146 | 51.746 |
| PCB-155 | < 0.0487 | 0.06(NDR) | 0.111(NDR) | 0.118(NDR) | 0.061(NDR) |
| PCB-156 + 157 | 4.301 | 7.031 | 3.891 | 3.951 | 6.511 |
| PCB-158 | 2.618(NDR) | 3.918 | 2.618 | 2.648 | 4.008 |
| PCB-159 | < 0.108 | 0.481(NDR) | < 0.0786 | < 0.0504 | 0.311 |
| PCB-161 | < 0.113 | < 0.122 | < 0.0827 | < 0.0522 | < 0.164 |
| PCB-162 | < 0.108 | 0.14(NDR) | 0.177(NDR) | 0.149(NDR) | 0.432(NDR) |
| PCB-164 | 2.12 | 3.21 | 2.01 | 1.86 | 3.45 |
| PCB-165 | < 0.128 | < 0.137 | < 0.0931 | < 0.0587 | < 0.185 |
| PCB-167 | 1.58 | 2.63 | 1.49 | 1.41(NDR) | 2.6 |
| PCB-169 | < 0.121 | < 0.125 | < 1150 | < 0.0841 | < 0.17 |
| PCB-170 | 6.86 | 10.1 | 6.47 | 6.24 | 9.72 |
| PCB-171 + 173 | 2.79 | 3.55 | 2.27 | 2.3 | 3.45 |
| PCB-172 | 1.17(NDR) | 1.84(NDR) | 1.24 | 1.13(NDR) | 1.69 |
| PCB-174 | 6.72 | 10.5 | 5.92 | 5.52 | 9.7(NDR) |
| PCB-175 | 0.22(NDR) | 0.402(NDR) | 0.405 | 0.4(NDR) | 0.503(NDR) |
| PCB-176 | 1.09 | 1.65 | 1.07 | 0.827(NDR) | 1.79(NDR) |
| PCB-177 | 6.7 | 10 | 5.34 | 5.08 | 9.06 |
| PCB-178 | 2.98 | 4.36 | 2.48 | 2.02(NDR) | 3.85 |
| PCB-179 | 4.14 | 6.75 | 3.17 | 3.08(NDR) | 6.1 |
| PCB-180 + 193 | 14.736 | 22.736 | 14.436 | 13.436 | 23.236 |
| PCB-181 | 0.066(NDR) | 0.148(NDR) | 0.089 | 0.056(NDR) | 0.104(NDR) |
| PCB-182 | 0.091(NDR) | < 0.0525 | < 0.0508 | < 0.0504 | 0.07(NDR) |
| PCB-183 + 185 | 4.667 | 6.917 | 4.747 | 3.827 | 5.807 |
| PCB-184 | < 0.0487 | 0.21 | 0.302(NDR) | 0.225(NDR) | 0.144(NDR) |
| PCB-186 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0504 | < 0.0498 |
| PCB-187 | 14.4 | 21.2 | 11.8 | 10.1 | 21.4 |
| PCB-188 | 0.054(NDR) | 0.068(NDR) | < 0.0508 | 0.077 | 0.051(NDR) |
| PCB-189 | 0.274(NDR) | 0.359 | 0.311 | 0.296(NDR) | 0.464 |
| PCB-190 | 1.61 | 2.49(NDR) | 1.46(NDR) | 1.29(NDR) | 2.15 |
| PCB-191 | 0.211(NDR) | 0.475(NDR) | 0.252 | 0.257(NDR) | 0.225(NDR) |
| PCB-192 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0504 | < 0.0498 |
| PCB-194 | 3.3 | 4.97 | 3.15(NDR) | 2.66 | 4.28 |
| PCB-195 | 2.02 | 3.07 | 1.5 | 1.59 | 2.44 |
| PCB-196 | 1.71 | 2.65 | 1.61(NDR) | 1.66 | 2.64(NDR) |
| PCB-197 + 200 | 0.647 | 1.15 | 0.645 | 0.481(NDR) | 1.21(NDR) |
| PCB-198 + 199 | 6.45 | 10.4 | 5.06 | 4.82 | 9.58 |
| PCB-201 | 0.686(NDR) | 1.31 | 0.577(NDR) | 0.67(NDR) | 1.07(NDR) |
| PCB-202 | 1.66 | 2.7 | 1.23 | 1.04 | 2.33 |
| PCB-203 | 2.95 | 5.14 | 2.46(NDR) | 2.59 | 4.51(NDR) |
| PCB-204 | < 0.0487 | < 0.0525 | < 0.0508 | < 0.0504 | < 0.0504 |
| PCB-205 | 0.234 | 0.377 | 0.186(NDR) | 0.259(NDR) | 0.288 |

| | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) Duplicate | PG19-M4 (AXYS) |
|-----------------------------|----------|-------------------|-------------------|--------------------------------|-------------------|
| PCB-206 | 3.37 | 5.6 | 2.71 | 2.53 | 4.94 |
| PCB-207 | 0.484 | 0.995 | 0.706(NDR) | 0.609(NDR) | 0.58 |
| PCB-208 | 1.36 | 1.95 | 0.866 | 0.93(NDR) | 1.8 |
| PCB-209 | 3.361 | 5.951 | 2.531 | 2.331 | 4.871(NDR) |
| Total Monochloro Biphenyls | | | | | |
| Total Dichloro Biphenyls | 72.9 | 85.5 | 46.7 | 50.8 | 99.1 |
| Total Trichloro Biphenyls | 150.94 | 192.94 | 121.94 | 104.94 | 287.94 |
| Total Tetrachloro Biphenyls | 229.05 | 318.05 | 208.05 | 157.05 | 396.05 |
| Total Pentachloro Biphenyls | 209.483 | 321.483 | 171.483 | 166.483 | 313.483 |
| Total Hexachloro Biphenyls | 151 | 237 | 125 | 117 | 228 |
| Total Heptachloro Biphenyls | 66.8 | 98.4 | 60.1 | 46.7 | 87 |
| Total Octachloro Biphenyls | 19 | 31.8 | 8.43 | 14.4 | 18.9 |
| Total Nonachloro Biphenyls | 5.21 | 8.55 | 3.58 | 2.53 | 7.32 |
| Decachloro Biphenyl | 3.361 | 5.951 | 2.531 | 2.331 | |
| TOTAL PCBs | 907.39 | 1296.39 | 748.39 | 662.39 | 1436.39 |

Table 10. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for 40 polybrominated diphenyl ethers (PBDEs). All values are reported in pg/g dry weight. < = values below reporting limit (RL). NDR = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration.

| | SRKW19-1 | SRKW19-1 (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 | SRKW19-9 |
|---------------|------------|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| BDE-7 | 0.251(NDR) | 0.198(NDR) | 2.86 | 0.624 | 2.49 | 0.226 | 4.45 | 0.939 | 4.35 | 4.27 |
| BDE-8 + 11 | 1.662 | 1.932 | 3.472 | 0.601(NDR) | 3.332 | 0.19 | 7.04 | 6.672 | 6.042 | 6.732 |
| BDE-10 | < 0.154 | < 0.107 | < 0.161 | < 0.348 | < 0.335 | < 0.236 | < 0.174 | < 0.207 | < 0.191 | < 0.182 |
| BDE-12 + 13 | 0.128(NDR) | 0.186 | 0.307 | < 0.206 | 0.173(NDR) | < 0.146 | 0.593 | 0.542 | 0.488 | 0.503(NDR) |
| BDE-15 | 0.732 | 0.859 | 1.979 | 0.335 | 2.459 | 0.199 | 6.69 | 2.079 | 4.919 | 6.199 |
| BDE-17 + 25 | 6.499 | 6.469 | 10.129 | 2.569 | 9.879 | 1.319 | 16.5 | 23.229 | 14.429 | 16.429 |
| BDE-28 + 33 | 3.204 | 3.344 | 5.584 | 1.264 | 6.024 | 0.809 | 9.22 | 7.174 | 8.774 | 9.914 |
| BDE-30 | < 0.041 | < 0.048 | < 0.071 | < 0.038 | < 0.162 | < 0.037 | 0.325(NDR) | < 0.04 | < 0.06 | < 0.113 |
| BDE-32 | 0.085 | 0.129 | 0.104(NDR) | < 0.038 | 0.202(NDR) | < 0.037 | < 0.205 | 0.163 | 0.15 | 0.129(NDR) |
| BDE-35 | < 0.039 | 0.066(NDR) | 0.067(NDR) | < 0.038 | 0.146(NDR) | 0.039(NDR) | < 0.17 | < 0.04 | 0.101 | 0.11 |
| BDE-37 | 0.118(NDR) | 0.137 | 0.152 | 0.035 | 0.18(NDR) | 0.013 | 0.706(NDR) | 0.213 | 0.293 | 0.295 |
| BDE-47 | 30.527 | 32.327 | 52.727 | 14.827 | 60.727 | 26.327 | 102.25 | 123.027 | 90.527 | 88.827 |
| BDE-49 | 6.561(NDR) | 6.131 | 9.641 | 2.601(NDR) | 10.631 | 3.191 | 23.8 | 29.931 | 17.931 | 19.431 |
| BDE-51 | 0.936 | 1.08 | 1.65(NDR) | 0.435(NDR) | 1.95(NDR) | 0.299(NDR) | 4.08 | 4.41 | 3.39 | 4.06 |
| BDE-66 | 1.26(NDR) | 1.29 | 2.26(NDR) | 0.632(NDR) | 2.89 | 0.887 | 4.28 | 4.12 | 3.83 | 4.48(NDR) |
| BDE-71 | 0.514(NDR) | 0.495(NDR) | 0.713(NDR) | 0.256(NDR) | 0.542(NDR) | 0.37 | < 0.092 | 2.03 | 1.11 | 0.906(NDR) |
| BDE-75 | 0.115(NDR) | < 0.097 | 0.139(NDR) | < 0.094 | 0.102(NDR) | < 0.093 | < 0.092 | 0.15(NDR) | 0.294 | 0.225 |
| BDE-77 | < 0.096 | < 0.097 | < 0.096 | < 0.094 | < 0.099 | < 0.093 | < 0.092 | < 0.099 | 0.163 | < 0.109 |
| BDE-79 | 0.194(NDR) | 0.195(NDR) | 0.162(NDR) | < 0.094 | 0.442 | < 0.093 | 0.184(NDR) | 0.125(NDR) | < 0.105 | 0.327(NDR) |
| BDE-85 | < 0.43 | 0.45(NDR) | 0.578(NDR) | 0.181(NDR) | 0.874 | 0.971(NDR) | 1.89 | 3.32 | 1.52 | 1.16 |
| BDE-99 | 12.077 | 13.677 | 22.377 | 6.867 | 27.277 | 24.877 | 55.461 | 73.877 | 45.577 | 37.177 |
| BDE-100 | 5.022 | 5.172 | 10.042 | 2.272 | 13.842 | 5.742 | 27.991 | 24.042 | 20.442 | 21.442 |
| BDE-105 | < 0.576 | < 0.424 | < 0.221 | < 0.201 | < 0.373 | < 0.254 | < 0.776 | < 0.392 | < 0.359 | < 0.371 |
| BDE-116 | < 0.728 | < 0.536 | < 0.299 | < 0.272 | < 0.505 | 0.346 | < 0.974 | < 0.493 | < 0.452 | < 0.468 |
| BDE-119 + 120 | < 0.448 | < 0.33 | 0.287(NDR) | < 0.185 | 0.345(NDR) | < 0.21 | < 0.629 | < 0.324 | 0.631(NDR) | 0.544(NDR) |
| BDE-126 | < 0.274 | < 0.208 | < 0.118 | < 0.113 | < 0.193 | < 0.131 | < 0.357 | < 0.193 | 0.262(NDR) | 0.264(NDR) |
| BDE-128 | < 0.847 | < 0.521 | < 0.634 | < 0.718 | < 0.581 | < 0.316 | < 1.45 | < 0.698 | < 0.985 | < 1.05 |
| BDE-138 + 166 | < 0.385 | 0.394 | 0.377(NDR) | 0.299(NDR) | 0.539(NDR) | 0.635 | 0.78 | 1.32 | 0.669 | 0.504 |
| BDE-140 | < 0.252 | 0.31(NDR) | 0.251 | < 0.135 | 0.271(NDR) | 0.176(NDR) | 0.426 | 0.525(NDR) | 0.563 | 0.442(NDR) |
| BDE-153 | 1.656 | 1.516 | 3.246(NDR) | 0.792(NDR) | 3.856 | 2.766 | 8.35 | 9.356 | 6.566 | 4.856 |
| BDE-154 | 2.091 | 2.291 | 4.721 | 1.151 | 6.411 | 2.241(NDR) | 15.4 | 10.831 | 10.931 | 9.251 |
| BDE-155 | 0.823 | 0.866(NDR) | 1.573 | 0.294(NDR) | 1.903 | 0.265(NDR) | 6.47 | 3.353 | 4.283 | 4.343 |
| BDE-181 | 0.281(NDR) | 0.154(NDR) | < 0.096 | < 0.094 | 0.26(NDR) | < 0.093 | < 1.44 | < 0.099 | 0.517(NDR) | 0.317(NDR) |
| BDE-183 | 0.231(NDR) | 0.522(NDR) | 1.131(NDR) | 0.338(NDR) | 1.831(NDR) | 0.638 | 2.6(NDR) | 3.311(NDR) | 2.351 | 2.301 |

| | SRKW19-1 | SRKW19-1 (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 | SRKW19-9 |
|---------|----------|-------------------------|----------|-----------|------------|------------|------------|------------|------------|-----------|
| BDE-190 | < 0.245 | 0.681(NDR) | 0.083 | 0.14(NDR) | < 0.12 | 0.109(NDR) | < 2.63 | 0.472(NDR) | 0.89(NDR) | 0.37(NDR) |
| BDE-203 | 0.619 | 0.831 | 2.071 | 0.431 | 5.661(NDR) | 1.051 | 6.375 | 3.871 | 4.861(NDR) | 3.931 |
| BDE-206 | 3.7 | 11.54 | 12.84 | 7.56 | 22.74 | 6.6 | 68.82 | 48.74 | 47.34 | 22.44 |
| BDE-207 | 4.51 | 9.88 | 15.28 | 4.54 | 38.28 | 6.32 | 30.97(NDR) | 43.18 | 43.68(NDR) | 15.48 |
| BDE-208 | 2.69 | 5.1 | 8.08 | 2.94 | 36.5 | 4.32 | 79.6 | 22.9 | 28.2 | 12.7 |
| BDE-209 | 59.5 | 106.7 | 191.7 | 74.7 | 771.7 | 107.7 | 864 | 1092.7 | 779.7 | 949.7 |

| | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 | SRKW19-17 (Duplicate) | SRKW19-18 |
|---------------|------------|------------|------------|------------|------------|------------|-----------|------------|--------------------------|------------|
| BDE-7 | 4.46 | 11.8 | 0.805(NDR) | 4.48 | 2.22 | 4.35 | 2.89 | 1.24 | 1.22 | 1.9 |
| BDE-8 + 11 | 7.622 | 16.512 | 0.598 | 8.6 | 3.13 | 3.142 | 6.17 | 1.06 | 1.24 | 2.22 |
| BDE-10 | < 0.138 | < 0.312 | < 0.118 | < 0.172 | < 0.244 | < 0.257 | < 0.174 | < 0.121 | < 0.123 | < 0.154 |
| BDE-12 + 13 | 0.601 | 1.143 | 0.14 | 0.72 | 0.434 | 0.501 | 0.718 | < 0.121 | 0.208 | 0.237 |
| BDE-15 | 7.639 | 10.109 | 0.507 | 7.22 | 3.85 | 4.619 | 7.09 | 0.652 | 0.707 | 1.33 |
| BDE-17 + 25 | 21.729 | 46.729 | 2.22 | 20.3 | 11.5 | 19.129 | 17.9 | 4.21 | 4.13 | 7.84 |
| BDE-28 + 33 | 11.714 | 19.114 | 1.166 | 9.746 | 6.446 | 7.444 | 10.756 | 1.906 | 2.186 | 4.216 |
| BDE-30 | < 0.095 | < 0.279 | 2.31(NDR) | 0.522(NDR) | 0.708(NDR) | < 0.117 | < 0.174 | < 0.121 | < 0.123 | 0.242(NDR) |
| BDE-32 | 0.252(NDR) | 0.501(NDR) | < 0.118 | 0.295 | 0.388 | 0.466 | 0.296 | 0.214 | 0.181 | < 0.154 |
| BDE-35 | 0.131 | < 0.178 | 0.173(NDR) | < 0.172 | < 0.244 | 0.09 | < 0.174 | < 0.121 | 0.206 | < 0.154 |
| BDE-37 | 0.427 | 0.604(NDR) | 1.45 | 2.15 | < 0.244 | 0.382 | 1.57 | 0.231 | 0.341 | 0.374 |
| BDE-47 | 112.027 | 196.027 | 18.46 | 90.06 | 57.96 | 95.027 | 100.26 | 19.06 | 18.66 | 38.86 |
| BDE-49 | 29.231 | 75.031 | 4.473 | 33.753 | 17.953 | 22.031 | 27.753 | 3.743 | 3.873 | 7.683 |
| BDE-51 | 7.01 | 13.6 | 0.566 | 7.27 | 4.66 | 11.2 | 5.9 | 0.519 | 0.678(NDR) | 0.807 |
| BDE-66 | 6.04 | 9 | 0.836 | 4.65 | 2.92 | 4.86 | 6.22 | 0.889 | 1.02 | 1.92 |
| BDE-71 | 2.12 | 3.74 | 0.249(NDR) | < 0.172 | < 0.244 | 1.53 | 1.43(NDR) | 0.236(NDR) | 0.451 | < 0.154 |
| BDE-75 | 0.325(NDR) | 0.34(NDR) | < 0.118 | 0.209(NDR) | < 0.244 | 0.307(NDR) | 0.181 | < 0.121 | 0.2(NDR) | < 0.154 |
| BDE-77 | < 0.138 | < 0.098 | < 0.118 | < 0.172 | < 0.244 | 0.172(NDR) | < 0.174 | < 0.121 | 0.189(NDR) | < 0.154 |
| BDE-79 | 0.394 | 0.433(NDR) | < 0.118 | 0.248(NDR) | < 0.244 | 0.384 | 1.65(NDR) | < 0.121 | 0.295 | < 0.154 |
| BDE-85 | 1.8 | 4.19 | 0.194 | 1.132 | 0.274 | 0.561 | 0.772 | 0 | 0.192 | 0.104 |
| BDE-99 | 61.177 | 126.277 | 12.65 | 57.15 | 23.45 | 31.277 | 43.95 | 7.75 | 7.55 | 17.05 |
| BDE-100 | 32.442 | 55.842 | 4.402 | 31.902 | 18.302 | 28.442 | 29.002 | 3.352 | 3.382 | 6.752 |
| BDE-105 | < 0.819 | < 0.932 | < 0.234 | < 0.881 | < 0.343 | < 0.382 | < 0.474 | < 0.121 | 0.146(NDR) | < 0.262 |
| BDE-116 | < 1.03 | < 1.26 | < 0.342 | < 1.29 | < 0.501 | < 0.517 | < 0.693 | 0.142 | 0.216 | < 0.348 |
| BDE-119 + 120 | 0.788 | 1.08(NDR) | < 0.226 | < 0.852 | 0.405 | 1.41 | 0.741 | < 0.121 | 0.431 | < 0.221 |
| BDE-126 | 0.434(NDR) | 0.707 | < 0.13 | 0.539 | 0.281 | 0.457 | 0.519 | < 0.121 | 0.173 | < 0.154 |
| BDE-128 | < 0.9 | 0.945(NDR) | < 0.5 | < 1.27 | < 1.6 | < 0.953 | < 0.867 | < 0.371 | < 0.337 | < 0.718 |
| BDE-138 + 166 | 0.616(NDR) | 1.84(NDR) | 0.224 | 0.721 | 0.36 | 0.458(NDR) | 0.38 | < 0.121 | 0.332 | 0.221(NDR) |
| BDE-140 | 0.669 | 1.18 | 0.136(NDR) | 0.775 | 0.476(NDR) | 0.602(NDR) | 0.622 | < 0.121 | 0.297(NDR) | < 0.154 |
| BDE-153 | 9.316 | 17.806 | 1.812 | 9.652 | 4.452 | 5.426 | 6.742 | 1.092 | 1.212 | 2.082 |

| | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 | SRKW19-17 (Duplicate) | SRKW19-18 |
|---------|------------|------------|-----------|-----------|------------|------------|-----------|-----------|--------------------------|-----------|
| BDE-154 | 16.131 | 28.531 | 2.211 | 18.401 | 9.421 | 14.831 | 16.001 | 1.541 | 1.881 | 3.261 |
| BDE-155 | 7.923 | 12.743 | 0.624 | 9.5 | 5.45 | 9.793 | 7.9 | 0.773 | 1.0(NDR) | 1.43 |
| BDE-181 | < 0.22 | < 0.633 | < 0.133 | < 0.609 | < 0.427 | 0.26 | < 0.325 | < 0.121 | 0.188(NDR) | < 0.154 |
| BDE-183 | 2.791(NDR) | 7.981 | 0.728 | 19.588 | 2.798(NDR) | 2.711 | 3.138 | 0.262 | 0.431 | 0.604 |
| BDE-190 | < 0.399 | 1.518(NDR) | < 0.226 | < 1.03 | 0.78(NDR) | 0.567(NDR) | < 0.551 | < 0.121 | 0.129(NDR) | < 0.154 |
| BDE-203 | 5.021 | 9.491 | 0.68 | 10.67 | 12.17 | 2.811 | 8.07 | 0 | 0 | 0 |
| BDE-206 | 28.84 | 64.04 | 0 | 16.4 | 34.7 | 13.04 | 8.6 | 0 | 0 | 0 |
| BDE-207 | 19.38 | 41.98 | 3.3 | 22.6 | 113.3 | 10.68 | 34.6 | 0 | 0 | 0 |
| BDE-208 | 16.5 | 32.2 | 1.3(NDR) | 18.6 | 95.6 | 10.3 | 34(NDR) | 0 | 0 | 0 |
| BDE-209 | 855.7 | 2782.7 | 228 | 879 | 2819 | 469.7 | 799 | 0 | 0 | 0 |

| | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) | PTP2-PH | PTP2- GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-SI1 | SH19-A2 |
|------------------|------------|-------------------|------------|-------------------|------------|----------------|------------|------------|------------|------------|
| BDE-7 | 4.19 | 3.12 | 1.74 | 1.56(NDR) | 3.16 | 1.13 | 2.82 | < 0.126 | 0.147 | < 0.325 |
| BDE-8 + 11 | 5.31 | 4.54 | 2.15 | 0.853 | 6.35 | 1.44 | 4.16 | < 0.126 | 0.16 | < 0.253 |
| BDE-10 | < 0.189 | < 0.161 | < 0.138 | < 0.118 | < 0.181 | < 0.12 | < 0.123 | < 0.126 | < 0.116 | < 0.359 |
| BDE-12 + 13 | 0.65 | 0.335 | 0.253 | 0.299 | 0.326 | < 0.12 | 0.366 | < 0.126 | < 0.116 | < 0.232 |
| BDE-15 | 5.33 | 3.41 | 1.27 | 0.689 | 1.08 | 0.654 | 1.51 | 0.288 | 0.198 | 0.355 |
| BDE-17 + 25 | 21.3 | 10.4 | 5.97 | 3.64 | 20.3 | 5.56 | 12.8 | 1.26 | 0.635 | 1.31 |
| BDE-28 + 33 | 11.156 | 6.356 | 3.166 | 1.686 | 2.896 | 2.26 | 5.36 | 1.19 | 0.625 | 1.04 |
| BDE-30 | < 0.189 | 0.332(NDR) | 0.186(NDR) | 2.41(NDR) | < 0.181 | < 0.12 | 0.178(NDR) | 0.261(NDR) | < 0.116 | < 0.094 |
| BDE-32 | 0.39 | 0.242 | 0.223 | < 0.118 | 0.458 | < 0.12 | 0.16 | < 0.126 | < 0.116 | < 0.094 |
| BDE-35 | < 0.189 | < 0.161 | < 0.138 | < 0.118 | < 0.181 | < 0.12 | < 0.123 | < 0.126 | < 0.116 | 0.097(NDR) |
| BDE-37 | 0.786 | < 0.161 | 0.828 | < 0.118 | 0.352 | 0.227(NDR) | 0.305 | 0.413 | < 0.116 | 2.63 |
| BDE-47 | 118.26 | 73.56 | 42.16 | 29.06 | 43.96 | 25.1 | 49.1 | 37.9 | 12.6 | 33.069 |
| BDE-49 | 29.353 | 15.253 | 7.783 | 10.653 | 24.453 | 4.85 | 14.6 | 4.69 | 1.59 | 3.96 |
| BDE-51 | 8.15 | 2.39 | 1.25 | 1.16 | 4.36 | 0.604 | 1.92 | 0.346 | < 0.116 | 0.342 |
| BDE-66 | 5.96 | 3.34 | 1.46 | 1.11 | 1.03(NDR) | 0.766 | 1.55 | 1.06(NDR) | 0.567(NDR) | 0.841(NDR) |
| BDE-71 | 1.57(NDR) | < 0.161 | < 0.138 | < 0.118 | 0.846(NDR) | 0.265 | 0.813 | 0.379 | 0.131(NDR) | 0.281(NDR) |
| BDE-75 | 0.242(NDR) | 0.195(NDR) | < 0.138 | < 0.118 | < 0.181 | < 0.12 | < 0.123 | < 0.126 | < 0.116 | < 0.094 |
| BDE-77 | < 0.189 | < 0.161 | < 0.138 | < 0.118 | < 0.181 | < 0.12 | < 0.123 | < 0.126 | < 0.116 | < 0.094 |
| BDE-79 | < 0.189 | < 0.161 | < 0.138 | < 0.118 | < 0.181 | < 0.12 | < 0.123 | < 0.126 | < 0.116 | < 0.094 |
| BDE-85 | 0.992 | 0.674 | 0.359 | 0.554 | 0.562 | 0.229 | 0.905 | 1.36 | 0.412 | 2.03(NDR) |
| BDE-99 | 51.15 | 36.75 | 20.75 | 22.25 | 17.85 | 10.3 | 30.2 | 41.7 | 11.3 | 39.803 |
| BDE-100 | 32.802 | 18.502 | 7.642 | 6.782 | 7.452 | 3.33 | 8.69 | 9.11 | 2.24 | 9.28 |
| BDE-105 | < 0.325 | < 0.496 | < 0.247 | < 0.375 | < 0.181 | < 0.12 | < 0.184 | < 0.476 | < 0.179 | < 0.953 |
| BDE-116 | < 0.432 | < 0.694 | < 0.346 | < 0.547 | 0.188(NDR) | < 0.12 | < 0.245 | < 0.695 | < 0.261 | < 1.22 |
| BDE-119 + 120 | 1.26 | < 0.463 | < 0.23 | < 0.362 | 0.268 | 0.121 | 0.21 | < 0.46 | < 0.173 | < 0.752 |
| BDE-126 | 0.66 | < 0.297 | < 0.138 | < 0.218 | 0.19 | < 0.12 | < 0.123 | < 0.274 | < 0.116 | < 0.532 |
| BDE-128 | < 0.862 | < 0.635 | < 0.575 | < 0.368 | < 0.744 | < 0.33 | < 0.454 | < 1.18 | < 1.08 | < 4.81 |

| | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-SI1 | SH19-A2 |
|---------------|------------|----------------|---------|----------------|------------|------------|------------|------------|------------|------------|
| BDE-138 + 166 | 0.615 | 0.478 | 0.319 | 0.304 | 0.32(NDR) | 0.124(NDR) | 0.262(NDR) | 0.401 | < 0.245 | 1.54(NDR) |
| BDE-140 | 0.821 | 0.438 | 0.242 | 0.22 | 0.214(NDR) | < 0.12 | 0.209 | 0.217 | < 0.178 | 0.359(NDR) |
| BDE-153 | 7.372 | 5.232 | 2.992 | 2.812 | 2.292 | 1.36 | 3.5 | 4.55 | 1.2 | 3.798 |
| BDE-154 | 17.201 | 9.211 | 3.751 | 3.131 | 3.261 | 1.77 | 4.1 | 3.59 | 1.06 | 3.99(NDR) |
| BDE-155 | 11.9 | 3.52 | 1.57 | 0.654 | 3.15 | 0.85 | 1.63 | 0.438 | 0.154(NDR) | 0.556 |
| BDE-181 | < 0.189 | < 0.161 | < 0.138 | < 0.219 | 0.208(NDR) | < 0.12 | < 0.123 | < 0.134 | < 0.146 | < 0.094 |
| BDE-183 | 2.968 | 1.818 | 0.828 | 0.988 | 1.158 | 0.547(NDR) | 1.55 | 1.36 | 1.05 | 1.85(NDR) |
| BDE-190 | 0.376(NDR) | < 0.225 | < 0.138 | < 0.371 | 0.469(NDR) | < 0.12 | < 0.123 | 0.306(NDR) | 0.273(NDR) | < 0.094 |
| BDE-203 | 8.47 | 3.68(NDR) | 0.91 | 4.55 | 1.63 | 2.38 | 4.28 | 2.68 | 1.86(NDR) | 2.14(NDR) |
| BDE-206 | 16.7(NDR) | 3.3 | 0 | 4.0 | 6.4(NDR) | 20.6 | 17.7(NDR) | 11.5 | 6.28(NDR) | 11.37 |
| BDE-207 | 47.8 | 7.8 | 0 | 17.6 | 12.5 | 20.7 | 28.7 | 18.8 | 8.74 | 11.24(NDR) |
| BDE-208 | 31.8 | 11.3 | 0 | 14.6 | 5.3(NDR) | 16.3 | 22.2 | 15.2(NDR) | 9.18(NDR) | 6.37(NDR) |
| BDE-209 | 693 | 416 | 302 | 200 | 879 | 597 | 497 | 362 | 183 | 143.8 |

| | SH19-P6 | SH19-R15 | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) (Duplicate) | PG19-M4 (AXYS) |
|-------------|------------|------------|------------|----------------|----------------|----------------------------|----------------|
| BDE-7 | < 0.675 | 0.985 | 2.73 | 5.1 | 5.63 | 4.73 | 3.77 |
| BDE-8 + 11 | 1.55 | 1.09 | 3.9 | 6.42 | 5.35 | 4.73 | 6.32 |
| BDE-10 | < 0.746 | < 0.773 | < 0.857 | < 0.105 | < 0.165 | < 0.511 | < 0.357 |
| BDE-12 + 13 | < 0.483 | < 0.501 | < 0.555 | 0.464 | 0.365 | < 0.317 | 0.307 |
| BDE-15 | 1.29 | 0.699 | 2.95 | 5.98 | 2.14 | 2.15 | 4.85 |
| BDE-17 + 25 | 9.37 | 4.53 | 9.0 | 18 | 24.1 | 20.2 | 16.3 |
| BDE-28 + 33 | 4.3 | 2.72(NDR) | 5.34(NDR) | 8.38 | 6.86 | 5.89 | 6.75 |
| BDE-30 | < 0.38 | < 0.164 | < 0.279 | < 0.169 | < 0.234 | 0.219(NDR) | < 0.236 |
| BDE-32 | 0.816(NDR) | 0.357(NDR) | < 0.229 | < 0.131 | 4.24 | 3.43 | < 0.183 |
| BDE-35 | < 0.303 | < 0.131 | < 0.222 | < 0.123 | < 0.17 | < 0.101 | < 0.172 |
| BDE-37 | 3.76 | 4.03 | 4.6(NDR) | 1.22 | 2.34 | 2.59 | 3.29 |
| BDE-47 | 59.269 | 30.569 | 44.069 | 83.369 | 113.069 | 155.069 | 55.069 |
| BDE-49 | 12.7 | 5.54 | 8.46 | 24.3 | 32.7 | 29.6 | 18.3 |
| BDE-51 | 1.85 | 0.735 | 1.65(NDR) | 4.66 | 4.53 | 3.84 | 4.06 |
| BDE-66 | 1.849(NDR) | 0.929(NDR) | 1.439 | 3.049 | 3.279 | 4.479 | 2.079 |
| BDE-71 | 0.634(NDR) | 0.34(NDR) | 0.459(NDR) | 0.937 | 1.21(NDR) | 1.12(NDR) | 0.599 |
| BDE-75 | 0.158 | < 0.096 | 0.114(NDR) | 0.125(NDR) | 0.193(NDR) | 0.245(NDR) | < 0.1 |
| BDE-77 | < 0.098 | < 0.096 | 0.107(NDR) | < 0.105 | < 0.102 | 0.135(NDR) | 0.133(NDR) |
| BDE-79 | < 0.098 | < 0.096 | 0.232(NDR) | < 0.105 | < 0.102 | < 0.101 | < 0.1 |
| BDE-85 | 1.92(NDR) | < 1.11 | 1.29(NDR) | 2.93 | 3.38 | 7.49 | < 0.978 |
| BDE-99 | 42.403 | 19.503 | 23.403 | 70.303 | 90.903 | 168.203 | 31.903 |
| BDE-100 | 15.42 | 6.39 | 12.02 | 28.92 | 29.12 | 43.92 | 16.32 |
| BDE-105 | < 1.4 | < 1.35 | < 1.42 | < 0.669 | < 0.942 | < 1.95 | < 1.24 |
| BDE-116 | < 1.79 | < 1.72 | < 1.82 | < 0.824 | < 1.16 | < 2.4 | < 1.53 |

| | SH19-P6 | SH19-R15 | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) (Duplicate) | PG19-M4 (AXYS) |
|------------------|------------|------------|------------|-------------------|-------------------|----------------------------------|-------------------|
| BDE-119 + 120 | < 1.1 | < 1.06 | < 1.12 | 0.515(NDR) | < 0.725 | < 1.5 | < 0.953 |
| BDE-126 | < 0.822 | < 0.779 | < 0.806 | 0.688(NDR) | < 0.53 | < 1.11 | < 0.784 |
| BDE-128 | < 13.3 | < 16.3 | < 11.4 | < 1.22 | < 7.15 | < 12.7 | < 9.06 |
| BDE-138 + 166 | 2.87(NDR) | 2.63(NDR) | 1.83(NDR) | 1.04(NDR) | 2.97 | 4.54 | 1.24(NDR) |
| BDE-140 | < 1.01 | < 1.24 | < 0.795 | 0.712 | 0.848 | 1.25 | < 0.725 |
| BDE-153 | 5.998 | 2.368(NDR) | 2.988(NDR) | 9.358 | 10.518 | 18.018 | 4.408 |
| BDE-154 | 7.16 | 3.61 | 5.57 | 13.2 | 11.4 | 16.5 | 6.91 |
| BDE-155 | 2.22(NDR) | 1.14 | 1.86 | 5.42 | 4.11 | 4.08 | 3.55 |
| BDE-181 | < 1.07 | < 1.56 | 0.899 | < 0.733 | < 0.672 | < 2.02 | < 0.416 |
| BDE-183 | 3.03(NDR) | 0.8 | 1.98(NDR) | 4.01 | 4.59 | 5.94 | 3.14(NDR) |
| BDE-190 | < 1.79 | < 2.6 | < 0.923 | < 1.28 | < 1.17 | < 3.53 | < 0.727 |
| BDE-203 | 3.68 | 1.69(NDR) | 3.83(NDR) | 8.14 | 16.82 | 9.12 | 4.7(NDR) |
| BDE-206 | 32.37(NDR) | 29.57 | 25.57(NDR) | 96.47 | 86.87 | 83.77 | 44.87 |
| BDE-207 | 23.94 | 25.14 | 21.74(NDR) | 96.44 | 85.24(NDR) | 71.34 | 42.54(NDR) |
| BDE-208 | 21.31(NDR) | 20.01 | 18.51(NDR) | 75.31 | 64.01 | 60.91(NDR) | 33.11 |
| BDE-209 | 552.8 | 485.8 | 319.8 | 2061.8 | 1561.8 | 1551.8 | 684.8 |

Table 11. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for Tetrabromobisphenol A (TBBPA). All values are reported in ng/g dry weight. < = values below reporting limit (RL).

| | | | | | | | | | | |
|-------|-----------|------------|-----------|-----------|--------------------------|-----------|-----------|-----------|-------------------------|-----------|
| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 | SRKW19-8 (Duplicate) | SRKW19-9 |
| TBBPA | < 0.955 | < 0.787 | < 0.933 | < 0.925 | < 0.822 | < 0.967 | < 0.829 | < 1.07 | < 1.02 | < 1.01 |
| | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 |
| TBBPA | < 1.08 | < 0.919 | < 1.33 | < 1.04 | < 0.845 | < 1.39 | < 0.964 | < 2.03 | < 2.08 | < 1.52 |
| | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 | | | | |
| TBBPA | < 1.92 | 1.17 | < 0.981 | < 2.22 | < 1.31 | < 1.36 | | | | |

Table 12. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for Hexabromocyclododecane (HBCDD). All values are reported in ng/g dry weight. < = values below reporting limit (RL).

| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 | SRKW19-9 | SRKW19-10 |
|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| alpha-HBCDD | < 0.149 | 0.682 | < 0.143 | < 0.239 | < 0.16 | < 0.26 | < 0.216 | < 0.291 | < 0.295 | < 0.486 |
| beta-HBCDD | < 0.149 | < 0.189 | < 0.143 | < 0.239 | < 0.16 | < 0.26 | < 0.216 | < 0.291 | < 0.295 | < 0.486 |
| gamma-HBCDD | < 0.149 | < 0.189 | < 0.143 | < 0.239 | < 0.16 | < 0.26 | < 0.216 | < 0.291 | < 0.295 | < 0.486 |

| | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| alpha-HBCDD | < 0.242 | < 0.117 | < 0.176 | < 0.239 | < 0.371 | < 0.171 | < 0.114 | < 0.147 | < 0.161 |
| beta-HBCDD | < 0.242 | < 0.117 | < 0.176 | < 0.239 | < 0.371 | < 0.171 | < 0.114 | < 0.147 | < 0.161 |
| gamma-HBCDD | < 0.242 | < 0.117 | < 0.176 | < 0.239 | < 0.371 | < 0.171 | < 0.114 | < 0.147 | < 0.161 |

| | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 |
|-------------|---------|------------|----------|-----------|-----------------------|----------|
| alpha-HBCDD | 2.07 | < 0.126 | < 0.121 | < 0.127 | < 0.126 | < 0.111 |
| beta-HBCDD | 1.18 | < 0.126 | < 0.121 | < 0.127 | < 0.126 | < 0.111 |
| gamma-HBCDD | 17.8 | < 0.126 | 0.434 | < 0.127 | < 0.126 | < 0.111 |

Table 13. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for multi residue pesticides (MRES). All values are reported in ng/g dry weight. < = values below reporting limit (RL).

| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-3 (Duplicate) | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 |
|--------------------------|----------|------------|------------|-------------------------|------------|------------|-----------|------------|------------|
| 2,4'-DDD | 0.013 | 0.012 | < 0.0301 | < 0.0288 | < 0.0163 | < 0.029 | < 0.0737 | < 0.0383 | < 0.076 |
| 2,4'-DDE | < 0.0046 | < 0.0045 | < 0.0258 | < 0.0203 | < 0.0073 | < 0.0137 | < 0.0406 | < 0.0155 | < 0.0569 |
| 2,4'-DDT | < 0.0334 | < 0.023 | < 0.0547 | < 0.0532 | < 0.043 | < 0.0413 | < 0.109 | < 0.0577 | < 0.165 |
| 4,4'-DDD | 0.046 | 0.046 | < 0.0256 | < 0.0235 | 0.037 | < 0.0197 | < 0.0504 | < 0.0279 | < 0.0553 |
| 4,4'-DDE | 0.073 | 0.092 | < 0.0368 | < 0.029 | 0.083 | 0.023 | 0.093 | 0.065 | 0.123 |
| 4,4'-DDT | < 0.0349 | < 0.0235 | < 0.0515 | < 0.0473 | < 0.0457 | < 0.0396 | < 0.102 | < 0.0561 | < 0.168 |
| Alachlor | < 1.13 | < 1.51 | < 1.13 | < 0.816 | < 1.96 | 1.64(NDR) | < 1.63 | < 1.01 | < 1.18 |
| Aldrin | 0 | 0 | < 0.0122 | < 0.0128 | 0 | 0 | < 0.0275 | < 0.0164 | < 0.0362 |
| alpha-Endosulphan | 0 | 0 | 0 | 0 | 0.1(NDR) | 0 | 0 | 0.05(NDR) | 0 |
| Ametryn | < 0.0302 | < 0.0384 | < 0.116 | < 0.0972 | < 0.0505 | < 0.0505 | < 0.202 | < 0.0665 | < 0.313 |
| Atrazine | < 0.144 | < 0.162 | < 0.558 | < 0.719 | < 0.697 | < 0.322 | < 1.44 | < 0.544 | < 1.52 |
| Azinphos-Methyl | < 0.289 | < 0.31 | < 0.501 | < 0.295 | < 0.729 | < 0.461 | < 1.08 | < 0.5 | < 0.931 |
| beta-Endosulphan | 0 | 0 | 0.032(NDR) | 0.102(NDR) | 0.042(NDR) | 0.067(NDR) | 0.15(NDR) | 0.175(NDR) | 0.156(NDR) |
| Butralin | < 2.04 | < 2.19 | < 1.9 | < 1.87 | < 4.08 | < 2.44 | < 3.85 | < 1.11 | < 1.47 |
| Butylate | < 0.063 | < 0.0384 | < 0.0412 | < 0.06 | < 0.0637 | < 0.0423 | < 0.0655 | < 0.0529 | < 0.0765 |
| Captan | < 1.03 | < 0.87 | < 3.99 | < 3.55 | < 1.5 | < 1.94 | < 6.81 | < 2.74 | < 14.8 |
| Chlordane, alpha (cis) | < 0.007 | < 0.014 | < 0.0471 | < 0.0536 | < 0.0175 | < 0.0278 | < 0.114 | < 0.0334 | < 0.145 |
| Chlordane, gamma (trans) | < 0.0086 | < 0.0171 | < 0.0591 | < 0.0673 | < 0.0214 | < 0.0349 | < 0.143 | < 0.042 | < 0.179 |
| Chlordane, oxy- | < 0.0118 | < 0.0154 | < 0.0219 | < 0.0202 | < 0.0197 | < 0.0161 | < 0.0601 | < 0.0243 | < 0.104 |
| Chlorothalonil | < 0.0302 | < 0.0384 | < 0.0286 | < 0.0274 | < 0.0505 | < 0.0331 | < 0.0536 | < 0.0453 | < 0.0652 |
| Chlorpyrifos | < 0.0375 | < 0.0384 | < 0.0842 | < 0.063 | < 0.0655 | < 0.0423 | < 0.131 | < 0.0522 | < 0.174 |
| Chlorpyrifos-Methyl | < 0.0302 | < 0.0384 | < 0.0286 | < 0.0274 | < 0.0505 | < 0.0331 | < 0.0536 | < 0.0453 | < 0.0652 |
| Chlorpyrifos-Oxon | < 0.048 | < 0.0484 | < 0.0718 | < 0.0813 | < 0.0675 | < 0.0475 | < 0.187 | < 0.0606 | < 0.301 |
| Cyanazine | < 0.539 | < 1.57 | < 0.886 | < 0.73 | < 1.34 | < 0.406 | < 1.38 | < 0.811 | < 2.45 |
| Cypermethrin | < 0.113 | < 0.0878 | < 0.352 | < 0.242 | < 0.122 | < 0.128 | < 0.442 | < 0.111 | < 0.589 |
| Dacthal | < 0.0302 | < 0.0384 | < 0.0286 | < 0.0274 | < 0.0505 | < 0.0331 | < 0.0536 | < 0.0453 | < 0.0652 |
| Desethylatrazine | < 0.0302 | < 0.0384 | < 0.0421 | < 0.0402 | < 0.0564 | < 0.045 | < 0.0825 | < 0.0512 | < 0.102 |
| Diazinon | < 0.123 | < 0.13 | < 0.433 | < 0.513 | < 0.196 | < 0.158 | < 0.762 | < 0.249 | < 1.01 |
| Diazinon-Oxon | < 0.125 | < 0.172 | < 0.184 | < 0.296 | < 0.254 | < 0.196 | < 0.425 | < 0.192 | < 0.845 |
| Dieldrin | 0 | 0.005(NDR) | < 0.0183 | < 0.0198 | 0.005(NDR) | < 0.0115 | < 0.0495 | < 0.0136 | < 0.0518 |
| Dimethenamid | < 0.481 | < 0.138 | < 0.265 | < 0.325 | < 0.317 | < 0.124 | < 0.201 | < 0.0453 | < 0.0652 |
| Dimethoate | < 0.455 | < 0.458 | < 1.14 | < 0.8 | < 0.623 | < 0.507 | < 1.66 | < 0.696 | < 2.23 |
| Disulfoton | < 0.0852 | < 0.107 | < 4.18 | < 3.3 | < 0.138 | < 0.356 | < 2.66 | < 0.508 | < 7.12 |
| Disulfoton Sulfone | < 0.0306 | < 0.0384 | < 0.0415 | < 0.0347 | < 0.0505 | < 0.0331 | < 0.119 | < 0.0453 | < 0.136 |
| Endosulphan Sulphate | < 0.0258 | < 0.0468 | < 0.0508 | < 0.0704 | < 0.0695 | < 0.091 | < 0.134 | < 0.111 | < 0.17 |
| Endrin | < 0.0084 | < 0.0187 | < 0.0242 | < 0.0251 | < 0.0255 | < 0.0178 | < 0.0558 | < 0.0238 | < 0.063 |
| Endrin Ketone | < 0.0443 | < 0.0302 | < 0.145 | < 0.154 | < 0.0334 | < 0.231 | < 0.527 | < 0.167 | < 0.336 |
| Ethalfuralin | < 0.576 | < 0.759 | < 0.481 | < 0.436 | < 0.926 | < 0.491 | < 0.864 | < 0.153 | < 0.246 |

| | SRKW19-3 | | | | | | | | |
|--------------------|------------|------------|-----------|-------------|------------|------------|-----------|-----------|------------|
| | SRKW19-1 | SRKW19-2 | SRKW19-3 | (Duplicate) | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 |
| Ethion | < 0.155 | < 0.119 | < 0.159 | < 0.127 | < 0.14 | < 0.0871 | < 0.263 | < 0.114 | < 0.333 |
| Fenitrothion | < 0.0954 | < 0.0725 | < 0.0324 | < 0.0312 | < 0.147 | < 0.0331 | < 0.0832 | < 0.0453 | < 0.106 |
| Flufenacet | < 2.06 | < 3.55 | < 2.14 | < 0.993 | < 0.567 | < 0.964 | < 2.41 | < 0.267 | < 0.72 |
| Flutriafol | < 2.74 | < 1.53 | < 0.583 | < 0.541 | < 0.932 | < 0.405 | < 0.624 | < 0.32 | < 0.526 |
| Fonofos | < 0.0302 | < 0.0384 | < 0.0286 | < 0.0274 | < 0.0505 | < 0.0331 | < 0.0536 | < 0.0453 | < 0.0652 |
| HCH, alpha | < 0.0098 | 0.015 | < 0.127 | < 0.164 | 0.018 | < 0.112 | < 0.268 | < 0.104 | < 0.308 |
| HCH, beta | 0.015(NDR) | 0.027(NDR) | < 0.17 | < 0.152 | 0.026(NDR) | < 0.0864 | < 0.343 | < 0.0985 | < 0.331 |
| HCH, delta | < 0.0121 | < 0.0105 | < 0.153 | < 0.125 | < 0.0186 | < 0.0697 | < 0.315 | < 0.0807 | < 0.283 |
| HCH, gamma | < 0.0126 | < 0.0172 | < 0.148 | < 0.201 | < 0.0236 | < 0.0858 | < 0.265 | < 0.134 | < 0.386 |
| Heptachlor | < 0.003 | < 0.0038 | < 0.0108 | < 0.0099 | < 0.0051 | < 0.0069 | < 0.0208 | < 0.0145 | < 0.0296 |
| Heptachlor Epoxide | 0 | 0 | < 0.0213 | < 0.0277 | 0.008(NDR) | 0.014(NDR) | < 0.0642 | < 0.0188 | 0.077(NDR) |
| Hexachlorobenzene | 0.028 | 0.047 | 0.016 | 0.013 | 0.043 | 0.015 | 0.043 | 0.037 | 0.068 |
| Hexazinone | < 0.0442 | < 0.0711 | < 0.123 | < 0.144 | < 0.138 | < 0.12 | < 0.35 | < 0.196 | < 0.296 |
| Linuron | < 3.87 | < 1.98 | < 2.49 | < 3.44 | < 5.35 | < 1.06 | < 2.71 | < 1.14 | < 0.951 |
| Malathion | < 0.15 | < 0.138 | < 0.137 | < 0.168 | < 0.207 | < 0.118 | < 0.326 | < 0.16 | < 0.5 |
| Methoprene | < 20.2 | < 13.5 | < 15.3 | < 16.5 | < 29.3 | < 24.1 | < 19.2 | < 24.5 | < 23.8 |
| Methoxychlor | < 0.619 | < 0.582 | < 0.496 | < 0.499 | < 0.411 | < 0.362 | < 1.08 | < 0.652 | < 1.89 |
| Metolachlor | < 0.309 | < 0.37 | < 0.486 | < 1.56 | < 0.904 | < 0.406 | < 0.838 | < 0.37 | < 0.364 |
| Metribuzin | < 0.154 | < 0.168 | < 0.146 | < 0.16 | < 0.231 | < 0.109 | < 0.443 | < 0.178 | < 0.501 |
| Mirex | < 0.0048 | < 0.0067 | < 0.0268 | < 0.0254 | < 0.0114 | < 0.0347 | < 0.0688 | < 0.0311 | < 0.0666 |
| Nonachlor, cis- | < 0.0105 | < 0.0238 | < 0.0623 | < 0.0561 | < 0.0293 | < 0.0385 | < 0.116 | < 0.052 | < 0.125 |
| Nonachlor, trans- | < 0.0087 | < 0.0172 | < 0.0471 | < 0.056 | < 0.0211 | < 0.0291 | < 0.128 | < 0.0334 | < 0.169 |
| Octachlorostyrene | < 0.006 | < 0.0038 | < 0.163 | < 0.208 | 0.018(NDR) | < 0.153 | < 0.57 | < 0.272 | < 1.08 |
| Parathion-Ethyl | < 0.106 | < 0.0956 | < 0.0387 | < 0.0418 | < 0.268 | < 0.0331 | < 0.113 | < 0.0453 | < 0.206 |
| Parathion-Methyl | < 0.543 | < 0.682 | < 0.943 | < 1.07 | < 1.18 | < 0.558 | < 2.32 | < 0.633 | < 2.36 |
| Pendimethalin | < 2.21 | < 3.64 | < 5.16 | < 2.58 | < 10.4 | < 5.74 | < 4.2 | < 2.21 | < 8 |
| Permethrin | < 0.0509 | < 0.0662 | < 0.169 | < 0.125 | < 0.0912 | < 0.151 | < 0.272 | < 0.155 | < 0.362 |
| Perthane | < 0.706 | < 0.97 | < 0.543 | < 0.44 | < 0.707 | < 0.348 | < 0.906 | < 0.603 | < 1.97 |
| Phorate | < 0.0542 | < 0.0573 | < 0.39 | < 0.304 | < 0.0797 | < 0.0589 | < 0.435 | < 0.0787 | < 1.27 |
| Phosmet | < 0.0834 | < 0.0975 | < 0.095 | < 0.0855 | < 0.138 | < 0.095 | < 0.234 | < 0.141 | < 0.236 |
| Pirimiphos-Methyl | < 0.0302 | < 0.0384 | < 0.0853 | < 0.119 | < 0.0505 | < 0.0331 | < 0.218 | < 0.0453 | < 0.37 |
| Quintozene | < 0.0302 | < 0.0384 | < 0.0286 | < 0.0274 | < 0.0505 | < 0.0331 | < 0.0536 | < 0.0453 | < 0.0656 |
| Simazine | < 0.204 | < 0.193 | < 0.472 | < 0.34 | < 0.562 | < 0.265 | < 0.711 | < 0.222 | < 1.05 |
| Tebuconazol | < 0.752 | < 0.836 | < 1.52 | < 1.25 | < 2.55 | < 0.912 | < 1.27 | < 0.168 | < 0.467 |
| Tecnazene | < 0.0302 | < 0.0384 | < 0.0286 | < 0.0274 | < 0.0505 | < 0.0331 | < 0.0536 | < 0.0453 | < 0.0652 |
| Terbufos | < 0.0513 | < 0.104 | < 0.454 | < 0.529 | < 0.125 | < 0.265 | < 0.702 | < 0.275 | < 1.12 |
| Triallate | < 0.233 | < 0.122 | < 0.176 | < 0.148 | < 0.22 | < 0.103 | < 0.166 | < 0.0453 | < 0.0652 |
| Trifluralin | < 0.0625 | < 0.0519 | < 0.0613 | < 0.0412 | < 0.0704 | < 0.0375 | < 0.0603 | < 0.0453 | < 0.0652 |
| | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 |
| 2,4'-DDD | < 0.0544 | < 0.111 | < 0.0271 | < 0.0189 | < 0.0238 | < 0.0558 | < 0.0566 | < 0.0357 | < 0.0241 |
| 2,4'-DDE | < 0.0271 | < 0.0686 | < 0.0182 | 0.011 | < 0.0102 | < 0.0128 | < 0.0284 | < 0.012 | < 0.0096 |

| | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 |
|--------------------------|------------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| 2,4'-DDT | < 0.097 | < 0.228 | < 0.0596 | < 0.0457 | < 0.0677 | < 0.126 | < 0.124 | < 0.101 | < 0.0682 |
| 4,4'-DDD | < 0.0322 | < 0.0804 | 0.03 | 0.034 | 0.042 | 0.066(NDR) | 0.072 | 0.094 | < 0.0323 |
| 4,4'-DDE | 0.125 | 0.182 | 0.098 | 0.067 | 0.103 | 0.138 | 0.318 | 0.202 | 0.036 |
| 4,4'-DDT | < 0.0977 | < 0.244 | < 0.0614 | 0.282 | < 0.0719 | < 0.137 | < 0.129 | < 0.114 | < 0.0794 |
| Alachlor | < 1.85 | < 2.02 | < 1.34 | | | | < 1.43 | | |
| Aldrin | < 0.016 | < 0.0743 | < 0.0098 | 0 | 0 | 0 | < 0.0268 | 0 | < 0.0025 |
| alpha-Endosulphan | 0 | < 0.296 | 0 | 0 | 0.085(NDR) | 0 | 0 | 0 | 0.004(NDR) |
| Ametryn | < 0.153 | < 0.384 | < 0.134 | | | | < 0.0893 | | |
| Atrazine | < 0.626 | < 2.04 | < 0.474 | < 0.306 | < 0.191 | < 0.349 | < 0.614 | < 0.239 | < 0.212 |
| Azinphos-Methyl | < 0.845 | < 1.58 | < 0.505 | < 0.541 | < 0.64 | < 0.905 | < 0.922 | < 0.774 | < 0.685 |
| beta-Endosulphan | 0.109(NDR) | < 0.391 | < 0.13 | 0.008(NDR) | 0.06(NDR) | 0.104(NDR) | 0.297(NDR) | 0.065(NDR) | 0.01(NDR) |
| Butralin | < 1.81 | < 2.59 | < 1.59 | | | | < 3.57 | | |
| Butylate | < 0.0763 | < 0.0876 | < 0.0581 | | | | < 0.0897 | | |
| Captan | < 6.78 | < 17.5 | < 4.49 | < 0.769 | < 1.08 | < 1.35 | < 6.21 | < 1.2 | < 0.78 |
| Chlordane, alpha (cis) | < 0.0534 | < 0.239 | < 0.0382 | 0.009 | 0 | 0 | < 0.0905 | < 0.0036 | < 0.0031 |
| Chlordane, gamma (trans) | < 0.0662 | < 0.296 | < 0.0473 | 0.005 | 0 | < 0.0051 | < 0.112 | 0 | < 0.0036 |
| Chlordane, oxy- | < 0.0272 | < 0.0902 | < 0.0186 | 0.003(NDR) | < 0.0052 | 0.01(NDR) | < 0.038 | < 0.0036 | 0.007(NDR) |
| Chlorothalonil | < 0.0628 | < 0.0876 | < 0.0502 | | | | < 0.0893 | | |
| Chlorpyrifos | < 0.0824 | < 0.216 | < 0.053 | < 0.0242 | < 0.0346 | < 0.0511 | < 0.0893 | < 0.0421 | < 0.0252 |
| Chlorpyrifos-Methyl | < 0.0628 | < 0.0876 | < 0.0502 | < 0.0242 | < 0.0346 | < 0.0511 | < 0.0893 | < 0.0361 | < 0.0252 |
| Chlorpyrifos-Oxon | < 0.1 | < 0.227 | < 0.0502 | < 0.0242 | < 0.0346 | < 0.0511 | < 0.093 | < 0.0435 | < 0.0254 |
| Cyanazine | < 1.1 | < 2.46 | < 0.958 | < 0.427 | < 0.61 | < 0.651 | < 1.11 | < 0.766 | < 0.631 |
| Cypermethrin | < 0.25 | < 0.686 | < 0.136 | < 0.168 | < 0.242 | < 0.518 | < 0.191 | < 0.404 | < 0.325 |
| Dacthal | < 0.0628 | < 0.0876 | < 0.0502 | < 0.0242 | < 0.0346 | < 0.0511 | < 0.0893 | < 0.0361 | < 0.0252 |
| Desethylatrazine | < 0.0843 | < 0.152 | < 0.0502 | < 0.0275 | < 0.0346 | < 0.0678 | < 0.0893 | < 0.0441 | < 0.0429 |
| Diazinon | < 0.394 | < 1.65 | < 0.297 | < 0.295 | < 0.407 | < 0.455 | < 0.457 | < 0.502 | < 0.357 |
| Diazinon-Oxon | < 0.334 | < 1.06 | < 0.231 | | | | < 0.404 | | |
| Dieldrin | < 0.0257 | < 0.0797 | < 0.0149 | 0.013 | 0 | 0 | < 0.0351 | 0.002(NDR) | 0 |
| Dimethenamid | < 0.0628 | < 0.0876 | < 0.0502 | | | | < 0.0893 | | |
| Dimethoate | < 0.859 | < 1.95 | < 0.58 | < 0.429 | < 0.435 | < 0.831 | < 1.04 | < 0.75 | < 0.541 |
| Disulfoton | < 1.43 | < 12.8 | < 0.508 | < 0.0906 | < 0.0902 | < 0.0573 | < 0.604 | < 0.119 | < 0.0739 |
| Disulfoton Sulfone | < 0.0628 | < 0.161 | < 0.0502 | < 0.0364 | < 0.0622 | < 0.0932 | < 0.0893 | < 0.0838 | < 0.0456 |
| Endosulphan Sulphate | < 0.0829 | < 0.329 | < 0.11 | < 0.0047 | < 0.0206 | < 0.0074 | < 0.203 | < 0.0343 | < 0.0126 |
| Endrin | < 0.047 | < 0.15 | < 0.0314 | 0 | 0 | < 0.0055 | < 0.0567 | 0 | 0 |
| Endrin Ketone | < 0.208 | < 0.814 | < 0.151 | < 0.0181 | < 0.0185 | < 0.047 | < 0.257 | < 0.0235 | < 0.0211 |
| Ethalfuralin | < 0.28 | < 0.409 | < 0.268 | | | | < 0.469 | | |
| Ethion | < 0.181 | < 0.393 | < 0.104 | < 0.0557 | < 0.0761 | < 0.137 | < 0.134 | < 0.0831 | < 0.0705 |
| Fenitrothion | < 0.0628 | < 0.12 | < 0.0502 | < 0.0373 | < 0.0508 | < 0.0672 | < 0.0893 | < 0.0557 | < 0.05 |
| Flufenacet | < 0.25 | < 0.679 | < 0.507 | | | | < 0.924 | | |
| Flutriafol | < 0.519 | < 1.3 | < 0.8 | | | | < 0.616 | | |
| Fonofos | < 0.0628 | < 0.0876 | < 0.0502 | < 0.0242 | < 0.0346 | < 0.0511 | < 0.0893 | < 0.0361 | < 0.0252 |
| HCH, alpha | < 0.157 | < 0.384 | < 0.0697 | < 0.0091 | 0.005 | 0.016 | < 0.21 | 0.012(NDR) | < 0.0085 |
| HCH, beta | < 0.198 | < 0.554 | < 0.0952 | < 0.013 | 0 | < 0.0333 | < 0.152 | 0.012 | < 0.0138 |
| HCH, delta | < 0.165 | < 0.448 | < 0.0769 | < 0.0123 | < 0.0101 | < 0.0273 | < 0.121 | < 0.0177 | < 0.0129 |

| | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2- GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-STI1 |
|-----------------------------------|------------|------------|------------|----------------|------------|------------|--------------------------|------------|
| Atrazine | < 0.21 | < 0.311 | < 2.14 | < 0.419 | < 0.279 | < 0.166 | < 0.303 | < 0.158 |
| Azinphos-Methyl | < 0.603 | < 0.888 | < 3.91 | < 0.818 | < 0.552 | < 0.733 | < 0.722 | < 0.394 |
| beta-Endosulphan | 0.064(NDR) | 0.083(NDR) | 0.073(NDR) | < 0.108 | 0.036(NDR) | 0.021(NDR) | 0.035(NDR) | 0.003(NDR) |
| Butralin | | | < 0.592 | < 0.512 | < 0.531 | < 0.611 | < 0.585 | < 0.341 |
| Butylate | | | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |
| Captan | < 0.953 | < 1.12 | < 1.06 | < 0.99 | < 1.33 | < 0.954 | < 0.979 | < 0.807 |
| Chlordane, alpha (cis) | 0 | < 0.0053 | 0 | < 0.0105 | < 0.0175 | < 0.0072 | < 0.0049 | < 0.004 |
| Chlordane, gamma (trans) | < 0.0037 | 0.001 | < 0.0057 | < 0.0125 | < 0.0209 | < 0.0084 | 0.004(NDR) | < 0.0046 |
| Chlordane, oxy- Chlorothalonil | 0.009(NDR) | < 0.0069 | < 0.0124 | < 0.0129 | < 0.0161 | < 0.009 | < 0.0054 | 0.006(NDR) |
| Chlorpyrifos | < 0.0314 | < 0.0442 | < 0.0464 | < 0.0307 | < 0.027 | < 0.0287 | < 0.0336 | < 0.0236 |
| Chlorpyrifos-Methyl | < 0.0314 | < 0.0393 | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |
| Chlorpyrifos-Oxon | < 0.032 | < 0.0523 | < 0.0365 | < 0.0325 | < 0.033 | < 0.0255 | < 0.0258 | < 0.0236 |
| Cyanazine | < 0.837 | < 1.03 | < 0.787 | < 0.629 | < 0.869 | < 0.454 | < 0.526 | < 0.445 |
| Cypermethrin | < 0.258 | < 0.414 | < 0.266 | < 0.153 | < 0.175 | < 0.268 | < 0.25 | < 0.194 |
| Dacthal | < 0.0314 | < 0.0393 | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |
| Desethylatrazine | < 0.0322 | < 0.0684 | < 0.31 | < 0.0404 | < 0.0339 | < 0.0255 | < 0.0283 | < 0.0236 |
| Diazinon | < 0.308 | < 0.407 | < 1.09 | < 0.305 | < 0.448 | < 0.301 | < 0.403 | < 0.279 |
| Diazinon-Oxon | | | | | | | | |
| Dieldrin | 0 | < 0.0039 | 0.028 | < 0.0054 | < 0.0084 | < 0.0035 | < 0.0026 | < 0.0024 |
| Dimethenamid | | | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |
| Dimethoate | < 0.523 | < 0.816 | < 0.705 | < 0.491 | < 0.517 | < 0.584 | < 0.541 | < 0.408 |
| Disulfoton | < 0.0866 | < 0.0827 | < 0.141 | < 0.16 | < 0.154 | < 0.0468 | < 0.108 | < 0.0522 |
| Disulfoton Sulfone | < 0.0784 | < 0.0983 | < 0.0958 | < 0.053 | < 0.0759 | < 0.0575 | < 0.0621 | < 0.0461 |
| Endosulphan Sulphate | < 0.0227 | < 0.0294 | < 0.0124 | < 0.0976 | < 0.0385 | 0.018(NDR) | < 0.0196 | < 0.01 |
| Endrin | < 0.0031 | 0 | 0 | < 0.0278 | < 0.0202 | 0 | 0.001(NDR) | 0.001(NDR) |
| Endrin Ketone | < 0.0305 | 0.095(NDR) | < 0.105 | < 0.0886 | < 0.117 | < 0.0361 | < 0.024 | < 0.0256 |
| Ethalfuralin | | | < 0.0587 | < 0.0495 | < 0.0511 | < 0.0532 | < 0.0521 | < 0.0467 |
| Ethion | < 0.0858 | < 0.12 | < 0.185 | < 0.0664 | < 0.108 | < 0.0552 | < 0.0653 | < 0.0478 |
| Fenitrothion | < 0.053 | < 0.0601 | < 0.0766 | < 0.0557 | < 0.059 | < 0.0494 | < 0.0557 | < 0.0338 |
| Flufenacet | | | < 0.0623 | < 0.0505 | < 0.106 | < 0.0914 | < 0.171 | < 0.0688 |
| Flutriafol | | | < 0.139 | < 0.118 | < 0.0986 | < 0.104 | < 0.113 | < 0.104 |
| Fonofos | < 0.0314 | < 0.0393 | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |
| HCH, alpha | 0.007 | 0.011 | 0.014 | 0 | 0.004 | < 0.0093 | < 0.0106 | < 0.0089 |
| HCH, beta | 0.018 | 0.021 | 0.023 | 0 | 0.004 | < 0.0213 | < 0.0226 | < 0.0121 |
| HCH, delta | < 0.0169 | < 0.0218 | < 0.0213 | < 0.0114 | < 0.0166 | < 0.0206 | < 0.0201 | < 0.011 |
| HCH, gamma | < 0.0133 | < 0.0134 | 0.011(NDR) | < 0.008 | < 0.0185 | < 0.0138 | < 0.0173 | < 0.0125 |
| Heptachlor | < 0.0031 | < 0.0039 | < 0.0036 | < 0.0024 | < 0.0041 | < 0.0033 | 0 | < 0.0024 |
| Heptachlor Epoxide | < 0.0031 | 0 | 0.179 | < 0.0099 | < 0.0156 | < 0.0066 | < 0.0043 | < 0.0033 |
| Hexachlorobenzene | 0.046 | 0.081 | 0.033 | 0.012 | 0.028 | 0.006 | 0.008 | 0 |
| Hexazinone | | | | | | | | |
| Linuron | | | < 2.68 | < 0.927 | < 0.874 | < 0.835 | < 1.23 | < 0.526 |
| Malathion | < 0.128 | < 0.147 | < 0.141 | < 0.0978 | < 0.121 | < 0.0776 | < 0.0889 | < 0.0579 |

| | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2- GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-STI1 |
|-------------------|------------|-----------|------------|----------------|----------|-----------|--------------------------|------------|
| Methoprene | | | < 23.1 | < 21.4 | < 3.51 | < 14.2 | < 16.4 | < 5.14 |
| Methoxychlor | < 0.322 | < 0.527 | < 0.914 | < 0.332 | < 0.777 | < 0.396 | < 0.39 | < 0.188 |
| Metolachlor | | | < 0.529 | < 0.0599 | < 0.0934 | < 0.266 | < 0.373 | < 0.102 |
| Metribuzin | < 0.332 | < 0.313 | < 0.365 | < 0.206 | < 0.525 | < 0.204 | < 0.188 | < 0.163 |
| Mirex | 0.002(NDR) | < 0.0039 | < 0.0151 | < 0.012 | < 0.0122 | < 0.0027 | < 0.0026 | < 0.0029 |
| Nonachlor, cis- | < 0.0031 | 0 | 0 | < 0.0259 | < 0.019 | 0 | 0 | < 0.0032 |
| Nonachlor, trans- | 0 | < 0.0062 | 0.005(NDR) | < 0.012 | < 0.0187 | < 0.0082 | < 0.0057 | 0.001(NDR) |
| Octachlorostyrene | < 0.0035 | < 0.0046 | < 0.0115 | < 0.0042 | < 0.0137 | < 0.0049 | < 0.0049 | < 0.004 |
| Parathion-Ethyl | < 0.0642 | < 0.0393 | < 0.0613 | < 0.0477 | < 0.082 | < 0.0311 | < 0.0258 | < 0.0243 |
| Parathion-Methyl | < 0.509 | < 0.527 | < 0.681 | < 0.492 | < 0.785 | < 0.695 | < 0.626 | < 0.49 |
| Pendimethalin | | | < 2.31 | < 3.75 | < 3.88 | < 4.52 | < 3.31 | < 2.39 |
| Permethrin | < 0.126 | < 0.179 | < 0.144 | < 0.0813 | < 0.111 | < 0.208 | < 0.133 | < 0.0734 |
| Perthane | < 1.03 | < 1.05 | < 0.787 | < 0.509 | < 1.1 | < 0.369 | < 0.337 | < 0.212 |
| Phorate | < 0.0906 | < 0.101 | < 0.128 | < 0.0908 | < 0.162 | < 0.101 | < 0.114 | < 0.0882 |
| Phosmet | < 0.12 | < 0.161 | < 0.244 | < 0.0958 | < 0.161 | < 0.0852 | < 0.104 | < 0.0762 |
| Pirimiphos-Methyl | | | | | | | | |
| Quintozene | < 0.0314 | < 0.0393 | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |
| Simazine | < 0.212 | < 0.319 | < 1.7 | < 0.262 | < 0.194 | < 0.129 | < 0.157 | < 0.0932 |
| Tebuconazol | | | < 0.307 | < 1.45 | < 0.988 | < 1.13 | < 0.953 | < 0.622 |
| Tecnazene | < 0.0314 | < 0.0393 | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |
| Terbufos | < 0.157 | < 0.176 | < 0.0988 | < 0.0802 | < 0.142 | < 0.125 | < 0.146 | < 0.1 |
| Triallate | | | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |
| Trifluralin | | | < 0.0365 | < 0.0243 | < 0.025 | < 0.0255 | < 0.0258 | < 0.0236 |

Table 14. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for polyaromatic hydrocarbons (PAH). All values are reported in ng/g dry weight. < = values below reporting limit (RL).

| | SRKW19-1 | SRKW19-1 (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 |
|---------------------------------------|------------|-------------------------|------------|------------|-----------|------------|------------|
| 1-Methylchrysene | 1.56 | 1.36 | 1.66 | 0.443 | 1.16 | 0.701 | 1.16 |
| 1-Methylnaphthalene | 15.8 | 18.6 | 28.3 | 4.75 | 19.4 | 4.16 | 14 |
| 1-Methylphenanthrene | 11.5 | 13 | 14.6 | 3.08 | 9.22 | 2.69 | 7.34 |
| 1,2-Dimethylnaphthalene | 4.67 | 4.83 | 7.05 | 1.1 | 4.67 | 0.524(NDR) | 3.39 |
| 1,2,6-Trimethylphenanthrene | 1.62 | 1.71 | 1.76 | 0.441 | 1.3 | 0.502 | 1.15 |
| 1,4,6,7-Tetramethylnaphthalene | 3.53(NDR) | 3.1 | 3.79 | 0.896(NDR) | 2.26(NDR) | 0.609(NDR) | 1.95(NDR) |
| 1,7-Dimethylfluorene | 1.98 | 2.27 | 1.65 | 0.488 | 1.76 | 0.374(NDR) | 1.09 |
| 1,7-Dimethylphenanthrene | 6.95 | 6.72 | 8.65 | 2.19 | 5.71 | 2.73 | 4.67 |
| 1,8-Dimethylphenanthrene | 1.26 | 1.13 | 1.35 | 0.253 | 0.805 | 0.252 | 0.674 |
| 2-Methylanthracene | 0.697 | 1.28 | 0.949 | 0.315(NDR) | 0.781 | 0.312 | 0.448(NDR) |
| 2-Methylfluorene | 2.13 | 2.17 | 3.54 | 0.56 | 2.61 | 0.805 | 1.89 |
| 2-Methylnaphthalene | 19.4 | 22.5 | 36.4 | 7.33 | 26 | 6.9 | 19.8 |
| 2-Methylphenanthrene | 15 | 15.7 | 19.4 | 3.75 | 13 | 3.34 | 10.1 |
| 2,3,5-Trimethylnaphthalene | 18.9 | 16.7 | 23.4 | 4.74 | 13.8 | 2.33 | 10.8 |
| 2,3,6-Trimethylnaphthalene | 16.4 | 14.7 | 20.7 | 4.33 | 12.9 | 2.76 | 9.91 |
| 2,4-Dimethyldibenzothiophene | 0.887(NDR) | 0.908 | 0.976(NDR) | 0.295 | 0.787 | 0.363(NDR) | 0.715 |
| 2,6-Dimethylnaphthalene | 18.8 | 19.1 | 31.2 | 6.45 | 21.8 | 4.5 | 15.8 |
| 2,6-Dimethylphenanthrene | 4.48 | 4.76 | 5.69 | 1.05 | 3.22 | 1.12 | 2.98 |
| 2/3-Methyldibenzothiophenes | 1.23 | 1.36 | 2.05 | 0.343 | 1.15 | 0.323 | 0.704(NDR) |
| 3-Methylfluoranthene/Benzo[a]fluorene | 15.1 | 12.9 | 14.7 | 3.19 | 9.41 | 5.14 | 8.43 |
| 3-Methylphenanthrene | 12.7 | 13.5 | 16.1 | 3.15 | 10.6 | 2.82 | 8.5 |
| 3,6-Dimethylphenanthrene | 4.27(NDR) | 3.56(NDR) | 4.77(NDR) | 0.836(NDR) | 3.02(NDR) | 0.959(NDR) | 2.44(NDR) |
| 4,6-Dimethyldibenzothiophene | 0.78(NDR) | 0.809(NDR) | 0.93 | 0.252 | 0.714 | 0.316 | 0.665(NDR) |
| 5,9-Dimethylchrysene | 2.14 | 2.05 | 2.3 | 0.741 | 1.84 | 1.05 | 1.56 |
| 5/6-Methylchrysene | 1.45 | 0.894 | 1.59 | 0.231 | 0.843 | 0.352 | 0.665 |
| 7-Methylbenzo[a]pyrene | 0.663 | 0.623 | 0.862 | 0.208 | 0.519 | < 0.228 | 0.445 |
| 9/4-Methylphenanthrene | 13.2 | 14.3 | 16.4 | 3.36 | 11 | 2.44 | 7.51 |
| Acenaphthene | 0.979 | 1.4 | 1.55 | 0.338(NDR) | 1.31(NDR) | 0.954 | 1.15 |
| Acenaphthylene | 0.447 | 1.06 | 0.645 | 0.189 | 0.693 | 0.489 | 0.895 |
| Anthracene | 1.21 | 2.55 | 1.44 | 0.394 | 1.44 | 1.25 | 2.23 |
| Benz[a]anthracene | 7.39 | 6.5(NDR) | 5.77(NDR) | 1.42(NDR) | 4.3(NDR) | 4.21 | 6.17(NDR) |
| Benzo[a]pyrene | 7.69 | 6.56 | 5.17 | 1.09 | 4.31 | 1.79 | 6.83 |
| Benzo[b]fluoranthene | 14.1 | 7.31 | 6.86 | 1.79 | 5.36 | 6.62 | 8.46 |
| Benzo[c]pyrene | 10.5 | 5.82 | 6 | 1.48 | 5.05 | 4.36 | 7.01 |
| Benzo[ghi]perylene | 6.4 | 5.56 | 5.63 | 1.51 | 4.62 | 2.44 | 6.73 |
| Benzo[j,k]fluoranthenes | 9.18 | 4.87 | 4.92 | 1.1 | 3.37 | 2.99 | 5.92 |
| Biphenyl | 5.15 | 5 | 8.82 | 2.51 | 7.39 | 3.02 | 6.15 |
| C1 Phenanthrenes/Anthracenes | 53.1 | 57.8 | 67.5 | 13.3 | 44.5 | 11.6 | 33.5 |

| | SRKW19-1 | SRKW19-1 (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 |
|------------------------------------|----------|-------------------------|-----------|------------|------------|------------|-----------|
| C1-Acenaphthenes | 0.209 | 0.181 | < 0.476 | < 0.115 | < 0.242 | < 0.122 | < 0.24 |
| C1-Benzo[a]anthracenes/Chrysenes | 15.1 | 12 | 14.9 | 3.96 | 11 | 6.09 | 10.8 |
| C1-Benzofluoranthenes/Benzopyrenes | 12.2 | 10.3 | 13.6 | 3.59 | 10.2 | 5.78 | 11.1 |
| C1-Biphenyls | 9.51 | 9.1 | 14.9 | 3.36 | 10.9 | 3.01 | 8.12 |
| C1-Dibenzothiophenes | 3.73 | 3.88 | 5.31 | 0.896 | 3.6 | 0.959 | 1.74 |
| C1-Fluoranthenes/Pyrenes | 29.7 | 24.2 | 27.7 | 6.67 | 18.4 | 12.3 | 18.4 |
| C1-Fluorenes | 13.9 | 12.7 | 20.6 | 3.3 | 13.5 | 3.26 | 10.5 |
| C1-Naphthalenes | 35.2 | 41.2 | 64.7 | 12.1 | 45.4 | 11.1 | 33.8 |
| C2 Phenanthrenes/Anthracenes | 46.9 | 44.3 | 54.3 | 11.9 | 37.4 | 12.9 | 29.2 |
| C2-Benzo[a]anthracenes/Chrysenes | 11.3 | 12.3 | 13.3 | 3.29 | 11 | 4.92 | 8.83 |
| C2-Benzofluoranthenes/Benzopyrenes | 4.4 | 4.47 | 5.84 | 1.42 | 4.24 | 2.05 | 4.37 |
| C2-Biphenyls | 9.28 | 8.81 | 13.1 | 2.78 | 8.19 | 2.07 | 5.91 |
| C2-Dibenzothiophenes | 7.1 | 7.35 | 8.39 | 2.17 | 5.93 | 2.47 | 4.82 |
| C2-Fluoranthenes/Pyrenes | 26 | 27.1 | 28.1 | 8.01 | 19 | 8.31 | 18.3 |
| C2-Fluorenes | 22 | 22.7 | 29 | 5.35 | 17.3 | 4.23 | 13.1 |
| C2-Naphthalenes | 78.8 | 82 | 124 | 24.5 | 84.7 | 18.8 | 64.5 |
| C3-Benzo[a]anthracenes/Chrysenes | 2.57 | 2.15 | 3.03 | 0.916 | 1.96 | 1.16 | 1.82 |
| C3-Dibenzothiophenes | 4.23 | 4.7 | 4 | 1.19 | 3.41 | 2.23 | 3.29 |
| C3-Fluoranthenes/Pyrenes | 8.12 | 10.8 | 11.8 | 3.12 | 7.67 | 2.75 | 7.15 |
| C3-Fluorenes | 20.3 | 23.7 | 24.7 | 4.83 | 15.5 | 4.17 | 11.4 |
| C3-Naphthalenes | 70 | 16.1 | 89.3 | 18.5 | 54.1 | 11.6 | 42.7 |
| C3-Phenanthrenes/Anthracenes | 26.1 | 25.1 | 30.9 | 6.74 | 20.5 | 8.58 | 17.7 |
| C4-Benzo[a]anthracenes/Chrysenes | < 0.491 | 1.06 | 1.31 | < 0.153 | < 0.621 | < 0.23 | < 0.491 |
| C4-Dibenzothiophenes | 1.15 | 1.51 | 1.58 | 0.571 | 1.7 | 1.43 | 1.27 |
| C4-Fluoranthenes/Pyrenes | 0.971 | 1.83 | 1.86 | 0.607 | 1.19 | 0.796 | 1.51 |
| C4-Naphthalenes | 33.5 | 29.6 | 37.9 | 7.92 | 22.7 | 5.5 | 19.5 |
| C4-Phenanthrenes/Anthracenes | 74.9 | 68.4 | 80.5 | 23.7 | 75.7 | 109 | 57.5 |
| Chrysene | 14.748 | 9.758 | 10.848 | 2.518 | 8.218 | 10.948 | 9.558 |
| Dibenz[a,h]anthracene | 1.14 | 1.25 | 1.12(NDR) | 0.361(NDR) | 0.805(NDR) | 0.642(NDR) | 1.39 |
| Dibenzothiophene | 2.23 | 2.53 | 3.29 | 0.708 | 2.5 | 1 | 2.05 |
| Fluoranthene | 30.748 | 14.648 | 13.748 | 3.978 | 10.648 | 16.848 | 14.748 |
| Fluorene | 4.41 | 4.22 | 7.56 | 1.32 | 5.26 | 2.12 | 4.39 |
| Indeno[1,2,3-cd]pyrene | 5.58 | 4.88 | 4.25 | 0.961(NDR) | 3.64 | 1.6 | 5.42 |
| Naphthalene | 9.28 | 11.4 | 16.2 | 3.33 | 12.9 | 5.36 | 10.8 |
| Perylene | 19.5 | 15.9 | 26.9 | 13.8 | 21.6 | 16.2 | 20.1 |
| Phenanthrene | 28.124 | 32.824 | 38.324 | 8.564 | 27.224 | 13.824 | 24.024 |
| Pyrene | 25.925 | 13.025 | 12.725 | 3.705 | 9.925 | 11.625 | 12.925 |
| Retene | 31 | 27.4 | 35.6 | 12 | 44.1 | 84.9 | 26 |
| | SRKW19-7 | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 |
| 1-Methylchrysene | 0.976 | 1.45 | 1.21 | 3.19 | 1.41 | 0.956 | 1.57 |
| 1-Methylnaphthalene | 10.1 | 22 | 19.9 | 36.8 | 12 | 7.45 | 23 |

| | SRKW19-7 | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 |
|---------------------------------------|-----------|------------|------------|-----------|------------|------------|-----------|
| 1-Methylphenanthrene | 5.14 | 11.1 | 9.26 | 19.5 | 6.84 | 3.7 | 8.13 |
| 1,2-Dimethylnaphthalene | 1.7 | 4.96 | 4.46 | 9.16 | 2.48 | 1.75 | 5.35 |
| 1,2,6-Trimethylphenanthrene | 0.627 | 1.68 | 1.27 | 2.35(NDR) | 1.05 | 0.448 | 1.28 |
| 1,4,6,7-Tetramethylnaphthalene | 1.17(NDR) | 2.82 | 2.46 | 5.13(NDR) | 1.49(NDR) | 1.43(NDR) | 2.91(NDR) |
| 1,7-Dimethylfluorene | 0.794 | 1.94 | 1.55 | 3.35(NDR) | 1.26 | 0.526(NDR) | 1.47 |
| 1,7-Dimethylphenanthrene | 3.58 | 6.66 | 5.45 | 12.6 | 4.74 | 1.87 | 5.27 |
| 1,8-Dimethylphenanthrene | 0.383 | 0.955 | 0.674 | 2.02 | 0.624 | 0.272 | 0.886 |
| 2-Methylanthracene | 0.438 | 0.831(NDR) | < 0.646 | 1.05(NDR) | 1.42 | 0.851 | 1.37 |
| 2-Methylfluorene | 1.68 | 2.64 | 2.22 | 5.43 | 1.99 | 0.695 | 1.96 |
| 2-Methylnaphthalene | 16.5 | 30.4 | 27.2 | 48.9 | 18.8 | 10.8 | 33.5 |
| 2-Methylphenanthrene | 7.72 | 16.1 | 13.6 | 28.6 | 10.4 | 4.88 | 13.1 |
| 2,3,5-Trimethylnaphthalene | 6.31 | 16.2 | 14.6 | 30.1 | 8.42 | 5.47 | 16.4 |
| 2,3,6-Trimethylnaphthalene | 7.19 | 15.3 | 13.3 | 28.6 | 9.03 | 5.41 | 15.7 |
| 2,4-Dimethyldibenzothiophene | 0.504 | 0.817(NDR) | 0.935(NDR) | 1.64(NDR) | 0.633(NDR) | 0.481(NDR) | 0.751 |
| 2,6-Dimethylnaphthalene | 12.8 | 25 | 21.8 | 43.5 | 14.8 | 7.21 | 23.9 |
| 2,6-Dimethylphenanthrene | 1.98 | 4.42 | 3.43 | 8.83 | 2.82 | 1.41(NDR) | 3.46 |
| 2/3-Methyldibenzothiophenes | 0.55 | 1.6 | 0.818(NDR) | 2.48 | 0.914 | 0.65 | 1.42 |
| 3-Methylfluoranthene/Benzo[a]fluorene | 6.36 | 13.2 | 9.77 | 22.2 | 11.1 | 6.995 | 11.355 |
| 3-Methylphenanthrene | 5.84 | 13.1 | 10.3 | 23.3 | 7.55 | 3.62 | 9.7 |
| 3,6-Dimethylphenanthrene | 1.97(NDR) | 3.51(NDR) | 3.01(NDR) | 7.29(NDR) | 2.49(NDR) | 0.956(NDR) | 2.6(NDR) |
| 4,6-Dimethyldibenzothiophene | 0.48 | 0.881(NDR) | 0.651 | 1.7 | 0.681 | 0.427 | 0.69 |
| 5,9-Dimethylchrysene | 1.37 | 2.22 | 1.85 | 4.96 | 2.12 | 1.4 | 2.09 |
| 5/6-Methylchrysene | 0.787 | 0.889 | 0.716 | 1.92 | 0.838 | 0.611 | 0.963 |
| 7-Methylbenzo[a]pyrene | < 0.364 | 0.701 | 0.675 | 2.21 | 0.729 | 0.428 | 0.812 |
| 9/4-Methylphenanthrene | 5.73 | 12.9 | 10.6 | 22.3 | 7.22 | 3.67 | 9.39 |
| Acenaphthene | 1.23 | 1.57 | 1.24 | 2.9 | 1.56 | 1.8 | 2.14(NDR) |
| Acenaphthylene | 0.815 | 0.95 | 0.661(NDR) | 1.59 | 1.31 | 3.13 | 1.58 |
| Anthracene | 2.32 | 2.12 | 1.65 | 3.85 | 3.96 | 1.95 | 3.31 |
| Benz[a]anthracene | 5.37(NDR) | 7.82(NDR) | 4.76(NDR) | 12.4(NDR) | 9.83(NDR) | 7.53(NDR) | 10.3(NDR) |
| Benzo[a]pyrene | 5.09 | 6.99 | 4.85 | 12.1 | 9.14 | 7.91 | 11.7 |
| Benzo[b]fluoranthene | 7.15 | 8.72 | 6.07 | 18.3 | 9.98 | 7.57 | 13.4 |
| Benzo[c]pyrene | 5.97 | 7.72 | 5.81 | 15.9 | 8.87 | 6.04 | 10.9 |
| Benzo[ghi]perylene | 5.23 | 7.18 | 5.59 | 15.5 | 8.47 | 5.874 | 11.104 |
| Benzo[j,k]fluoranthenes | 4 | 5.92 | 4.12 | 9.87 | 7.96 | 7.06 | 10.6 |
| Biphenyl | 5.75 | 8.58 | 7.4 | 15.2 | 6.69 | 2.479 | 8.519 |
| C1 Phenanthrenes/Anthracenes | 24.9 | 53.2 | 43.7 | 93.6 | 33.5 | 16.7 | 41.7 |
| C1-Acenaphthenes | < 0.163 | < 0.369 | < 0.277 | 0.32 | < 0.18 | < 0.13 | < 0.233 |
| C1-Benzo[a]anthracenes/Chrysenes | 8.35 | 13.7 | 10.2 | 28.3 | 13.4 | 8.155 | 13.855 |
| C1-Benzofluoranthenes/Benzopyrenes | 8.97 | 14 | 9.7 | 31.5 | 14 | 10.079 | 18.279 |
| C1-Biphenyls | 7.18 | 12.8 | 11 | 23.4 | 8.05 | 3.79 | 12.7 |
| C1-Dibenzothiophenes | 2.08 | 4.44 | 2.27 | 3.18 | 2.78 | 1.67 | 3.84 |
| C1-Fluoranthenes/Pyrenes | 15.7 | 25.7 | 19 | 45.5 | 22.7 | 16.763 | 25.463 |
| C1-Fluorenes | 7.5 | 15 | 12.2 | 29.8 | 9.15 | 2.84 | 10.4 |
| C1-Naphthalenes | 26.5 | 52.4 | 47.1 | 85.7 | 30.8 | 18.2 | 56.5 |

| | SRKW19-7 | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| C2-Phenanthrenes/Anthracenes | 22.7 | 42 | 35.6 | 85.5 | 28.6 | 11.881 | 33.781 |
| C2-Benzo[a]anthracenes/Chrysenes | 6.39 | 11.7 | 8.56 | 25.5 | 9.58 | 5.08 | 10.7 |
| C2-Benzofluoranthenes/Benzopyrenes | 4.04 | 5.18 | 4.33 | 14.2 | 5.1 | 1.97 | 6.6 |
| C2-Biphenyls | 4.79 | 10.2 | 8.29 | 17.2 | 5.66 | 3.391 | 9.451 |
| C2-Dibenzothiophenes | 4.33 | 7.71 | 6.19 | 14.1 | 5.34 | 4.139 | 5.679 |
| C2-Fluoranthenes/Pyrenes | 13.3 | 27.2 | 20.7 | 48.8 | 20.6 | 11.4 | 22.4 |
| C2-Fluorenes | 9.97 | 19.9 | 16 | 39 | 12.2 | 4.677 | 14.647 |
| C2-Naphthalenes | 48 | 97.5 | 89 | 178 | 56.1 | 27.2 | 94.6 |
| C3-Benzo[a]anthracenes/Chrysenes | 1.5 | 2.82 | 1.63 | 4.87 | 1.87 | 1.093 | 2.843 |
| C3-Dibenzothiophenes | 2.76 | 4.45 | 3.26 | 7.96 | 4.25 | 2.91 | 4.1 |
| C3-Fluoranthenes/Pyrenes | 5.47 | 11.1 | 6.99 | 17.6 | 7.08 | 5.62 | 10.3 |
| C3-Fluorenes | 9.13 | 19.2 | 15.4 | 36.9 | 12.7 | 3.6 | 14.34 |
| C3-Naphthalenes | 28.2 | 63.6 | 56.1 | 119 | 35.9 | 21.886 | 64.586 |
| C3-Phenanthrenes/Anthracenes | 13.5 | 25.9 | 21.1 | 46.3 | 17.7 | 7.19 | 18 |
| C4-Benzo[a]anthracenes/Chrysenes | < 0.424 | < 0.591 | < 0.37 | < 0.494 | < 0.493 | < 0.101 | < 0.287 |
| C4-Dibenzothiophenes | 1.48 | 1.97 | 1.59 | 3.94 | 2.66 | 1.813 | 2.593 |
| C4-Fluoranthenes/Pyrenes | 0.601 | 1.86 | 1.36 | 4.47 | 2.02 | 1.63 | 2.26 |
| C4-Naphthalenes | 10.7 | 27.8 | 22.5 | 48.2 | 15.2 | 12.3 | 26.8 |
| C4-Phenanthrenes/Anthracenes | 51.7 | 81.8 | 64.4 | 144 | 66 | 105.694 | 65.694 |
| Chrysene | 8.458 | 11.648 | 8.298 | 21.648 | 14.348 | 9.494 | 16.664 |
| Dibenz[a,h]anthracene | 1.08(NDR) | 1.34(NDR) | 1.19(NDR) | 2.69 | 1.84 | 1.14 | 1.82 |
| Dibenzothiophene | 1.7 | 2.85 | 2.44 | 5.3 | 2.31 | 1.02(NDR) | 2.44 |
| Fluoranthene | 13.748 | 15.748 | 11.748 | 31.948 | 19.448 | 14.001 | 23.701 |
| Fluorene | 3.76 | 6.02 | 4.89 | 12.4 | 5.15 | 1.59 | 5.05 |
| Indeno[1,2,3-cd]pyrene | 3.83 | 5.95 | 4.08 | 11.5 | 7.28 | 5.66 | 9.73 |
| Naphthalene | 9.52 | 14.5 | 13.3 | 24.1 | 11.5 | 8.391 | 21.261 |
| Perylene | 20.1 | 26.3 | 24.6 | 65.1 | 25.4 | 38.2 | 20.1 |
| Phenanthrene | 18.124 | 32.424 | 27.824 | 62.624 | 24.924 | 12.64 | 28.74 |
| Pyrene | 12.325 | 15.925 | 11.125 | 29.725 | 19.125 | 15.021 | 22.821 |
| Retene | 27.4 | 36.1 | 31.2 | 62.1 | 29.6 | 81.7 | 26.5 |

| | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH |
|--------------------------------|-----------|------------|-----------|-----------|-----------|-----------|------------|
| 1-Methylchrysene | 1.66 | 1.84 | 1.42 | 2.43 | 1.31 | 2.95 | 9.84 |
| 1-Methylnaphthalene | 26.3 | 20.6 | 21.5 | 39 | 34.3 | 35.7 | 4.68 |
| 1-Methylphenanthrene | 12.3 | 10.6 | 9.27 | 14.3 | 13 | 17.9 | 19.2 |
| 1,2-Dimethylnaphthalene | 8.02 | 5.42 | 6.05 | 10.9 | 8.78 | 11.6 | 1.09 |
| 1,2,6-Trimethylphenanthrene | 1.75 | 1.84 | 1.35 | 3.21 | 1.55 | 2.84 | 3.16 |
| 1,4,6,7-Tetramethylnaphthalene | 7.3(NDR) | 4.02(NDR) | 5.45(NDR) | 16.1(NDR) | 5.58(NDR) | 11.5(NDR) | 2.59(NDR) |
| 1,7-Dimethylfluorene | 1.7(NDR) | 1.48 | 1.19(NDR) | 1.57 | 1.86 | 2.48 | 0.939(NDR) |
| 1,7-Dimethylphenanthrene | 6.66 | 8.69 | 5.53 | 9.05 | 6.71 | 10.3 | 11 |
| 1,8-Dimethylphenanthrene | 1.03 | 1.44 | 0.896 | 1.58 | 1.11 | 1.93 | 2.41 |
| 2-Methylantracene | 1.88 | 0.985(NDR) | 1.38 | 3.92 | 1.08 | 3.35 | 13.4 |
| 2-Methylfluorene | 1.68 | 2.03 | 1.75 | 2.22 | 2.83 | 2.89 | 2.27 |

| | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH |
|---------------------------------------|------------|------------|-----------|------------|------------|-----------|-----------|
| 2-Methylnaphthalene | 31.1 | 23.8 | 27.2 | 45.1 | 44.2 | 47.1 | 6.77 |
| 2-Methylphenanthrene | 14.2 | 13.2 | 13.1 | 15.7 | 19.1 | 24.1 | 26.1 |
| 2,3,5-Trimethylnaphthalene | 34.2 | 22.2 | 24.1 | 58.6 | 28.5 | 51.8 | 7.03 |
| 2,3,6-Trimethylnaphthalene | 23.8 | 17.7 | 19.1 | 39.1 | 26.3 | 35.3 | 6.53 |
| 2,4-Dimethyldibenzothiophene | 0.826(NDR) | 0.719(NDR) | 0.838 | 0.581(NDR) | 0.72(NDR) | 1.5(NDR) | 2.7 |
| 2,6-Dimethylnaphthalene | 23.1 | 20.3 | 21 | 32.3 | 35.9 | 39 | 21.9 |
| 2,6-Dimethylphenanthrene | 3.36 | 3.57 | 3.58 | 4.17 | 4.52 | 6.21 | 7.31 |
| 2/3-Methyldibenzothiophenes | 0.978(NDR) | 0.834(NDR) | 1.47 | 1.54 | 2.08 | 2.81 | 3.23 |
| 3-Methylfluoranthene/Benzo[a]fluorene | 10.855 | 11.9 | 9.095 | 10.655 | 11.355 | 20.355 | 77.955 |
| 3-Methylphenanthrene | 10.2 | 9.66 | 9.87 | 12.5 | 14.7 | 17.9 | 20.7 |
| 3,6-Dimethylphenanthrene | 2.93(NDR) | 3.3(NDR) | 2.62(NDR) | 3.13(NDR) | 3.64(NDR) | 4.67(NDR) | 5.56(NDR) |
| 4,6-Dimethyldibenzothiophene | 0.839(NDR) | 0.756 | 0.794 | 0.636(NDR) | 0.757(NDR) | 1.62 | 2.49 |
| 5,9-Dimethylchrysene | 2.22 | 2.52 | 2.46 | 2.72 | 2.01 | 3.74 | 7.61 |
| 5/6-Methylchrysene | 1.03 | 1.05 | 0.947 | 1.12 | 1.04 | 1.83 | 6.06 |
| 7-Methylbenzo[a]pyrene | 0.719 | 0.92 | 0.801 | 1.81 | 0.587 | 1.37 | 89.2 |
| 9/4-Methylphenanthrene | 10.4 | 10.1 | 9.33 | 14.7 | 14.2 | 18.7 | 21.1 |
| Acenaphthene | 1.75(NDR) | 1.33 | 1.7(NDR) | 2.01 | 1.8(NDR) | 3.23 | 4.38 |
| Acenaphthylene | 3.35 | 1.83 | 2.25 | 0.81 | 0.907 | 2.65 | 22.8 |
| Anthracene | 3.02 | 2.77 | 2.46 | 2.92 | 1.55 | 4 | 29.1 |
| Benz[a]anthracene | 8.74(NDR) | 10.8(NDR) | 6.93(NDR) | 4.82 | 4.09(NDR) | 16.3(NDR) | 132 |
| Benzo[a]pyrene | 11.1 | 11.2 | 8.32 | 9.83 | 4.77 | 19.3 | 131 |
| Benzo[b]fluoranthene | 13.2 | 13.3 | 10.7 | 12 | 5.43 | 21.1 | 134 |
| Benzo[e]pyrene | 11.2 | 11.7 | 8.76 | 14.7 | 4.5 | 17.8 | 114 |
| Benzo[ghi]perylene | 13.804 | 12.3 | 11.404 | 12.504 | 5.264 | 18.704 | 96.504 |
| Benzo[j,k]fluoranthenes | 10.5 | 9.91 | 8.08 | 10.9 | 3.94 | 16.1 | 145 |
| Biphenyl | 7.179 | 6.7 | 6.929 | 7.609 | 8.899 | 10.309 | 2.659 |
| C1 Phenanthrenes/Anthracenes | 48.9 | 43.6 | 43 | 61.2 | 61.9 | 81.9 | 100 |
| C1-Acenaphthenes | < 0.298 | < 0.363 | < 0.438 | 0.47 | 0.304 | 0.462 | < 0.281 |
| C1-Benzo[a]anthracenes/Chrysenes | 14.055 | 15.5 | 12.855 | 15.955 | 11.555 | 23.755 | 96.455 |
| C1-Benzofluoranthenes/Benzopyrenes | 14.079 | 17.6 | 13.779 | 18.079 | 9.579 | 27.679 | 198.179 |
| C1-Biphenyls | 10.1 | 9.35 | 11.4 | 16.2 | 17.1 | 17.6 | 2.25 |
| C1-Dibenzothiophenes | 2.02 | 2.5 | 4.04 | 3.81 | 5.28 | 7.83 | 9.18 |
| C1-Fluoranthenes/Pyrenes | 25.663 | 27 | 21.063 | 24.163 | 21.163 | 45.963 | 181.963 |
| C1-Fluorenes | 8.94 | 11.7 | 9.26 | 12 | 14.8 | 15.8 | 6.22 |
| C1-Naphthalenes | 57.4 | 44.4 | 48.7 | 84.1 | 78.5 | 82.9 | 11.5 |
| C2 Phenanthrenes/Anthracenes | 36.781 | 43 | 32.381 | 45.181 | 41.881 | 62.981 | 77.781 |
| C2-Benzo[a]anthracenes/Chrysenes | 11.9 | 11.8 | 11.4 | 16.4 | 11.3 | 19.8 | 33.6 |
| C2-Benzofluoranthenes/Benzopyrenes | 4.92 | 8.74 | 4.59 | 4.03 | 2.46 | 6.68 | 19.39 |
| C2-Biphenyls | 8.741 | 7.37 | 11.201 | 17.501 | 16.401 | 16.601 | 3.251 |
| C2-Dibenzothiophenes | 9.209 | 7.35 | 6.959 | 8.769 | 6.719 | 14.109 | 24.209 |
| C2-Fluoranthenes/Pyrenes | 25.3 | 26.3 | 20.7 | 26.9 | 23.2 | 42.2 | 96.2 |
| C2-Fluorenes | 15.647 | 14.9 | 14.747 | 21.847 | 23.847 | 26.547 | 13.347 |
| C2-Naphthalenes | 111 | 94.7 | 90.8 | 149 | 140 | 168 | 65.3 |
| C3-Benzo[a]anthracenes/Chrysenes | 2.483 | 2.99 | 3.003 | 3.463 | 1.783 | 4.003 | 8.803 |

| | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH |
|----------------------------------|-----------|-----------|-----------|-----------|------------|-----------|---------|
| C3-Dibenzothiophenes | 5.74 | 4.19 | 5.68 | 4.99 | 4.69 | 10.5 | 20.6 |
| C3-Fluoranthenes/Pyrenes | 13.2 | 9.46 | 10.4 | 15.8 | 13.5 | 21.1 | 34.5 |
| C3-Fluorenes | 16.14 | 14.4 | 14.04 | 20.94 | 18.54 | 25.44 | 16.54 |
| C3-Naphthalenes | 119.686 | 85.1 | 90.786 | 204.686 | 112.686 | 178.686 | 29.486 |
| C3-Phenanthrenes/Anthracenes | 21.9 | 26.6 | 18.6 | 32 | 22.1 | 35.9 | 45.1 |
| C4-Benzo[a]anthracenes/Chrysenes | < 0.336 | < 0.499 | < 0.265 | 2.35 | 0.391 | < 0.309 | 2.74 |
| C4-Dibenzothiophenes | 2.973 | 1.69 | 2.933 | 2.933 | 1.833 | 5.543 | 11.873 |
| C4-Fluoranthenes/Pyrenes | 2.49 | 1.4 | 2.23 | 3.23 | 1.94 | 4.2 | 5.54 |
| C4-Naphthalenes | 69.9 | 38.5 | 49.6 | 141 | 51.8 | 104 | 21.6 |
| C4-Phenanthrenes/Anthracenes | 76.494 | 73.6 | 59.294 | 156.694 | 55.594 | 123.694 | 262.694 |
| Chrysene | 13.664 | 14.448 | 11.164 | 8.924 | 8.684 | 23.264 | 167.964 |
| Dibenz[a,h]anthracene | 2.04 | 2.37 | 1.62 | 2.68 | 0.816(NDR) | 3.11 | 20.95 |
| Dibenzothiophene | 2.28 | 2.85 | 2.26 | 2.07(NDR) | 2.92 | 3.78 | 5.13 |
| Fluoranthene | 21.701 | 25.048 | 17.001 | 7.671 | 10.301 | 34.301 | 232.901 |
| Fluorene | 3.54 | 5.04 | 3.51 | 3.7 | 5.18 | 5.67 | 5.8 |
| Indeno[1,2,3-cd]pyrene | 11.36 | 10.5 | 8.84 | 12.16 | 3.95 | 15.66 | 97.76 |
| Naphthalene | 24.661 | 16.3 | 20.161 | 26.561 | 22.761 | 26.561 | 13.361 |
| Perylene | 16.4 | 21.7 | 21.8 | 22.8 | 24.3 | 30.5 | 46.3 |
| Phenanthrene | 29.14 | 33.124 | 26.04 | 26.24 | 34.04 | 45.84 | 91.64 |
| Pyrene | 24.821 | 24.525 | 16.621 | 8.871 | 10.821 | 34.221 | 226.921 |
| Retene | 25.4 | 26.2 | 21.4 | 64.7 | 22.5 | 44.1 | 22.5 |

| | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) | SH19-A2 |
|--------------------------------|------------|--------------------------|------------|-------------------|-----------|-------------------|------------|
| 1-Methylchrysene | 0.239 | 0.303 | 0.058 | 1.28 | 1.39 | 0.718 | 0.295 |
| 1-Methylnaphthalene | 2.43 | 2.55 | 0.861 | 22.2 | 21.4 | 7.31 | 3.08 |
| 1-Methylphenanthrene | 1.31 | 1.24 | 0.288 | 9.91 | 9.49 | 3.2 | 1.83 |
| 1,2-Dimethylnaphthalene | < 0.19 | 0.247(NDR) | < 0.33 | 5.29 | 4.65 | 0.89 | 0.664(NDR) |
| 1,2,6-Trimethylphenanthrene | 0.189 | 0.222 | 0.055 | 1.24 | 1.17 | 0.515(NDR) | 0.237(NDR) |
| 1,4,6,7-Tetramethylnaphthalene | 0.513(NDR) | 0.471(NDR) | < 0.203 | 2.71(NDR) | 2.7(NDR) | 1.52(NDR) | 0.401(NDR) |
| 1,7-Dimethylfluorene | 0.164(NDR) | 0.219(NDR) | < 0.162 | 1.91(NDR) | 1.37 | 0.397 | 0.221(NDR) |
| 1,7-Dimethylphenanthrene | 0.81 | 0.98 | 0.181 | 5.92 | 6.25 | 1.96 | 1.46 |
| 1,8-Dimethylphenanthrene | 0.081(NDR) | 0.078(NDR) | < 0.0285 | 0.926 | 0.865 | 0.314(NDR) | 0.182 |
| 2-Methylanthracene | 0.287 | 0.223 | < 0.0883 | 0.877 | 1.48 | 0.956 | 0.232(NDR) |
| 2-Methylfluorene | 0.351 | 0.323 | 0.078 | 2.11 | 2.38 | 0.691 | 0.37 |
| 2-Methylnaphthalene | 4.68 | 4.73 | 1.63 | 31.6 | 32.7 | 5.9 | 5.51 |
| 2-Methylphenanthrene | 1.93 | 1.99 | 0.459 | 14.9 | 15.2 | 4.06 | 2.07 |
| 2,3,5-Trimethylnaphthalene | 1.36 | 1.28 | 0.357 | 15.3 | 14.6 | 3.65 | 1.56 |
| 2,3,6-Trimethylnaphthalene | 1.5 | 1.55 | 0.313 | 14.9 | 15 | 3.6 | 1.77 |
| 2,4-Dimethyldibenzothiophene | 0.103(NDR) | 0.155(NDR) | < 0.0893 | 0.795(NDR) | 0.59(NDR) | 0.257(NDR) | 0.233(NDR) |
| 2,6-Dimethylnaphthalene | 2.55 | 2.49 | 0.65 | 25.4 | 25 | 4.22 | 3 |
| 2,6-Dimethylphenanthrene | 0.409 | 0.457(NDR) | 0.086(NDR) | 3.96 | 3.62 | 1.17 | 0.57 |
| 2/3-Methyldibenzothiophenes | 0.265(NDR) | 0.232(NDR) | 0.1(NDR) | 1.56 | 1.55 | 0.422(NDR) | 0.428(NDR) |

| | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) | SH19-A2 |
|---------------------------------------|------------|--------------------------|------------|-------------------|-----------|-------------------|-------------|
| 3-Methylfluoranthene/Benzo[a]fluorene | 2.185(NDR) | 2.065(NDR) | 0.469 | 9.685 | 10.655 | 7.505(NDR) | 2.21 |
| 3-Methylphenanthrene | 1.43 | 1.34 | 0.367 | 11.1 | 11.2 | 3.19 | 1.62 |
| 3,6-Dimethylphenanthrene | 0.302(NDR) | 0.347(NDR) | 0.093(NDR) | 3.21(NDR) | 2.59(NDR) | 0.888(NDR) | 0.468(NDR) |
| 4,6-Dimethyldibenzothiophene | 0.139(NDR) | 0.174(NDR) | 0.077(NDR) | 0.738 | 0.625 | 0.312(NDR) | 0.185(NDR) |
| 5,9-Dimethylchrysene | 0.323 | 0.437 | 0.068 | 2.08 | 2.04 | 1.01 | 0.455 |
| 5/6-Methylchrysene | 0.123 | 0.145 | < 0.0386 | 0.893 | 0.82 | 0.453 | 0.139 |
| 7-Methylbenzo[a]pyrene | < 0.283 | 0.215 | < 0.12 | 0.784 | 0.685 | < 0.235 | 0.169 |
| 9/4-Methylphenanthrene | 1.04 | 1.07 | 0.292 | 10.4 | 10.3 | 3.25 | 1.37 |
| Acenaphthene | 2.14 | 2.17 | 1.14 | 1.67 | 1.31(NDR) | 12.8 | 0.776 |
| Acenaphthylene | 0.397 | 0.365 | 0.514 | 0.827 | 1.48 | 1.37 | 0.411 |
| Anthracene | 1.06 | 1.04 | 0.625 | 2.07 | 2.86 | 1.74 | 0.993 |
| Benz[a]anthracene | 1.67 | 1.24(NDR) | 0.684 | 5.41(NDR) | 7.52(NDR) | 5.41(NDR) | 1.029 (NDR) |
| Benzo[a]pyrene | 1.19 | 0.953 | 0.382 | 6.35 | 7.86 | 6.39 | 0.99 |
| Benzo[b]fluoranthene | 1.8 | 1.65(NDR) | 0.656(NDR) | 7.82 | 7.54 | 5.95 | 1.89 |
| Benzo[e]pyrene | 1.41 | 1.43 | 0.536 | 6.77 | 6.33 | 4.9 | 1.39 |
| Benzo[ghi]perylene | 1.404 | 1.484 | 0.511 | 7.284 | 6.794 | 5.064 | 1.33 |
| Benzo[j,k]fluoranthenes | 1.11 | 1.1 | 0.493 | 5.69 | 6.16 | 5.84 | 1.15 |
| Biphenyl | 2.049 | 2.039 | 0.819 | 8.259 | 8.089 | 1.729 | 2.146 |
| C1 Phenanthrenes/Anthracenes | 6 | 5.85 | 1.41 | 47.2 | 47.6 | 14.7 | 6.89 |
| C1-Acenaphthenes | < 0.16 | < 0.105 | < 0.105 | 0.226 | 0.263 | 0.127 | < 0.114 |
| C1-Benzo[a]anthracenes/Chrysenes | 2.015 | 2.175 | 0.548 | 11.655 | 12.055 | 6.325 | 2.56 |
| C1-Benzofluoranthenes/Benzopyrenes | 1.769 | 2.259 | 0 | 12.279 | 11.179 | 7.799 | 2.62 |
| C1-Biphenyls | 1.6 | 1.58 | 0.539 | 12.7 | 13.4 | 2.41 | 1.85 |
| C1-Dibenzothiophenes | 0.301 | 0.315 | 0.12 | 4.13 | 3.91 | 0.862 | 0.421 |
| C1-Fluoranthenes/Pyrenes | 6.663 | 4.843 | 1.333 | 19.463 | 22.063 | 13.963 | 5.12 |
| C1-Fluorenes | 1.42 | 1.5 | 0.397 | 12.6 | 10.9 | 3.12 | 1.7 |
| C1-Naphthalenes | 7.11 | 7.28 | 2.49 | 53.7 | 54.2 | 13.2 | 8.6 |
| C2 Phenanthrenes/Anthracenes | 4.191 | 4.451 | 0.876 | 35.781 | 32.781 | 10.981 | 5.74 |
| C2-Benzo[a]anthracenes/Chrysenes | 1.48 | 1.82 | 0.376 | 10.9 | 9.48 | 4.22 | 1.91 |
| C2-Benzofluoranthenes/Benzopyrenes | 0 | 0 | 0 | 3.2 | 3.53 | 1.14 | 0.899 |
| C2-Biphenyls | 1.151 | 1.011 | 0.304 | 9.621 | 9.801 | 1.931 | 1.161 |
| C2-Dibenzothiophenes | 1.029 | 0.989 | 0.258 | 5.299 | 5.159 | 3.009 | 1.5 |
| C2-Fluoranthenes/Pyrenes | 3.13 | 2.86 | 0.898 | 20.4 | 21.9 | 8.83 | 4.71 |
| C2-Fluorenes | 1.507 | 1.617 | 0.153 | 17.747 | 16.347 | 4.467 | 2.44 |
| C2-Naphthalenes | 8.21 | 8.64 | 2.14 | 97.4 | 92.9 | 16.7 | 11.508 |
| C3-Benzo[a]anthracenes/Chrysenes | < 0.1 | 0.611 | < 0.0727 | 2.203 | 1.693 | 0.943 | 0.791 |
| C3-Dibenzothiophenes | 1.28 | 1.12 | 0.63 | 3.89 | 3.69 | 2.57 | 1.25 |
| C3-Fluoranthenes/Pyrenes | 2.49 | 1.7 | 0.316 | 11 | 14.8 | 4.02 | 1.8 |
| C3-Fluorenes | 0.78 | 0.44 | 0 | 15.04 | 12.54 | 3.37 | 2.43 |
| C3-Naphthalenes | 6.176 | 6.096 | 1.116 | 61.086 | 60.586 | 14.786 | 7.52 |
| C3-Phenanthrenes/Anthracenes | 2.64 | 2.97 | 0.781 | 18.9 | 17.5 | 7.24 | 3.97 |
| C4-Benzo[a]anthracenes/Chrysenes | < 0.0553 | < 0.0731 | < 0.043 | 1.25 | 0.755 | < 0.113 | < 0.0411 |
| C4-Dibenzothiophenes | 1.753 | 1.583 | 0.247 | 2.453 | 1.523 | 0.933 | 1.42 |

| | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) | SH19-A2 |
|------------------------------|------------|--------------------------|------------|-------------------|-----------|-------------------|------------|
| C4-Fluoranthenes/Pyrenes | 0.669 | 0.743 | 0.145 | 2.33 | 2.8 | 0.915 | 0.976 |
| C4-Naphthalenes | 3.58 | 3.78 | 1.12 | 25.2 | 25.4 | 13.2 | 3.36 |
| C4-Phenanthrenes/Anthracenes | 53.894 | 69.394 | 6.204 | 61.194 | 59.694 | 267.694 | 70.3 |
| Chrysene | 2.734 | 2.364 | 0.811 | 9.864 | 13.264 | 7.084 | 3.67 |
| Dibenz[a,h]anthracene | 0.168(NDR) | 0.218(NDR) | 0.019(NDR) | 1.24(NDR) | 1.14(NDR) | 0.87 | 0.241(NDR) |
| Dibenzothiophene | 0.729 | 0.801 | 0.382(NDR) | 2.54 | 2.24 | 1.01 | 0.578(NDR) |
| Fluoranthene | 6.631 | 4.911 | 3.001 | 13.601 | 19.501 | 12.001 | 5.416 |
| Fluorene | 1.49 | 1.69 | 0.624 | 5.61 | 4.74 | 4.05 | 1.11 |
| Indeno[1,2,3-cd]pyrene | 0.689(NDR) | 0.647(NDR) | 0.335(NDR) | 5.78 | 5.75 | 4.62 | 0.765 |
| Naphthalene | 5.271 | 4.531 | 3.811 | 14.761 | 17.661 | 25.261 | 4.485 |
| Perylene | 7.41 | 7.99 | 1.96 | 23.7 | 19.2 | 19.7 | 9.02 |
| Phenanthrene | 8.8 | 9.28 | 2.86 | 28.74 | 31.74 | 11.34 | 7.495 |
| Pyrene | 5.581 | 4.531 | 2.311 | 13.021 | 19.721 | 12.321 | 4.704 |
| Retene | 44.6 | 59.7 | 3.4 | 28.2 | 25.7 | 247 | 59.8 |

| | SH19-P6 | SH19-P6 (Duplicate) | SH19-R15 | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-M4 (AXYS) |
|---------------------------------------|------------|------------------------|------------|------------|-------------------|-------------------|-------------------|
| 1-Methylchrysene | 0.623 | 0.667 | 0.589 | 1.01 | 1.04 | 0.621 | 1.29 |
| 1-Methylnaphthalene | 10.9 | 10.4 | 8.89 | 19.5 | 14 | 8.76 | 17.6 |
| 1-Methylphenanthrene | 5.64 | 6.16 | 5.89 | 9.58 | 8.27 | 4.89 | 11.2 |
| 1,2-Dimethylnaphthalene | 2.71 | 2.53 | 2.72 | 4.7 | 3.69 | 2.04 | 4.47 |
| 1,2,6-Trimethylphenanthrene | 0.718 | 0.751 | 0.56 | 1.01 | 0.9 | 0.577 | 1.11 |
| 1,4,6,7-Tetramethylnaphthalene | 1.27(NDR) | 1.32(NDR) | 1.38 | 2.33(NDR) | 1.81 | 1 | 2.44(NDR) |
| 1,7-Dimethylfluorene | 0.893 | 0.966 | 0.954 | 1.64 | 1.35 | 0.64(NDR) | 1.55 |
| 1,7-Dimethylphenanthrene | 3.38 | 3.67 | 2.8 | 5.06 | 4.42 | 2.78 | 5.55 |
| 1,8-Dimethylphenanthrene | 0.376 | 0.532 | 0.492 | 0.845 | 0.73 | 0.474 | 0.888 |
| 2-Methylantracene | 0.307 | 0.663 | 0.619 | 0.859 | 0.952 | 0.629 | 1.23 |
| 2-Methylfluorene | 1.34 | 1.09 | 1.06 | 1.88 | 1.85 | 1.15 | 1.95 |
| 2-Methylnaphthalene | 16.6 | 16 | 12.3 | 26.6 | 20.7 | 14.4 | 25.1 |
| 2-Methylphenanthrene | 6.62 | 8.34 | 7.05 | 13.7 | 11.8 | 6.89 | 15.4 |
| 2,3,5-Trimethylnaphthalene | 7.29 | 6.85 | 7.47 | 14 | 10.5 | 5.5 | 13.4 |
| 2,3,6-Trimethylnaphthalene | 7.57 | 7.1 | 7.03 | 13.2 | 10.3 | 6.02 | 12.8 |
| 2,4-Dimethyldibenzothiophene | 0.364(NDR) | 0.417 | 0.414 | 0.581(NDR) | 0.585 | 0.394(NDR) | 0.862(NDR) |
| 2,6-Dimethylnaphthalene | 12.8 | 12.3 | 10.7 | 21.2 | 16.7 | 10.1 | 20.3 |
| 2,6-Dimethylphenanthrene | 1.88 | 1.83 | 1.73 | 3.53 | 2.64 | 1.39 | 3.56 |
| 2/3-Methyldibenzothiophenes | 1.22 | 1.31 | 0.859 | 1.18 | 1.02 | 1.08 | 1.43 |
| 3-Methylfluoranthene/Benzo[a]fluorene | 5.66 | 5.62 | 5.31 | 8.99 | 8.78 | 5.13 | 10.4 |
| 3-Methylphenanthrene | 5.38 | 6.18 | 5.96 | 10.2 | 8.42 | 4.56 | 11.4 |
| 3,6-Dimethylphenanthrene | 1.88(NDR) | 1.72(NDR) | 1.68(NDR) | 3.04(NDR) | 2.5(NDR) | 1.33(NDR) | 3.1(NDR) |
| 4,6-Dimethyldibenzothiophene | 0.389 | 0.391 | 0.427(NDR) | 0.606(NDR) | 0.608 | 0.362 | 0.842(NDR) |
| 5,9-Dimethylchrysene | 0.998 | 0.957 | 0.889 | 1.29 | 1.49 | 0.927 | 1.82 |

| | SH19-P6 (AXYS) | | | | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-M4 (AXYS) |
|------------------------------------|-------------------|-------------|------------|------------|-------------------|-------------------|-------------------|
| | SH19-P6 | (Duplicate) | SH19-R15 | SH19-R30 | | | |
| 5/6-Methylchrysene | 0.406 | 0.413 | 0.375 | 0.561 | 0.623 | 0.328 | 0.798 |
| 7-Methylbenzo[a]pyrene | 0.284 | 0.233 | 0.285 | 0.375 | 0.512 | 0.235 | 0.797 |
| 9/4-Methylphenanthrene | 5.26 | 6.04 | 6.05 | 10.4 | 8.7 | 4.32 | 10.9 |
| Acenaphthene | 1.15 | 1.08 | 0.853 | 1.54 | 1.71 | 1.21 | 1.73 |
| Acenaphthylene | 0.48 | 0.546 | 0.452 | 0.594 | 0.999 | 0.622 | 1.06 |
| Anthracene | 1.25 | 1.54 | 0.861 | 1.54 | 2.93 | 2.21 | 2.44 |
| Benz[a]anthracene | 3.449(NDR) | 2.509(NDR) | 2.309(NDR) | 5.029(NDR) | 6.369(NDR) | 3.189(NDR) | 7.139(NDR) |
| Benzo[a]pyrene | 3.25 | 2.96 | 2.7 | 5.01 | 6.95 | 3.26 | 8.2 |
| Benzo[b]fluoranthene | 4.96 | 3.65 | 3.52 | 5.73 | 7.29 | 3.79 | 8.52 |
| Benzo[e]pyrene | 4.36 | 3.04 | 2.6 | 5.07 | 6.21 | 3.05 | 6.99 |
| Benzo[ghi]perylene | 3.6 | 3.37 | 2.86 | 5.02 | 6.8 | 3.68 | 7.96 |
| Benzo[j,k]fluoranthenes | 3.51 | 2.66 | 2.27 | 4.44 | 5.72 | 2.79 | 7.28 |
| Biphenyl | 5.156 | 4.896 | 3.506 | 6.996 | 6.326 | 4.556 | 7.266 |
| C1 Phenanthrenes/Anthracenes | 23.2 | 27.4 | 25.6 | 44.7 | 38.2 | 21.3 | 50.2 |
| C1-Acenaphthenes | < 0.132 | < 0.134 | < 0.185 | 0.236 | < 0.177 | 0.103 | 0.222 |
| C1-Benzo[a]anthracenes/Chrysenes | 7 | 6.36 | 5.32 | 9.88 | 0.617 | 6.26 | 11.7 |
| C1-Benzofluoranthenes/Benzopyrenes | 7.33 | 6.63 | 5.73 | 9.08 | 10.9 | 6.36 | 12.7 |
| C1-Biphenyls | 7.02 | 6.69 | 5.63 | 10.5 | 8.98 | 6.27 | 10.7 |
| C1-Dibenzothiophenes | 2.8 | 2.86 | 2.27 | 3.38 | 3.31 | 2.11 | 4.26 |
| C1-Fluoranthenes/Pyrenes | 12.1 | 11.7 | 10.4 | 18.1 | 17.8 | 10.3 | 21.7 |
| C1-Fluorenes | 6.86 | 6.6 | 6.1 | 11.6 | 9.39 | 5.53 | 11.5 |
| C1-Naphthalenes | 27.5 | 26.3 | 21.2 | 46.1 | 34.7 | 23.2 | 42.7 |
| C2 Phenanthrenes/Anthracenes | 20 | 19.4 | 17.3 | 30.7 | 26.4 | 15.4 | 32.1 |
| C2-Benzo[a]anthracenes/Chrysenes | 4.55 | 4.8 | 5.03 | 7.02 | 7.93 | 4.87 | 8.88 |
| C2-Benzofluoranthenes/Benzopyrenes | 2.126 | 1.786 | 1.306 | 2.196 | 3.246 | 2.266 | 3.516 |
| C2-Biphenyls | 4.981 | 4.681 | 4.361 | 8.161 | 6.541 | 4.341 | 8.641 |
| C2-Dibenzothiophenes | 2.94 | 3.08 | 3.23 | 4.82 | 5.23 | 3.21 | 6.78 |
| C2-Fluoranthenes/Pyrenes | 11.5 | 11.7 | 11.5 | 16.7 | 18.3 | 10.1 | 21 |
| C2-Fluorenes | 9.06 | 10.9 | 9.53 | 17.5 | 13.1 | 7.11 | 17.8 |
| C2-Naphthalenes | 48.408 | 46.008 | 40.808 | 80.608 | 63.908 | 37.708 | 80.708 |
| C3-Benzo[a]anthracenes/Chrysenes | 0.865 | 1.13 | 0.584 | 1.13 | 1.21 | 0.633 | 1.11 |
| C3-Dibenzothiophenes | 2.16 | 2.59 | 1.7 | 2.65 | 3.42 | 2.56 | 4.3 |
| C3-Fluoranthenes/Pyrenes | 4.67 | 7.02 | 5.38 | 5.61 | 8.55 | 4.24 | 9.45 |
| C3-Fluorenes | 7.73 | 9.4 | 9.72 | 15.6 | 12.1 | 6.42 | 16 |
| C3-Naphthalenes | 31 | 29 | 29.4 | 53.7 | 41.7 | 23.6 | 53.5 |
| C3-Phenanthrenes/Anthracenes | 10.5 | 11 | 9.48 | 16.6 | 14.9 | 8.29 | 18 |
| C4-Benzo[a]anthracenes/Chrysenes | < 0.127 | 0.225 | < 0.105 | 0.272 | 0.203 | 0.207 | 0.596 |
| C4-Dibenzothiophenes | 0.971 | 1.1 | 0.739 | 1.2 | 1.62 | 1.58 | 1.48 |
| C4-Fluoranthenes/Pyrenes | 1.47 | 1.48 | 1.38 | 2.6 | 2.75 | 1.7 | 2.79 |
| C4-Naphthalenes | 9.63 | 10.8 | 12 | 21.4 | 16.8 | 8.45 | 23.4 |
| C4-Phenanthrenes/Anthracenes | 74.6 | 47.5 | 31.9 | 51.3 | 51.3 | 44.6 | 59.2 |
| Chrysene | 9.03 | 5.31 | 4.97 | 8.69 | 9.27 | 7.62 | 11.1 |

| | SH19-P6 | SH19-P6 (AXYS) (Duplicate) | SH19-R15 | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-M4 (AXYS) |
|------------------------|------------|----------------------------------|------------|------------|-------------------|-------------------|-------------------|
| Dibenz[a,h]anthracene | 0.608(NDR) | 0.586(NDR) | 0.526(NDR) | 0.943(NDR) | 1.233 | 0.623(NDR) | 1.423 |
| Dibenzothiophene | 1.61 | 1.55 | 1.26 | 2.28 | 2.24 | 1.47 | 2.63 |
| Fluoranthene | 14.556 | 8.146 | 6.816 | 13.456 | 15.256 | 8.546 | 18.056 |
| Fluorene | 3.41 | 2.91 | 2.5 | 5.15 | 4.66 | 3 | 4.74 |
| Indeno[1,2,3-cd]pyrene | 2.937(NDR) | 2.537 | 2.287 | 4.237 | 5.717 | 2.627(NDR) | 6.667 |
| Naphthalene | 7.775 | 7.155 | 5.535 | 11.705 | 9.735 | 7.615 | 11.705 |
| Perylene | 28.3 | 13.8 | 17.3 | 17.1 | 16.9 | 12 | 18.9 |
| Phenanthrene | 16.945 | 16.345 | 14.745 | 26.845 | 24.645 | 14.445 | 29.045 |
| Pyrene | 12.374 | 7.784 | 6.444 | 12.974 | 15.474 | 8.334 | 17.574 |
| Retene | 54.6 | 29 | 16.4 | 24.9 | 25.3 | 28 | 26.5 |

Table 15. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for perfluorinated organics (PFAS). All values are reported in ng/g dry weight. < = values below reporting limit (RL).

| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 | SRKW19-9 | SRKW19-10 |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| PFBA | < 0.304 | < 0.308 | < 0.314 | < 0.363 | < 0.287 | < 0.38 | < 0.333 | < 0.419 | < 0.403 | < 0.429 |
| PFPeA | < 0.152 | < 0.154 | < 0.157 | < 0.181 | < 0.143 | < 0.19 | < 0.167 | < 0.21 | < 0.202 | < 0.215 |
| PFHxA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFHpA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFOA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFNA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFDA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFUnA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | 0.136 | < 0.0833 | 0.138 | 0.158 | 0.167(NDR) |
| PFDoA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFTTrDA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFTeDA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFBS | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFPeS | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFHxS | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFHpS | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFOS | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | 0.122 | < 0.0833 | 0.147 | < 0.101 | 0.184 |
| PFNS | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFDS | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| PFDoS | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| 4:2 FTS | < 0.304 | < 0.308 | < 0.314 | < 0.363 | < 0.287 | < 0.38 | < 0.333 | < 0.419 | < 0.403 | < 0.429 |
| 6:2 FTS | < 0.547 | < 0.554 | < 0.564 | < 0.653 | < 0.517 | < 0.683 | < 0.6 | < 0.755 | < 0.726 | < 0.773 |
| 8:2 FTS | < 0.304 | < 0.308 | < 0.314 | < 0.363 | < 0.287 | < 0.38 | < 0.333 | < 0.419 | < 0.403 | < 0.429 |
| PFOSA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| N-MeFOSA | < 0.0874 | < 0.0885 | < 0.0902 | < 0.104 | < 0.0825 | < 0.109 | < 0.0958 | < 0.121 | < 0.116 | < 0.123 |
| N-EtFOSA | < 0.19 | < 0.192 | < 0.196 | < 0.227 | < 0.179 | < 0.237 | < 0.208 | < 0.262 | < 0.252 | < 0.268 |
| MeFOSAA | < 0.076 | < 0.0769 | < 0.0784 | < 0.0907 | < 0.0717 | < 0.0949 | < 0.0833 | < 0.105 | < 0.101 | < 0.107 |
| EtFOSAA | < 0.152 | < 0.154 | < 0.157 | < 0.181 | < 0.143 | < 0.19 | < 0.167 | < 0.21 | < 0.202 | < 0.215 |
| N-MeFOSE | < 0.76 | < 0.769 | < 0.784 | < 0.907 | < 0.717 | < 0.949 | < 0.833 | < 1.05 | < 1.01 | < 1.07 |
| N-EtFOSE | < 0.57 | < 0.577 | < 0.588 | < 0.68 | < 0.538 | < 0.712 | < 0.625 | < 0.786 | < 0.757 | < 0.805 |
| HFPO-DA | < 0.304 | < 0.308 | < 0.314 | < 0.363 | < 0.287 | < 0.38 | < 0.333 | < 0.419 | < 0.403 | < 0.429 |
| ADONA | < 0.304 | < 0.308 | < 0.314 | < 0.363 | < 0.287 | < 0.38 | < 0.333 | < 0.419 | < 0.403 | < 0.429 |
| 9Cl-PF3ONS | < 0.304 | < 0.308 | < 0.314 | < 0.363 | < 0.287 | < 0.38 | < 0.333 | < 0.419 | < 0.403 | < 0.429 |
| 11Cl-PF3OUds | < 0.304 | < 0.308 | < 0.314 | < 0.363 | < 0.287 | < 0.38 | < 0.333 | < 0.419 | < 0.403 | < 0.429 |

| | SRKW19-10 (Duplicate) | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 |
|--------------|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| PFBA | < 0.415 | < 0.369 | < 0.37 | < 0.504 | < 0.604 | < 0.568 | < 0.571 | < 0.372 | < 0.458 | < 0.602 |
| PFPeA | < 0.207 | < 0.185 | < 0.185 | < 0.252 | < 0.302 | < 0.284 | < 0.286 | < 0.186 | < 0.229 | < 0.301 |
| PFHxA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFHpA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFOA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFNA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | 0.154 | 0.189 | < 0.143 | < 0.0931 | < 0.115 | 0.188 |
| PFDA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | 0.175 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFUnA | 0.151 | 0.093 | < 0.0925 | 0.132 | 0.169 | 0.298 | < 0.143 | < 0.0931 | < 0.115 | 0.238 |
| PFDoA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFTTrDA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFTeDA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFBS | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFPeS | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFHxS | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFHpS | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFOS | 0.107 | < 0.0923 | < 0.0925 | 0.144 | 0.212 | 0.405 | 0.155 | < 0.0931 | < 0.115 | 0.298 |
| PFNS | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFDS | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| PFDoS | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| 4:2 FTS | < 0.415 | < 0.369 | < 0.37 | < 0.504 | < 0.604 | < 0.568 | < 0.571 | < 0.372 | < 0.458 | < 0.602 |
| 6:2 FTS | 3.71 | < 0.664 | < 0.333 | < 0.453 | < 0.544 | < 1.02 | < 0.514 | < 0.335 | < 0.413 | < 0.542 |
| 8:2 FTS | < 0.415 | < 0.369 | < 0.37 | < 0.504 | < 0.604 | < 0.568 | < 0.571 | < 0.372 | < 0.458 | < 0.602 |
| PFOSA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| N-MeFOSA | < 0.119 | < 0.106 | < 0.106 | < 0.145 | < 0.174 | < 0.163 | < 0.164 | < 0.107 | < 0.132 | < 0.173 |
| N-EtFOSA | < 0.259 | < 0.231 | < 0.231 | < 0.315 | < 0.377 | < 0.355 | < 0.357 | < 0.233 | < 0.287 | < 0.376 |
| MeFOSAA | < 0.104 | < 0.0923 | < 0.0925 | < 0.126 | < 0.151 | < 0.142 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| EtFOSAA | < 0.207 | < 0.185 | < 0.0925 | < 0.126 | < 0.151 | < 0.284 | < 0.143 | < 0.0931 | < 0.115 | < 0.151 |
| N-MeFOSE | < 1.04 | < 0.923 | < 0.925 | < 1.26 | < 1.51 | < 1.42 | < 1.43 | < 0.931 | < 1.15 | < 1.51 |
| N-EtFOSE | < 0.778 | < 0.692 | < 0.694 | < 0.944 | < 1.13 | < 1.07 | < 1.07 | < 0.698 | < 0.86 | < 1.13 |
| HFPO-DA | < 0.415 | < 0.369 | < 0.37 | < 0.504 | < 0.604 | < 0.568 | < 0.571 | < 0.372 | < 0.458 | < 0.602 |
| ADONA | < 0.415 | < 0.369 | < 0.37 | < 0.504 | < 0.604 | < 0.568 | < 0.571 | < 0.372 | < 0.458 | < 0.602 |
| 9Cl-PF3ONS | < 0.415 | < 0.369 | < 0.37 | < 0.504 | < 0.604 | < 0.568 | < 0.571 | < 0.372 | < 0.458 | < 0.602 |
| 11Cl-PF3OUds | < 0.415 | < 0.369 | < 0.37 | < 0.504 | < 0.604 | < 0.568 | < 0.571 | < 0.372 | < 0.458 | < 0.602 |

| | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 |
|--------------|---------|------------|----------|-----------|--------------------------|----------|
| PFBA | < 0.546 | < 0.364 | < 0.374 | < 0.4 | < 0.395 | < 0.419 |
| PFPeA | < 0.273 | < 0.182 | < 0.187 | < 0.2 | < 0.198 | < 0.209 |
| PFHxA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFHpA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFOA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFNA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFDA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFUnA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFDoA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFTTrDA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFTeDA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFBS | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFPeS | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFHxS | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFHpS | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFOS | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFNS | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFDS | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| PFDoS | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| 4:2 FTS | < 0.546 | < 0.364 | < 0.374 | < 0.4 | < 0.395 | < 0.419 |
| 6:2 FTS | < 0.492 | < 0.328 | < 0.337 | < 0.36 | < 0.356 | < 0.377 |
| 8:2 FTS | < 0.546 | < 0.364 | < 0.374 | < 0.4 | < 0.395 | < 0.419 |
| PFOSA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| N-MeFOSA | < 0.157 | < 0.105 | < 0.108 | < 0.115 | < 0.114 | < 0.12 |
| N-EtFOSA | < 0.341 | < 0.228 | < 0.234 | < 0.25 | < 0.247 | < 0.262 |
| MeFOSAA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| EtFOSAA | < 0.137 | < 0.0911 | < 0.0935 | < 0.1 | < 0.0988 | < 0.105 |
| N-MeFOSE | < 1.37 | < 0.911 | < 0.935 | < 1 | < 0.988 | < 1.05 |
| N-EtFOSE | < 1.02 | < 0.683 | < 0.701 | < 0.751 | < 0.741 | < 0.786 |
| HFPO-DA | < 0.546 | < 0.364 | < 0.374 | < 0.4 | < 0.395 | < 0.419 |
| ADONA | < 0.546 | < 0.364 | < 0.374 | < 0.4 | < 0.395 | < 0.419 |
| 9Cl-PF3ONS | < 0.546 | < 0.364 | < 0.374 | < 0.4 | < 0.395 | < 0.419 |
| 11Cl-PF3OUdS | < 0.546 | < 0.364 | < 0.374 | < 0.4 | < 0.395 | < 0.419 |

| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-3 (Duplicate) | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
|--|----------|----------|----------|-------------------------|----------|----------|----------|----------|
| Sarafloxacin | | | | | | | | |
| Sulfachloropyridazine | < 5.3 | < 9.71 | < 11.3 | < 13.3 | < 6.99 | < 0.722 | < 0.533 | < 14 |
| Sulfadiazine | < 1.61 | < 2.03 | < 1.98 | < 1.99 | < 1.48 | < 0.84 | < 0.566 | < 1.7 |
| Sulfadimethoxine | < 4.17 | < 7.55 | < 5.91 | < 4.87 | < 4.74 | < 1.67 | < 2.33 | < 5.65 |
| Sulfamerazine | < 0.296 | < 4.75 | < 4.25 | < 5.26 | < 2.86 | < 2.39 | < 0.213 | < 6.71 |
| Sulfamethazine | < 11.3 | < 23.1 | < 11.1 | < 17.8 | < 10.1 | < 6.58 | < 0.71 | < 0.776 |
| Sulfamethizole | < 8.41 | < 4.17 | < 7.97 | < 4.85 | < 5.01 | < 2.85 | < 2.82 | < 6.92 |
| Sulfamethoxazole | < 2.95 | < 5.29 | < 3.98 | < 0.3 | < 3.82 | < 3.34 | < 0.213 | < 5.49 |
| Sulfanilamide | | | | | | | | |
| Sulfathiazole | < 4.75 | < 4.39 | < 5.93 | < 5.39 | < 3.6 | < 3.1 | < 2.37 | < 5.96 |
| Thiabendazole | < 7.65 | < 9.04 | | < 3.9 | < 1.62 | | < 1.04 | < 2.43 |
| Trimethoprim | | | | | < 0.54 | | | < 10.6 |
| Tylosin | | | | | | | | |
| Virginiamycin M1 | | | | | < 2.18 | | | < 4 |
| List 2 - Tetracyclines in Positive Ionization | | | | | | | | |
| Anhydrochlortetracycline [ACTC] | | | | | | | | |
| Anhydrotetracycline [ATC] | | | | | | | | |
| Chlortetracycline [CTC] | | | | | | | | |
| Demeclocycline | | | | | | | | |
| Doxycycline | | | | | | | | |
| 4-Epianhydrochlortetracycline [EACTC] | | | | | | | | |
| 4-Epianhydrotetracycline [EATC] | | | | | | | | |
| 4-Epichlortetracycline [ECTC] | | | | | | | | |
| 4-Epioxytetracycline [EOTC] | | | | | | | | |
| 4-Epitetracycline [ETC] | | | | | | | | |
| Isochlortetracycline [ICTC] | | | | | | | | |
| Minocycline | | | | | | | | |
| Oxytetracycline [OTC] | | | | | | | | |
| Tetracycline [TC] | | | | | | | | |
| List 3 - Acid Extraction in Negative Ionization | | | | | | | | |
| Bisphenol A | < 2.96 | < 2.95 | < 3.05 | < 3 | < 2.16 | < 2.89 | < 2.13 | 5.69 |
| Furosemide | < 1.97 | < 1.97 | < 2.03 | < 2 | < 1.44 | < 1.92 | < 1.42 | < 1.55 |
| Gemfibrozil | < 0.394 | < 0.393 | < 0.407 | < 0.4 | < 0.288 | < 0.385 | < 0.284 | < 0.31 |
| Glipizide | < 0.394 | < 0.393 | < 0.407 | < 0.4 | < 0.288 | < 0.385 | < 0.284 | < 0.31 |
| Glyburide | < 0.394 | < 0.393 | < 0.407 | < 0.4 | < 0.288 | < 0.385 | < 0.284 | < 0.31 |
| Hydrochlorothiazide | < 4.34 | < 4.32 | < 4.48 | < 4.4 | < 3.17 | < 4.23 | < 3.13 | < 3.41 |

| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-3 (Duplicate) | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
|---|----------|----------|----------|-------------------------|----------|----------|----------|----------|
| 2-Hydroxy-ibuprofen | < 1.97 | < 1.97 | < 2.03 | < 2 | < 1.44 | < 1.92 | < 1.42 | < 1.55 |
| Ibuprofen | < 1.97 | < 1.97 | < 2.03 | < 2 | < 1.44 | < 1.92 | < 1.42 | < 1.55 |
| Naproxen | < 0.986 | < 0.983 | < 1.02 | < 1 | < 0.72 | < 0.962 | < 0.71 | < 0.776 |
| Triclocarban | 0.801 | 0.955 | 0.476 | 0.32 | 1.16 | 0.257 | 1.65 | 1.99 |
| Triclosan | < 2.96 | < 2.95 | < 3.05 | < 3 | < 2.16 | < 2.89 | < 2.13 | 2.98 |
| Warfarin | < 0.197 | < 0.197 | < 0.203 | < 0.2 | < 0.144 | < 0.192 | < 0.142 | < 0.155 |
| List 4 - Basic Extraction in Positive Ionization | | | | | | | | |
| Albuterol | < 0.147 | < 0.147 | < 0.153 | < 0.15 | < 0.106 | < 0.145 | < 0.108 | < 0.122 |
| Amphetamine | < 0.734 | < 0.737 | < 0.767 | < 0.75 | < 0.529 | < 0.725 | < 0.539 | < 0.61 |
| Atenolol | < 0.293 | < 0.295 | < 0.307 | < 0.3 | < 0.211 | < 0.29 | < 0.216 | < 0.244 |
| Atorvastatin | < 0.734 | < 0.737 | < 0.767 | < 0.75 | < 0.529 | < 0.725 | < 0.539 | < 0.61 |
| Cimetidine | < 0.293 | < 0.623 | < 0.307 | < 0.3 | < 0.211 | < 0.29 | < 0.216 | < 0.244 |
| Clonidine | < 0.734 | < 0.737 | < 0.767 | < 0.75 | < 0.529 | < 0.725 | < 0.539 | < 0.61 |
| Codeine | < 1.47 | < 1.47 | < 1.53 | < 1.5 | < 1.06 | < 1.45 | < 1.08 | < 1.22 |
| Cotinine | < 0.734 | < 0.737 | < 0.767 | < 0.75 | < 0.529 | < 0.725 | < 0.539 | < 0.61 |
| Enalapril | < 0.147 | < 0.147 | < 0.153 | < 0.15 | < 0.106 | < 0.145 | < 0.108 | < 0.122 |
| Hydrocodone | < 0.734 | < 0.737 | < 0.767 | < 0.75 | < 0.529 | < 0.725 | < 0.539 | < 0.61 |
| Metformin | < 1.47 | < 1.47 | < 1.53 | < 1.5 | < 1.06 | < 1.74 | < 1.08 | < 1.22 |
| Oxycodone | < 0.293 | < 0.295 | < 0.307 | < 0.3 | < 0.211 | < 0.29 | < 0.216 | < 0.244 |
| Ranitidine | < 0.293 | < 0.295 | < 0.307 | < 0.3 | < 0.211 | < 0.29 | < 0.216 | < 0.244 |
| Triamterene | < 0.147 | < 0.147 | < 0.153 | < 0.15 | 0.107 | < 0.145 | 0.112 | < 0.122 |
| List 5 - Acid Extraction in Positive Ionization | | | | | | | | |
| Alprazolam | < 0.148 | < 0.147 | < 0.153 | < 0.15 | < 0.108 | < 0.144 | < 0.107 | < 0.116 |
| Amitriptyline | < 10.4 | < 0.491 | < 0.509 | < 4.18 | < 0.36 | < 0.481 | < 0.355 | < 0.388 |
| Amlodipine | | | | | < 0.54 | | | < 0.582 |
| Benzoylcegonine | < 0.26 | < 0.147 | < 0.402 | < 0.15 | < 0.108 | | < 0.107 | < 0.116 |
| Benztrapine | | | | | | | | |
| Betamethasone | | < 0.737 | < 0.763 | | < 0.54 | | | < 0.582 |
| Cocaine | < 0.0739 | < 0.0737 | < 0.0763 | < 0.075 | < 0.054 | < 0.0722 | | < 0.349 |
| DEET | 0.227 | 0.527 | 0.24 | 0.066 | 0 | 0.157 | 0.261 | 0.235 |
| Desmethyldiltiazem | | < 0.0737 | < 0.0763 | < 0.075 | < 0.054 | < 0.0722 | | < 0.0582 |
| Diazepam | < 0.493 | < 0.491 | < 0.509 | < 0.5 | < 0.36 | < 0.481 | < 0.355 | < 0.388 |
| Fluocinonide | < 2.96 | < 3.29 | < 3.58 | < 3.36 | < 4.88 | < 4.01 | < 5.75 | < 3.13 |
| Fluticasone propionate | | | | | < 0.877 | | < 5.37 | < 1.41 |
| Hydrocortisone | < 28.2 | < 28.1 | < 29.1 | < 28.6 | < 20.6 | < 27.6 | < 20.4 | < 22.2 |
| 10-hydroxy-amitriptyline | | | | | < 0.054 | | | < 0.0582 |
| Meprobamate | | | | | < 1.46 | | < 1.44 | < 1.57 |

| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-3 (Duplicate) | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
|--|----------|-----------|----------|-------------------------|----------|-----------|----------|----------|
| Methylprednisolone | < 1.99 | < 1.98 | < 2.05 | < 2.02 | < 1.46 | < 1.94 | < 1.44 | < 2.53 |
| Metoprolol | | < 0.737 | < 0.763 | < 0.75 | < 0.54 | | < 0.533 | < 0.582 |
| Norfluoxetine | < 0.824 | < 0.737 | < 2.69 | < 1.6 | < 0.54 | < 2.17 | < 1.13 | < 1.95 |
| Norverapamil | | | | | < 0.054 | | | < 0.0582 |
| Paroxetine | < 1.99 | < 1.98 | < 2.05 | < 2.02 | < 1.46 | | < 1.44 | < 1.57 |
| Prednisolone | | | | | < 2.16 | | | < 4.75 |
| Prednisone | | | | | < 7.2 | | | < 7.76 |
| Promethazine | | < 0.197 | < 0.203 | < 0.2 | < 0.144 | < 0.192 | | < 0.155 |
| Propoxyphene | < 4.02 | < 2.53 | < 1.5 | < 1.32 | < 0.295 | < 3.99 | | < 0.968 |
| Propranolol | | < 0.983 | < 1.02 | < 1 | < 0.72 | < 0.962 | < 0.71 | < 0.776 |
| Sertraline | | | | | < 0.157 | | | < 0.26 |
| Simvastatin | | | | | < 7.2 | | | |
| Theophylline | < 29.6 | < 29.5 | < 30.5 | < 30 | < 44.8 | < 28.9 | < 21.3 | < 23.3 |
| Trenbolone | < 1.99 | < 1.98 | < 2.05 | < 2.02 | < 1.46 | < 1.94 | < 2.91 | < 1.57 |
| Trenbolone acetate | < 0.148 | < 0.147 | < 0.153 | < 0.15 | < 0.108 | < 0.144 | < 0.107 | < 0.116 |
| Valsartan | | | | | < 5.74 | | | |
| Verapamil | | < 0.0737 | < 0.0763 | | < 0.054 | | | < 0.0582 |
| List 6 - Acid Extraction in Positive Ionization | | | | | | | | |
| Amsacrine | | | | | < 0.0443 | | | |
| Azathioprine | < 0.986 | < 0.983 | < 1.02 | < 1 | < 0.72 | < 0.962 | < 0.71 | < 0.776 |
| Busulfan | < 1.97 | < 1.97 | < 2.03 | < 2 | < 1.44 | < 1.92 | < 2.82 | < 1.55 |
| Citalopram | | | | | < 1.14 | 4.85(NDR) | | < 5.99 |
| Clotrimazole | < 1.08 | < 0.767 | < 1.05 | < 0.733 | < 0.389 | < 2.53 | < 1.37 | 0.546 |
| Colchicine | < 1.58 | < 1.57 | < 1.63 | < 1.6 | < 1.15 | < 1.54 | < 1.14 | < 1.24 |
| Cyclophosphamide | < 0.394 | < 0.393 | < 0.407 | < 0.4 | < 0.288 | < 0.385 | < 0.284 | < 0.31 |
| Daunorubicin | < 31.1 | < 30.8 | < 51.3 | < 4 | < 2.88 | < 32.5 | | < 13.9 |
| Diatrizoic acid | < 11.8 | < 16.4 | < 14.2 | < 12 | < 41.1 | < 11.5 | < 8.53 | < 9.31 |
| Doxorubicin | < 11.8 | < 11.8 | < 12.2 | < 12 | < 8.64 | < 32 | | < 9.31 |
| Drospirenone | < 3.94 | < 3.93 | < 4.07 | < 4 | < 2.88 | < 3.85 | < 2.84 | < 3.1 |
| Etoposide | < 0.986 | < 0.983 | < 1.02 | < 1 | < 0.72 | < 1.59 | < 0.71 | < 0.776 |
| Iopamidol | < 101 | 62.3(NDR) | < 107 | < 88.5 | | < 46.8 | < 62.3 | < 59.1 |
| Medroxyprogesterone Acetate | < 1.97 | < 1.97 | < 2.03 | < 2 | < 1.44 | < 1.92 | < 1.42 | < 1.55 |
| Melphalan | < 192 | < 161 | < 242 | < 37.4 | < 32.3 | | < 42.2 | < 14.2 |
| Metronidazole | < 1.97 | < 1.97 | < 2.03 | < 2 | < 1.44 | < 1.92 | < 1.42 | < 1.55 |
| Moxifloxacin | | | | | | | | |
| Oxazepam | < 1.97 | < 1.97 | < 2.03 | < 2 | < 1.44 | < 1.92 | < 1.42 | < 1.55 |
| Rosuvastatin | < 1.97 | < 1.97 | < 2.03 | < 2 | < 1.44 | < 1.92 | < 1.42 | < 1.55 |
| Tamoxifen | < 0.387 | < 0.323 | < 0.233 | < 0.584 | < 0.144 | < 0.579 | < 0.258 | < 0.155 |

| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-3 (Duplicate) | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 |
|-------------|----------|----------|----------|-------------------------|----------|----------|----------|----------|
| Teniposide | < 2.81 | < 4.66 | < 2.43 | < 2 | < 1.44 | < 1.92 | < 1.42 | < 2.63 |
| Venlafaxine | | | | | | | | |
| Zidovudine | < 43.6 | < 11.8 | < 12.2 | < 12 | < 8.64 | < 36.2 | < 84.4 | < 16.3 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|--|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| List 1 - Acid Extraction in Positive Ionization | | | | | | | | |
| Acetaminophen | < 16.8 | < 20.8 | < 21.2 | < 17.2 | < 8.95 | < 11.7 | < 15.7 | < 23.5 |
| Azithromycin | | | | | | | | |
| Caffeine | < 5.49 | < 8.9 | < 6.6 | < 14 | < 8.95 | < 11.7 | < 15.7 | < 5.7 |
| Carbadox | | | < 3.85 | < 6.12 | | | | < 6.1 |
| Carbamazepine | < 1.53 | < 1.04 | < 1.83 | < 2.49 | < 0.895 | < 1.17 | < 1.57 | < 1.77 |
| Cefotaxime | | | | | | | | |
| Ciprofloxacin | | | | | | | | |
| Clarithromycin | | | | | | | | |
| Clinafloxacin | | | | | | | | |
| Cloxacillin | | | < 16 | < 17 | | | | < 16.9 |
| Dehydronifedipine | | | < 1.84 | < 2.93 | | | | < 1.43 |
| Digoxigenin | | | < 61.3 | < 96.6 | | | | < 78.6 |
| Digoxin | | | < 11.5 | < 16.3 | | | | < 18.3 |
| Diltiazem | | | < 0.897 | < 0.696 | | | | < 1.25 |
| 1,7-Dimethylxanthine | < 22 | < 25.2 | < 26.4 | < 34.7 | | | | < 31.2 |
| Diphenhydramine | | | 1.03 | 0.981 | | | | 0.761 |
| Enrofloxacin | | | | | | | | |
| Erythromycin-H2O | < 4.52 | < 7.24 | < 1.25 | < 2.1 | | | | < 1.56 |
| Flumequine | | | < 2.54 | < 4.7 | | | | < 4.43 |
| Fluoxetine | | | < 21.6 | | < 1.81 | | | |
| Lincomycin | | | < 1.32 | < 4.38 | | | | < 3.34 |
| Lomefloxacin | | | | | | | | |
| Miconazole | | | < 1.21 | < 1.8 | | | | < 1.19 |
| Norfloracin | | | | | | | | |
| Norgestimate | | | < 34.1 | < 49.9 | | | | < 46.4 |
| Ofloxacin | | | | | | | | |
| Ormetoprim | | | < 2.3 | < 3.21 | | | | < 3.74 |
| Oxacillin | | | < 7.25 | < 11.3 | | | | < 9.74 |
| Oxolinic Acid | | | < 0.743 | < 0.89 | | | | < 0.953 |
| Penicillin G | | | < 11.4 | < 11.6 | | | | < 14.4 |
| Penicillin V | | | < 7.72 | < 11.1 | | | | < 8.58 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|--|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Roxithromycin | | | | | | | | |
| Sarafloxacin | | | | | | | | |
| Sulfachloropyridazine | < 13.5 | < 12.4 | < 14 | < 34 | < 0.895 | < 1.17 | < 1.57 | < 12.8 |
| Sulfadiazine | < 2.72 | < 2.34 | < 2.46 | < 3.99 | < 0.895 | < 1.17 | < 1.57 | < 3.43 |
| Sulfadimethoxine | < 7.43 | < 5.8 | < 7.96 | < 11.9 | < 0.179 | < 0.234 | < 0.314 | < 8.7 |
| Sulfamerazine | < 6.82 | < 6.98 | < 4.93 | < 7.8 | < 0.359 | < 0.487 | < 0.873 | < 8.53 |
| Sulfamethazine | < 11.3 | < 15 | < 21.8 | < 0.684 | < 0.952 | < 1.31 | < 0.82 | < 23 |
| Sulfamethizole | < 8.86 | < 6.98 | < 12 | < 17.8 | < 0.358 | < 0.468 | < 0.628 | < 8.85 |
| Sulfamethoxazole | < 9.28 | < 0.252 | < 8.63 | < 12.6 | < 0.358 | < 0.468 | < 0.628 | < 11.6 |
| Sulfanilamide | | | | | < 8.95 | < 11.7 | < 15.7 | |
| Sulfathiazole | < 7.28 | < 6.65 | < 6.53 | < 9.6 | < 0.895 | < 1.17 | < 1.57 | < 7.58 |
| Thiabendazole | < 2.49 | < 2.19 | < 1.41 | < 3.52 | | | | < 2.83 |
| Trimethoprim | | | < 2.73 | < 7.54 | | | | < 7.71 |
| Tylosin | | | | | | | | |
| Virginiamycin M1 | < 8.26 | < 12 | < 2.36 | < 4.11 | | | | < 2.44 |
| List 2 - Tetracyclines in Positive Ionization | | | | | | | | |
| Anhydrochlortetracycline [ACTC] | | | | | | | | |
| Anhydrotetracycline [ATC] | | | | | | | | |
| Chlortetracycline [CTC] | | | | | | | | |
| Demeclocycline | | | | | | | | |
| Doxycycline | | | | | | | | |
| 4-Epianhydrochlortetracycline [EACTC] | | | | | | | | |
| 4-Epianhydrotetracycline [EATC] | | | | | | | | |
| 4-Epichlortetracycline [ECTC] | | | | | | | | |
| 4-Epioxytetracycline [EOTC] | | | | | | | | |
| 4-Epitetracycline [ETC] | | | | | | | | |
| Isochlortetracycline [ICTC] | | | | | | | | |
| Minocycline | | | | | | | | |
| Oxytetracycline [OTC] | | | | | | | | |
| Tetracycline [TC] | | | | | | | | |
| List 3 - Acid Extraction in Negative Ionization | | | | | | | | |
| Bisphenol A | < 2.2 | < 2.52 | < 2.64 | < 2.05 | < 3.58 | < 4.68 | < 6.28 | < 2.28 |
| Furosemide | < 1.46 | < 1.68 | < 1.76 | < 1.37 | < 2.39 | < 3.12 | < 4.19 | < 1.52 |
| Gemfibrozil | < 0.293 | < 0.336 | < 0.352 | < 0.274 | < 0.477 | < 0.625 | < 0.838 | < 0.304 |
| Glipizide | < 0.293 | < 0.336 | < 0.352 | < 0.274 | < 0.477 | < 0.625 | < 0.838 | < 0.304 |
| Glyburide | < 0.293 | < 0.336 | < 0.352 | < 0.274 | < 0.477 | < 0.625 | < 0.838 | < 0.304 |
| Hydrochlorothiazide | < 3.22 | < 3.7 | < 3.87 | < 3.01 | < 5.25 | < 6.87 | < 9.21 | < 3.34 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|---|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 2-Hydroxy-ibuprofen | < 1.46 | < 1.68 | < 1.76 | < 1.37 | < 2.39 | < 3.12 | < 4.19 | < 1.52 |
| Ibuprofen | 1.54 | < 1.68 | < 1.76 | < 1.37 | < 2.39 | < 3.12 | < 4.19 | < 1.52 |
| Naproxen | < 0.732 | < 0.841 | < 0.879 | < 0.684 | < 1.19 | < 1.56 | < 2.09 | < 0.76 |
| Triclocarban | 1.55 | 1.5 | 2.31 | 4.32 | 0.319 | 2.34 | 3.9 | 2.84 |
| Triclosan | < 2.2 | < 2.52 | < 2.64 | 3.72 | < 3.58 | < 4.68 | < 6.28 | < 2.28 |
| Warfarin | < 0.146 | < 0.168 | < 0.176 | < 0.137 | < 0.239 | < 0.312 | < 0.419 | < 0.152 |
| List 4 - Basic Extraction in Positive Ionization | | | | | | | | |
| Albuterol | < 0.105 | < 0.124 | < 0.136 | < 0.115 | < 0.174 | < 0.253 | < 0.313 | < 0.117 |
| Amphetamine | < 0.526 | < 0.618 | < 0.679 | < 0.577 | < 0.869 | < 1.26 | < 1.56 | < 0.586 |
| Atenolol | < 0.21 | < 0.247 | < 0.271 | < 0.231 | < 0.392 | < 0.505 | < 0.625 | < 0.234 |
| Atorvastatin | < 0.526 | < 0.618 | < 0.679 | < 0.577 | | | | < 0.586 |
| Cimetidine | < 0.241 | < 0.247 | < 0.271 | < 0.231 | < 0.348 | < 0.505 | < 0.625 | < 0.234 |
| Clonidine | < 0.526 | < 0.618 | < 0.679 | < 0.577 | < 0.869 | < 1.26 | < 1.56 | < 0.586 |
| Codeine | < 1.05 | < 1.24 | < 1.36 | < 1.15 | < 1.74 | < 2.53 | < 3.13 | < 1.17 |
| Cotinine | < 0.526 | < 0.618 | < 0.679 | < 0.577 | < 0.869 | < 1.26 | < 1.56 | < 0.586 |
| Enalapril | < 0.105 | < 0.124 | < 0.136 | < 0.115 | < 0.174 | < 0.253 | < 0.313 | < 0.117 |
| Hydrocodone | < 0.526 | < 0.618 | < 0.679 | < 0.577 | < 0.869 | < 1.26 | < 1.56 | < 0.586 |
| Metformin | < 1.05 | < 1.24 | < 1.36 | < 1.15 | 38.5 | < 2.53 | 67.3 | < 1.17 |
| Oxycodone | < 0.21 | < 0.247 | < 0.271 | < 0.231 | < 0.348 | < 0.505 | < 0.625 | < 0.234 |
| Ranitidine | < 0.21 | < 0.247 | < 0.271 | < 0.231 | < 0.348 | < 0.505 | < 0.625 | < 0.234 |
| Triamterene | < 0.105 | < 0.124 | < 0.136 | < 0.115 | < 0.174 | < 0.253 | < 0.313 | < 0.117 |
| List 5 - Acid Extraction in Positive Ionization | | | | | | | | |
| Alprazolam | < 0.11 | < 0.126 | < 0.132 | < 0.103 | < 0.179 | < 0.234 | < 0.314 | < 0.114 |
| Amitriptyline | < 0.969 | < 0.42 | < 0.44 | < 0.342 | < 3.3 | < 7.19 | < 7.66 | < 0.38 |
| Amlodipine | | | < 0.66 | < 0.513 | | | | < 0.57 |
| Benzoylcegonine | < 0.11 | < 0.126 | < 0.132 | < 0.103 | < 0.179 | < 0.234 | < 0.314 | < 0.114 |
| Benztropine | | | < 0.22 | < 0.171 | | | | |
| Betamethasone | < 0.549 | | < 0.66 | < 0.513 | < 11.7 | | | < 0.57 |
| Cocaine | < 0.231 | | 0.09 | < 0.0513 | | | | < 0.057 |
| DEET | 0.457 | 0.088 | 0.154 | 0.767 | 0 | 0.346 | 0.486 | 0 |
| Desmethyldiltiazem | < 0.0549 | | < 0.066 | < 0.0513 | | | | < 0.057 |
| Diazepam | < 0.366 | < 0.42 | < 0.44 | < 0.342 | < 0.179 | < 0.234 | < 0.314 | < 0.38 |
| Fluocinonide | < 3.23 | < 3.71 | < 4.03 | < 3.58 | < 3.58 | < 4.68 | < 6.28 | < 3.31 |
| Fluticasone propionate | < 1.22 | < 1.08 | < 1.13 | < 0.991 | | | < 8.64 | < 0.796 |
| Hydrocortisone | < 21 | < 24.1 | < 25.2 | < 19.6 | < 35.8 | < 46.8 | < 62.8 | < 21.8 |
| 10-hydroxy-amitriptyline | < 0.0549 | < 0.0631 | < 0.066 | < 0.0513 | | | < 0.157 | < 0.057 |
| Meprobamate | < 1.48 | < 1.7 | < 1.78 | < 1.38 | | | < 10.8 | < 1.53 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|--|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Methylprednisolone | < 1.48 | < 1.7 | < 3.89 | < 1.38 | < 2.41 | < 3.15 | < 4.23 | < 1.53 |
| Metoprolol | < 0.549 | < 0.631 | < 0.66 | < 0.513 | | < 26.6 | < 1.57 | < 0.57 |
| Norfluoxetine | < 2.15 | < 9.08 | < 0.66 | < 0.513 | < 0.895 | < 5.5 | < 3.82 | < 0.746 |
| Norverapamil | < 0.0549 | < 0.0631 | < 0.066 | < 0.0513 | | | < 0.193 | < 0.0579 |
| Paroxetine | < 1.48 | | < 1.78 | < 1.38 | < 5.4 | < 5.82 | < 13.8 | < 1.53 |
| Prednisolone | < 2.2 | < 2.52 | < 2.64 | < 5.1 | | | < 6.28 | < 3.33 |
| Prednisone | < 7.32 | < 8.41 | < 8.79 | < 6.84 | | | < 20.9 | < 7.6 |
| Promethazine | < 0.146 | < 0.168 | < 0.176 | < 0.137 | | | | < 0.152 |
| Propoxyphene | < 5.66 | | < 0.133 | < 0.15 | < 3.41 | < 3.7 | < 6.28 | < 0.114 |
| Propranolol | < 0.732 | < 0.841 | < 0.879 | < 0.684 | < 1.19 | < 1.56 | < 2.09 | < 0.76 |
| Sertraline | < 0.33 | < 0.445 | < 0.204 | < 0.259 | | | < 1.19 | < 0.185 |
| Simvastatin | | | < 8.79 | < 6.84 | | | | < 7.6 |
| Theophylline | < 22 | < 25.2 | < 26.4 | < 20.5 | < 35.8 | < 46.8 | < 62.8 | < 22.8 |
| Trenbolone | < 1.48 | < 1.7 | < 1.78 | < 1.38 | < 2.41 | < 3.15 | < 4.23 | < 1.53 |
| Trenbolone acetate | < 0.11 | < 0.126 | < 0.132 | < 0.103 | < 0.212 | < 0.268 | < 0.365 | < 0.114 |
| Valsartan | | | < 2.65 | < 2.24 | | | | < 2.81 |
| Verapamil | < 0.0549 | | < 0.066 | < 0.061 | < 0.0895 | | | < 0.057 |
| List 6 - Acid Extraction in Positive Ionization | | | | | | | | |
| Amsacrine | | | < 0.0417 | < 0.0274 | | | | < 0.0304 |
| Azathioprine | < 0.732 | < 0.841 | < 0.879 | < 0.684 | < 1.19 | < 1.56 | < 2.09 | < 0.76 |
| Busulfan | < 1.46 | < 1.68 | < 1.76 | < 1.37 | < 2.39 | < 3.12 | < 4.19 | < 1.52 |
| Citalopram | < 1.59 | | 0.591 | 1.01 | | | | 0.464 |
| Clotrimazole | < 0.366 | < 0.702 | < 0.209 | 0.645 | | | | < 0.787 |
| Colchicine | < 1.66 | < 1.35 | < 1.41 | < 1.1 | < 1.51 | < 1.05 | < 0.969 | < 1.22 |
| Cyclophosphamide | < 0.293 | < 0.336 | < 0.352 | < 0.274 | < 0.477 | < 0.625 | < 0.838 | < 0.304 |
| Daunorubicin | < 2.93 | | < 3.52 | < 2.74 | | | | < 13.9 |
| Diatrizoic acid | < 8.78 | < 10.9 | < 17.1 | < 8.21 | < 27.3 | < 18.7 | < 25.1 | < 9.12 |
| Doxorubicin | < 8.78 | < 10.1 | < 10.6 | < 8.21 | | | | < 9.12 |
| Drospirenone | < 2.93 | < 3.36 | < 3.52 | < 2.74 | < 4.77 | < 6.25 | < 8.38 | < 3.04 |
| Etoposide | < 0.732 | < 0.841 | < 0.879 | < 0.764 | < 1.19 | < 1.56 | < 2.09 | < 0.76 |
| Iopamidol | < 52.7 | < 54.7 | < 77 | < 78.9 | < 47.7 | < 62.5 | < 83.8 | < 30.4 |
| Medroxyprogesterone Acetate | < 1.46 | < 1.68 | < 1.76 | < 1.37 | < 2.39 | < 3.12 | < 4.19 | < 1.52 |
| Melphalan | < 24.4 | < 12.3 | < 24.5 | < 25 | | | | < 11.7 |
| Metronidazole | < 1.46 | < 1.68 | < 1.76 | < 1.37 | < 2.39 | < 3.12 | < 4.19 | < 1.52 |
| Moxifloxacin | | | | | | | | |
| Oxazepam | < 1.46 | < 1.68 | < 1.76 | < 2.02 | < 2.39 | < 3.12 | < 4.19 | < 1.52 |
| Rosuvastatin | < 1.71 | < 1.68 | < 1.76 | < 1.37 | < 2.39 | < 3.12 | < 4.19 | < 1.52 |
| Tamoxifen | < 0.146 | < 0.168 | < 0.176 | < 0.137 | | | | < 0.152 |
| Teniposide | < 2.59 | < 3.1 | < 1.76 | < 2.67 | < 2.39 | < 3.12 | < 4.19 | < 1.7 |

| | SRKW19-8 | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 |
|-------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Venlafaxine | | | | | | | | |
| Zidovudine | < 36.5 | < 16.5 | < 23.5 | < 28.4 | < 14.3 | < 18.7 | < 25.1 | < 9.12 |

| | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2-GINP1 | PTP2-EH2 |
|--|-----------|-----------|-----------|-----------|---------|------------|----------|
| List 1 - Acid Extraction in Positive Ionization | | | | | | | |
| Acetaminophen | < 14.1 | < 9.11 | < 11 | < 13.6 | < 14.3 | < 9.61 | < 9.36 |
| Azithromycin | | | | | | | |
| Caffeine | < 14.1 | < 9.11 | < 12.1 | < 13.6 | < 14.3 | < 9.61 | < 10.9 |
| Carbadox | | | | | | | |
| Carbamazepine | < 1.41 | < 0.911 | < 1.1 | < 1.36 | < 1.43 | < 0.961 | < 0.936 |
| Cefotaxime | | | | | | | |
| Ciprofloxacin | | | | | | | |
| Clarithromycin | | | | | | | |
| Clinafloxacin | | | | | | | |
| Cloxacillin | | | | | | | |
| Dehydronifedipine | | | | | | | |
| Digoxigenin | | | | | | | |
| Digoxin | | | | | | | |
| Diltiazem | | | | | | | |
| 1,7-Dimethylxanthine | | | | | | | |
| Diphenhydramine | | | | | | | |
| Enrofloxacin | | | | | | | |
| Erythromycin-H2O | | | | | | | |
| Flumequine | | | | | | | |
| Fluoxetine | < 2.66 | < 1.78 | < 5.78 | < 1.59 | < 1.43 | | < 1.72 |
| Lincomycin | | | | | | | |
| Lomefloxacin | | | | | | | |
| Miconazole | | | | | | | |
| Norfloxacin | | | | | | | |
| Norgestimate | | | | | | | |
| Ofloxacin | | | | | | | |
| Ormetoprim | | | | | | | |
| Oxacillin | | | | | | | |
| Oxolinic Acid | | | | | | | |
| Penicillin G | | | | | | | |
| Penicillin V | | | | | | | |
| Roxithromycin | | | | | | | |
| Sarafloxacin | | | | | | | |
| Sulfachloropyridazine | < 1.41 | < 0.911 | < 1.1 | < 1.36 | < 1.43 | < 0.961 | < 0.936 |
| Sulfadiazine | < 1.41 | < 0.911 | < 1.1 | < 1.36 | < 1.43 | < 0.961 | < 0.936 |
| Sulfadimethoxine | < 0.281 | < 0.182 | < 0.22 | < 0.272 | < 0.287 | < 0.192 | < 0.187 |
| Sulfamerazine | < 2.2 | < 0.766 | < 0.925 | < 0.738 | < 1.12 | < 0.384 | < 0.527 |

| | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2-GINP1 | PTP2-EH2 |
|---|-----------|-----------|-----------|-----------|---------|------------|----------|
| Sulfamethazine | < 1.42 | < 1.23 | < 1.72 | < 0.59 | < 2.12 | < 1.39 | < 0.895 |
| Sulfamethizole | < 0.563 | < 0.364 | < 0.441 | < 0.544 | < 0.573 | < 0.384 | < 0.374 |
| Sulfamethoxazole | < 0.563 | < 0.364 | < 0.441 | < 0.544 | < 0.573 | < 0.384 | < 0.374 |
| Sulfanilamide | < 14.1 | < 9.11 | < 15.3 | < 13.6 | < 14.3 | < 9.61 | < 9.36 |
| Sulfathiazole | < 1.41 | < 0.911 | < 1.1 | < 1.36 | < 1.43 | < 0.961 | < 0.936 |
| Thiabendazole | | | | | | | |
| Trimethoprim | | | | | | | |
| Tylosin | | | | | | | |
| Virginiamycin M1 | | | | | | | |
| List 2 - Tetracyclines in Positive Ionization | | | | | | | |
| Anhydrochlortetracycline [ACTC] | | | | | | | |
| Anhydrotetracycline [ATC] | | | | | | | |
| Chlortetracycline [CTC] | | | | | | | |
| Demeclocycline | | | | | | | |
| Doxycycline | | | | | | | |
| 4-Epianhydrochlortetracycline [EACTC] | | | | | | | |
| 4-Epianhydrotetracycline [EATC] | | | | | | | |
| 4-Epichlortetracycline [ECTC] | | | | | | | |
| 4-Epioxytetracycline [EOTC] | | | | | | | |
| 4-Epitetracycline [ETC] | | | | | | | |
| Isochlortetracycline [ICTC] | | | | | | | |
| Minocycline | | | | | | | |
| Oxytetracycline [OTC] | | | | | | | |
| Tetracycline [TC] | | | | | | | |
| List 3 - Acid Extraction in Negative Ionization | | | | | | | |
| Bisphenol A | < 5.63 | < 3.64 | 5.48 | < 5.44 | < 5.73 | < 3.84 | < 3.74 |
| Furosemide | < 3.75 | < 2.43 | < 2.94 | < 3.63 | < 3.82 | < 2.56 | < 2.5 |
| Gemfibrozil | < 0.751 | < 0.486 | < 0.587 | < 0.725 | < 0.764 | < 0.512 | < 0.499 |
| Glipizide | < 0.751 | < 0.486 | < 0.587 | < 0.725 | < 0.764 | < 0.512 | < 0.499 |
| Glyburide | < 0.751 | < 0.486 | < 0.587 | < 0.725 | < 0.764 | < 0.512 | < 0.499 |
| Hydrochlorothiazide | < 8.26 | < 5.34 | < 6.46 | < 7.98 | < 8.41 | < 5.64 | < 5.49 |
| 2-Hydroxy-ibuprofen | < 3.75 | < 2.43 | < 2.94 | < 3.63 | < 3.82 | < 2.56 | < 2.5 |
| Ibuprofen | < 3.75 | < 2.43 | < 2.94 | < 3.63 | < 3.82 | < 2.56 | < 2.5 |
| Naproxen | < 1.88 | < 1.21 | < 1.47 | < 1.81 | < 1.91 | < 1.28 | < 1.25 |
| Triclocarban | 2.47 | 0.411 | 0.651 | 2.53 | 0.761 | 0.414 | 1.24 |
| Triclosan | < 5.63 | < 3.64 | < 4.41 | < 5.44 | < 5.73 | < 3.84 | < 3.74 |
| Warfarin | < 0.375 | < 0.243 | < 0.294 | < 0.363 | < 0.382 | < 0.256 | < 0.25 |
| List 4 - Basic Extraction in Positive Ionization | | | | | | | |
| Albuterol | < 0.294 | < 0.171 | < 0.223 | < 0.267 | < 0.294 | < 0.184 | < 0.184 |

| | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2-GINP1 | PTP2-EH2 |
|--|-----------|-----------|-----------|-----------|---------|------------|----------|
| Amphetamine | < 1.47 | < 0.857 | < 1.12 | < 1.33 | < 1.47 | < 0.92 | < 0.918 |
| Atenolol | < 0.617 | < 0.343 | < 0.507 | < 0.575 | < 0.588 | < 0.368 | < 0.412 |
| Atorvastatin | | | | | | | |
| Cimetidine | < 0.587 | < 0.343 | < 0.446 | < 0.533 | < 0.588 | < 0.368 | < 0.367 |
| Clonidine | < 1.47 | < 0.857 | < 1.12 | < 1.33 | < 1.47 | < 0.92 | < 0.918 |
| Codeine | < 2.94 | < 1.71 | < 2.23 | < 2.67 | < 2.94 | < 1.84 | < 1.84 |
| Cotinine | < 1.47 | < 0.857 | < 1.12 | < 1.33 | < 1.47 | < 0.92 | < 0.918 |
| Enalapril | < 0.294 | < 0.171 | < 0.223 | < 0.267 | < 0.294 | < 0.184 | < 0.184 |
| Hydrocodone | < 1.47 | < 0.857 | < 1.12 | < 1.33 | < 1.47 | < 0.92 | < 0.918 |
| Metformin | < 2.94 | 67.4 | < 2.23 | < 2.67 | < 2.94 | < 1.84 | < 1.84 |
| Oxycodone | < 0.587 | < 0.343 | < 0.446 | < 0.533 | < 0.588 | < 0.368 | < 0.367 |
| Ranitidine | < 0.587 | < 0.343 | < 0.446 | < 0.533 | < 0.588 | < 0.368 | < 0.367 |
| Triamterene | < 0.294 | < 0.171 | < 0.223 | < 0.267 | < 0.294 | < 0.184 | < 0.184 |
| List 5 - Acid Extraction in Positive Ionization | | | | | | | |
| Alprazolam | < 0.281 | < 0.182 | < 0.22 | < 0.272 | < 0.287 | < 0.192 | < 0.187 |
| Amitriptyline | < 10.7 | < 5.12 | < 6.49 | < 3.91 | < 2.43 | < 3.6 | < 2.72 |
| Amlodipine | | | | | < 1.43 | | |
| Benzoylcegonine | < 0.281 | < 0.182 | < 0.22 | < 0.272 | < 0.287 | < 0.192 | < 0.187 |
| Benztropine | | | | | | | |
| Betamethasone | | | | | < 17.7 | | |
| Cocaine | | | | < 0.136 | < 0.143 | < 0.0961 | < 0.0936 |
| DEET | 0.205 | 0 | 0.174 | 0.236 | 0.201 | 0 | 0.216 |
| Desmethyldiltiazem | | | | | | | |
| Diazepam | < 0.281 | < 0.182 | < 0.22 | < 0.272 | < 0.287 | < 0.192 | < 0.187 |
| Fluocinonide | < 5.63 | < 3.64 | < 4.41 | < 5.44 | < 5.73 | < 3.84 | < 3.74 |
| Fluticasone propionate | | | | | < 2.5 | | |
| Hydrocortisone | < 56.3 | < 36.4 | < 44.1 | < 54.4 | < 57.3 | < 38.4 | < 37.4 |
| 10-hydroxy-amitriptyline | | | | | < 0.143 | | |
| Meprobamate | | | | | < 3.86 | | |
| Methylprednisolone | < 3.79 | < 2.45 | < 2.97 | < 3.66 | < 3.86 | < 2.59 | < 2.52 |
| Metoprolol | < 1.41 | | 68.1 | < 1.36 | < 2.6 | | < 0.936 |
| Norfluoxetine | < 1.99 | < 1.37 | < 3.54 | < 1.85 | < 1.43 | < 4.31 | < 1.34 |
| Norverapamil | | | | | < 0.143 | | |
| Paroxetine | < 5.4 | < 3.68 | < 5.05 | < 9.22 | | < 6.14 | < 4.24 |
| Prednisolone | | | | | < 5.73 | | |
| Prednisone | | | | | < 19.1 | | |
| Promethazine | | | | | | | |
| Propoxyphene | < 1.68 | < 1.8 | < 2.83 | < 1.32 | < 1.31 | < 1.41 | < 1.53 |
| Propranolol | < 1.88 | < 1.21 | < 1.47 | < 3.71 | < 1.91 | | < 1.25 |
| Sertraline | | | | | < 0.402 | | |
| Simvastatin | | | | | | | |
| Theophylline | < 56.3 | < 36.4 | < 44.1 | < 54.4 | < 57.3 | < 38.4 | < 37.4 |
| Trenbolone | < 3.79 | < 2.45 | < 2.97 | < 3.66 | < 3.86 | < 2.59 | < 2.52 |

| | SRKW19-16 | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2-GINP1 | PTP2-EH2 |
|--|-----------|-----------|-----------|-----------|---------|------------|----------|
| Trenbolone acetate | < 0.297 | < 0.214 | < 0.346 | < 0.388 | < 0.462 | < 0.218 | < 0.316 |
| Valsartan | | | | | | | |
| Verapamil | | | | | < 0.143 | | |
| List 6 - Acid Extraction in Positive Ionization | | | | | | | |
| Amsacrine | | | | | | | |
| Azathioprine | < 1.88 | < 1.21 | < 1.77 | < 1.81 | < 1.91 | < 1.28 | < 1.25 |
| Busulfan | < 4.91 | < 2.51 | < 3.21 | < 3.63 | < 3.82 | < 3.5 | < 2.5 |
| Citalopram | | | | | | | |
| Clotrimazole | | | | | | | |
| Colchicine | < 3.24 | < 0.513 | < 1.01 | < 1.29 | < 0.764 | < 0.512 | < 0.527 |
| Cyclophosphamide | < 0.751 | < 0.486 | < 0.587 | < 0.725 | < 0.764 | < 0.512 | < 0.499 |
| Daunorubicin | | | | | | | |
| Diatrizoic acid | < 22.5 | < 14.6 | < 17.6 | < 21.8 | < 22.9 | < 15.4 | < 16 |
| Doxorubicin | | | | | | | |
| Drospirenone | < 7.51 | < 4.86 | < 5.87 | < 7.25 | < 7.64 | < 5.12 | < 4.99 |
| Etoposide | < 1.88 | < 1.21 | < 1.47 | < 1.81 | < 1.91 | < 1.28 | < 1.25 |
| Iopamidol | < 75.1 | < 196 | < 58.7 | < 72.5 | < 76.4 | < 51.2 | < 49.9 |
| Medroxyprogesterone Acetate | < 3.75 | < 2.43 | < 2.94 | < 3.63 | < 3.82 | < 2.56 | < 2.5 |
| Melphalan | | | | | | | |
| Metronidazole | < 3.75 | < 2.43 | < 2.94 | < 3.63 | < 3.82 | < 2.56 | < 2.5 |
| Moxifloxacin | | | | | | | |
| Oxazepam | < 3.75 | < 2.43 | < 2.94 | < 3.63 | < 3.82 | < 2.56 | < 2.5 |
| Rosuvastatin | < 3.75 | < 2.43 | < 2.94 | < 3.63 | < 3.82 | < 2.56 | < 2.5 |
| Tamoxifen | | | | | | | |
| Teniposide | < 3.75 | < 2.43 | < 2.94 | < 3.63 | < 3.82 | < 2.56 | < 2.5 |
| Venlafaxine | | | | | | | |
| Zidovudine | < 22.5 | < 14.6 | < 17.6 | < 21.8 | < 22.9 | < 15.4 | < 15 |

| | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 |
|--|-----------|--------------------------|----------|
| List 1 - Acid Extraction in Positive Ionization | | | |
| Acetaminophen | < 8.34 | < 9.91 | < 8.07 |
| Azithromycin | | | |
| Caffeine | < 8.34 | < 17.8 | < 8.07 |
| Carbadox | | | |
| Carbamazepine | < 0.834 | < 0.991 | < 0.807 |
| Cefotaxime | | | |
| Ciprofloxacin | | | |
| Clarithromycin | | | |
| Clinafloxacin | | | |

| | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 |
|--|-----------|--------------------------|----------|
| Cloxacillin | | | |
| Dehydronifedipine | | | |
| Digoxigenin | | | |
| Digoxin | | | |
| Diltiazem | | | |
| 1,7-Dimethylxanthine | | | |
| Diphenhydramine | | | |
| Enrofloxacin | | | |
| Erythromycin-H2O | | | |
| Flumequine | | | |
| Fluoxetine | < 1.37 | < 1.8 | < 0.807 |
| Lincomycin | | | |
| Lomefloxacin | | | |
| Miconazole | | | |
| Norfloxacin | | | |
| Norgestimate | | | |
| Ofloxacin | | | |
| Ormetoprim | | | |
| Oxacillin | | | |
| Oxolinic Acid | | | |
| Penicillin G | | | |
| Penicillin V | | | |
| Roxithromycin | | | |
| Sarafloxacin | | | |
| Sulfachloropyridazine | < 0.834 | < 0.991 | < 0.807 |
| Sulfadiazine | < 0.834 | < 0.991 | < 0.807 |
| Sulfadimethoxine | < 0.254 | < 0.198 | < 0.161 |
| Sulfamerazine | < 0.367 | < 0.468 | < 0.373 |
| Sulfamethazine | < 0.989 | < 0.817 | < 0.39 |
| Sulfamethizole | < 0.334 | < 0.396 | < 0.323 |
| Sulfamethoxazole | < 0.334 | < 0.396 | < 0.323 |
| Sulfanilamide | < 8.48 | < 9.91 | < 8.07 |
| Sulfathiazole | < 0.834 | < 0.991 | < 0.807 |
| Thiabendazole | | | |
| Trimethoprim | | | |
| Tylosin | | | |
| Virginiamycin M1 | | | |
| List 2 - Tetracyclines in Positive Ionization | | | |

| | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 |
|---|-----------|--------------------------|----------|
| Anhydrochlortetracycline [ACTC] | | | |
| Anhydrotetracycline [ATC] | | | |
| Chlortetracycline [CTC] | | | |
| Demeclocycline | | | |
| Doxycycline | | | |
| 4-Epianhydrochlortetracycline [EACTC] | | | |
| 4-Epianhydrotetracycline [EATC] | | | |
| 4-Epichlortetracycline [ECTC] | | | |
| 4-Epioxytetracycline [EOTC] | | | |
| 4-Epitetracycline [ETC] | | | |
| Isochlortetracycline [ICTC] | | | |
| Minocycline | | | |
| Oxytetracycline [OTC] | | | |
| Tetracycline [TC] | | | |
| List 3 - Acid Extraction in Negative Ionization | | | |
| Bisphenol A | < 3.34 | < 3.96 | < 3.23 |
| Furosemide | < 2.22 | < 2.64 | < 2.15 |
| Gemfibrozil | < 0.445 | < 0.528 | < 0.43 |
| Glipizide | < 0.445 | < 0.528 | < 0.43 |
| Glyburide | < 0.445 | < 0.528 | < 0.43 |
| Hydrochlorothiazide | < 4.89 | < 5.81 | < 4.73 |
| 2-Hydroxy-ibuprofen | < 2.22 | < 2.64 | < 2.15 |
| Ibuprofen | < 2.22 | < 2.64 | < 2.15 |
| Naproxen | < 1.11 | < 1.32 | < 1.08 |
| Triclocarban | < 0.222 | < 0.264 | 0.296 |
| Triclosan | < 3.34 | < 3.96 | < 3.23 |
| Warfarin | < 0.222 | < 0.264 | < 0.215 |
| List 4 - Basic Extraction in Positive Ionization | | | |
| Albuterol | < 0.175 | < 0.203 | < 0.158 |
| Amphetamine | < 0.874 | < 1.01 | < 0.79 |
| Atenolol | < 0.35 | < 0.436 | < 0.316 |
| Atorvastatin | | | |
| Cimetidine | < 0.35 | < 0.406 | < 0.316 |
| Clonidine | < 0.874 | < 1.01 | < 0.79 |
| Codeine | < 1.75 | < 2.03 | < 1.58 |
| Cotinine | < 0.874 | < 1.01 | < 0.79 |

| | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 |
|---|-----------|--------------------------|----------|
| Enalapril | < 0.175 | < 0.203 | < 0.158 |
| Hydrocodone | < 0.874 | < 1.01 | < 0.79 |
| Metformin | < 1.75 | < 2.03 | 10 |
| Oxycodone | < 0.35 | < 0.406 | < 0.316 |
| Ranitidine | < 0.35 | < 0.406 | < 0.316 |
| Triamterene | < 0.175 | < 0.203 | < 0.158 |
| <i>List 5 - Acid Extraction in Positive Ionization</i> | | | |
| Alprazolam | < 0.167 | < 0.198 | < 0.161 |
| Amitriptyline | < 2.81 | < 2.17 | < 2.15 |
| Amlodipine | | | |
| Benzoylcegonine | < 0.167 | < 0.198 | < 0.161 |
| Benztropine | | | |
| Betamethasone | < 5.39 | < 8.68 | < 3.19 |
| Cocaine | < 0.0834 | < 0.0991 | < 0.0807 |
| DEET | 0 | 0 | 0 |
| Desmethyldiltiazem | | | |
| Diazepam | < 0.167 | < 0.198 | < 0.161 |
| Fluocinonide | < 3.34 | < 3.96 | < 3.23 |
| Fluticasone propionate | | | |
| Hydrocortisone | < 33.4 | < 39.6 | < 32.3 |
| 10-hydroxy-amitriptyline | | | |
| Meprobamate | | | |
| Methylprednisolone | < 2.25 | < 2.67 | < 2.17 |
| Metoprolol | | < 31.8 | < 0.807 |
| Norfluoxetine | < 1.3 | < 1.73 | < 2.17 |
| Norverapamil | | | |
| Paroxetine | < 3.42 | < 4.34 | < 4.04 |
| Prednisolone | | | |
| Prednisone | | | |
| Promethazine | | | |
| Propoxyphene | < 1.43 | < 0.981 | < 1.19 |
| Propranolol | < 1.11 | < 1.32 | < 1.08 |
| Sertraline | | | |
| Simvastatin | | | |
| Theophylline | < 33.4 | < 39.6 | < 32.3 |
| Trenbolone | < 2.25 | < 2.67 | < 2.17 |
| Trenbolone acetate | < 0.206 | < 0.286 | < 0.161 |
| Valsartan | | | |

| | PTP2-STH1 | PTP2-STH1 (Duplicate) | PTP2-SI1 |
|---|-----------|--------------------------|----------|
| Verapamil | < 0.0834 | < 0.0991 | < 0.0807 |
| <i>List 6 - Acid Extraction in Positive Ionization</i> | | | |
| Amsacrine | | | |
| Azathioprine | < 1.11 | < 1.32 | < 1.08 |
| Busulfan | < 2.22 | < 2.81 | < 2.15 |
| Citalopram | | | |
| Clotrimazole | | | |
| Colchicine | < 0.502 | < 2.32 | < 0.43 |
| Cyclophosphamide | < 0.445 | < 0.528 | < 0.43 |
| Daunorubicin | | | |
| Diatrizoic acid | < 17.7 | < 15.9 | < 12.9 |
| Doxorubicin | | | |
| Drospirenone | < 4.45 | < 5.28 | < 4.3 |
| Etoposide | < 1.11 | < 1.32 | < 1.08 |
| Iopamidol | < 44.5 | < 52.8 | < 43 |
| Medroxyprogesterone Acetate | < 2.22 | < 2.64 | < 2.15 |
| Melphalan | | | |
| Metronidazole | < 2.22 | < 2.64 | < 2.15 |
| Moxifloxacin | | | |
| Oxazepam | < 2.22 | < 2.64 | < 2.15 |
| Rosuvastatin | < 2.22 | < 2.64 | < 2.15 |
| Tamoxifen | | | |
| Teniposide | < 2.22 | < 2.64 | < 2.15 |
| Venlafaxine | | | |
| Zidovudine | < 13.3 | < 18.3 | < 12.9 |

Table 17. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for metals. < = values below reporting limit (RL).

| | Units | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 |
|----------------------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| Total Organic Carbon (TOC) | (%) | 0.526 | 1.08 | 0.753 | 1.49 | 0.401 | 1.34 | 1.18 | 1.63 |
| Metals | | | | | | | | | |
| aluminum | mg/kg | 13300 | 16600 | 9600 | 18200 | 13900 | 20500 | 20200 | 22100 |
| antimony | mg/kg | 0.18 | 0.24 | 0.24 | 0.44 | 0.47 | 0.54 | 0.52 | 0.47 |
| arsenic | mg/kg | 6.44 | 6.22 | 5.19 | 8.95 | 6.83 | 9.67 | 8.84 | 11.5 |
| barium | mg/kg | 27.7 | 39.4 | 27.4 | 51.3 | 65.8 | 59.1 | 62.9 | 60.5 |
| beryllium | mg/kg | 0.32 | 0.37 | 0.22 | 0.42 | 0.34 | 0.48 | 0.44 | 0.50 |
| bismuth | mg/kg | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 | 0.22 | <0.20 |
| boron | mg/kg | 19.2 | 25.0 | 11.8 | 29.2 | 12.0 | 28.2 | 23.4 | 37.5 |
| cadmium | mg/kg | 0.170 | 0.165 | 0.064 | 0.159 | 0.169 | 0.133 | 0.182 | 0.149 |
| calcium | mg/kg | 5310 | 6820 | 4960 | 7170 | 7920 | 7530 | 8260 | 7660 |
| chromium | mg/kg | 27.4 | 31.8 | 30.7 | 40.1 | 38.2 | 46.4 | 49.1 | 47.2 |
| cobalt | mg/kg | 7.39 | 7.86 | 8.50 | 10.8 | 11.9 | 14.2 | 14.3 | 12.4 |
| copper | mg/kg | 11.3 | 19.2 | 13.2 | 30.3 | 28.7 | 36.4 | 39.5 | 34.0 |
| iron | mg/kg | 26400 | 26600 | 20300 | 31400 | 28000 | 36600 | 35600 | 36200 |
| lead | mg/kg | 5.66 | 7.92 | 3.83 | 9.40 | 6.33 | 11.3 | 9.60 | 11.3 |
| lithium | mg/kg | 19.3 | 20.8 | 10.9 | 20.9 | 14.0 | 22.6 | 21.4 | 24.6 |
| magnesium | mg/kg | 7510 | 8820 | 8260 | 11800 | 10600 | 13600 | 14000 | 13600 |
| manganese | mg/kg | 231 | 261 | 258 | 369 | 406 | 556 | 430 | 484 |
| mercury | mg/kg | 0.0306 | 0.0473 | 0.0278 | 0.0648 | 0.0415 | 0.0771 | 0.0702 | 0.0752 |
| molybdenum | mg/kg | 0.27 | 0.47 | 0.37 | 0.74 | 0.81 | 0.87 | 1.10 | 0.80 |
| nickel | mg/kg | 19.7 | 24.4 | 30.9 | 36.5 | 41.1 | 42.9 | 46.9 | 40.5 |
| phosphorus | mg/kg | 660 | 733 | 580 | 973 | 683 | 952 | 1020 | 1110 |
| potassium | mg/kg | 1840 | 2440 | 1220 | 2760 | 1600 | 3210 | 2730 | 3520 |
| selenium | mg/kg | <0.20 | 0.43 | <0.20 | 0.50 | 0.28 | 0.53 | 0.44 | 0.72 |
| silver | mg/kg | <0.10 | <0.10 | <0.10 | 0.12 | 0.10 | 0.12 | 0.17 | 0.12 |
| sodium | mg/kg | 5840 | 10500 | 5130 | 16100 | 8300 | 18100 | 14400 | 22100 |
| strontium | mg/kg | 35.8 | 54.0 | 34.4 | 56.7 | 48.6 | 61.2 | 57.2 | 66.0 |
| sulfur | mg/kg | <1000 | 2000 | <1000 | 2100 | <1000 | 1900 | 2200 | 2700 |
| thallium | mg/kg | 0.108 | 0.090 | 0.082 | 0.083 | 0.076 | 0.102 | 0.101 | 0.092 |
| tin | mg/kg | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| titanium | mg/kg | 826 | 952 | 793 | 902 | 906 | 923 | 1100 | 1100 |
| tungsten | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| uranium | mg/kg | 0.432 | 0.626 | 0.406 | 0.814 | 0.632 | 1.02 | 0.922 | 0.992 |
| vanadium | mg/kg | 45.7 | 51.7 | 41.1 | 58.0 | 50.3 | 66.8 | 66.0 | 70.1 |
| zinc | mg/kg | 55.2 | 63.8 | 45.9 | 78.8 | 66.0 | 87.6 | 89.0 | 87.3 |
| zirconium | mg/kg | 5.8 | 7.0 | 5.6 | 6.7 | 7.7 | 7.9 | 8.4 | 8.0 |
| Extractable Metals | | | | | | | | | |
| cadmium | µmole/g | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 |
| copper | µmole/g | 0.041 | 0.090 | 0.048 | 0.164 | 0.172 | 0.208 | 0.182 | 0.160 |

| | Units | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 |
|-------------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| lead | µmole/g | 0.027 | 0.038 | <0.020 | 0.044 | 0.028 | 0.060 | 0.041 | 0.054 |
| mercury | µmole/g | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| nickel | µmole/g | <0.050 | 0.066 | 0.080 | 0.111 | 0.129 | 0.131 | 0.121 | 0.095 |
| zinc | µmole/g | 0.251 | 0.278 | 0.165 | 0.309 | 0.216 | 0.382 | 0.323 | 0.314 |
| Speciated Metals | | | | | | | | | |
| methylmercury (as MeHg) | µg/kg | <0.050 | 0.103 | <0.050 | <0.050 | 0.076 | 0.134 | 0.264 | 0.059 |

| | Units | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 |
|----------------------------|-------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Total Organic Carbon (TOC) | (%) | 1.59 | 1.55 | 1.28 | 0.401 | 1.42 | 1.85 | 2.46 | 1.54 |
| Metals | | | | | | | | | |
| aluminum | mg/kg | 21400 | 20000 | 21200 | 11800 | 22400 | 23100 | 23500 | 24200 |
| antimony | mg/kg | 0.46 | 0.48 | 0.50 | 0.20 | 0.53 | 0.69 | 1.56 | 0.57 |
| arsenic | mg/kg | 12.3 | 10.1 | 8.99 | 3.68 | 9.48 | 7.92 | 6.99 | 9.29 |
| barium | mg/kg | 59.4 | 54.8 | 61.5 | 48.3 | 66.1 | 66.4 | 72.0 | 65.5 |
| beryllium | mg/kg | 0.46 | 0.42 | 0.48 | 0.19 | 0.50 | 0.56 | 0.55 | 0.58 |
| bismuth | mg/kg | <0.20 | <0.20 | 0.23 | <0.20 | 0.24 | 0.25 | 0.26 | 0.24 |
| boron | mg/kg | 36.1 | 34.0 | 26.2 | 9.0 | 32.2 | 44.9 | 73.4 | 44.0 |
| cadmium | mg/kg | 0.152 | 0.126 | 0.158 | 0.077 | 0.145 | 0.195 | 0.525 | 0.205 |
| calcium | mg/kg | 6890 | 6480 | 7810 | 4600 | 7770 | 7640 | 9130 | 7780 |
| chromium | mg/kg | 41.5 | 41.5 | 48.1 | 21.2 | 48.5 | 45.6 | 44.4 | 50.1 |
| cobalt | mg/kg | 13.0 | 11.8 | 13.2 | 6.94 | 13.4 | 19.4 | 24.4 | 16.9 |
| copper | mg/kg | 32.6 | 30.5 | 39.5 | 17.6 | 38.2 | 42.9 | 54.3 | 38.8 |
| iron | mg/kg | 34200 | 32400 | 34400 | 19700 | 36400 | 36100 | 36100 | 40900 |
| lead | mg/kg | 11.4 | 11.2 | 11.1 | 3.85 | 13.0 | 18.5 | 20.3 | 16.3 |
| lithium | mg/kg | 23.0 | 21.5 | 22.4 | 7.9 | 23.5 | 25.5 | 27.6 | 26.2 |
| magnesium | mg/kg | 13700 | 12200 | 13600 | 6210 | 13600 | 14800 | 18900 | 14800 |
| manganese | mg/kg | 980 | 625 | 410 | 289 | 462 | 839 | 6100 | 579 |
| mercury | mg/kg | 0.0750 | 0.0702 | 0.0824 | 0.0276 | 0.0842 | 0.109 | 0.128 | 0.0988 |
| molybdenum | mg/kg | 0.82 | 0.72 | 0.85 | 0.39 | 1.01 | 0.87 | 1.44 | 0.89 |
| nickel | mg/kg | 38.7 | 36.1 | 43.1 | 15.9 | 42.3 | 42.1 | 46.2 | 43.5 |
| phosphorus | mg/kg | 1080 | 945 | 958 | 465 | 905 | 824 | 858 | 932 |
| potassium | mg/kg | 3500 | 3280 | 3060 | 1380 | 3620 | 4750 | 5330 | 4530 |
| selenium | mg/kg | 0.63 | 0.60 | 0.56 | <0.20 | 0.56 | 0.85 | 1.47 | 0.72 |
| silver | mg/kg | 0.14 | 0.10 | 0.18 | <0.10 | 0.14 | 0.12 | 0.13 | 0.11 |
| sodium | mg/kg | 23000 | 20100 | 15200 | 5270 | 18800 | 28000 | 38200 | 22700 |
| strontium | mg/kg | 65.3 | 58.6 | 58.5 | 39.1 | 66.2 | 67.9 | 86.4 | 67.9 |
| sulfur | mg/kg | 2500 | 2200 | 1900 | <1000 | 2000 | 3200 | 3800 | 2500 |
| thallium | mg/kg | 0.078 | 0.081 | 0.097 | <0.050 | 0.092 | 0.096 | 0.103 | 0.096 |
| tin | mg/kg | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| titanium | mg/kg | 959 | 934 | 1090 | 715 | 1060 | 948 | 982 | 939 |
| tungsten | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| uranium | mg/kg | 0.834 | 0.885 | 0.917 | 0.464 | 1.08 | 1.25 | 1.24 | 1.29 |
| vanadium | mg/kg | 68.3 | 64.5 | 66.2 | 49.3 | 71.5 | 73.8 | 106 | 76.0 |

| | Units | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 |
|---------------------------|---------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| zinc | mg/kg | 82.8 | 79.1 | 89.0 | 40.6 | 92.7 | 108 | 136 | 105 |
| zirconium | mg/kg | 6.0 | 7.0 | 8.0 | 4.6 | 8.3 | 7.8 | 6.4 | 6.2 |
| Extractable Metals | | | | | | | | | |
| cadmium | µmole/g | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0050 |
| copper | µmole/g | 0.181 | 0.223 | 0.228 | 0.092 | 0.216 | 0.246 | 0.354 | 0.198 |
| lead | µmole/g | 0.063 | 0.077 | 0.057 | 0.020 | 0.067 | 0.080 | 0.119 | 0.079 |
| mercury | µmole/g | 0.000080 | 0.000080 | <0.000050 | <0.000050 | <0.000050 | 0.000080 | 0.000100 | 0.000065 |
| nickel | µmole/g | 0.114 | 0.133 | 0.124 | <0.050 | 0.126 | 0.133 | 0.201 | 0.109 |
| zinc | µmole/g | 0.373 | 0.440 | 0.384 | 0.126 | 0.405 | 0.508 | 0.841 | 0.445 |
| Speciated Metals | | | | | | | | | |
| methylmercury (as MeHg) | µg/kg | 0.100 | <0.050 | <0.050 | <0.050 | 0.294 | 0.082 | <0.050 | 0.377 |

| | Units | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2-STH1 | PTP2-SI1 | PTP2-GINP1 | PTP2-EH2 |
|----------------------------|-------|-----------|-----------|-----------|---------|-----------|----------|------------|----------|
| Total Organic Carbon (TOC) | (%) | 0.699 | 1.18 | 1.85 | 4.63 | 0.691 | 0.155 | | |
| Metals | | | | | | | | | |
| aluminum | mg/kg | 11400 | 15100 | 24100 | 15200 | 16300 | 9160 | 9340 | 13600 |
| antimony | mg/kg | 0.15 | 0.19 | 0.88 | 0.40 | 0.42 | 0.18 | 0.13 | 0.12 |
| arsenic | mg/kg | 5.32 | 6.09 | 12.0 | 13.8 | 5.95 | 5.36 | 3.00 | 4.16 |
| barium | mg/kg | 24.1 | 37.3 | 73.5 | 68.5 | 77.0 | 36.7 | 25.1 | 28.0 |
| beryllium | mg/kg | 0.28 | 0.36 | 0.53 | 0.24 | 0.38 | 0.19 | 0.19 | 0.26 |
| bismuth | mg/kg | <0.20 | <0.20 | 0.24 | <0.20 | <0.20 | <0.20 | <0.20 | <0.20 |
| boron | mg/kg | 19.0 | 28.5 | 54.1 | 55.2 | 10.9 | <5.0 | 16.7 | 15.2 |
| cadmium | mg/kg | 0.148 | 0.146 | 0.240 | 3.26 | 0.174 | 0.078 | 0.216 | 0.298 |
| calcium | mg/kg | 18900 | 8070 | 8110 | 9740 | 9240 | 4530 | 75400 | 4400 |
| chromium | mg/kg | 27.1 | 31.2 | 47.4 | 27.0 | 58.2 | 26.9 | 17.0 | 22.9 |
| cobalt | mg/kg | 7.33 | 7.52 | 19.4 | 5.14 | 15.9 | 9.45 | 4.41 | 5.78 |
| copper | mg/kg | 11.5 | 17.5 | 40.0 | 95.2 | 34.2 | 13.4 | 9.17 | 14.0 |
| iron | mg/kg | 23300 | 26500 | 39500 | 16000 | 32200 | 20600 | 15400 | 20700 |
| lead | mg/kg | 4.82 | 7.56 | 16.2 | 18.6 | 5.83 | 3.82 | 3.97 | 6.72 |
| lithium | mg/kg | 15.4 | 21.2 | 27.1 | 12.6 | 13.2 | 8.1 | 11.8 | 19.2 |
| magnesium | mg/kg | 7690 | 9090 | 16300 | 7960 | 15400 | 7160 | 6190 | 7130 |
| manganese | mg/kg | 219 | 247 | 4690 | 205 | 483 | 500 | 151 | 179 |
| mercury | mg/kg | 0.0286 | 0.0566 | 0.0957 | 0.155 | 0.0424 | 0.0160 | 0.0226 | 0.0484 |
| molybdenum | mg/kg | 0.43 | 0.46 | 1.71 | 5.68 | 0.74 | 0.48 | 0.34 | 0.34 |
| nickel | mg/kg | 21.2 | 23.4 | 43.2 | 17.8 | 71.9 | 30.9 | 11.9 | 15.7 |
| phosphorus | mg/kg | 606 | 719 | 1070 | 1410 | 789 | 549 | 626 | 692 |
| potassium | mg/kg | 1700 | 2450 | 4350 | 2970 | 1790 | 640 | 1420 | 1720 |
| selenium | mg/kg | 0.25 | 0.38 | 0.95 | 1.47 | 0.23 | <0.20 | 0.25 | 0.22 |
| silver | mg/kg | <0.10 | <0.10 | 0.11 | 0.34 | 0.11 | <0.10 | <0.10 | <0.10 |
| sodium | mg/kg | 7120 | 13500 | 29500 | 17500 | 7320 | 1470 | 6960 | 7620 |
| strontium | mg/kg | 74.3 | 56.4 | 88.2 | 80.1 | 59.1 | 23.0 | 597 | 35.3 |

| | Units | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2-STH1 | PTP2-SI1 | PTP2-GINP1 | PTP2-EH2 |
|---------------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|
| sulfur | mg/kg | 1600 | 2600 | 3000 | 9700 | <1000 | <1000 | 1600 | 1600 |
| thallium | mg/kg | 0.122 | 0.086 | 0.094 | 0.400 | 0.078 | 0.056 | 0.115 | 0.168 |
| tin | mg/kg | <2.0 | <2.0 | <2.0 | 6.3 | <2.0 | <2.0 | <2.0 | <2.0 |
| titanium | mg/kg | 755 | 900 | 946 | 666 | 1060 | 714 | 607 | 858 |
| tungsten | mg/kg | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| uranium | mg/kg | 0.545 | 0.588 | 0.936 | 2.78 | 0.630 | 0.320 | 0.605 | 0.603 |
| vanadium | mg/kg | 46.3 | 51.8 | 88.3 | 39.2 | 59.4 | 43.2 | 32.5 | 41.5 |
| zinc | mg/kg | 46.3 | 62.3 | 105 | 89.0 | 69.3 | 43.1 | 36.0 | 52.1 |
| zirconium | mg/kg | 4.1 | 6.0 | 6.8 | 2.3 | 11.0 | 4.6 | 3.0 | 5.4 |
| Extractable Metals | | | | | | | | | |
| cadmium | µmole/g | <0.0050 | <0.0050 | <0.0050 | 0.0219 | <0.0050 | <0.0050 | <0.0050 | <0.0050 |
| copper | µmole/g | 0.039 | 0.078 | 0.326 | 0.034 | 0.201 | 0.050 | 0.040 | 0.060 |
| lead | µmole/g | 0.022 | 0.038 | 0.111 | 0.093 | 0.033 | <0.020 | <0.020 | 0.033 |
| mercury | µmole/g | <0.000050 | <0.000050 | 0.000319 | <0.000050 | <0.000050 | <0.000050 | <0.000050 | <0.000050 |
| nickel | µmole/g | <0.050 | 0.068 | 0.186 | <0.050 | 0.322 | 0.063 | <0.050 | <0.050 |
| zinc | µmole/g | 0.168 | 0.280 | 0.724 | 0.652 | 0.248 | 0.123 | 0.165 | 0.252 |
| Speciated Metals | | | | | | | | | |
| methylmercury (as MeHg) | µg/kg | 0.149 | 0.456 | 0.432 | 0.168 | 0.741 | <0.050 | 0.394 | 0.461 |

Table 18. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for Dioxins (PCDD) and Furans (PCDF). All values are reported in pg/g dry weight. < = values below reporting limit (RL).

| | SRKW19-1 | SRKW19-1 (Duplicate) | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 |
|-------------------------|------------|-------------------------|------------|-------------|-------------|-------------|------------|-------------|-----------|
| 2,3,7,8-TCDD | 0.11(NDR) | 0.162 | 0.176(NDR) | 0.0616(NDR) | 0.197(NDR) | 0.0648(NDR) | 0.229(NDR) | 0.109(NDR) | 0.21(NDR) |
| 1,2,3,7,8-PECDD | 0.211 | 0.503 | 0.349 | 0.104 | 0.43 | 0.129(NDR) | 1.12 | 0.264 | 0.703 |
| 1,2,3,4,7,8-HXCDD | 0.155 | 0.324 | 0.29 | 0.0994(NDR) | 0.284(NDR) | 0.149 | 0.753 | 0.297 | 0.472 |
| 1,2,3,6,7,8-HXCDD | 0.8478 | 1.1898 | 1.2798 | 0.3048(NDR) | 1.4998 | 0.2988(NDR) | 5.35 | 1.0798 | 2.8398 |
| 1,2,3,7,8,9-HXCDD (225) | 0.732(NDR) | 0.917(NDR) | 1.34(NDR) | 0.373(NDR) | 1.83(NDR) | 0.653(NDR) | 3.09(NDR) | 1.17(NDR) | 2.48(NDR) |
| 1,2,3,7,8,9-HXCDD | 0.55 | 0.754(NDR) | 1.035 | 0.312 | 1.325(NDR) | 0.547(NDR) | 3.64 | 0.849 | 2.205 |
| 1,2,3,4,6,7,8-HPCDD | 4.86 | 5.74 | 10.26 | 2.8 | 14.76 | 6.74 | 26.915 | 12.26 | 20.86 |
| OCDD | 24.454 | 27.054 | 83.054 | 21.854 | 104.554 | 60.454 | 186.826 | 100.554 | 136.554 |
| 2,3,7,8-TCDF (225) | 0.559 | 0.601 | 0.72 | 0.258 | 0.747 | 0.11 | 2.38 | 0.428 | 1.29 |
| 2,3,7,8-TCDF | 0.736 | 0.924 | 1.1(NDR) | 0.367 | 1.19 | 0.192(NDR) | 3.27 | 0.667(NDR) | 1.96 |
| 1,2,3,7,8-PECDF | 0.0216 | 0.2394(NDR) | 0.0824 | < 0.08 | 0.0864 | < 0.046 | 0.451 | 0.0342 | 0.1454 |
| 2,3,4,7,8-PECDF | 0.102 | 0.261(NDR) | 0.218(NDR) | < 0.08 | 0.21(NDR) | < 0.046 | 0.545 | 0.0845(NDR) | 0.279 |
| 1,2,3,4,7,8-HXCDF | 0.0923 | 0.2063(NDR) | 0.1693 | 0 | 0.1793 | < 0.046 | 0.601 | 0.1073 | 0.3203 |
| 1,2,3,6,7,8-HXCDF | 0.0804 | 0.278(NDR) | 0.14(NDR) | < 0.047 | 0.118 | < 0.046 | 0.487 | 0.115(NDR) | 0.219 |
| 1,2,3,7,8,9-HXCDF | 0 | 0.2009 | 0.0139 | < 0.047 | 0.0049(NDR) | < 0.046 | 0.2661 | 0 | 0 |
| 2,3,4,6,7,8-HXCDF | 0.0835 | 0.36 | 0.144 | < 0.047 | 0.17 | < 0.046 | 0.525 | 0.138(NDR) | 0.222 |
| 1,2,3,4,6,7,8-HPCDF | 1.043 | 1.283(NDR) | 2.173 | 0.436 | 2.353 | 0.421 | 5.3957 | 2.073 | 4.463 |
| 1,2,3,4,7,8,9-HPCDF | 0.0517 | 0.332(NDR) | 0.126 | < 0.047 | 0.121(NDR) | 0.0553(NDR) | 0.415 | 0.0965(NDR) | 0.214 |
| OCDF | 1.53 | 1.95 | 3.06 | 0.635 | 4.76 | 1.45(NDR) | 7.9412 | 4.41 | 6.93 |
| TOTAL TETRA-DIOXINS | 0.973 | 0.731 | 1.71 | 0.751 | 2.62 | 2.27 | 5.16 | 2.86 | 5.03 |
| TOTAL PENTA-DIOXINS | 0.927 | 1.17 | 2.51 | 0.511 | 2.03 | 0.539 | 8.1 | 1.82 | 5.24 |
| TOTAL HEXA-DIOXINS | 7.315 | 7.635 | 11.755 | 3.465 | 12.855 | 4.495 | 39.8 | 9.955 | 27.455 |
| TOTAL HEPTA-DIOXINS | 11.16 | 12.36 | 24.46 | 7.37 | 38.16 | 19.36 | 60.915 | 30.36 | 51.76 |
| TOTAL TETRA-FURANS | 4.43 | 2.78 | 3.62 | 1.53 | 6.73 | 0.131 | 10.9 | 2.29 | 7.79 |
| TOTAL PENTA-FURANS | 1.53 | 1.15 | 2.22 | 0.258 | 2.1 | 0.273 | 5.09 | 0.695 | 4.24 |
| TOTAL HEXA-FURANS | 1.5039 | 1.9739 | 3.1439 | 0.5419 | 3.0139 | 0.3989 | 8.5 | 2.9239 | 6.0139 |
| TOTAL HEPTA-FURANS | 2.468 | 1.198 | 5.348 | 1.068 | 5.978 | 0.366 | 13.4 | 5.858 | 11.008 |

| | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 |
|-------------------------|-----------|------------|------------|-------------|------------|-----------|-----------|------------|-------------|
| 2,3,7,8-TCDD | 0.292 | 0.265(NDR) | 0.198(NDR) | < 0.059 | 0.182 | 0.456 | 0.645 | 0.487(NDR) | 0.112 |
| 1,2,3,7,8-PECDD | 0.831 | 1.09 | 0.682 | 0.0275(NDR) | 0.6066 | 1.8256 | 4.25 | 1.6256 | 0.1016(NDR) |
| 1,2,3,4,7,8-HXCDD | 0.465 | 0.833(NDR) | 0.489 | 0.114(NDR) | 0.447(NDR) | 1.04 | 1.65 | 0.929(NDR) | 0.13 |
| 1,2,3,6,7,8-HXCDD | 3.8998 | 5.8798 | 3.4398 | 0.499 | 4.51 | 15.1 | 39.3298 | 12.5 | 0.54 |
| 1,2,3,7,8,9-HXCDD (225) | 2.76(NDR) | 3.47(NDR) | 2.41(NDR) | 0.304 | 2.3 | 7.88 | 20.2 | 6.28 | 0.18(NDR) |
| 1,2,3,7,8,9-HXCDD | 2.705 | 3.865 | 2.545 | 0.399 | 2.73 | 8.87 | 20.625 | 6.96 | 0.426 |
| 1,2,3,4,6,7,8-HPCDD | 22.46 | 31.46 | 30.76 | 4.486 | 28.046 | 45.646 | 82.46 | 44.446 | 4.246 |

| | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 | SRKW19-17 |
|---------------------|----------|-----------|-----------|-------------|------------|-------------|-----------|-----------|-------------|
| OCDD | 161.554 | 195.554 | 211.554 | 37.653 | 183.653 | 233.653 | 352.554 | 246.653 | 25.053 |
| 2,3,7,8-TCDF (225) | 1.89 | 2.81 | 1.45 | 0.223 | 2.38 | 7.78 | 13.9 | 6.36 | 0.214 |
| 2,3,7,8-TCDF | 2.7 | 4.11 | 2.02 | 0.317 | 3.03 | 10.2 | 17.8 | 8.11 | 0.466 |
| 1,2,3,7,8-PECDF | 0.2034 | 0.2914 | 0.1704 | < 0.059 | 0.1155 | 0.4775 | 0.7874 | 0.4505 | 0.0425(NDR) |
| 2,3,4,7,8-PECDF | 0.344 | 0.443 | 0.27 | 0.0678(NDR) | 0.352 | 1.01 | 1.58 | 0.782 | 0.1(NDR) |
| 1,2,3,4,7,8-HXCDF | 0.3483 | 0.4053 | 0.4083 | 0.0047 | 0.3662 | 0.9462(NDR) | 1.6863 | 0.7322 | 0.0462(NDR) |
| 1,2,3,6,7,8-HXCDF | 0.196 | 0.303 | 0.311 | < 0.059 | 0.2237 | 0.5477 | 0.882 | 0.5107 | 0.0477(NDR) |
| 1,2,3,7,8,9-HXCDF | 0.0199 | 0.0199 | 0 | < 0.059 | 0.049(NDR) | 0.088(NDR) | 0.0239 | 0.087 | 0 |
| 2,3,4,6,7,8-HXCDF | 0.303 | 0.43 | 0.32 | < 0.059 | 0.3525 | 0.7275 | 1.32 | 0.6455 | 0.0099 |
| 1,2,3,4,6,7,8-HPCDF | 5.023 | 7.953 | 9.453 | 1.0604 | 9.0304 | 12.5004 | 36.563 | 14.0004 | 0.9904 |
| 1,2,3,4,7,8,9-HPCDF | 0.266 | 0.316 | 0.352 | 0.0067(NDR) | 0.3177 | 0.5717(NDR) | 0.872 | 0.5417 | < 0.061 |
| OCDF | 7.39 | 11.27 | 12.87 | 1.563 | 12.793 | 14.893 | 34.47 | 16.393 | 1.453 |
| TOTAL TETRA-DIOXINS | 4.41 | 6.32 | 5.02 | 0.499 | 2.09 | 6.18 | 15.4 | 8.97 | 0.324 |
| TOTAL PENTA-DIOXINS | 5.49 | 8.56 | 5.93 | 0.231 | 4.12 | 15.9 | 29.3 | 13.3 | 0.342 |
| TOTAL HEXA-DIOXINS | 33.455 | 50.055 | 32.855 | 3.78 | 32.9 | 111 | 278.855 | 87.2 | 4.74 |
| TOTAL HEPTA-DIOXINS | 53.76 | 74.66 | 72.06 | 10.6 | 64.5 | 95.5 | 175.86 | 97.8 | 9.91 |
| TOTAL TETRA-FURANS | 13.7 | 14.6 | 9.38 | 0.762 | 7.06 | 26.5 | 52 | 23.5 | 0.933 |
| TOTAL PENTA-FURANS | 5.27 | 7.12 | 5.57 | 0.253 | 5.39 | 11.3 | 23.4 | 11.7 | 0.9 |
| TOTAL HEXA-FURANS | 7.5539 | 11.3039 | 12.8039 | 1.412 | 11.652 | 17.252 | 33.7039 | 18.852 | 1.062 |
| TOTAL HEPTA-FURANS | 12.508 | 19.708 | 25.908 | 2.92 | 24.9 | 29.3 | 75.308 | 33.9 | 2.42 |

| | SRKW19-17 (Duplicate) | SRKW19-18 | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) | PTP2-PH | PTP2-GINP1 | PTP2-EH2 |
|-------------------------|--------------------------|-------------|-------------|-------------------|-------------|-------------------|------------|-------------|-------------|
| 2,3,7,8-TCDD | < 0.061 | 0.181(NDR) | 0.449 | < 0.156 | 0.104(NDR) | 0.0634(NDR) | 0.271(NDR) | 0.105(NDR) | 0.179 |
| 1,2,3,7,8-PECDD | 0.2226 | 0.2006 | 1.3156 | 0.3226(NDR) | 0.1836(NDR) | 0.0676(NDR) | 1.4556 | 0.1736(NDR) | 0.2356(NDR) |
| 1,2,3,4,7,8-HXCDD | 0.204(NDR) | 0.205 | 0.656 | 0.364(NDR) | 0.194(NDR) | 0.128 | 1.02(NDR) | 0.135(NDR) | 0.196 |
| 1,2,3,6,7,8-HXCDD | 0.635 | 0.9 | 10.3 | 1.9 | 0.928 | 0.516 | 8.69 | 1.17 | 1.04 |
| 1,2,3,7,8,9-HXCDD (225) | 0.424(NDR) | 0.902(NDR) | 5.1 | 1.09 | 0.641 | 0.512(NDR) | 4.47 | 0.759 | 0.566(NDR) |
| 1,2,3,7,8,9-HXCDD | 0.579 | 0.912 | 5.82 | 1.44 | 0.936 | 0.438 | 5.04 | 0.691 | 0.767(NDR) |
| 1,2,3,4,6,7,8-HPCDD | 4.276 | 8.336 | 33.946 | 14.846 | 8.226 | 5.976 | 76.046 | 4.946 | 8.206 |
| OCDD | 26.153 | 47.253 | 195.653 | 109.653 | 56.553 | 45.653 | 457.653 | 29.153 | 46.853 |
| 2,3,7,8-TCDF (225) | 0.231 | 0.536 | 5.3 | 0.933 | 0.508 | 0.215 | 4.17 | 0.597 | 0.47 |
| 2,3,7,8-TCDF | 0.499 | 0.859 | 6.87 | 1.4 | 0.739 | 0.324 | 5.99 | 0.827 | 0.793 |
| 1,2,3,7,8-PECDF | 0.0735 | 0.0875(NDR) | 0.3575(NDR) | 0.1225 | 0.041 | 0.0209(NDR) | 0.3675 | 0.0361 | 0.0815 |
| 2,3,4,7,8-PECDF | 0.141(NDR) | 0.183(NDR) | 0.598(NDR) | 0.205 | 0.119 | < 0.059 | 0.791 | 0.0995 | 0.157 |
| 1,2,3,4,7,8-HXCDF | 0.1172 | 0.1522(NDR) | 0.7472 | 0.1632(NDR) | 0.0812(NDR) | 0.0238(NDR) | 0.9092 | 0.0982 | 0.2172 |
| 1,2,3,6,7,8-HXCDF | 0.0927 | 0.0587 | 0.3097 | 0.0807(NDR) | 0.0587(NDR) | < 0.059 | 0.4717 | 0.0607(NDR) | 0.1197 |
| 1,2,3,7,8,9-HXCDF | 0.052 | 0.0213(NDR) | 0.061(NDR) | 0.037 | 0.0042(NDR) | 0.002(NDR) | 0.11 | 0.027 | 0.0019 |
| 2,3,4,6,7,8-HXCDF | 0.0605 | 0.0485 | 0.4685 | 0.1305 | 0.0208 | 0 | 0.8285 | 0.0247(NDR) | 0.0685(NDR) |
| 1,2,3,4,6,7,8-HPCDF | 1.2104 | 2.0104 | 9.3504 | 3.0504 | 1.8804 | 1.0604 | 12.0004 | 1.0604 | 3.1404 |
| 1,2,3,4,7,8,9-HPCDF | 0.0737 | 0.0467(NDR) | 0.3897 | 0.1167(NDR) | 0.0379 | < 0.059 | 0.5437 | < 0.06 | 0.0857(NDR) |

| | SRKW19-17 (Duplicate) | SRKW19-18 | SRKW19-19 | PG19-I5 (AXYS) | SH19-I5 | PG19-F1 (AXYS) | PTP2-PH | PTP2-GINP1 | PTP2-EH2 |
|---------------------|--------------------------|-----------|-----------|-------------------|---------|-------------------|---------|------------|----------|
| OCDF | 1.543 | 3.103 | 12.993 | 5.013 | 3.203 | 1.563 | 22.493 | 1.423 | 3.363 |
| TOTAL TETRA-DIOXINS | 0.542 | 0.838 | 5.31 | 0.957 | 1.72 | 0.381 | 3.22 | 0.288 | 3.63 |
| TOTAL PENTA-DIOXINS | 0.287 | 1.04 | 7.23 | 1.68 | 0.802 | 0.323 | 8.87 | 0.652 | 1.33 |
| TOTAL HEXA-DIOXINS | 4.85 | 9.07 | 71.6 | 15.4 | 8.77 | 4.63 | 65.7 | 8.67 | 8.02 |
| TOTAL HEPTA-DIOXINS | 10.4 | 19.5 | 77.5 | 36.8 | 19.7 | 13.7 | 204 | 12.2 | 20.4 |
| TOTAL TETRA-FURANS | 1.91 | 3.73 | 16.6 | 3.99 | 2.62 | 0.659 | 18.5 | 2.61 | 2.94 |
| TOTAL PENTA-FURANS | 1.03 | 0.806 | 3.46 | 2.8 | 1.21 | 0.692 | 14.3 | 0.378 | 2.05 |
| TOTAL HEXA-FURANS | 1.272 | 2.062 | 13.052 | 3.392 | 1.792 | 0.942 | 16.252 | 1.162 | 3.342 |
| TOTAL HEPTA-FURANS | 2.65 | 4.53 | 23.2 | 7.07 | 5.00 | 2.67 | 29.8 | 2.36 | 6.68 |

| | PTP2-STH1 | PTP2-SI1 | SH19-A2 | SH19-P6 | SH19-R15 | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) (Duplicate) | PG19-M4 (AXYS) |
|-----------------------------|------------|------------|---------|-------------|-------------|-------------|-------------------|-------------------|----------------------------------|-------------------|
| 2,3,7,8-TCDD | 0.102(NDR) | < 0.058 | 0.0484 | 0.0926(NDR) | 0.0987(NDR) | 0.114 | 0.161(NDR) | 0.124(NDR) | 0.128(NDR) | 0.157(NDR) |
| 1,2,3,7,8- PECDD | 0.1066 | < 0.06 | 0.118 | 0.249 | 0.172 | 0.298(NDR) | 0.364(NDR) | 0.228(NDR) | 0.29(NDR) | 0.455 |
| 1,2,3,4,7,8- HXCDD | 0.148(NDR) | < 0.058 | 0.173 | 0.23 | 0.139 | 0.234 | 0.375 | 0.253 | 0.309 | 0.336 |
| 1,2,3,6,7,8- HXCDD | 0.334 | 0.166 | 0.408 | 0.874 | 0.692 | 1.39 | 2.69 | 1.05 | 1.01 | 2.65 |
| 1,2,3,7,8,9- HXCDD (225) | 0.539 | 0.091(NDR) | 0.508 | 0.529 | 0.531 | 0.86 | 1.17 | 0.746 | 0.834 | 1.55 |
| 1,2,3,7,8,9- HXCDD | 0.818 | 0.148 | 0.745 | 0.941 | 0.714 | 1.17 | 1.73 | 1.03 | 1.14 | 1.84 |
| 1,2,3,4,6,7,8- HPCDD | 8.266 | 1.906 | 9.084 | 10.694 | 6.954 | 10.694 | 32.094 | 12.694 | 11.294 | 18.394 |
| OCDD | 123.653 | 12.253 | 85.092 | 83.792 | 55.192 | 71.092 | 186.792 | 104.792 | 100.792 | 120.792 |
| 2,3,7,8-TCDF (225) | 0.081 | 0.085 | 0.11 | 0.373 | 0.354 | 0.73 | 0.978 | 0.423 | 0.431 | 1.48 |
| 2,3,7,8-TCDF | 0.118(NDR) | 0.126(NDR) | 0.156 | 0.583 | 0.559 | 1.12 | 1.48 | 0.623 | 0.659 | 1.92 |
| 1,2,3,7,8- PECDF | < 0.063 | < 0.058 | < 0.047 | 0.0562 | 0.0765 | 0.126 | 0.144 | 0.0711 | 0.104 | 0.11 |
| 2,3,4,7,8- PECDF | < 0.063 | < 0.058 | < 0.047 | 0.0925 | 0.0697 | 0.145(NDR) | 0.201 | 0.0869 | 0.162 | 0.169 |
| 1,2,3,4,7,8- HXCDF | < 0.063 | < 0.058 | < 0.047 | 0.132 | 0.1(NDR) | 0.179 | 0.62 | 0.134 | 0.221 | 0.307 |
| 1,2,3,6,7,8- HXCDF | < 0.063 | < 0.058 | < 0.047 | 0.0805 | 0.0687(NDR) | 0.0908 | 0.291 | 0.105 | 0.193 | 0.156 |
| 1,2,3,7,8,9- HXCDF | < 0.063 | < 0.058 | 0.056 | 0.0587 | 0.0494 | 0.0519(NDR) | 0.0896 | < 0.051 | 0.145(NDR) | 0.0536(NDR) |

| | PTP2-STH1 | PTP2-SI1 | SH19-A2 | SH19-P6 | SH19-R15 | SH19-R30 | PG19-A4 (AXYS) | PG19-G6 (AXYS) | PG19-G6 (AXYS) (Duplicate) | PG19-M4 (AXYS) |
|----------------------------|-----------|----------|---------|------------|----------|------------|-------------------|-------------------|----------------------------------|-------------------|
| 2,3,4,6,7,8- HXCDF | < 0.063 | < 0.058 | < 0.047 | 0.0713 | 0.0628 | 0.134(NDR) | 0.367 | 0.0887 | 0.189 | 0.255 |
| 1,2,3,4,6,7,8- HPCDF | 0.3294 | 0.6704 | 0.5242 | 1.4532 | 1.0632 | 1.9632 | 46.3432 | 1.9032 | 2.2732 | 4.6432 |
| 1,2,3,4,7,8,9- HPCDF | < 0.063 | < 0.058 | < 0.047 | 0.076(NDR) | 0.0672 | 0.0877 | 1.22 | 0.125 | 0.173 | 0.255 |
| OCDF | 1.053 | 1.173 | 1.4973 | 2.8173 | 1.9573 | 3.4873 | 141.9473 | 3.3673 | 3.3673 | 7.3673 |
| TOTAL TETRA- DIOXINS | 0.0955 | 0.554 | 2.97 | 2.24 | 1.64 | 2.72 | 4.09 | 2.23 | 2.62 | 3.4 |
| TOTAL PENTA- DIOXINS | 0.675 | 0.213 | 1.49 | 1.75 | 1.53 | 1.56 | 3.5 | 2.12 | 0.75 | 3.27 |
| TOTAL HEXA- DIOXINS | 5.53 | 1.63 | 6.6 | 9.65 | 7.02 | 12.5 | 21.4 | 11.3 | 10.8 | 22.2 |
| TOTAL HEPTA- DIOXINS | 21.9 | 4.51 | 23.994 | 27.394 | 16.094 | 25.294 | 62.494 | 31.694 | 28.994 | 42.994 |
| TOTAL TETRA- FURANS | < 0.063 | < 0.058 | 0.34 | 2.07 | 2.02 | 4.2 | 6.27 | 2.52 | 2.04 | 7.06 |
| TOTAL PENTA- FURANS | 0.149 | 0.321 | 0.078 | 1.07 | 0.456 | 1.82 | 4.7 | 1.39 | 1.48 | 3.24 |
| TOTAL HEXA- FURANS | 0.325 | 0.307 | 0.633 | 1.93 | 1.33 | 2.6 | 37.9 | 2.37 | 3.27 | 6.57 |
| TOTAL HEPTA- FURANS | 1.16 | 2.35 | 1.64 | 3.72 | 2.68 | 4.72 | 208 | 5.21 | 5.61 | 12.8 |

Table 19. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for Alkylphenols (APs). All values are reported in pg/g dry weight. < = values below reporting limit (RL).

| | SRKW19-1 | SRKW19-2 | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 | SRKW19-9 |
|-------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 4-Nonylphenols | 3.27 | 4.41 | 0.694 | 5.61 | 1.42 | 8.25 | 11.4 | 4.93 | 7.05 |
| 4-Nonylphenol monoethoxylates | < 0.4 | < 0.53 | < 0.465 | 2.66 | < 0.398 | < 0.856 | 4.77 | 8.25 | 3.19 |
| 4-Nonylphenol diethoxylates | 1.93 | < 0.437 | < 0.543 | < 0.468 | < 0.504 | < 1.76 | 5.26 | < 0.982 | < 6.63 |
| 4-n-Octylphenol | < 0.0758 | < 0.0757 | < 0.0539 | 0.205 | < 0.0613 | < 0.0873 | < 0.0992 | < 0.137 | < 0.0863 |

| | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-15 (Duplicate) | SRKW19-16 | SRKW19-17 |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------------|-----------|-----------|
| 4-Nonylphenols | 10.4 | 23.4 | 0.477 | 12.2 | 6.21 | 8.93 | 10.4 | 8.79 | 0.7 |
| 4-Nonylphenol monoethoxylates | 4.62 | 11.4 | < 1.14 | < 0.911 | < 1.99 | 3.94 | < 1.23 | < 1.37 | < 0.889 |
| 4-Nonylphenol diethoxylates | 8.44 | 5.15 | < 3.1 | < 1.97 | < 4.87 | < 0.904 | < 1.06 | < 1.7 | < 0.933 |
| 4-n-Octylphenol | < 0.0563 | < 0.143 | < 0.121 | < 0.276 | < 0.256 | < 0.0967 | < 0.163 | < 0.187 | < 0.221 |

| | SRKW19-17 (Duplicate) | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-S11 |
|-------------------------------|-----------------------|-----------|-----------|---------|------------|----------|-----------|----------|
| 4-Nonylphenols | 0.676 | 1.31 | 5.32 | 3.08 | 0.65 | 3.12 | < 0.194 | < 0.21 |
| 4-Nonylphenol monoethoxylates | < 1.06 | < 0.882 | < 2.32 | 3.79 | < 0.962 | < 0.59 | < 1.52 | < 0.359 |
| 4-Nonylphenol diethoxylates | < 1.25 | < 2.51 | < 1.92 | < 4.11 | < 0.915 | < 1.7 | < 2.75 | < 0.425 |
| 4-n-Octylphenol | < 0.129 | < 0.379 | < 0.402 | < 0.443 | < 0.146 | < 0.152 | < 0.118 | < 0.0462 |

Table 20. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for Chloroparaffins. All values are reported in ng/g dry weight. < = values below reporting limit (RL).

| | SER181212 | CMB181221 | HAR190319 | PTP2-SI1 | PTP2-STH1 |
|-----------------------------------|-----------|-----------|-----------|----------|-----------|
| Total Short-chain Chloroparaffin | 144.4 | 109.4 | 29.6 | 15.4 | 21.8 |
| Total Medium-chain Chloroparaffin | 169.97 | 127.97 | 58.77 | 26.77 | 48.77 |
| Total Long-chain Chloroparaffin | 67.6 | 35 | 14.1 | 3.67 | 6.36 |
| Total Chloroparaffin | 553.36 | 357.36 | 192.36 | 75.96 | 211.36 |

Table 21. Sediment samples from Sand Heads (SH) and Point Grey (PG) disposal sites, and inside and outside Southern Resident Killer Whale (SRKW) Critical Habitat sites were analyzed for 3 tributyltins (TBTs). All values are reported in ng/g dry weight. < = values below reporting limit (RL).

| | SRKW19-1 | SRKW19-2 | SRKW19-2 (Duplicate) | SRKW19-3 | SRKW19-4 | SRKW19-5 | SRKW19-6 | SRKW19-7 | SRKW19-8 |
|--------------------------|-----------|-----------|-------------------------|-----------|--------------------------|-----------|-----------|-----------|-----------|
| Tributyltin Chloride | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Dibutyltin dichloride | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Monobutyltin trichloride | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| TBT+ | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| DBT++ | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| MBT+++ | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| | SRKW19-9 | SRKW19-10 | SRKW19-11 | SRKW19-12 | SRKW19-12 (Duplicate) | SRKW19-13 | SRKW19-14 | SRKW19-15 | SRKW19-16 |
| Tributyltin Chloride | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Dibutyltin dichloride | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| Monobutyltin trichloride | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| TBT+ | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| DBT++ | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| MBT+++ | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 |
| | SRKW19-17 | SRKW19-18 | SRKW19-19 | PTP2-PH | PTP2-GINP1 | PTP2-EH2 | PTP2-STH1 | PTP2-SI1 | |
| Tributyltin Chloride | < 0.001 | < 0.001 | < 0.001 | 0.015 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | |
| Dibutyltin dichloride | < 0.001 | < 0.001 | < 0.001 | 0.005 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | |
| Monobutyltin trichloride | < 0.001 | < 0.001 | < 0.001 | 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | |
| TBT+ | < 0.001 | < 0.001 | < 0.001 | 0.013 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | |
| DBT++ | < 0.001 | < 0.001 | < 0.001 | 0.004 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | |
| MBT+++ | < 0.001 | < 0.001 | < 0.001 | 0.001 | < 0.001 | < 0.001 | < 0.001 | < 0.001 | |

| | | | | | | | | |
|----------------------------|---------------------------------|--------------------|--------------------|---------------------------------|---------------|---------------------------------|--------------------|---------------------------------|
| Average ± SE | 0.2446 ± 0.0387 | 0.1586 ± 0.0254 | 0.8040 ± 0.2214 | 0.9333 ± 0.2097 | 91.06 ± 10.76 | 95.93 ± 10.72 | 0.1070 ± 0.0159 | 0.1191 ± 0.0159 |
| % difference (fold) | + 154% (1.54x) | | | + 116% (1.16x) | | + 105% (1.05x) | | + 111% (1.11x) |
