

ATTACHMENT 6
Source Sediment Characterization

Tsawwassen Eelgrass Project – Source Sediment Characterization

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1.0 INTRODUCTION

The proposed Tsawwassen Eelgrass Project (the Project), located on Roberts Bank south of the Tsawwassen Ferry Terminal near Delta, British Columbia, is being considered as a potential project under Port Metro Vancouver's (PMV's) Habitat Enhancement Program (HEP). This Project is being undertaken in accordance with the 2012 working agreement between PMV and Fisheries and Oceans Canada entitled "Working Agreement Concerning Procedures for Development and Operation of the Port Metro Vancouver Habitat Bank". This agreement acknowledges the mutual benefits of a habitat bank to both parties, while also providing guidelines for the establishment of habitat enhancement sites. The habitat enhancement sites are developed in agreement between PMV and Fisheries and Oceans Canada.

1.1 BENEFICIAL USE– ENVIRONMENT CANADA APPROACH

As the Project will involve the placement of dredged material in subtidal areas, and is located within the boundaries of the sea as identified in the Disposal at Sea Regulation, the Project is reviewable by Environment Canada's Disposal at Sea Program. To determine whether the Project would qualify for a permit exemption, four criteria are used to assess eligibility for beneficial use:

- The dredged sediment meets standards related to chemical quality and physical suitability and will not harm the environment at the site where it will be placed;
- The placement of dredged sediment activity will not harm the marine environment or conflict with other uses of the sea;
- The sediment has the appropriate physical characteristics for its proposed use; and,
- There is a proven need for the beneficial use.

2.0 BACKGROUND

The following information is from the Project Description prepared on behalf of PMV¹. Further detail can be found in the source document.

2.1 TSAWWASSEN EELGRASS PROJECT

The Project proposes to convert three existing subtidal depressions, formed by historic dredging activities, from their current configuration into more productive habitat via the creation of eelgrass beds, thereby improving the productivity of the site. The eelgrass beds would be created by constructing rock containment berms followed by placement of fill material over the existing substrate and planting of eelgrass. The Project would result in the creation of approximately 4.8 ha (48,240 m², including: 26,290 m² at Site 1; 17,340 m² at Site 2 and 4,610 m² at Site 3) of eelgrass habitat for the benefit of juvenile salmonids and other fish and wildlife.

The location of the proposed Project is shown on **Figure 1**.

2.2 HISTORICAL USE

The following summary is described in more detail in the Project Description document:

- The Project area was originally part of the larger Roberts Bank sandy tidal flat. The area was altered with construction of the Tsawwassen Ferry Terminal causeway in 1960 and with construction of Roberts Bank (Deltaport) causeway in 1969.
- The dredge borrow channel south of the Tsawwassen Ferry Terminal causeway was created during the construction of the Tsawwassen Ferry Terminal in 1960.
- The channel is currently used by recreational boaters, and remains open due to human use and other physical conditions such as scouring from tidal currents (BCTC 2007).
- Surveys to determine baseline presence of eelgrass at Roberts Bank were undertaken between 1950 and 1959. During this time period, eelgrass habitats were estimated to cover approximately 386.2 ha, although distribution of eelgrass was reported to be relatively patchy.
- Eelgrass distribution at Roberts Bank and on the south side of the Tsawwassen Ferry Terminal causeway has increased and changed from a patchy to a continuous distribution since the 1960s. These increases can be attributed to physical changes (e.g., deflection of the Fraser River plume and increased sedimentation, resulting in an elevation of the substrate, due to reduced flow regimes) that have increased the available area for eelgrass colonization.
- In 2008, two eelgrass beds totalling 2.09 ha (20,900 m²) were created in close proximity to the proposed Project sites using fill sourced from Fraser River maintenance dredging operations and eelgrass stock sourced from existing eelgrass meadows adjacent to these sites. Post-construction monitoring in 2010 found that the eelgrass beds had proliferated to three times the original planting of eelgrass shoots (Golder Associates Ltd. 2011).

¹ Hemmera. Tsawwassen Eelgrass Project: Project Description. Prepared for Port Metro Vancouver Habitat Enhancement Program. 2015.

2.3 CURRENT CONDITIONS

- The sites consist of three existing subtidal depressions with base elevations ranging from -5.0 m to -6.0 m (Site 1 and Site 2) and -4.0 m to -6.0 m (Site 3) chart datum (CD).
- Sediment texture at the Project sites was characterized during dive surveys in 2013 and 2015 as sandy silt, and biophysical attributes were relatively homogeneous for each of the three sites.
- The sites have relatively low existing fisheries habitat values and have a tendency to collect large volumes of organic matter, including drift macroalgae and eelgrass detritus. Logs were not evident during the 2013 and 2015 surveys.
- A large sandflat is located southeast of Site 3 with elevations between -1.4 m to 0.0 m CD, the slope of which is populated with a continuous eelgrass bed (approximately 20 individual plants per m²) at approximately -1.4 m CD.
- During the dive surveys, marine life was observed to be more abundant within the adjacent eelgrass beds in comparison to the Project sites.

2.4 POTENTIAL CONTAMINANTS OF CONCERN (PCOCs)

- Based on the desktop review and the regulated parameters that need to be assessed, the list of potential contaminants of concern (PCOCs) for the source material included selected metals (arsenic, cadmium, chromium, copper, lead, mercury, and zinc), total polycyclic aromatic hydrocarbons (PAHs), and total polychlorinated biphenyls (PCBs).
- Individual PAHs and PCB congeners, which are regulated or of specific toxicological concern in some areas and jurisdictions, were assumed not to be of specific concern for this investigation: the aggregate standards (for Total PAHs and Total PCBs) provide an appropriate standard of care for this investigation.
- Available data for total organic carbon (TOC) and particle size distribution (PSD) were also reviewed.

3.0 OBJECTIVES

The objective of this report is to address issues related to sediment quality in context of Environment Canada's approach to designating the placement of dredged material for a project as beneficial use:

1. Compare the chemical and physical quality of sediments for use in the construction of the eelgrass habitat to minimum chemical screening criteria²;
2. Determine whether it is likely to degrade the receiving environment;
3. Determine whether the material has the appropriate physical characteristics for the proposed use.

² Disposal at Sea Minimum Sample Collection Requirements, Adapted from Environment Canada, 1994 – EPS1/RM/29. January 2013.

4.0 REGULATORY FRAMEWORK

This work is one in a series of projects that will explore the beneficial reuse of dredged material for PMV's proposed habitat creation and enhancement projects located in the Burrard Inlet, the Fraser River Estuary, Roberts Bank, and Sturgeon Bank. To assess the sediment quality of candidate material, a draft framework entitled "*Framework for Assessing Sediment Quality for Beneficial Reuse in Port Metro Vancouver's Habitat Enhancement Program*" (Version 2 – April 17, 2014) was developed for PMV. The framework is intended to be consistent with PMV's management approach for areas under their jurisdiction and for PMV-administered projects. The framework is also intended to reflect the spirit and intent of relevant federal and provincial statutes and to provide guidance focused on aquatic environmental protection and risk management of potentially contaminated sediment.

The proposed Project requires a large volume of fill material (estimated to be approximately 150,000 m³). The following information is applicable for assessing beneficial reuse of fill material for the proposed Project:

1. The most likely source of fill material is maintenance dredgeate from the lower reaches of the South Arm of the Fraser River, particularly the Sand Heads Reach (see **Appendix A**); however dredged material from other reaches in the South Arm may also be used if necessary.
2. The proposed Project entails the construction of eelgrass beds with placement of materials at subtidal locations. Previous HEP projects reviewed by Environment Canada have proposed placement of fill material at intertidal locations for marsh habitat establishment (e.g., the proposed Westham Island Canoe Pass Tidal Marsh Project and the Point Grey Tidal Marsh Project).
3. Due to the logistical considerations associated with the large volume of fill material required, construction of the eelgrass sites may be phased over more than one annual construction window. This means that some of the Fraser River sand that will be used has yet to be deposited.
4. The Fraser River sand dredged during previous / historical South Arm maintenance dredging operations has already been studied extensively (by PMV and others) and has been found to be relatively homogeneous and suitable for Disposal at Sea (DAS). Therefore our expectation for the quality of this material is that it is predictable and acceptable for its proposed use.
5. PMV has already received an exemption from Environment Canada to use this same proposed source material for beneficial purposes for construction of the Point Grey Tidal Marsh Project. The request for a DAS permit exemption, including the supporting data, was reviewed by Environment Canada's Disposal at Sea Program and was deemed suitable for use as fill material (pers. comm. Tiffany Paul, November 26, 2014). The analyses that follow use the same data excluding the one dataset for the Ladner Slough areas.

In light of these factors, Environment Canada indicated to the HEP team that a desktop review of existing data used to support management and disposal of regular South Arm maintenance dredgeate would be an acceptable approach.

Data were collected and aggregated, and compared to the following sediment quality criteria and guidelines (referred to as the 'minimum chemical screening criteria' in **Section 3.0**):

- Disposal at Sea Regulations (CEPA 1999): National Action List and other parameters of interest to Environment Canada³.

As the Project sites are located in a marine environment, data were not compared to the Canadian Council of Ministers of the Environment (CCME) Canadian sediment quality guidelines for the protection of aquatic life for freshwater sediments.⁴

5.0 SCOPE OF WORK

The scope of work for this assessment consisted of the following tasks:

1. Locate and summarize a robust set of existing in-situ sample data representing Fraser River sand (see **Appendix B** for the laboratory analyses and raw data);
2. Summarize the analytical results for PCOCs;
3. Compare the results to applicable sediment quality standards, criteria, and guidelines; and,
4. Interpret the results and prepare this sediment characterization report.

6.0 DATA SOURCES

A total of five different sampling events carried out in the South Arm of the Fraser River by Fraser River Pile and Dredge (FRPD), PMV, Duane Brothers Technical Ltd., and Hemmera were used in the data summary. **Table 1** summarizes these sampling events by the parameters of interest that were analyzed for the event.

³ Disposal at Sea Minimum Sample Collection Requirements, Adapted from Environment Canada, 1994 – EPS1/RM/29. January 2013.

⁴ Canadian Council of Ministers of the Environment. 2001. Canadian sediment quality guidelines for the protection of aquatic life: Introduction. Updated. In: Canadian environmental quality guidelines, 1999, Canadian Council of Ministers of the Environment, Winnipeg.

Table 1 Sample Data Summary (number of samples)

	South Arm								
Lab Certificate	L1271687	L1275757	L1279586	L895760	V8960	L725009	B3B0652	South	Sand Heads
Date	5-Mar-13	5-Mar-13	5-Mar-13	5-Jul-10	24-Jun-05	21-Jan-09	28-Nov-13	Arm Total	Reach Total
Source	FRPD	FRPD	FRPD	Port Metro Vancouver	Port Metro Vancouver	Duane Brothers Technical Ltd.	Hemmera		
Arsenic	11	12	2	0	0	0	30	55	8
Cadmium	11	12	2	0	21	21	30	97	10
Chromium	11	12	2	0	0	0	30	55	8
Copper	11	12	2	0	21	0	30	76	9
Lead	11	12	2	0	21	21	30	97	10
Mercury	11	12	2	0	21	21	30	97	10
Zinc	11	12	2	0	21	0	30	76	9
PAHs	11	8	2	0	21	21	0	63	5
Total Organic Carbon	11	12	2	13	21	21	30	110	14
Total PAHs	11	8	2	0	21	21	0	63	5
Total PCBs	6	8	1	13	0	0	30	58	11
% Clay	11	12	2	13	0	21	30	89	13
% Silt	11	12	2	13	0	21	30	89	13
% Sand	11	12	2	13	0	21	30	89	13

The locations of these samples are shown on **Figure 2**. The exact latitude and longitude of the samples listed in PMV's lab certificate V8960 was not confirmed (42 samples), but they are assumed (based on personal communications with PMV representatives) to be shown on the diagram of the Fraser River reaches provided to Hemmera by PMV (**Appendix A**).

7.0 RESULTS

As **Table 1** shows, between 58 and 110 South Arm samples were collected and analyzed for the parameters of interest, a subset of which represent the material located in Sand Heads Reach. An equivalent data set did not exist for the Tsawwassen site. However, as discussed with Environment Canada’s Disposal at Sea Program, physical and chemical characterization of the receiving site is not required for beneficial use projects as the receiving site is not considered a disposal site (pers. comm. Chelsey Cameron, January 9, 2015). Therefore a comparison between source and receiving site quality was not conducted.

Results of the analysis are presented and discussed in the following sections.

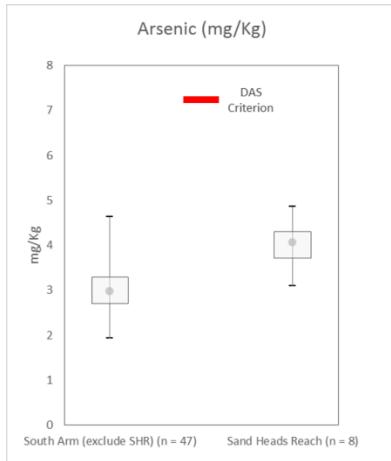
7.1 SEDIMENT CHEMISTRY RESULTS

Laboratory certificates (where available) and raw data are included in **Appendix A**. A complete table of analytical results are presented in **Table A** (following the text). A summary is provided below (**Table 2**):

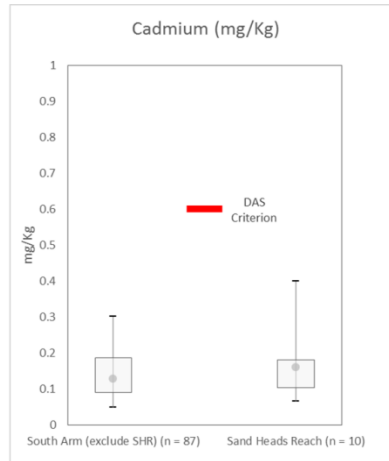
Table 2 Summary of Analytical Results: all South Arm Samples

Location	DAS Criterion	Count	Minimum	Median	Mean	Maximum	Coefficient of Variation
Arsenic (mg/Kg)	7.24	55	1.93	3.1	3.19	4.86	0.21
Cadmium (mg/Kg)	0.6	97	0.05	0.139	0.14	0.401	0.48
Chromium (mg/Kg)	52.3	55	17.8	28.1	28.30	49.6	0.18
Copper (mg/Kg)	18.7	76	5.9	13.2	14.65	36.6	0.30
Lead (mg/Kg)	30.2	97	1.85	2.53	2.71	5.47	0.28
Mercury (mg/Kg)	0.75	97	0.0121	0.0205	0.02	0.1	0.55
Zinc (mg/Kg)	124	76	25.0	37.5	39.81	74.7	0.19
Total PAHs (mg/Kg)	2.5	63	0.2	0.58	0.58	0.96	0.93
Total Organic Carbon (mg/K)	n/a	110	500	1050	2335	11200	1.10
Total PCBs (ng/g)	100	58	0.00364	0.03305	0.06	0.246	1.06
% Clay	n/a	89	0.1	1.26	2.78	23	1.48
% Silt	n/a	89	0.11	2.8	7.37	60.5	1.70
% Sand	n/a	89	27.7	96.5	91.39	99.6	0.16

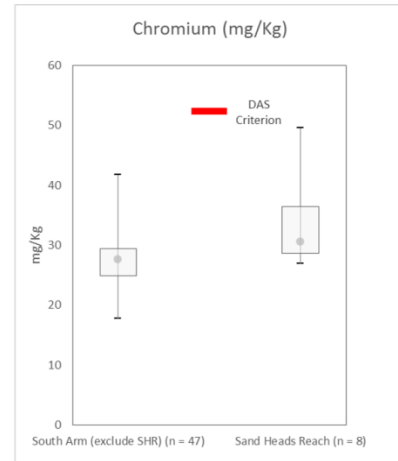
The following diagrams present these results, distinguishing between the Sand Heads Reach samples and the remainder of the South Arm dataset (excluding the Sand Heads Reach samples). Median values are shown along with the minimum, 25th and 75th percentile, and maximum values, and against DAS criteria.



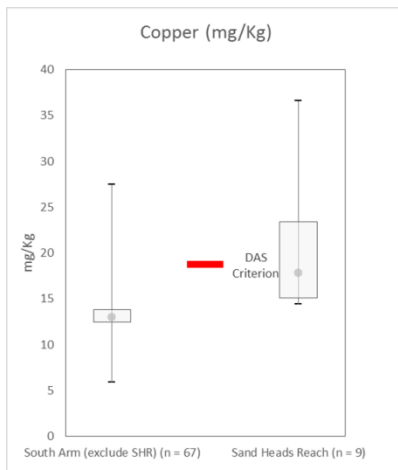
**Diagram 1 Arsenic Results
(South Arm Samples)**



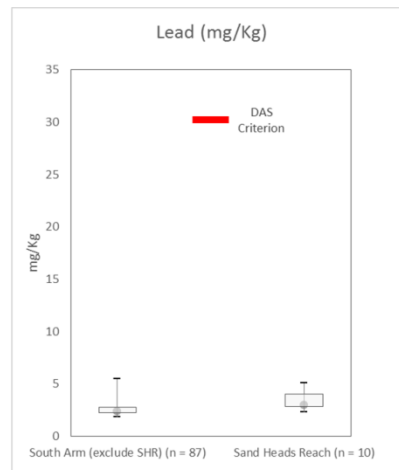
**Diagram 2 Cadmium Results
(South Arm Samples)**



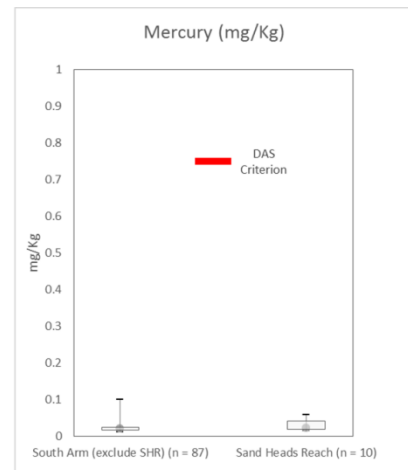
**Diagram 3 Chromium Results
(South Arm Samples)**



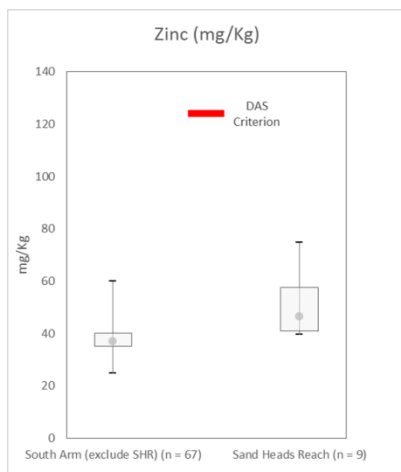
**Diagram 4 Copper Results
(South Arm Samples)**



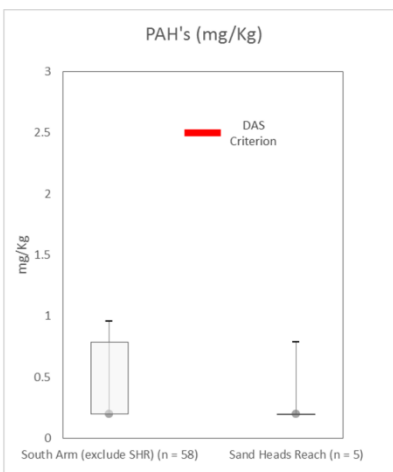
**Diagram 5 Lead Results
(South Arm Samples)**



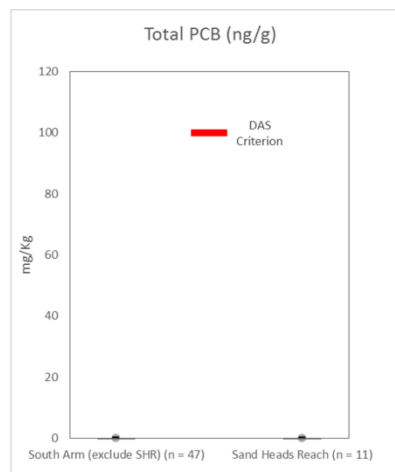
**Diagram 6 Mercury Results
(South Arm Samples)**



**Diagram 7 Zinc Results
(South Arm Samples)**



**Diagram 8 Total PAH Results
(South Arm Samples)**



**Diagram 9 Total PCB Results
(South Arm Samples)**

- Arsenic:** Of the 55 arsenic results for South Arm samples, none were greater than the corresponding DAS criterion (7.24 mg/kg). The 75th percentile of the Sand Heads Reach samples was greater than the 75th percentile of the rest of the South Arm sample results, but the maximum concentrations were similar for both areas.
- Cadmium:** Of the 97 cadmium results for South Arm samples, none were greater than the applicable DAS criterion (0.6 mg/kg). Sand Heads Reach sample results were very similar to the rest of the South Arm sample results.
- Chromium:** Of the 55 chromium results for South Arm samples, none contained chromium concentrations that were greater than the DAS criterion (52.3 mg/kg). The maximum concentrations and the 75th percentile of the Sand Heads Reach samples were both greater than the rest of the South Arm sample results.
- Copper:** Of the 76 copper results for South Arm samples, 9 samples (12% of the samples) contained copper concentrations that were greater than the DAS criterion (18.7mg/kg). The 75th percentile concentration of copper for South Arm samples was less than the DAS criterion. In the Sand Heads Reach, 4 of 9 (44% of the samples) exceeded the DAS criterion. The 75th percentile concentration of copper for Sand Heads Reach samples was less than the DAS criterion.
- Lead:** Of the 97 lead results for South Arm samples, none were greater than the DAS criterion (30.2 mg/kg). The Sand Heads Reach sample results varied slightly less than the rest of the South Arm sample results.
- Mercury:** Of the 97 mercury results for South Arm samples, none were greater than the DAS criterion (0.75 mg/kg). The Sand Heads Reach sample results varied slightly less than the rest of the South Arm sample results.
- Zinc:** Of the 76 zinc results for South Arm samples, none were greater than the DAS criterion (124 mg/kg). The 75th percentile concentration of zinc for the Sand Heads Reach samples was greater than for the South Arm samples. The Sand Heads Reach sample results varied slightly less than the rest of the South Arm sample results.
- Total PAHs and Total PCBs:** None of the South Arm sample results for Total PAHs (63 samples) and Total PCBs (58 samples) were greater than the respective DAS criterion (100 mg/kg and 34.1 mg/kg, respectively).

Table 3 summarizes the exceedances of DAS criterion for parameters of interest at South Arm and Sand Heads Reach.

Table 3 Summary of Exceedances

Parameter	DAS Criterion	Count South Arm	South Arm > DAS Criterion	Count Sand Heads Reach	Sand Heads Reach > DAS Criterion
{Total} Arsenic (mg/Kg)	7.24	55	0	8	0
{Total} Cadmium (mg/Kg)	0.6	97	0	10	0
{Total} Chromium (mg/Kg)	52.3	55	0	8	0
{Total} Copper (mg/Kg)	18.7	76	9	9	4
{Total} Lead (mg/Kg)	30.2	97	0	10	0
{Total} Mercury (mg/Kg)	0.75	97	0	10	0
{Total} Zinc (mg/Kg)	124	76	0	9	0
Total PAHs (mg/Kg)	2.5	63	0	5	0
Total PCBs (ng/g)	100	58	0	11	0

Therefore in terms of arsenic, chromium and copper, the quality of the sediment at the Sand Heads Reach appears to be better than the overall sediment quality in the South Arm of the Fraser River. In terms of the rest of the parameters of interest, comparisons to DAS criteria values suggest that the quality is similar.

7.2 TOTAL ORGANIC CARBON

The TOC results from 110 South Arm samples (14 of which were from Sand Heads Reach) (**Figure 2**) are presented below:

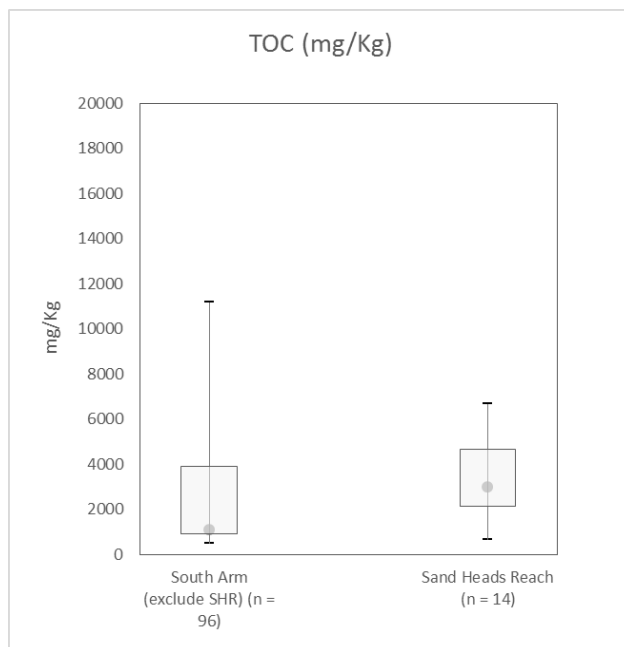


Diagram 10 Total Organic Carbon (South Arm & Sand Heads Reach Samples).

South Arm samples ranged between approximately 0.1 and 0.4% TOC⁵ with a smaller number of samples reaching up to approximately 1.1% TOC. Sand Heads Reach samples contained similar TOC concentrations and appeared to vary less.

7.3 PARTICLE SIZE DISTRIBUTION

Sediment samples collected during a dive survey of one of the Project sites on January 7, 2015, indicated that the existing sediment is generally composed of coarser (sandier) sediment in shallow depths to finer (siltier) sediment at deeper depths.⁶

PSDs in the proposed source material sample sets (South Arm = 89 samples, 13 of which were collected from Sand Heads Reach) indicate that existing sediment is generally composed of coarser (sandier) sediment. Material at Sand Heads Reach exhibited less variation than the full South Arm dataset and was marginally finer (judging by median values) than the material throughout the rest of the South Arm. South Arm samples ranged between approximately 91% and 97% sand with a smaller number of samples reaching up to approximately 100% sand, and Sand Heads Reach samples ranged between approximately 77% and 95% sand with a smaller number of samples reaching up to 97% sand. The sediment particle size comparisons are shown below:

⁵ Note that 1% TOC = 10,000 mg/kg.

⁶ Hemmera. 2015. Tsawwassen Site 3 Eelgrass Field Reconnaissance Port Metro Vancouver Habitat Enhancement Program. Prepared for Port Metro Vancouver.

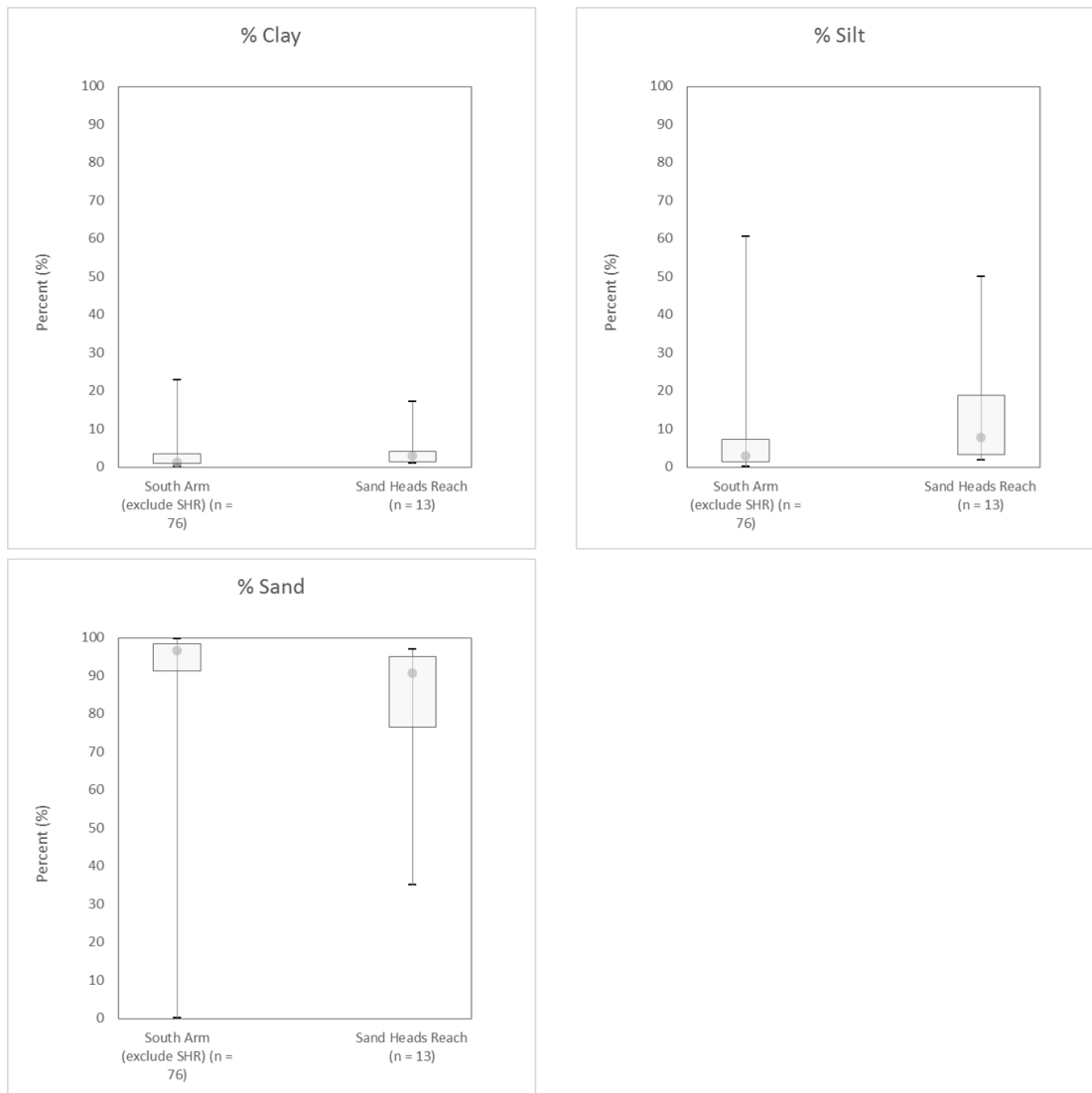


Diagram 11 Particle Size Distributions (% composition)

This information was passed on to Cynthia Durance, an eelgrass ecologist with Precision Identification, to review its physical suitability for use in construction of eelgrass habitat. Conclusions are presented in **Appendix C**.

7.4 QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)

This characterization relied on a desktop review of analytical data that were collected by numerous investigators over a span of nearly ten years, and which in some cases have been reported already to Environment Canada and/or PMV.

Hemmera assumes that field Quality Assurance / Quality Control (QA/QC) procedures were implemented during the collection of these data. Given that these reports were obtained from organizations known to employ responsible, experienced and appropriately qualified staff, it is reasonable to expect an appropriate field QA/QC program to have been in place during sampling programs.

Where possible, we reviewed laboratory QA/QC results to assess apparent accuracy or precision in laboratory results. Where available, all indications were that the data quality is satisfactory.

Additionally, the integration of a large number of samples (up to 110 samples for a given parameter) provided a robust dataset for identification of outlier results. The very low incidence of potential outlier results supports the quality of the data provided by FRPD, PMV, Duane Brothers Technical Ltd., and Hemmera.

8.0 DISCUSSION

Data collected in this investigation represented Fraser River sand as far east as the Queensborough Bridge and as far west as the end of Sand Heads (approximately 7 km west of the high water mark along Sturgeon Bank). This is considered to represent the extent of possible sources of material that would potentially be used for construction of the Project.

The total volume of material needed for the Project is approximately 150,000 m³; the total volume of material generated in annual maintenance dredging of the lower reaches of the Fraser River is approximately 3,000,000 m³. From the five datasets used in this desktop review, between 58 and 110 samples were used to characterize the material. Given that the source material has been extensively studied, the number of samples used in this assessment is considered adequate.

In general, the Fraser River sand was homogeneous and consistent in quality with respect to the nine parameters of interest. Specifically:

- The calculated coefficient of variation (CV, a measure of the relative dispersion in the sample set) for each parameter is presented in Table 2. These figures indicate that the metal parameters generally had a CV between 0.18 and 0.55, meaning that the standard deviation was between approximately one quarter and one half the value of the mean. For an environmental matrix such as river sediment based on samples collected from a span of over 35 km, this constitutes a relatively homogeneous condition.
- The CV for Total PAHs is of little value since only 2 of 63 results were above detection limit.
- The CV for Total PCBs was high (1.06) (n = 58 samples).

The comparison of CV values for these parameters was consistent with our understanding of the likely origin of these compounds. Higher CVs (e.g., PCBs) are associated with more sporadically occurring, isolated pockets of anthropogenic compounds, whereas lower CV values are associated with the predictable existence of naturally occurring compounds. In particular, copper (which had the highest number of exceedances in comparison to DAS criterion) had a CV of 0.30: among the lowest CV values observed in the full South Arm dataset. This consistency suggests a background condition of copper rather than the presence of anthropogenic contamination.

With respect to the other parameters of interest, data suggest that the quality of sediment in the Sand Heads Reach (between 5 and 11 samples) is in general equal to or is within the upper range of the overall South Arm sediment quality.

South Arm material contained between approximately 0.1 and 0.4% TOC and a high proportion of larger particles / coarse materials (~91% to 97% sand). The source sediment as described would likely be suitable for supporting eelgrass. Further discussion regarding physical suitability is provided in **Appendix C**.

9.0 CONCLUSIONS

Given that the objectives of this investigation were to:

- Compare the material quality to minimum chemical screening criteria;
- Determine whether it is likely to degrade the receiving environment; and,
- Determine whether the material has the appropriate physical characteristics for the proposed beneficial use,

We conclude that, based on our desktop review of available historical data:

- Between 58 and 110 sample results for PCOCs (including selected metals, Total PAHs, and Total PCBs) support the assertion that the Fraser River sand in the lower reaches of the South Arm of the Fraser River meets the minimum screening criteria. Between 5 and 13 samples support the assertion that Sand Heads Reach sediment is similar to or of better quality than the full dataset and meets the minimum screening criteria.
- In spite of a small number of samples that contained concentrations of copper which were greater than the DAS criteria, the likelihood of adverse effects to the receiving environment is very low:
 - Observed copper concentrations are likely representative of a relatively innocuous naturally-occurring background condition. These concentrations are within the same order of magnitude as the copper DAS criterion, which suggests a very low potential for toxicological effects. Similar projects have encountered similar copper concentrations as were observed in the current dataset, and in our experience, elevated copper of geological origin is unlikely to create significant risk for this Project.
- The physical characteristics (considered here to include TOC data and PSD) observed in the sample data were not compared to the receiving site as sufficient analytical data were not available for the proposed receiving sites. The proposed receiving sites are generally composed of coarser (sandier) sediment in shallow depths to finer (siltier) sediment at deeper depths, with a tendency to collect organic matter. Based on these observations, it is expected that the source material will be similar in texture as the raised elevations but may contain lower TOC in comparison to the deeper elevations at the receiving sites. The physical suitability of this material for marsh construction is discussed in a memorandum prepared by Precision Identification (**Appendix C**).

10.0 CLOSURE

Report prepared by:
Hemmera Envirochem Inc.



Jennifer Steele, B.Sc., MMM, P.Chem.
Environmental Scientist

Report peer reviewed by:
Hemmera Envirochem Inc.



Julien Traverse, P.Eng.
Environmental Engineer

11.0 STATEMENT OF LIMITATIONS

This report was prepared by Hemmera Envirochem Inc. (Hemmera), based on fieldwork conducted by Hemmera, for the sole benefit and exclusive use of Port Metro Vancouver. The material in it reflects Hemmera's best judgment in light of the information available to it at the time of preparing this Report. Any use that a third party makes of this Report, or any reliance on or decision made based on it, is the responsibility of such third parties. Hemmera accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken based on this Report.

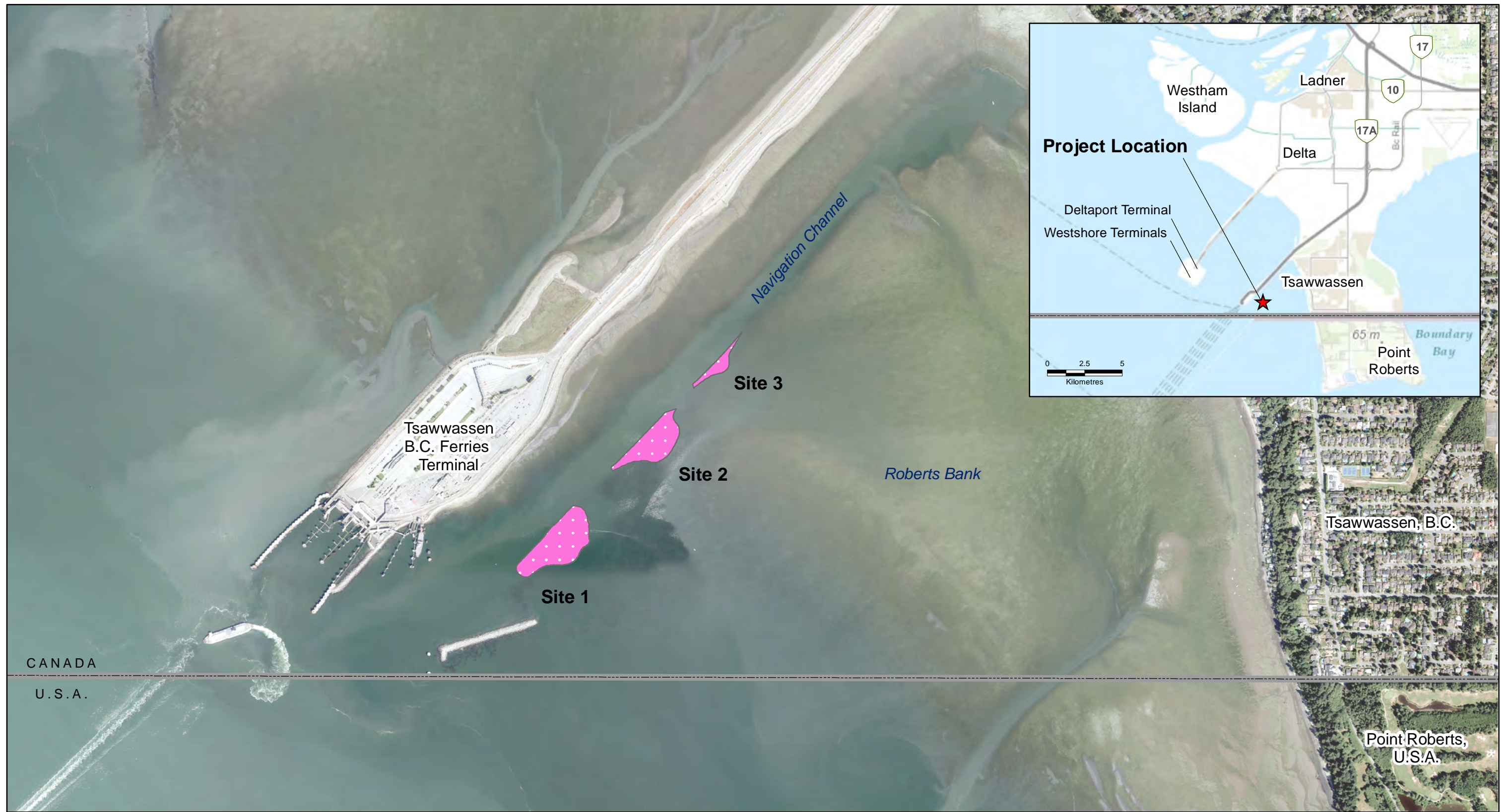
Hemmera has performed the work as described above and made the findings and conclusions set out in this Report in a manner consistent with the level of care and skill normally exercised by members of the environmental science profession practicing under similar conditions at the time the work was performed.

This Report represents a reasonable review of the information available to Hemmera within the established Scope, work schedule and budgetary constraints. It is possible that the levels of contamination or hazardous materials may vary across the Site, and hence currently unrecognized contamination or potentially hazardous materials may exist at the Site. No warranty, expressed or implied, is given concerning the presence or level of contamination on the Site, except as specifically noted in this Report. The conclusions and recommendations contained in this Report are based upon applicable legislation existing at the time the Report was drafted. Any changes in the legislation may alter the conclusions and/or recommendations contained in the Report. Regulatory implications discussed in this Report were based on the applicable legislation existing at the time this Report was written.

In preparing this Report, Hemmera has relied in good faith on information provided by others as noted in this Report, and has assumed that the information provided by those individuals is both factual and accurate. Hemmera accepts no responsibility for any deficiency, misstatement or inaccuracy in this Report resulting from the information provided by those individuals.

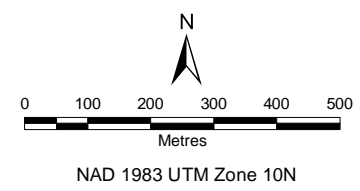
The liability of Hemmera to Port Metro Vancouver shall be limited to injury or loss caused by the negligent acts of Hemmera. The total aggregate liability of Hemmera related to this agreement shall not exceed the lesser of the actual damages incurred, or the total fee of Hemmera for services rendered on this project.

FIGURES



CANADA
U.S.A.

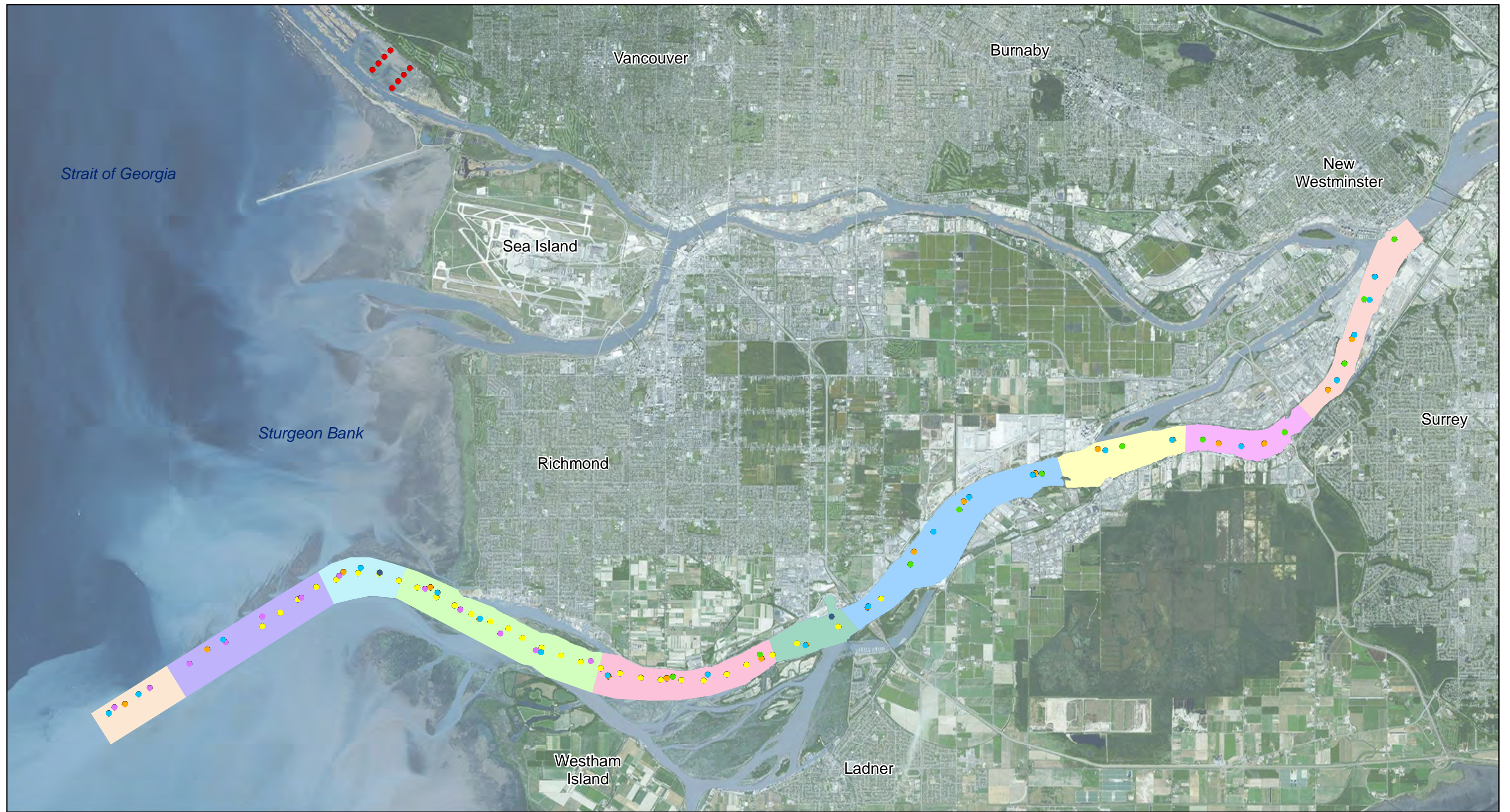
- Proposed Eelgrass Enhancement areas (approximate)
- Canada-U.S.A. Border



 PORT METRO
vancouver

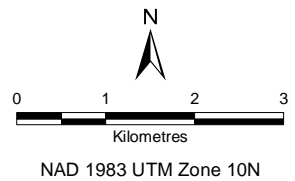
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FIG No.	1	Habitat Enhancement Program	
TITLE:	Tsawwassen Eelgrass Project Site Location Map & Aerial View		Date: 3/3/2015



- Sample Location - Lab Certificate**
- B3B0652
 - L1319797
 - L1271687
 - L725009
 - L1275757
 - V8960
 - L1279586

- Main Channel Reaches**
- Sandheads (Km -1 to 1)
 - Sandheads Reach (Km 1 to 5)
 - Steveston Bend (Km 5 to 7)
 - Steveston Cut (Km 7 to 12)
 - No. 5 Road (Km 16 to 18)
 - Woodward's Reach (Km 12 to 16)
 - Gravesend Reach (Km 18 to 24)
 - Purfleet Point (Km 24 to 27)
 - St. Mungo's (Km 27 to 30)
 - Annieville Channel (Km 30 to 35)



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FIG No.	2	Habitat Enhancement Program	
TITLE:	Tsawwassen Eelgrass Project Sample Locations		
		Date: 3/3/2015	

TABLES

Table A: Analytical Results

Location	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	
Sample ID	Fraser 1	Fraser 2	Fraser 3	Fraser 4	Fraser 5	Fraser 6	Fraser 7	Fraser 8	Fraser 9	Fraser 10	Fraser 11	Fraser 12	Fraser 13	Fraser 14	Fraser 15		
Date	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	
Sample Depth (m):	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reach	Sandheads	Sandheads Reach	Steveston Bend	Steveston Cut	Steveston Cut	Steveston Cut	Woodwards Reach	Woodwards Reach	Woodwards Reach	No. 5 Road	No. 5 Road	Gravesend Reach	Gravesend Reach	Gravesend Reach	Purfleet Point		
Source	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	
DAS Criterion	ISQG (FW)																
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}															
Physical Tests																	
pH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Organic Carbon	-	-	9650	-	10600	-	<500	-	3570	-	4280	-	<500	-	<500	-	<500
% Clay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Sand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Silt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals																	
Arsenic	7.24	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	0.6	0.6	-	0.16	-	0.12	-	<0.10	-	<0.10	-	<0.10	-	<0.10	-	<0.10	-
Chromium	52.3	37.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	18.7	35.7	-	36.6	-	27.5	-	5.9	-	19.7	-	21.8	-	12.4	-	12.5	-
Lead	30.2	35	-	<30	-	<30	-	<30	-	<30	-	<30	-	<30	-	<30	-
Mercury	0.75	0.17	-	0.0594	-	0.0445	-	0.0226	-	0.0348	-	0.0348	-	0.0203	-	0.0205	-
Zinc	124	123	-	74.7	-	60	-	25	-	47.2	-	49.6	-	35.3	-	36.9	-
PAH																	
Total PAH	2.5	n/a	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.79
PCB																	
Total PCB	100	34.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A: Analytical Results

	Location	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm
	Sample ID	Fraser 16	Fraser 17	Fraser 18	Fraser 19	Fraser 20	Fraser 21	Fraser 22	Fraser 23	Fraser 24	Fraser 25	Fraser 26	Fraser 27	Fraser 28	Fraser 29	Fraser 30	Fraser 31
	Date	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05
	Sample Depth (m):	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reach	Purfleet Point	St. Mungo's	St. Mungo's	Annieville Channel	Annieville Channel	Annieville Channel	Sandheads	Sandheads Reach	Steveston Bend	Steveston Cut	Steveston Cut	Steveston Cut	Woodwards Reach	Woodwards Reach	Woodwards Reach	No. 5 Road
	Source	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver
	DAS Criterion	ISQG (FW)															
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}															
Physical Tests																	
pH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	-	-	<500	-	<500	-	<500	-	<500	-	<500	-	<500	-	<500	-
% Clay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Sand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
% Silt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals																	
Arsenic	7.24	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	0.6	0.6	<0.10	-	<0.10	-	<0.10	-	<0.10	-	<0.10	-	<0.10	-	<0.10	-	<0.10
Chromium	52.3	37.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	18.7	35.7	12.6	-	12.7	-	12.7	-	12.5	-	12.3	-	12.8	-	13.2	-	12
Lead	30.2	35	<30	-	<30	-	<30	-	<30	-	<30	-	<30	-	<30	-	<30
Mercury	0.75	0.17	0.1	-	0.0214	-	0.0418	-	0.025	-	0.0179	-	0.0178	-	0.0184	-	0.0205
Zinc	124	123	35.7	-	35.1	-	35.4	-	36.2	-	34.6	-	35.4	-	36.3	-	34.5
PAH																	
Total PAH	2.5	n/a	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-
PCB																	
Total PCB	100	34.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A: Analytical Results

	Location	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm
	Sample ID	Fraser 32	Fraser 33	Fraser 34	Fraser 35	Fraser 36	Fraser 37	Fraser 38	Fraser 39	Fraser 40	Fraser 41	Fraser 42	DBT-MPV FRASER 1	DBT-MPV FRASER 2	DBT-MPV FRASER 3	DBT-MPV FRASER 4	DBT-MPV FRASER 5
	Date	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	6-Jun-05	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09
	Sample Depth (m):	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Reach	No. 5 Road	Gravesend Reach	Gravesend Reach	Gravesend Reach	Purfleet Point	Purfleet Point	St. Mungo's	St. Mungo's	Annieville Channel	Annieville Channel	Annieville Channel	Sandheads	Sandheads	Sandheads Reach	Steveston Bend	Steveston Cut
	Source	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.
	DAS Criterion	ISQG (FW)															
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}															
Physical Tests																	
pH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	-	<500	-	<500	-	<500	-	<500	-	<500	-	2000	1000	<1000	1000	1000
% Clay	-	-	-	-	-	-	-	-	-	-	-	-	4	2	1	2	2
% Sand	-	-	-	-	-	-	-	-	-	-	-	-	89	95	97	94	96
% Silt	-	-	-	-	-	-	-	-	-	-	-	-	8	3	2	4	2
Total Metals																	
Arsenic	7.24	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	0.6	0.6	<0.10	-	<0.10	-	<0.10	-	<0.10	-	<0.10	-	<0.10	0.11	<0.10	<0.10	<0.10
Chromium	52.3	37.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper	18.7	35.7	12.8	-	12.7	-	12.8	-	13.3	-	13.3	-	12.5	-	-	-	-
Lead	30.2	35	<30	-	<30	-	<30	-	<30	-	<30	-	<30	<30	<30	<30	<30
Mercury	0.75	0.17	0.0181	-	0.0262	-	0.0205	-	0.0193	-	0.0171	-	0.0319	0.0322	0.0231	0.0181	0.0211
Zinc	124	123	35.3	-	34.2	-	35.1	-	34.1	-	35	-	33.4	-	-	-	-
PAH																	
Total PAH	2.5	n/a	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.79	-	<0.20	<0.20	<0.20	<0.20
PCB																	
Total PCB	100	34.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A: Analytical Results

Location	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm
Sample ID	DBT-MPV FRASER 6	DBT-MPV FRASER 7	DBT-MPV FRASER 8	DBT-MPV FRASER 9	DBT-MPV FRASER 10	DBT-MPV FRASER 11	DBT-MPV FRASER 12	DBT-MPV FRASER 13	DBT-MPV FRASER 14	DBT-MPV FRASER 15	DBT-MPV FRASER 16	DBT-MPV FRASER 17	DBT-MPV FRASER 18	DBT-MPV FRASER 19	DBT-MPV FRASER 20	DBT-MPV FRASER 21	
Date	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	13-Jan-09	
Sample Depth (m):	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reach	Steveston Cut	Steveston Cut	Woodwards Reach	Woodwards Reach	No. 5 Road	Gravesend Reach	Gravesend Reach	Gravesend Reach	Gravesend Reach	Purfleet Point	Purfleet Point	St. Mungo's	Annieville Channel	Annieville Channel	Annieville Channel	Annieville Channel	
Source	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	Duane Brothers Technical Ltd.	
DAS Criterion	ISQG (FW)																
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}															
Physical Tests																	
pH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Organic Carbon	-	-	2000	1000	<1000	1000	1000	<1000	<1000	1000	1000	1000	<1000	<1000	<1000	<1000	
% Clay	-	-	23	1	1	1	1	1	1	2	<1	2	1	<1	1	1	
% Sand	-	-	94	98	98	97	98	98	98	91	99	98	99	89	99	95	
% Silt	-	-	4	1	1	2	1	1	1	<1	1	<1	<1	1	<1	<1	
Total Metals																	
Arsenic	7.24	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cadmium	0.6	0.6	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.2	0.1	0.11	0.11	<0.10	0.11	0.14	
Chromium	52.3	37.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Copper	18.7	35.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lead	30.2	35	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	
Mercury	0.75	0.17	0.0237	0.0189	0.0178	0.0225	0.0493	0.0214	0.0125	0.0169	0.0316	0.0249	0.0203	0.0203	0.0199	0.0249	
Zinc	124	123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PAH																	
Total PAH	2.5	n/a	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
PCB																	
Total PCB	100	34.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table A: Analytical Results

Location	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	
Sample ID	SAND HEADS - 1	SAND HEADS - 2	SAND HEADS REACH - 1	SAND HEADS REACH - 2	SAND HEADS REACH - 3	SAND HEADS REACH - 4	SAND HEADS BEND - 1	STEVESTON CUT - 1	STEVESTON CUT - 2	STEVESTON CUT - 3	STEVESTON CUT - 4	STEVESTON CUT - 5	STEVESTON BEND - 2	FR1-1	FR2-1	FR3-1		
Date	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	9-Jun-10	28-Nov-13	28-Nov-13	28-Nov-13		
Sample Depth (m):	-	-	-	-	-	-	-	-	-	-	-	-	-	0 - 0.15	0 - 0.15	0 - 0.15		
Reach	Sandheads	Sandheads	Sandheads Reach	Sandheads Reach	Sandheads Reach	Sandheads Reach	Steveston Bend	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Bend	Steveston Bend	Steveston Bend	Steveston Bend		
Source	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Port Metro Vancouver	Hemmera	Hemmera	Hemmera		
DAS Criterion	ISQG (FW)																	
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}																
Physical Tests																		
pH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.12	7.79	7.59	
Total Organic Carbon	-	-	11200	<1000	6600	3200	<1000	<1000	1200	8700	7000	<1000	1000	<1000	3900	3300	1100	560
% Clay	-	-	13.2	1.2	11.7	4.2	1.4	1.5	1.1	11.7	8	<1.0	<1.0	<1.0	5.1	8.8	1.6	1.7
% Sand	-	-	47.6	93.1	38.2	72.1	95.2	93.5	93.5	27.7	40.8	96.5	97.8	97.8	70.7	65.6	95.5	98.3
% Silt	-	-	39.2	5.8	50.1	23.8	3.4	5	5.3	60.5	51.3	1.4	1.5	1.6	23.9	25.6	3	<0.010
Total Metals																		
Arsenic	7.24	5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	4.4	2.86	2.74
Cadmium	0.6	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	0.303	0.166	0.228
Chromium	52.3	37.3	-	-	-	-	-	-	-	-	-	-	-	-	-	32	29.7	32.2
Copper	18.7	35.7	-	-	-	-	-	-	-	-	-	-	-	-	-	25.8	13	12.3
Lead	30.2	35	-	-	-	-	-	-	-	-	-	-	-	-	-	5.47	2.7	2.53
Mercury	0.75	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	<0.050	<0.050
Zinc	124	123	-	-	-	-	-	-	-	-	-	-	-	-	-	60	39.7	38.9
PAH																		
Total PAH	2.5	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB																		
Total PCB	100	34.1	0.184	0.018	0.071	0.07	0.046	0.034	0.026	0.221	0.057	0.023	0.022	0.021	0.058	0.147	0.0735	0.0089

Table A: Analytical Results

Location	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	
Sample ID	FR4-1	FR5-1	FR6-1	FR7-1	FR8-1	FR9-1	FR10-1	FR11-1	FR12-1	FR13-1	FR14-1	FR15-1	FR16-1	FR17-1	FR18-1	FR19-1		
Date	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	
Sample Depth (m):	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	
Reach	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Woodwards Reach	Woodwards Reach	Woodwards Reach	Woodwards Reach	Woodwards Reach	Woodwards Reach	
Source	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	
DAS Criterion	ISQG (FW)																	
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}																
Physical Tests																		
pH	-	-	7.69	7.73	7.79	7.94	7.64	7.34	8.02	7.82	7.89	7.7	7.71	7.81	7.37	7.2	7.34	7.47
Total Organic Carbon	-	-	580	530	930	910	680	520	800	1500	1300	640	510	890	610	<500	<500	500
% Clay	-	-	<0.010	<0.010	<0.010	1	<0.010	<0.010	2.4	<0.010	2.6	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
% Sand	-	-	95.9	97.6	98.7	92	94.3	98.9	91.4	94.3	88.3	97.2	96.9	95.6	98.5	98.3	98.7	98.3
% Silt	-	-	4.3	2.8	1.6	7	6.1	1.6	6.1	6.1	9.1	3.1	3.2	4.4	1.6	1.8	1.6	1.9
Total Metals																		
Arsenic	7.24	5.9	2.95	2.79	2.97	3.19	2.79	2.67	3.26	3.29	2.56	3.18	2.8	2.71	2.7	2.67	2.53	2.3
Cadmium	0.6	0.6	0.194	0.183	0.164	0.203	0.151	0.193	0.239	0.144	0.227	0.183	0.161	0.186	0.177	0.21	0.176	0.182
Chromium	52.3	37.3	27	26.6	28.1	27	29.7	26.3	29.3	28.8	29.8	28.6	41.8	25.8	21.6	35.4	33.6	27.6
Copper	18.7	35.7	13.2	13.6	13.7	15.5	14	12	18.4	15.2	14.9	13.3	13.4	13.9	11.9	12.9	13.2	12.4
Lead	30.2	35	2.54	2.4	2.76	2.85	2.59	2.41	3.59	2.89	2.86	2.64	2.5	2.82	2.27	2.36	2.39	2.26
Mercury	0.75	0.17	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Zinc	124	123	39.8	38.8	38.7	41.9	40.3	37.9	47.7	43.6	40	41.5	43.8	38.9	34	40.5	40.9	34.8
PAH																		
Total PAH	2.5	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB																		
Total PCB	100	34.1	0.00923	0.00853	0.00884	0.0269	0.0135	0.0465	0.0176	0.0716	0.0418	0.0281	0.0148	0.0388	0.0117	0.00834	0.00803	0.00364

Table A: Analytical Results

Location	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	
Sample ID	FR20-1	FR21-1	FR22-1	FR23-1	FR24-1	FR25-1	FR26-1	FR27-1	FR28-1	FR29-1	FR30-1	FRASER RIVER "1"	FRASER RIVER "2"	FRASER RIVER "3"	FRASER RIVER "4"	FRASER RIVER "5"		
Date	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	28-Nov-13	5-Mar-13	5-Mar-13	5-Mar-13	5-Mar-13	5-Mar-13	
Sample Depth (m):	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	0 - 0.15	-	-	-	-	-	
Reach	Woodwards Reach	Woodwards Reach	Woodwards Reach	No. 5 Road	No. 5 Road	Gravesend Reach	Steveston Bend	Sandheads Reach	Sandheads Reach	Sandheads Reach	Sandheads Reach	Sandheads	Sandheads	Sandheads Reach	Sandheads Reach	Sandheads Reach		
Source	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	Hemmera	FRPD	FRPD	FRPD	FRPD	FRPD	
DAS Criterion	ISQG (FW)																	
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}																
Physical Tests																		
pH	-	-	7.63	7.91	7.56	7.07	7.23	7.36	8.01	8.2	7.87	8.02	7.93	-	-	-	-	-
Total Organic Carbon	-	-	580	1600	<500	<500	570	760	800	6700	1200	2500	670	1100	2100	3400	5100	2000
% Clay	-	-	<0.010	1.4	<0.010	<0.010	<0.010	0.1	1.4	17.3	2.9	4.4	3	1.2	1.49	1.54	4.07	1.04
% Sand	-	-	98.7	91.2	98.6	99.6	98.5	98	91.2	35.2	88.5	76.6	95.1	96.1	95.6	91.2	79.9	96.7
% Silt	-	-	1.6	7.3	1.6	0.4	1.7	1.9	7.4	47.6	8.6	19	1.9	2.66	2.91	7.31	16.1	2.28
Total Metals																		
Arsenic	7.24	5.9	2.42	2.36	1.93	2.1	2.53	2.27	3.17	4.36	3.13	4.86	3.1	3.5	4.63	4.2	4.29	3.91
Cadmium	0.6	0.6	0.18	0.203	0.196	0.195	0.227	0.139	0.202	0.298	0.165	0.401	0.182	0.067	0.069	0.104	0.117	0.073
Chromium	52.3	37.3	24.5	25.2	24.3	28.4	21.5	21.6	28.8	36.6	27	36.4	49.6	29.5	26.6	31.9	29.3	27.7
Copper	18.7	35.7	12.3	14.7	12.3	13.7	13	12.7	12.7	23.4	14.4	25.5	15.1	14.7	19.4	16.9	18.9	17.8
Lead	30.2	35	2.28	2.53	2.24	2.31	2.31	2.3	2.98	5.11	2.84	5.11	2.86	2.9	2.59	3.1	3.67	2.3
Mercury	0.75	0.17	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.054	<0.050	0.0226	0.0165	0.0232	0.0278	0.0154
Zinc	124	123	35.6	38.8	34.9	36.6	35.6	36.2	38.2	58.2	39.8	57.7	43.4	40.8	41.3	46.5	47.6	41
PAH																		
Total PAH	2.5	n/a	-	-	-	-	-	-	-	-	-	-	-	<0.20	-	<0.20	<0.20	-
PCB																		
Total PCB	100	34.1	0.0173	0.117	0.0153	0.00572	0.0104	0.00493	0.0321	0.246	0.0269	0.0894	0.0118	0.11	-	0.13	0.15	-

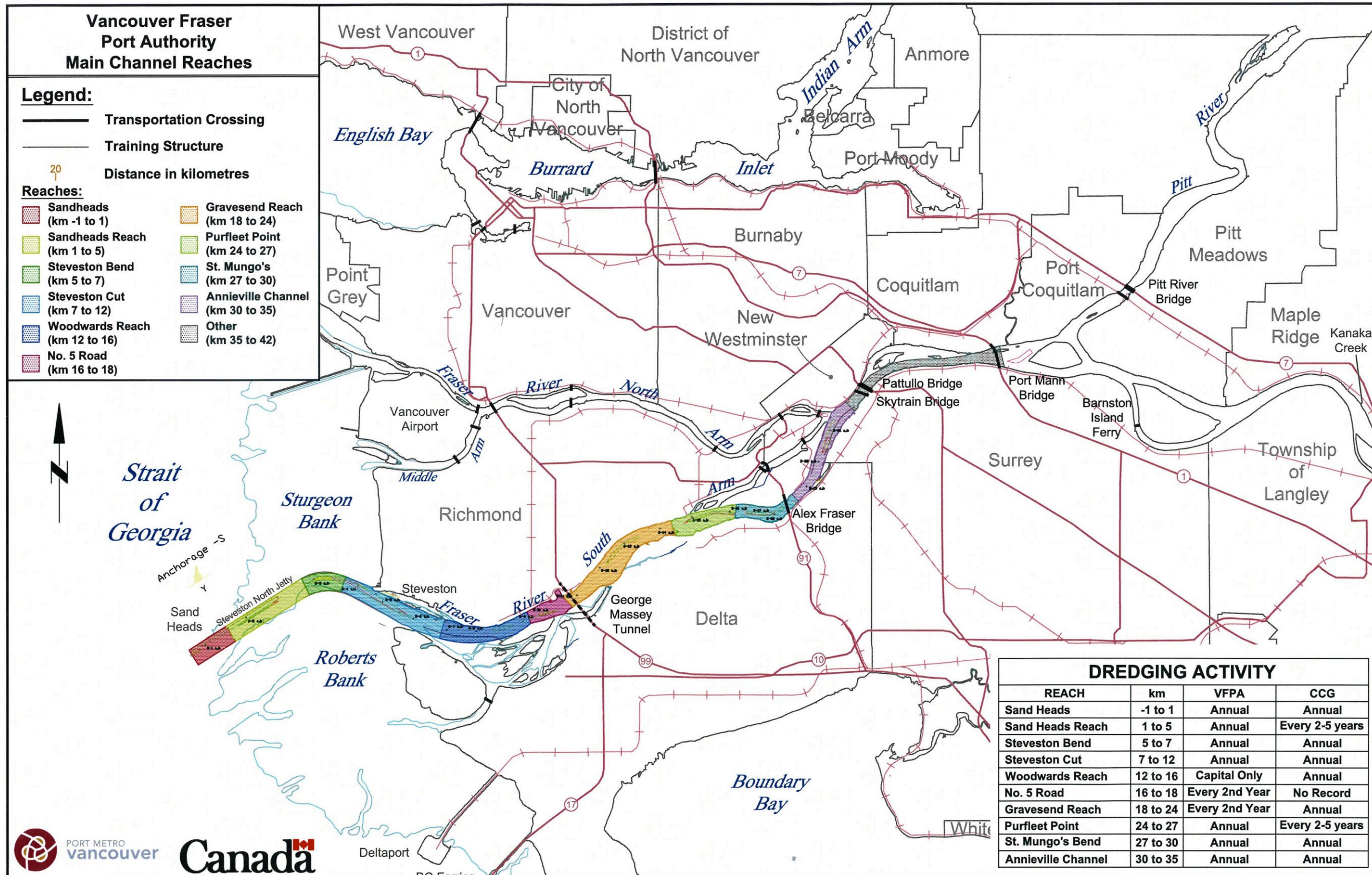
Table A: Analytical Results

Location	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	South Arm	
Sample ID	FRASER RIVER "6"	FRASER RIVER "7"	FRASER RIVER "8"	FRASER RIVER "9"	FRASER RIVER "10"	FRASER RIVER "11"	FRASER RIVER "12"	FRASER RIVER "13"	FRASER RIVER "14"	FRASER RIVER "15"	FRASER RIVER "16"	FRASER RIVER "17"	FRASER RIVER "18"	FRASER RIVER "19"	FRASER RIVER "20"	FRASER RIVER "21"		
Date	5-Mar-13	5-Mar-13	5-Mar-13	5-Mar-13	5-Mar-13	5-Mar-13	5-Mar-13	14-Mar-13	21-Feb-13	21-Feb-13	14-Mar-13	21-Feb-13	21-Feb-13	21-Feb-13	21-Feb-13	21-Feb-13		
Sample Depth (m):	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Reach	Sandheads Reach	Steveston Bend	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Cut	Steveston Bend	Woodwards Reach	Woodwards Reach	No. 5 Road	Gravesend Reach	Gravesend Reach	Gravesend Reach	Purfleet Point	St. Mungo's		
Source	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD	FRPD		
DAS Criterion	ISQG (FW)																	
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}																
Physical Tests																		
pH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Organic Carbon	-	-	2800	2600	2800	1500	3200	1000	1000	<1000	<1000	<1000	1000	<1000	<1000	<1000	<1000	
% Clay	-	-	1.55	3.14	1.45	1.26	3.06	0.91	0.56	0.24	0.86	1.07	0.45	0.87	1.08	0.75	0.72	
% Sand	-	-	90.6	87.4	95.4	95.1	86.3	98.5	98.7	99.1	98.9	98.5	98.1	98.5	95	90.5	99.3	
% Silt	-	-	7.83	9.51	3.15	3.62	10.7	0.58	0.34	0.69	0.19	0.4	1.41	0.59	1.78	0.29	<0.10	
Total Metals																		
Arsenic	7.24	5.9	3.93	4.27	4.44	3.87	3.56	3.53	3.29	2.89	3.51	3.19	3.08	3.33	3.11	3	2.91	3.21
Cadmium	0.6	0.6	0.066	0.106	0.091	0.07	0.065	0.05	<0.050	0.068	0.053	0.051	0.062	0.065	0.072	0.082	0.091	0.089
Chromium	52.3	37.3	29	28.8	25.6	28.1	28.1	27	24.6	34.3	24.5	27.7	27	28.8	20.6	29.6	29.7	26.6
Copper	18.7	35.7	14.8	18.7	17.2	15.4	13.3	13.7	11.5	12.6	11.5	13.8	11.9	15	11.5	12.8	13.6	13
Lead	30.2	35	2.8	3.87	2.8	3.5	2.92	2.13	2.55	3.03	2.36	2.25	2.23	2.16	1.98	2.11	2.11	2.22
Mercury	0.75	0.17	0.0214	0.0262	0.042	0.022	0.0195	0.0121	0.0153	0.0154	0.0151	0.0164	0.0152	0.0166	0.0144	0.0144	0.0179	0.0151
Zinc	124	123	40.5	45.8	45.1	43	39	37.2	34.5	37.6	37.4	36.8	35.6	37	34.6	36.2	36.4	37
PAH																		
Total PAH	2.5	n/a	<0.20	0.96	-	<0.20	<0.20	-	<0.20	<0.20	<0.20	<0.20	0.2	<0.20	<0.20	<0.20	<0.20	<0.20
PCB																		
Total PCB	100	34.1	0.24	0.09	-	0.13	0.22	-	0.096	0.055	-	<0.040	-	<0.040	-	<0.040	-	<0.040

Table A: Analytical Results

	Location	South Arm	South Arm	South Arm	South Arm	
Sample ID	FRASER RIVER "22"	FRASER RIVER "23"	FRASER RIVER "24"	FRASER RIVER "25"		
Date	21-Feb-13	21-Feb-13	21-Feb-13	21-Feb-13		
Sample Depth (m):	-	-	-	-		
Reach	St. Mungo's	Annieville Channel	Annieville Channel	Annieville Channel		
Source	FRPD	FRPD	FRPD	FRPD		
	DAS Criterion	ISQG (FW)				
Parameter	DAS Criterion ³	CCME FW ISQG ^{4,5}				
Physical Tests						
pH	-	-	-	-	-	-
Total Organic Carbon	-	-	<1000	<1000	<1000	<1000
% Clay	-	-	0.55	0.54	0.42	0.38
% Sand	-	-	98.7	99.5	99.3	98.6
% Silt	-	-	<0.10	<0.10	<0.10	0.51
Total Metals						
Arsenic	7.24	5.9	3.32	3.1	2.74	2.92
Cadmium	0.6	0.6	0.107	0.104	0.096	0.102
Chromium	52.3	37.3	23.8	23.3	21.6	17.8
Copper	18.7	35.7	12.7	11.9	12.3	11.7
Lead	30.2	35	2.06	2.04	1.85	1.86
Mercury	0.75	0.17	0.0137	0.0188	0.0137	0.0164
Zinc	124	123	36.8	34.5	33.4	34.5
PAH						
Total PAH	2.5	n/a	<0.20	<0.20	<0.20	<0.20
PCB						
Total PCB	100	34.1	-	<0.040	-	<0.040

APPENDIX A
Fraser River Reaches



APPENDIX B
Laboratory Certificates and Raw Data

Project FRASER RIVER MAINTENANCE DREDGING
Report To Rob Cochrane, FRASER RIVER PILE & DREDGE LTD.
ALS File No. L1271687
Date Received 22-Feb-13 15:30
Date 05-Mar-13

RESULTS OF ANALYSIS

Sample ID	FRASER RIVER "14"	FRASER RIVER "15"	FRASER RIVER "17"	FRASER RIVER "18"	FRASER RIVER "19"	FRASER RIVER "20"	FRASER RIVER "21"	FRASER RIVER "22"	FRASER RIVER "23"	FRASER RIVER "24"	FRASER RIVER "25"	FRASER RIVER "20" PAH QC1	FRASER RIVER "22" PAH QC2	FRASER RIVER "25" PCB QC	FRASER RIVER "17" METALS OC1	FRASER RIVER "17" METALS OC2	FRASER RIVER "17" METALS OC3	FRASER RIVER "17" METALS OC4	
Date Sampled	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	
Time Sampled	11:15	11:00	10:45	10:15	10:05	09:50	09:40	09:25	09:10	09:00	08:45	09:50	09:25	08:45	10:45	10:45	10:45	10:45	
ALS Sample ID	L1271687-1	L1271687-2	L1271687-3	L1271687-4	L1271687-5	L1271687-6	L1271687-7	L1271687-8	L1271687-9	L1271687-10	L1271687-11	L1271687-12	L1271687-13	L1271687-14	L1271687-15	L1271687-16	L1271687-17	L1271687-18	
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Physical Tests																			
Moisture	24.1	23.8	22.9	21.3	21.2	25.3	24.4	22.0	23.5	23.9	24.0	23.4	21.8	23.1	-	-	-	-	
Particle Size																			
% Gravel (>2mm)	<0.10	<0.10	<0.10	2.18	8.47	<0.10	<0.10	0.83	0.15	0.34	0.54	-	-	-	-	-	-	-	
% Sand (2.0mm - 0.063mm)	98.9	98.5	98.5	95.0	90.5	99.3	99.3	98.7	99.5	99.3	98.6	-	-	-	-	-	-	-	
% Silt (0.063mm - 4um)	0.19	0.40	0.59	1.78	0.29	<0.10	0.11	<0.10	<0.10	<0.10	0.51	-	-	-	-	-	-	-	
% Clay (<4um)	0.86	1.07	0.87	1.08	0.75	0.72	0.56	0.55	0.54	0.42	0.38	-	-	-	-	-	-	-	
Texture	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	-	-	-	-	-	-	-	
Organic / Inorganic Carbon																			
Total Organic Carbon	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	-	-	-	-	-	
Metals																			
Arsenic (As)	3.53	3.19	3.33	3.11	3.00	2.91	3.21	3.32	3.10	2.74	2.92	-	-	-	3.30	2.94	3.21	3.15	
Cadmium (Cd)	0.053	0.051	0.065	0.072	0.082	0.091	0.089	0.107	0.104	0.096	0.102	-	-	-	0.098	0.084	0.084	0.075	
Chromium (Cr)	24.5	27.7	28.8	20.6	29.6	29.7	26.6	23.8	23.3	21.6	17.8	-	-	-	34.0	33.7	32.8	28.1	
Copper (Cu)	11.5	13.8	15.0	11.5	12.8	13.6	13.0	12.7	11.9	12.3	11.7	-	-	-	13.5	13.5	13.9	13.3	
Lead (Pb)	2.36	2.25	2.16	1.98	2.11	2.11	2.22	2.06	2.04	1.85	1.86	-	-	-	2.37	2.30	2.36	2.22	
Mercury (Hg)	0.0151	0.0164	0.0166	0.0144	0.0144	0.0179	0.0151	0.0137	0.0188	0.0137	0.0164	-	-	-	0.0194	0.0221	0.0161	0.0157	
Nickel (Ni)	28.6	32.6	35.6	28.2	32.7	31.4	31.8	29.9	28.9	25.8	25.2	-	-	-	34.9	35.4	35.9	32.5	
Zinc (Zn)	37.4	36.8	37.0	34.6	36.2	36.4	37.0	36.8	34.5	33.4	34.5	-	-	-	38.4	37.7	39.0	37.9	
Polycyclic Aromatic Hydrocarbon:																			
Acenaphthene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Acenaphthylene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Anthracene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Benzo(a)anthracene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Benzo(a)pyrene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Benzo(b)fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Benzo(g,h,i)perylene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Benzo(k)fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Chrysene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Dibenz(a,h)anthracene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Fluorene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Indeno(1,2,3-c,d)pyrene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Naphthalene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Phenanthrene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Pyrene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	
Surrogate: Acenaphthene d1f	80.2	78.5	79.9	73.9	80.1	81.4	72.3	73.0	79.8	73.5	76.3	-	-	-	80.0	-	-	-	
Surrogate: Chrysene d12	94.4	91.4	90.8	89.1	95.6	95.2	86.8	83.3	92.7	84.2	87.6	-	-	-	89.2	-	-	-	
Surrogate: Naphthalene d1f	85.2	82.7	85.1	79.1	85.5	86.8	78.1	78.1	85.8	79.0	82.2	-	-	-	80.9	85.4	-	-	
Surrogate: Phenanthrene d1f	83.9	81.6	82.6	77.5	83.1	84.7	74.9	74.6	81.8	75.4	78.1	-	-	-	81.7	-	-	-	
Total PAHs	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	-	-	-	-	
Polychlorinated Biphenyl																			
PCB-1016	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
PCB-1221	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
PCB-1232	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
PCB-1242	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
PCB-1248	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
PCB-1254	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
PCB-1260	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
PCB-1262	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
PCB-1268	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	
Total Polychlorinated Biphenyl	-	<0.040	<0.040	-	<0.040	-	<0.040	-	<0.040	-	<0.040	-	-	<0.040	-	-	-	-	

Project FRASER RIVER MAINTENANCE DREDGING
Report To Rob Cochrane, FRASER RIVER PILE & DREDGE LTD.
ALS File No. L1271687
Date Received 22-Feb-13 15:30
Date 05-Mar-13

DETECTION LIMITS

	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER	FRASER RIVER
Sample ID	"14"	"15"	"17"	"18"	"19"	"20"	"21"	"22"	"23"	"24"	"25"	"20" PAH OC1	"22" PAH OC2	"25" PCB OC	"17" METALS OC1	"17" METALS OC2	"17" METALS OC3	"17" METALS OC4
Date Sampled	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13
Time Sampled	11:15	11:00	10:45	10:15	10:05	09:50	09:40	09:25	09:10	09:00	08:45	09:50	09:25	08:45	10:45	10:45	10:45	10:45
ALS Sample ID	L1271687-1	L1271687-2	L1271687-3	L1271687-4	L1271687-5	L1271687-6	L1271687-7	L1271687-8	L1271687-9	L1271687-10	L1271687-11	L1271687-12	L1271687-13	L1271687-14	L1271687-15	L1271687-16	L1271687-17	L1271687-18
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Physical Tests																		
Moisture	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	-	-	-	-
Particle Size																		
% Gravel (>2mm)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	-	-	-	-	-	-	-
% Sand (2.0mm - 0.063mm)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	-	-	-	-	-	-	-
% Silt (0.063mm - 4um)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	-	-	-	-	-	-	-
% Clay (<4um)	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	-	-	-	-	-	-	-
Texture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organic / Inorganic Carbon																		
Total Organic Carbon	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	-	-	-	-	-	-	-
Metals																		
Arsenic (As)	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	0.050	0.050	0.050	0.050
Cadmium (Cd)	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	0.050	0.050	0.050	0.050
Chromium (Cr)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	-	-	-	0.50	0.50	0.50	0.50
Copper (Cu)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	-	-	-	0.50	0.50	0.50	0.50
Lead (Pb)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	-	-	-	0.50	0.50	0.50	0.50
Mercury (Hg)	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	0.0050	-	-	-	0.0050	0.0050	0.0050	0.0050
Nickel (Ni)	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	-	-	-	0.50	0.50	0.50	0.50
Zinc (Zn)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	-	-	-	1.0	1.0	1.0	1.0
Polycyclic Aromatic Hydrocarbons																		
Acenaphthene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Acenaphthylene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Anthracene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Benzo(a)anthracene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Benzo(a)pyrene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Benzo(b)fluoranthene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Benzo(g,h,i)perylene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Benzo(k)fluoranthene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Chrysene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Dibenz(a,h)anthracene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Fluoranthene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Fluorene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Naphthalene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Phenanthrene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Pyrene	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	-	-	-	-	-
Surrogate: Acenaphthene d10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: Chrysene d12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: Naphthalene d8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: Phenanthrene d10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total PAHs	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	-	-	-	-	-
Polychlorinated Biphenyls																		
PCB-1016	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
PCB-1221	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
PCB-1232	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
PCB-1242	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
PCB-1248	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
PCB-1254	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
PCB-1260	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
PCB-1262	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
PCB-1268	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-
Total Polychlorinated Biphenyls	-	0.040	0.040	-	0.040	-	0.040	-	0.040	-	0.040	-	-	0.040	-	-	-	-

Project FRASER RIVER MAINTENANCE DREDGING
Report To Rob Cochrane, FRASER RIVER PILE & DREDGE LTD.
ALS File No. L1271687
Date Received 22-Feb-13 15:30
Date 05-Mar-13

UNITS

Sample ID	FRASER RIVER "14"	FRASER RIVER "15"	FRASER RIVER "17"	FRASER RIVER "18"	FRASER RIVER "19"	FRASER RIVER "20"	FRASER RIVER "21"	FRASER RIVER "22"	FRASER RIVER "23"	FRASER RIVER "24"	FRASER RIVER "25"	FRASER RIVER "20" PAH OC1	FRASER RIVER "22" PAH OC2	FRASER RIVER "25" PCB OC	FRASER RIVER "17" METALS OC1	FRASER RIVER "17" METALS OC2	FRASER RIVER "17" METALS OC3	FRASER RIVER "17" METALS OC4
Date Sampled	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13	21-FEB-13
Time Sampled	11:15	11:00	10:45	10:15	10:05	09:50	09:40	09:25	09:10	09:00	08:45	09:50	09:25	08:45	10:45	10:45	10:45	10:45
ALS Sample ID	L1271687-1	L1271687-2	L1271687-3	L1271687-4	L1271687-5	L1271687-6	L1271687-7	L1271687-8	L1271687-9	L1271687-10	L1271687-11	L1271687-12	L1271687-13	L1271687-14	L1271687-15	L1271687-16	L1271687-17	L1271687-18
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Physical Tests																		
Moisture	%	%	%	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-
Particle Size																		
% Gravel (>2mm)	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-	-	-
% Sand (2.0mm - 0.063mm)	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-	-	-
% Silt (0.063mm - 4um)	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-	-	-
% Clay (<4um)	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-	-	-
Texture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Organic / Inorganic Carbon																		
Total Organic Carbon	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-	-	-
Metals																		
Arsenic (As)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg
Cadmium (Cd)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg
Chromium (Cr)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg
Copper (Cu)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg
Lead (Pb)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg
Mercury (Hg)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg
Nickel (Ni)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg
Zinc (Zn)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	mg/kg	mg/kg	mg/kg	mg/kg
Polycyclic Aromatic Hydrocarbons																		
Acenaphthene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Acenaphthylene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Anthracene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Benzo(a)anthracene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Benzo(a)pyrene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Chrysene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Fluoranthene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Fluorene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Naphthalene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Phenanthrene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Pyrene	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Surrogate: Acenaphthene d10	%	%	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-
Surrogate: Chrysene d12	%	%	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-
Surrogate: Naphthalene d8	%	%	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-
Surrogate: Phenanthrene d10	%	%	%	%	%	%	%	%	%	%	%	%	%	-	-	-	-	-
Total PAHs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-	-	-	-	-
Polychlorinated Biphenyls																		
PCB-1016	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
PCB-1221	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
PCB-1232	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
PCB-1242	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
PCB-1248	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
PCB-1254	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
PCB-1260	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
PCB-1262	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
PCB-1268	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-
Total Polychlorinated Biphenyls	-	mg/kg	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	mg/kg	-	-	-	mg/kg	-	-	-

Project 13905 FRASER RIVER MAINTENANCE DREDGING
Report To Rob Cochrane, FRASER RIVER PILE & DREDGE LTD.
ALS File No. L1279586
Date Received 15-Mar-13 13:05
Date 10-Apr-13

RESULTS OF ANALYSIS

	FRASER RIVER "13" 14-MAR-13	FRASER RIVER "16" 14-MAR-13	FRASER RIVER "16" PAH QC 14-MAR-13	FRASER RIVER "13" METALS QC1 14-MAR-13	FRASER RIVER "13" METALS QC2 14-MAR-13	FRASER RIVER "13" METALS QC3 14-MAR-13	FRASER RIVER "13" METALS QC4 14-MAR-13
Sample ID	L1279586-1	L1279586-2	L1279586-3	L1279586-4	L1279586-6	L1279586-7	L1279586-8
Date Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Time Sampled							
ALS Sample ID							
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Physical Tests							
Moisture	25.1	21.2	20.7	-	-	-	-
Sample Size	15.9	-	-	-	-	-	-
Particle Size							
% Gravel (>2mm)	<0.10	<0.10	-	-	-	-	-
% Sand (2.0mm - 0.063mm)	99.1	98.1	-	-	-	-	-
% Silt (0.063mm - 4um)	0.69	1.41	-	-	-	-	-
% Clay (<4um)	0.24	0.45	-	-	-	-	-
Texture	Sand	Sand	-	-	-	-	-
Organic / Inorganic Carbon							
Total Organic Carbon	<0.10	<0.10	-	-	-	-	-
Metals							
Arsenic (As)	2.89	3.08	-	2.80	2.81	2.94	2.95
Cadmium (Cd)	0.068	0.062	-	0.067	0.068	0.067	0.064
Chromium (Cr)	34.3	27.0	-	31.5	29.2	37.2	30.7
Copper (Cu)	12.6	11.9	-	12.3	12.6	13.0	12.2
Lead (Pb)	3.03	2.23	-	2.81	2.66	2.70	2.76
Mercury (Hg)	0.0154	0.0152	-	0.0157	0.0153	0.0196	0.0188
Nickel (Ni)	34.7	32.3	-	34.2	34.7	36.0	33.6
Zinc (Zn)	37.6	35.6	-	37.1	36.3	37.7	36.6
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.050	<0.050	<0.050	-	-	-	-
Acenaphthylene	<0.050	<0.050	<0.050	-	-	-	-
Anthracene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(a)anthracene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(a)pyrene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(b)fluoranthene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(g,h,i)perylene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(k)fluoranthene	<0.050	<0.050	<0.050	-	-	-	-
Chrysene	<0.050	<0.050	<0.050	-	-	-	-
Dibenz(a,h)anthracene	<0.050	<0.050	<0.050	-	-	-	-
Fluoranthene	<0.050	<0.050	<0.050	-	-	-	-
Fluorene	<0.050	<0.050	<0.050	-	-	-	-
Indeno(1,2,3-c,d)pyrene	<0.050	<0.050	<0.050	-	-	-	-
Naphthalene	<0.050	<0.050	<0.050	-	-	-	-
Phenanthrene	<0.050	<0.050	<0.050	-	-	-	-
Pyrene	<0.050	<0.050	<0.050	-	-	-	-
Surrogate: Acenaphthene d10	79.9	82.8	81.6	-	-	-	-
Surrogate: Chrysene d12	94.6	100.5	89.7	-	-	-	-
Surrogate: Naphthalene d8	84.9	88.6	85.8	-	-	-	-
Surrogate: Phenanthrene d10	86.9	88.4	86.9	-	-	-	-
Total PAHs	<0.20	<0.20	<0.20	-	-	-	-
Polychlorinated Biphenyls							
PCB 1	1.51	-	-	-	-	-	-
PCB 2	<0.40	-	-	-	-	-	-
PCB 3	0.63	-	-	-	-	-	-
PCB 4	<1.7	-	-	-	-	-	-
PCB 5	<0.97	-	-	-	-	-	-
PCB 6	<1.1	-	-	-	-	-	-
PCB 7	<1.0	-	-	-	-	-	-
PCB 8	1.45	-	-	-	-	-	-
PCB 9	<0.95	-	-	-	-	-	-
PCB 10	<0.97	-	-	-	-	-	-
PCB 11	<0.97	-	-	-	-	-	-
PCB 13/12	<1.0	-	-	-	-	-	-
PCB 14	<1.0	-	-	-	-	-	-
PCB 15	1.4	-	-	-	-	-	-
PCB 16	1.02	-	-	-	-	-	-
PCB 17	0.82	-	-	-	-	-	-
PCB 19	<0.58	-	-	-	-	-	-
PCB 21/33	1.48	-	-	-	-	-	-
PCB 22	1.42	-	-	-	-	-	-
PCB 23	<0.28	-	-	-	-	-	-
PCB 24	<0.27	-	-	-	-	-	-
PCB 25	0.50	-	-	-	-	-	-
PCB 27	<0.24	-	-	-	-	-	-
PCB 28/20	3.72	-	-	-	-	-	-
PCB 29/28	0.64	-	-	-	-	-	-
PCB 30/18	1.92	-	-	-	-	-	-
PCB 31	3.59	-	-	-	-	-	-
PCB 32	0.48	-	-	-	-	-	-
PCB 34	<0.25	-	-	-	-	-	-
PCB 35	<0.25	-	-	-	-	-	-
PCB 36	<0.24	-	-	-	-	-	-
PCB 37	0.64	-	-	-	-	-	-
PCB 38	<0.25	-	-	-	-	-	-
PCB 39	<0.25	-	-	-	-	-	-
PCB 41/71/40	1.20	-	-	-	-	-	-
PCB 42	0.36	-	-	-	-	-	-
PCB 43	<0.16	-	-	-	-	-	-
PCB 44/47/65	2.98	-	-	-	-	-	-
PCB 45/51	<0.13	-	-	-	-	-	-
PCB 46	<0.16	-	-	-	-	-	-
PCB 48	0.34	-	-	-	-	-	-
PCB 50/53	0.28	-	-	-	-	-	-
PCB 52	3.41	-	-	-	-	-	-
PCB 54	<0.19	-	-	-	-	-	-
PCB 55	<0.12	-	-	-	-	-	-
PCB 56	0.94	-	-	-	-	-	-
PCB 57	<0.11	-	-	-	-	-	-
PCB 58	<0.12	-	-	-	-	-	-
PCB 59/62/75	0.37	-	-	-	-	-	-
PCB 60	0.54	-	-	-	-	-	-
PCB 61/70/74/76	5.99	-	-	-	-	-	-
PCB 63	<0.10	-	-	-	-	-	-
PCB 64	1.78	-	-	-	-	-	-
PCB 66	2.82	-	-	-	-	-	-
PCB 67	<0.11	-	-	-	-	-	-
PCB 68	<0.11	-	-	-	-	-	-
PCB 69/49	1.70	-	-	-	-	-	-
PCB 72	<0.11	-	-	-	-	-	-
PCB 73	<0.10	-	-	-	-	-	-
PCB 77	<0.11	-	-	-	-	-	-
PCB 78	<0.13	-	-	-	-	-	-
PCB 79	<0.11	-	-	-	-	-	-
PCB 80	<0.11	-	-	-	-	-	-
PCB 81	<0.12	-	-	-	-	-	-
PCB 82	<0.12	-	-	-	-	-	-
PCB 83/99	0.74	-	-	-	-	-	-
PCB 84	0.23	-	-	-	-	-	-
PCB 89/91	0.24	-	-	-	-	-	-
PCB 89	<0.13	-	-	-	-	-	-
PCB 92	0.12	-	-	-	-	-	-
PCB 94	<0.14	-	-	-	-	-	-
PCB 95	0.44	-	-	-	-	-	-

Project 13805 FRASER RIVER MAINTENANCE DREDGING
Report To Rob Cochran, FRASER RIVER PILE & DREDGE LTD.
ALS File No. L1279586
Date Received 15-Mar-13 13:05
Date 10-Apr-13

DETECTION LIMITS

Sample ID	FRASER RIVER "13"	FRASER RIVER "16"	FRASER RIVER "16" PAH QC	FRASER RIVER "13" METALS QC1	FRASER RIVER "13" METALS QC2	FRASER RIVER "13" METALS QC3	FRASER RIVER "13" METALS QC4
Date Sampled	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	L1279586-1	L1279586-2	L1279586-3	L1279586-5	L1279586-6	L1279586-7	L1279586-8
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Physical Tests							
Moisture	0.25	0.25	0.25	-	-	-	-
Sample Size	0.010	-	-	-	-	-	-
Particle Size							
% Gravel (>2mm)	0.10	0.10	-	-	-	-	-
% Sand (2.0mm - 0.063mm)	0.10	0.10	-	-	-	-	-
% Silt (0.063mm - 4um)	0.10	0.10	-	-	-	-	-
% Clay (<4um)	0.10	0.10	-	-	-	-	-
Texture	-	-	-	-	-	-	-
Organic / Inorganic Carbon							
Total Organic Carbon	0.10	0.10	-	-	-	-	-
Metals							
Arsenic (As)	0.050	0.050	-	0.050	0.050	0.050	0.050
Cadmium (Cd)	0.050	0.050	-	0.050	0.050	0.050	0.050
Chromium (Cr)	0.50	0.50	-	0.50	0.50	0.50	0.50
Copper (Cu)	0.50	0.50	-	0.50	0.50	0.50	0.50
Lead (Pb)	0.50	0.50	-	0.50	0.50	0.50	0.50
Mercury (Hg)	0.0050	0.0050	-	0.0050	0.0050	0.0050	0.0050
Nickel (Ni)	0.50	0.50	-	0.50	0.50	0.50	0.50
Zinc (Zn)	1.0	1.0	-	1.0	1.0	1.0	1.0
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	0.050	0.050	0.050	-	-	-	-
Acenaphthylene	0.050	0.050	0.050	-	-	-	-
Anthracene	0.050	0.050	0.050	-	-	-	-
Benzo(a)anthracene	0.050	0.050	0.050	-	-	-	-
Benzo(a)pyrene	0.050	0.050	0.050	-	-	-	-
Benzo(b)fluoranthene	0.050	0.050	0.050	-	-	-	-
Benzo(g,h,i)perylene	0.050	0.050	0.050	-	-	-	-
Benzo(k)fluoranthene	0.050	0.050	0.050	-	-	-	-
Chrysene	0.050	0.050	0.050	-	-	-	-
Dibenz(a,h)anthracene	0.050	0.050	0.050	-	-	-	-
Fluoranthene	0.050	0.050	0.050	-	-	-	-
Fluorene	0.050	0.050	0.050	-	-	-	-
Indeno(1,2,3-c,d)pyrene	0.050	0.050	0.050	-	-	-	-
Naphthalene	0.050	0.050	0.050	-	-	-	-
Phenanthrene	0.050	0.050	0.050	-	-	-	-
Pyrene	0.050	0.050	0.050	-	-	-	-
Surrogate: Acenaphthene d10	-	-	-	-	-	-	-
Surrogate: Chrysene d12	-	-	-	-	-	-	-
Surrogate: Naphthalene d8	-	-	-	-	-	-	-
Surrogate: Phenanthrene d10	-	-	-	-	-	-	-
Total PAHs	0.20	0.20	0.20	-	-	-	-
Polychlorinated Biphenyls							
PCB 1	0.53	-	-	-	-	-	-
PCB 2	0.40	-	-	-	-	-	-
PCB 3	0.36	-	-	-	-	-	-
PCB 4	1.7	-	-	-	-	-	-
PCB 5	0.97	-	-	-	-	-	-
PCB 6	1.1	-	-	-	-	-	-
PCB 7	1.0	-	-	-	-	-	-
PCB 8	0.82	-	-	-	-	-	-
PCB 9	0.85	-	-	-	-	-	-
PCB 10	0.97	-	-	-	-	-	-
PCB 11	0.97	-	-	-	-	-	-
PCB 13/12	1.0	-	-	-	-	-	-
PCB 14	1.0	-	-	-	-	-	-
PCB 15	1.0	-	-	-	-	-	-
PCB 16	0.42	-	-	-	-	-	-
PCB 17	0.35	-	-	-	-	-	-
PCB 19	0.58	-	-	-	-	-	-
PCB 21/33	0.26	-	-	-	-	-	-
PCB 22	0.28	-	-	-	-	-	-
PCB 23	0.28	-	-	-	-	-	-
PCB 24	0.27	-	-	-	-	-	-
PCB 25	0.26	-	-	-	-	-	-
PCB 27	0.24	-	-	-	-	-	-
PCB 28/20	0.27	-	-	-	-	-	-
PCB 29/26	0.26	-	-	-	-	-	-
PCB 30/18	0.28	-	-	-	-	-	-
PCB 31	0.23	-	-	-	-	-	-
PCB 32	0.24	-	-	-	-	-	-
PCB 34	0.25	-	-	-	-	-	-
PCB 35	0.25	-	-	-	-	-	-
PCB 36	0.24	-	-	-	-	-	-
PCB 37	0.21	-	-	-	-	-	-
PCB 38	0.25	-	-	-	-	-	-
PCB 39	0.25	-	-	-	-	-	-
PCB 41/71/40	0.14	-	-	-	-	-	-
PCB 42	0.14	-	-	-	-	-	-
PCB 43	0.16	-	-	-	-	-	-
PCB 44/47/65	0.12	-	-	-	-	-	-
PCB 45/51	0.13	-	-	-	-	-	-
PCB 46	0.15	-	-	-	-	-	-
PCB 48	0.14	-	-	-	-	-	-
PCB 50/53	0.13	-	-	-	-	-	-
PCB 52	0.13	-	-	-	-	-	-
PCB 54	0.19	-	-	-	-	-	-
PCB 55	0.12	-	-	-	-	-	-
PCB 56	0.13	-	-	-	-	-	-
PCB 57	0.11	-	-	-	-	-	-
PCB 58	0.12	-	-	-	-	-	-
PCB 59/62/75	0.10	-	-	-	-	-	-
PCB 60	0.12	-	-	-	-	-	-
PCB 61/70/74/76	0.13	-	-	-	-	-	-
PCB 63	0.10	-	-	-	-	-	-
PCB 64	0.10	-	-	-	-	-	-
PCB 66	0.11	-	-	-	-	-	-
PCB 67	0.11	-	-	-	-	-	-
PCB 68	0.11	-	-	-	-	-	-
PCB 69/49	0.11	-	-	-	-	-	-
PCB 72	0.11	-	-	-	-	-	-
PCB 73	0.10	-	-	-	-	-	-
PCB 77	0.11	-	-	-	-	-	-
PCB 78	0.13	-	-	-	-	-	-
PCB 79	0.11	-	-	-	-	-	-
PCB 80	0.11	-	-	-	-	-	-
PCB 81	0.12	-	-	-	-	-	-
PCB 82	0.12	-	-	-	-	-	-
PCB 83/99	0.13	-	-	-	-	-	-
PCB 84	0.15	-	-	-	-	-	-
PCB 89/91	0.12	-	-	-	-	-	-
PCB 89	0.13	-	-	-	-	-	-
PCB 92	0.11	-	-	-	-	-	-
PCB 94	0.14	-	-	-	-	-	-
PCB 95	0.13	-	-	-	-	-	-

Project 13805 FRASER RIVER MAINTENANCE DREDGING
Report To Rob Cochran, FRASER RIVER PILE & DREDGE LTD.
ALS File No. L1279586
Date Received 15-Mar-13 13:05
Date 10-Apr-13

UNITS

	FRASER RIVER "13"	FRASER RIVER "16"	FRASER RIVER "16" PAH QC	FRASER RIVER "13" METALS QC1	FRASER RIVER "13" METALS QC2	FRASER RIVER "13" METALS QC3	FRASER RIVER "13" METALS QC4
Sample ID	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13
Date Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Time Sampled	L1279586-1	L1279586-2	L1279586-3	L1279586-5	L1279586-6	L1279586-7	L1279586-8
ALS Sample ID	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Matrix							
Physical Tests							
Moisture	%	%	%	-	-	-	-
Sample Size	g	-	-	-	-	-	-
Particle Size							
% Gravel (>2mm)	%	%	-	-	-	-	-
% Sand (2.0mm - 0.063mm)	%	%	-	-	-	-	-
% Silt (0.063mm - 4um)	%	%	-	-	-	-	-
% Clay (<4um)	%	%	-	-	-	-	-
Texture	-	-	-	-	-	-	-
Organic / Inorganic Carbon							
Total Organic Carbon	%	%	-	-	-	-	-
Metals							
Arsenic (As)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Cadmium (Cd)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Chromium (Cr)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Copper (Cu)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Lead (Pb)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Mercury (Hg)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Nickel (Ni)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Zinc (Zn)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Acenaphthylene	mg/kg	mg/kg	mg/kg	-	-	-	-
Anthracene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(a)anthracene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(a)pyrene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(b)fluoranthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(k)fluoranthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(i)fluoranthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Chrysene	mg/kg	mg/kg	mg/kg	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	mg/kg	mg/kg	-	-	-	-
Fluoranthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Fluorene	mg/kg	mg/kg	mg/kg	-	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg	mg/kg	mg/kg	-	-	-	-
Naphthalene	mg/kg	mg/kg	mg/kg	-	-	-	-
Phenanthrene	mg/kg	mg/kg	mg/kg	-	-	-	-
Pyrene	mg/kg	mg/kg	mg/kg	-	-	-	-
Surrogate: Acenaphthene d10	%	%	%	-	-	-	-
Surrogate: Chrysene d12	%	%	%	-	-	-	-
Surrogate: Naphthalene d8	%	%	%	-	-	-	-
Surrogate: Phenanthrene d10	%	%	%	-	-	-	-
Total PAHs	mg/kg	mg/kg	mg/kg	-	-	-	-
Polychlorinated Biphenyls							
PCB 1	ng/kg	-	-	-	-	-	-
PCB 2	ng/kg	-	-	-	-	-	-
PCB 3	ng/kg	-	-	-	-	-	-
PCB 4	ng/kg	-	-	-	-	-	-
PCB 5	ng/kg	-	-	-	-	-	-
PCB 6	ng/kg	-	-	-	-	-	-
PCB 7	ng/kg	-	-	-	-	-	-
PCB 8	ng/kg	-	-	-	-	-	-
PCB 9	ng/kg	-	-	-	-	-	-
PCB 10	ng/kg	-	-	-	-	-	-
PCB 11	ng/kg	-	-	-	-	-	-
PCB 13/12	ng/kg	-	-	-	-	-	-
PCB 14	ng/kg	-	-	-	-	-	-
PCB 15	ng/kg	-	-	-	-	-	-
PCB 16	ng/kg	-	-	-	-	-	-
PCB 17	ng/kg	-	-	-	-	-	-
PCB 19	ng/kg	-	-	-	-	-	-
PCB 21/33	ng/kg	-	-	-	-	-	-
PCB 22	ng/kg	-	-	-	-	-	-
PCB 23	ng/kg	-	-	-	-	-	-
PCB 24	ng/kg	-	-	-	-	-	-
PCB 25	ng/kg	-	-	-	-	-	-
PCB 27	ng/kg	-	-	-	-	-	-
PCB 28/20	ng/kg	-	-	-	-	-	-
PCB 29/26	ng/kg	-	-	-	-	-	-
PCB 30/18	ng/kg	-	-	-	-	-	-
PCB 31	ng/kg	-	-	-	-	-	-
PCB 32	ng/kg	-	-	-	-	-	-
PCB 34	ng/kg	-	-	-	-	-	-
PCB 35	ng/kg	-	-	-	-	-	-
PCB 36	ng/kg	-	-	-	-	-	-
PCB 37	ng/kg	-	-	-	-	-	-
PCB 38	ng/kg	-	-	-	-	-	-
PCB 39	ng/kg	-	-	-	-	-	-
PCB 41/71/40	ng/kg	-	-	-	-	-	-
PCB 42	ng/kg	-	-	-	-	-	-
PCB 43	ng/kg	-	-	-	-	-	-
PCB 44/47/65	ng/kg	-	-	-	-	-	-
PCB 45/51	ng/kg	-	-	-	-	-	-
PCB 46	ng/kg	-	-	-	-	-	-
PCB 48	ng/kg	-	-	-	-	-	-
PCB 50/53	ng/kg	-	-	-	-	-	-
PCB 52	ng/kg	-	-	-	-	-	-
PCB 54	ng/kg	-	-	-	-	-	-
PCB 55	ng/kg	-	-	-	-	-	-
PCB 56	ng/kg	-	-	-	-	-	-
PCB 57	ng/kg	-	-	-	-	-	-
PCB 58	ng/kg	-	-	-	-	-	-
PCB 59/62/75	ng/kg	-	-	-	-	-	-
PCB 60	ng/kg	-	-	-	-	-	-
PCB 61/70/74/76	ng/kg	-	-	-	-	-	-
PCB 63	ng/kg	-	-	-	-	-	-
PCB 64	ng/kg	-	-	-	-	-	-
PCB 66	ng/kg	-	-	-	-	-	-
PCB 67	ng/kg	-	-	-	-	-	-
PCB 68	ng/kg	-	-	-	-	-	-
PCB 69/49	ng/kg	-	-	-	-	-	-
PCB 72	ng/kg	-	-	-	-	-	-
PCB 73	ng/kg	-	-	-	-	-	-
PCB 77	ng/kg	-	-	-	-	-	-
PCB 78	ng/kg	-	-	-	-	-	-
PCB 79	ng/kg	-	-	-	-	-	-
PCB 80	ng/kg	-	-	-	-	-	-
PCB 81	ng/kg	-	-	-	-	-	-
PCB 82	ng/kg	-	-	-	-	-	-
PCB 83/99	ng/kg	-	-	-	-	-	-
PCB 84	ng/kg	-	-	-	-	-	-
PCB 88/91	ng/kg	-	-	-	-	-	-
PCB 89	ng/kg	-	-	-	-	-	-
PCB 92	ng/kg	-	-	-	-	-	-
PCB 94	ng/kg	-	-	-	-	-	-
PCB 95	ng/kg	-	-	-	-	-	-

Project 13905 FRASER RIVER MAINTENANCE DREDGING
 Report To Rob Cochrane, FRASER RIVER PILE & DREDGE LTD.
 ALS File No. L1279586
 Date Received 15-Mar-13 13:05
 Date 10-Apr-13

RESULTS OF ANALYSIS

	FRASER RIVER "13" 14-MAR-13	FRASER RIVER "16" 14-MAR-13	FRASER RIVER "16" PAH QC 14-MAR-13	FRASER RIVER "13" METALS QC1 14-MAR-13	FRASER RIVER "13" METALS QC2 14-MAR-13	FRASER RIVER "13" METALS QC3 14-MAR-13	FRASER RIVER "13" METALS QC4 14-MAR-13
Sample ID	13	16	16 PAH QC	13 METALS QC1	13 METALS QC2	13 METALS QC3	13 METALS QC4
Date Sampled	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	L1279586-1	L1279586-2	L1279586-3	L1279586-4	L1279586-5	L1279586-6	L1279586-7
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Physical Tests							
Moisture	25.1	21.2	20.7	-	-	-	-
Sample Size	15.9	-	-	-	-	-	-
Particle Size							
% Gravel (>2mm)	<0.10	<0.10	-	-	-	-	-
% Sand (2.0mm - 0.063mm)	99.1	98.1	-	-	-	-	-
% Silt (0.063mm - 4um)	0.69	1.41	-	-	-	-	-
% Clay (<4um)	0.24	0.45	-	-	-	-	-
Texture	Sand	Sand	-	-	-	-	-
Organic / Inorganic Carbon							
Total Organic Carbon	<0.10	<0.10	-	-	-	-	-
Metals							
Arsenic (As)	2.89	3.08	-	2.80	2.81	2.94	2.95
Cadmium (Cd)	0.068	0.062	-	0.067	0.068	0.067	0.064
Chromium (Cr)	34.3	27.0	-	31.5	29.2	37.2	30.7
Copper (Cu)	12.6	11.9	-	12.3	12.6	13.0	12.2
Lead (Pb)	3.03	2.23	-	2.81	2.66	2.70	2.76
Mercury (Hg)	0.0154	0.0152	-	0.0157	0.0153	0.0196	0.0188
Nickel (Ni)	34.7	32.3	-	34.2	34.7	35.0	33.6
Zinc (Zn)	37.6	35.6	-	37.1	36.3	37.7	36.6
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.050	<0.050	<0.050	-	-	-	-
Acenaphthylene	<0.050	<0.050	<0.050	-	-	-	-
Anthracene	<0.050	<0.050	<0.050	-	-	-	-
Benz(a)anthracene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(a)pyrene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(b)fluoranthene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(g,h,i)perylene	<0.050	<0.050	<0.050	-	-	-	-
Benzo(k)fluoranthene	<0.050	<0.050	<0.050	-	-	-	-
Chrysene	<0.050	<0.050	<0.050	-	-	-	-
Dibenz(a,h)anthracene	<0.050	<0.050	<0.050	-	-	-	-
Fluoranthene	<0.050	<0.050	<0.050	-	-	-	-
Fluorene	<0.050	<0.050	<0.050	-	-	-	-
Indeno(1,2,3-c,d)pyrene	<0.050	<0.050	<0.050	-	-	-	-
Naphthalene	<0.050	<0.050	<0.050	-	-	-	-
Phenanthrene	<0.050	<0.050	<0.050	-	-	-	-
Pyrene	<0.050	<0.050	<0.050	-	-	-	-
Surrogate: Acenaphthene d10	79.9	82.8	81.6	-	-	-	-
Surrogate: Chrysene d12	94.6	100.5	89.7	-	-	-	-
Surrogate: Naphthalene d8	84.9	88.6	85.8	-	-	-	-
Surrogate: Phenanthrene d10	86.9	88.4	86.9	-	-	-	-
Total PAHs	<0.20	<0.20	<0.20	-	-	-	-
Polychlorinated Biphenyls							
PCB 1	1.51	-	-	-	-	-	-
PCB 2	<0.40	-	-	-	-	-	-
PCB 3	0.63	-	-	-	-	-	-
PCB 4	<1.7	-	-	-	-	-	-
PCB 5	<0.97	-	-	-	-	-	-
PCB 6	<1.1	-	-	-	-	-	-
PCB 7	<1.0	-	-	-	-	-	-
PCB 8	1.45	-	-	-	-	-	-
PCB 9	<0.95	-	-	-	-	-	-
PCB 10	<0.97	-	-	-	-	-	-
PCB 11	<0.97	-	-	-	-	-	-
PCB 13/12	<1.0	-	-	-	-	-	-
PCB 14	<1.0	-	-	-	-	-	-
PCB 15	<1.4	-	-	-	-	-	-
PCB 16	1.02	-	-	-	-	-	-
PCB 17	0.82	-	-	-	-	-	-
PCB 19	<0.58	-	-	-	-	-	-
PCB 21/33	1.48	-	-	-	-	-	-
PCB 22	1.42	-	-	-	-	-	-
PCB 23	<0.28	-	-	-	-	-	-
PCB 24	<0.27	-	-	-	-	-	-
PCB 25	0.50	-	-	-	-	-	-
PCB 27	<0.24	-	-	-	-	-	-
PCB 28/20	3.72	-	-	-	-	-	-
PCB 29/28	0.64	-	-	-	-	-	-
PCB 30/18	1.92	-	-	-	-	-	-
PCB 31	3.59	-	-	-	-	-	-
PCB 32	0.48	-	-	-	-	-	-
PCB 34	<0.25	-	-	-	-	-	-
PCB 35	<0.25	-	-	-	-	-	-
PCB 36	<0.24	-	-	-	-	-	-
PCB 37	0.64	-	-	-	-	-	-
PCB 38	<0.25	-	-	-	-	-	-
PCB 39	<0.25	-	-	-	-	-	-
PCB 41/71/40	1.20	-	-	-	-	-	-
PCB 42	0.36	-	-	-	-	-	-
PCB 43	<0.16	-	-	-	-	-	-
PCB 44/47/65	2.98	-	-	-	-	-	-
PCB 49/51	<0.13	-	-	-	-	-	-
PCB 46	<0.15	-	-	-	-	-	-
PCB 48	0.34	-	-	-	-	-	-
PCB 50/53	0.28	-	-	-	-	-	-
PCB 52	3.41	-	-	-	-	-	-
PCB 54	<0.19	-	-	-	-	-	-
PCB 55	<0.12	-	-	-	-	-	-
PCB 56	0.94	-	-	-	-	-	-
PCB 57	<0.11	-	-	-	-	-	-
PCB 58	<0.12	-	-	-	-	-	-
PCB 59/62/75	0.37	-	-	-	-	-	-
PCB 60	0.54	-	-	-	-	-	-
PCB 61/70/74/76	5.99	-	-	-	-	-	-
PCB 63	<0.10	-	-	-	-	-	-
PCB 64	1.78	-	-	-	-	-	-
PCB 66	2.82	-	-	-	-	-	-
PCB 67	<0.11	-	-	-	-	-	-
PCB 68	<0.11	-	-	-	-	-	-
PCB 69/49	1.70	-	-	-	-	-	-
PCB 72	<0.11	-	-	-	-	-	-
PCB 73	<0.10	-	-	-	-	-	-
PCB 77	<0.11	-	-	-	-	-	-
PCB 78	<0.13	-	-	-	-	-	-
PCB 79	<0.11	-	-	-	-	-	-
PCB 80	<0.11	-	-	-	-	-	-
PCB 81	<0.12	-	-	-	-	-	-
PCB 82	<0.12	-	-	-	-	-	-
PCB 83/99	0.74	-	-	-	-	-	-
PCB 84	0.23	-	-	-	-	-	-
PCB 89/91	0.24	-	-	-	-	-	-
PCB 89	<0.13	-	-	-	-	-	-
PCB 92	0.12	-	-	-	-	-	-
PCB 94	<0.14	-	-	-	-	-	-
PCB 95	0.44	-	-	-	-	-	-

Project 13805 FRASER RIVER MAINTENANCE DREDGING
Report To Rob Cochran, FRASER RIVER PILE & DREDGE LTD.
ALS File No. L1279586
Date Received 15-Mar-13 13:05
Date 10-Apr-13

DETECTION LIMITS

	FRASER RIVER "13"	FRASER RIVER "16"	FRASER RIVER "16" PAH QC	FRASER RIVER "13" METALS QC1	FRASER RIVER "13" METALS QC2	FRASER RIVER "13" METALS QC3	FRASER RIVER "13" METALS QC4
Sample ID	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13
Date Sampled	05:00	00:00	00:00	00:00	00:00	00:00	00:00
Time Sampled	L1279586-1	L1279586-2	L1279586-3	L1279586-5	L1279586-6	L1279586-7	L1279586-8
ALS Sample ID	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Matrix							
Physical Tests							
Moisture	0.25	0.25	0.25	-	-	-	-
Sample Size	0.010	-	-	-	-	-	-
Particle Size							
% Gravel (>2mm)	0.10	0.10	-	-	-	-	-
% Sand (2.0mm - 0.063mm)	0.10	0.10	-	-	-	-	-
% Silt (0.063mm - 4um)	0.10	0.10	-	-	-	-	-
% Clay (<4um)	0.10	0.10	-	-	-	-	-
Texture	-	-	-	-	-	-	-
Organic / Inorganic Carbon							
Total Organic Carbon	0.10	0.10	-	-	-	-	-
Metals							
Arsenic (As)	0.050	0.050	-	0.050	0.050	0.050	0.050
Cadmium (Cd)	0.050	0.050	-	0.050	0.050	0.050	0.050
Chromium (Cr)	0.50	0.50	-	0.50	0.50	0.50	0.50
Copper (Cu)	0.50	0.50	-	0.50	0.50	0.50	0.50
Lead (Pb)	0.50	0.50	-	0.50	0.50	0.50	0.50
Mercury (Hg)	0.0050	0.0050	-	0.0050	0.0050	0.0050	0.0050
Nickel (Ni)	0.50	0.50	-	0.50	0.50	0.50	0.50
Zinc (Zn)	1.0	1.0	-	1.0	1.0	1.0	1.0
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	0.050	0.050	0.050	-	-	-	-
Acenaphthylene	0.050	0.050	0.050	-	-	-	-
Anthracene	0.050	0.050	0.050	-	-	-	-
Benzo(a)anthracene	0.050	0.050	0.050	-	-	-	-
Benzo(a)pyrene	0.050	0.050	0.050	-	-	-	-
Benzo(b)fluoranthene	0.050	0.050	0.050	-	-	-	-
Benzo(g,h,i)perylene	0.050	0.050	0.050	-	-	-	-
Benzo(k)fluoranthene	0.050	0.050	0.050	-	-	-	-
Chrysene	0.050	0.050	0.050	-	-	-	-
Dibenz(a,h)anthracene	0.050	0.050	0.050	-	-	-	-
Fluoranthene	0.050	0.050	0.050	-	-	-	-
Fluorene	0.050	0.050	0.050	-	-	-	-
Indeno(1,2,3-c,d)pyrene	0.050	0.050	0.050	-	-	-	-
Naphthalene	0.050	0.050	0.050	-	-	-	-
Phenanthrene	0.050	0.050	0.050	-	-	-	-
Pyrene	0.050	0.050	0.050	-	-	-	-
Surrogate: Acenaphthene d10	-	-	-	-	-	-	-
Surrogate: Chrysene d12	-	-	-	-	-	-	-
Surrogate: Naphthalene d8	-	-	-	-	-	-	-
Surrogate: Phenanthrene d10	-	-	-	-	-	-	-
Total PAHs	0.20	0.20	0.20	-	-	-	-
Polychlorinated Biphenyls							
PCB 1	0.53	-	-	-	-	-	-
PCB 2	0.40	-	-	-	-	-	-
PCB 3	0.36	-	-	-	-	-	-
PCB 4	1.7	-	-	-	-	-	-
PCB 5	0.97	-	-	-	-	-	-
PCB 6	1.1	-	-	-	-	-	-
PCB 7	1.0	-	-	-	-	-	-
PCB 8	0.82	-	-	-	-	-	-
PCB 9	0.85	-	-	-	-	-	-
PCB 10	0.97	-	-	-	-	-	-
PCB 11	0.97	-	-	-	-	-	-
PCB 13/12	1.0	-	-	-	-	-	-
PCB 14	1.0	-	-	-	-	-	-
PCB 15	1.0	-	-	-	-	-	-
PCB 16	0.42	-	-	-	-	-	-
PCB 17	0.35	-	-	-	-	-	-
PCB 19	0.58	-	-	-	-	-	-
PCB 21/33	0.26	-	-	-	-	-	-
PCB 22	0.28	-	-	-	-	-	-
PCB 23	0.28	-	-	-	-	-	-
PCB 24	0.27	-	-	-	-	-	-
PCB 25	0.26	-	-	-	-	-	-
PCB 27	0.24	-	-	-	-	-	-
PCB 28/20	0.27	-	-	-	-	-	-
PCB 29/26	0.26	-	-	-	-	-	-
PCB 30/18	0.28	-	-	-	-	-	-
PCB 31	0.23	-	-	-	-	-	-
PCB 32	0.24	-	-	-	-	-	-
PCB 34	0.25	-	-	-	-	-	-
PCB 35	0.25	-	-	-	-	-	-
PCB 36	0.24	-	-	-	-	-	-
PCB 37	0.21	-	-	-	-	-	-
PCB 38	0.25	-	-	-	-	-	-
PCB 39	0.25	-	-	-	-	-	-
PCB 41/71/40	0.14	-	-	-	-	-	-
PCB 42	0.14	-	-	-	-	-	-
PCB 43	0.16	-	-	-	-	-	-
PCB 44/47/65	0.12	-	-	-	-	-	-
PCB 45/51	0.13	-	-	-	-	-	-
PCB 46	0.15	-	-	-	-	-	-
PCB 48	0.14	-	-	-	-	-	-
PCB 50/53	0.13	-	-	-	-	-	-
PCB 52	0.13	-	-	-	-	-	-
PCB 54	0.19	-	-	-	-	-	-
PCB 55	0.12	-	-	-	-	-	-
PCB 56	0.13	-	-	-	-	-	-
PCB 57	0.11	-	-	-	-	-	-
PCB 58	0.12	-	-	-	-	-	-
PCB 59/62/75	0.10	-	-	-	-	-	-
PCB 60	0.12	-	-	-	-	-	-
PCB 61/70/74/76	0.13	-	-	-	-	-	-
PCB 63	0.10	-	-	-	-	-	-
PCB 64	0.10	-	-	-	-	-	-
PCB 66	0.11	-	-	-	-	-	-
PCB 67	0.11	-	-	-	-	-	-
PCB 68	0.11	-	-	-	-	-	-
PCB 69/49	0.11	-	-	-	-	-	-
PCB 72	0.11	-	-	-	-	-	-
PCB 73	0.10	-	-	-	-	-	-
PCB 77	0.11	-	-	-	-	-	-
PCB 78	0.13	-	-	-	-	-	-
PCB 79	0.11	-	-	-	-	-	-
PCB 80	0.11	-	-	-	-	-	-
PCB 81	0.12	-	-	-	-	-	-
PCB 82	0.12	-	-	-	-	-	-
PCB 83/99	0.13	-	-	-	-	-	-
PCB 84	0.15	-	-	-	-	-	-
PCB 88/91	0.12	-	-	-	-	-	-
PCB 89	0.13	-	-	-	-	-	-
PCB 92	0.11	-	-	-	-	-	-
PCB 94	0.14	-	-	-	-	-	-
PCB 95	0.13	-	-	-	-	-	-

Project 13805 FRASER RIVER MAINTENANCE DREDGING
Report To Rob Cochran, FRASER RIVER PILE & DREDGE LTD.
ALS File No. L1279586
Date Received 15-Mar-13 13:05
Date 10-Apr-13

UNITS

	FRASER RIVER "13"	FRASER RIVER "16"	FRASER RIVER "16" PAH QC	FRASER RIVER "13" METALS QC1	FRASER RIVER "13" METALS QC2	FRASER RIVER "13" METALS QC3	FRASER RIVER "13" METALS QC4
Sample ID	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13	14-MAR-13
Date Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Time Sampled	L1279586-1	L1279586-2	L1279586-3	L1279586-5	L1279586-6	L1279586-7	L1279586-8
ALS Sample ID	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Matrix							
Physical Tests							
Moisture	%	%	%	-	-	-	-
Sample Size	g	-	-	-	-	-	-
Particle Size							
% Gravel (>2mm)	%	%	-	-	-	-	-
% Sand (2.0mm - 0.063mm)	%	%	-	-	-	-	-
% Silt (0.063mm - 4um)	%	%	-	-	-	-	-
% Clay (<4um)	%	%	-	-	-	-	-
Texture	-	-	-	-	-	-	-
Organic / Inorganic Carbon							
Total Organic Carbon	%	%	-	-	-	-	-
Metals							
Arsenic (As)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Cadmium (Cd)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Chromium (Cr)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Copper (Cu)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Lead (Pb)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Mercury (Hg)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Nickel (Ni)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Zinc (Zn)	mg/kg	mg/kg	-	mg/kg	mg/kg	mg/kg	mg/kg
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Acenaphthylene	mg/kg	mg/kg	mg/kg	-	-	-	-
Anthracene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(a)anthracene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(a)pyrene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(b)fluoranthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(k)fluoranthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Benzo(i)fluoranthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Chrysene	mg/kg	mg/kg	mg/kg	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	mg/kg	mg/kg	-	-	-	-
Fluoranthene	mg/kg	mg/kg	mg/kg	-	-	-	-
Fluorene	mg/kg	mg/kg	mg/kg	-	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg	mg/kg	mg/kg	-	-	-	-
Naphthalene	mg/kg	mg/kg	mg/kg	-	-	-	-
Phenanthrene	mg/kg	mg/kg	mg/kg	-	-	-	-
Pyrene	mg/kg	mg/kg	mg/kg	-	-	-	-
Surrogate: Acenaphthene d10	%	%	%	-	-	-	-
Surrogate: Chrysene d12	%	%	%	-	-	-	-
Surrogate: Naphthalene d8	%	%	%	-	-	-	-
Surrogate: Phenanthrene d10	%	%	%	-	-	-	-
Total PAHs	mg/kg	mg/kg	mg/kg	-	-	-	-
Polychlorinated Biphenyls							
PCB 1	ng/kg	-	-	-	-	-	-
PCB 2	ng/kg	-	-	-	-	-	-
PCB 3	ng/kg	-	-	-	-	-	-
PCB 4	ng/kg	-	-	-	-	-	-
PCB 5	ng/kg	-	-	-	-	-	-
PCB 6	ng/kg	-	-	-	-	-	-
PCB 7	ng/kg	-	-	-	-	-	-
PCB 8	ng/kg	-	-	-	-	-	-
PCB 9	ng/kg	-	-	-	-	-	-
PCB 10	ng/kg	-	-	-	-	-	-
PCB 11	ng/kg	-	-	-	-	-	-
PCB 13/12	ng/kg	-	-	-	-	-	-
PCB 14	ng/kg	-	-	-	-	-	-
PCB 15	ng/kg	-	-	-	-	-	-
PCB 16	ng/kg	-	-	-	-	-	-
PCB 17	ng/kg	-	-	-	-	-	-
PCB 19	ng/kg	-	-	-	-	-	-
PCB 21/33	ng/kg	-	-	-	-	-	-
PCB 22	ng/kg	-	-	-	-	-	-
PCB 23	ng/kg	-	-	-	-	-	-
PCB 24	ng/kg	-	-	-	-	-	-
PCB 25	ng/kg	-	-	-	-	-	-
PCB 27	ng/kg	-	-	-	-	-	-
PCB 28/20	ng/kg	-	-	-	-	-	-
PCB 29/26	ng/kg	-	-	-	-	-	-
PCB 30/18	ng/kg	-	-	-	-	-	-
PCB 31	ng/kg	-	-	-	-	-	-
PCB 32	ng/kg	-	-	-	-	-	-
PCB 34	ng/kg	-	-	-	-	-	-
PCB 35	ng/kg	-	-	-	-	-	-
PCB 36	ng/kg	-	-	-	-	-	-
PCB 37	ng/kg	-	-	-	-	-	-
PCB 38	ng/kg	-	-	-	-	-	-
PCB 39	ng/kg	-	-	-	-	-	-
PCB 41/71/40	ng/kg	-	-	-	-	-	-
PCB 42	ng/kg	-	-	-	-	-	-
PCB 43	ng/kg	-	-	-	-	-	-
PCB 44/47/65	ng/kg	-	-	-	-	-	-
PCB 45/51	ng/kg	-	-	-	-	-	-
PCB 46	ng/kg	-	-	-	-	-	-
PCB 48	ng/kg	-	-	-	-	-	-
PCB 50/53	ng/kg	-	-	-	-	-	-
PCB 52	ng/kg	-	-	-	-	-	-
PCB 54	ng/kg	-	-	-	-	-	-
PCB 55	ng/kg	-	-	-	-	-	-
PCB 56	ng/kg	-	-	-	-	-	-
PCB 57	ng/kg	-	-	-	-	-	-
PCB 58	ng/kg	-	-	-	-	-	-
PCB 59/62/75	ng/kg	-	-	-	-	-	-
PCB 60	ng/kg	-	-	-	-	-	-
PCB 61/70/74/76	ng/kg	-	-	-	-	-	-
PCB 63	ng/kg	-	-	-	-	-	-
PCB 64	ng/kg	-	-	-	-	-	-
PCB 66	ng/kg	-	-	-	-	-	-
PCB 67	ng/kg	-	-	-	-	-	-
PCB 68	ng/kg	-	-	-	-	-	-
PCB 69/49	ng/kg	-	-	-	-	-	-
PCB 72	ng/kg	-	-	-	-	-	-
PCB 73	ng/kg	-	-	-	-	-	-
PCB 77	ng/kg	-	-	-	-	-	-
PCB 78	ng/kg	-	-	-	-	-	-
PCB 79	ng/kg	-	-	-	-	-	-
PCB 80	ng/kg	-	-	-	-	-	-
PCB 81	ng/kg	-	-	-	-	-	-
PCB 82	ng/kg	-	-	-	-	-	-
PCB 83/99	ng/kg	-	-	-	-	-	-
PCB 84	ng/kg	-	-	-	-	-	-
PCB 88/91	ng/kg	-	-	-	-	-	-
PCB 89	ng/kg	-	-	-	-	-	-
PCB 92	ng/kg	-	-	-	-	-	-
PCB 94	ng/kg	-	-	-	-	-	-
PCB 95	ng/kg	-	-	-	-	-	-

February/March 2013 - Sediment Sampling

Sample ID	Sampling Parameters	Coordinates					
		Northing UTM	Easting UTM	Latitude	Longitude	Latitude 6 Dec	Longitude 6 Dec
Sand Heads-1 (sample 1)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5438863.0	477547.9	49° 06' 07.94"N	123° 18' 27.34"W	49.102206	-123.307594
Sand Heads-2 (sample 2)	Metals, TOC, % Moisture & % grain size	5439301.3	478341.3	49° 06' 22.23"N	123° 17' 48.29"W	49.106175	-123.296747
Sand Heads Reach-1 (sample 3)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5439850.1	479243.4	49° 06' 40.12"N	123° 17' 03.90"W	49.111144	-123.284417
Sand Heads Reach-2 (sample 4)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5440339.6	480062.3	49° 06' 56.07"N	123° 16' 23.59"W	49.115575	-123.273219
Sand Heads Reach-3 (sample 5)	Metals, TOC, % Moisture & % grain size	5440920.5	480898.6	49° 07' 14.97"N	123° 15' 42.43"W	49.120825	-123.261786
Sand Heads Reach-4 (sample 6)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5441349.2	481779.6	49° 07' 28.95"N	123° 14' 59.04"W	49.124708	-123.249733
Steveston Bend-1 (sample 7)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5441842.7	482640.6	49° 07' 45.02"N	123° 14' 16.63"W	49.129172	-123.237953
Steveston Bend-2 (sample 8)	Metals, TOC, % Moisture & % grain size	5441912.0	483553.0	49° 07' 47.36"N	123° 13' 31.62"W	49.129822	-123.225450
Steveston Cut-1 (sample 9)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5441548.0	484583.5	49° 07' 35.66"N	123° 12' 40.71"W	49.126572	-123.211308
Steveston Cut-2 (sample 10)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5441077.5	485383.6	49° 07' 20.50"N	123° 12' 01.17"W	49.122361	-123.200325
Steveston Cut-3 (sample 11)	Metals, TOC, % Moisture & % grain size	5440534.2	486289.8	49° 07' 02.98"N	123° 11' 16.39"W	49.117494	-123.187886
Steveston Cut-4 (sample 12)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5440153.7	487097.2	49° 06' 50.72"N	123° 10' 36.52"W	49.114089	-123.176811
Steveston Cut-5 (sample 13)	Full Disposal at Sea Suite as well as PCB Congeners - *Note: Laboratory must be capable of analyzing sediment for PCB congeners	5439906.7	488337.0	49° 6' 42.81"N	123° 9' 35.33"W	49.111892	-123.159814
Sample 14	Full Disposal at Sea Suite except PCBs	5439552.568	490194.444	49° 06' 31.46"N	123° 08' 03.67"W	49.108739	-123.134354
Sample 15	Full Disposal at Sea Suite including PCB Aroclors.	5440057.314	492165.436	49° 06' 47.91"N	123° 06' 26.49"W	49.113308	-123.107358
Sample 16	Full Disposal at Sea Suite except PCBs	5440918.838	493796.609	49° 07' 15.87"N	123° 05' 06.07"W	49.121076	-123.085019
Sample 17	Full Disposal at Sea Suite including PCB Aroclors.	5442099.829	495583.089	49° 07' 54.17"N	123° 03' 37.97"W	49.131715	-123.060548
Sample 18	Full Disposal at Sea Suite except PCBs	5443347.994	496688.609	49° 08' 34.62"N	123° 02' 43.45"W	49.142949	-123.045403
Sample 19	Full Disposal at Sea Suite including PCB Aroclors.	5444157.126	498562.911	49° 09' 00.85"N	123° 01' 10.95"W	49.150235	-123.019707
Sample 20	Full Disposal at Sea Suite except PCBs	5444780.623	500377.311	49° 09' 21.04"N	122° 59' 41.37"W	49.155845	-122.994825
Sample 21	Full Disposal at Sea Suite including PCB Aroclors.	5444928.679	502208.013	49° 09' 25.82"N	122° 58' 10.98"W	49.157173	-122.969717
Sample 22	Full Disposal at Sea Suite except PCBs	5445096.051	504065.537	49° 09' 31.21"N	122° 56' 39.26"W	49.158669	-122.944239
Sample 23	Full Disposal at Sea Suite including PCB Aroclors.	5446661.235	505419.694	49° 10' 21.86"N	122° 55' 32.32"W	49.172738	-122.925645
Sample 24	Full Disposal at Sea Suite except PCBs	5448115.983	505864.363	49° 11' 08.95"N	122° 55' 10.28"W	49.185820	-122.919523
Sample 25	Full Disposal at Sea Suite including PCB Aroclors.	5449468.050	506545.456	49° 11' 52.71"N	122° 54' 36.55"W	49.197976	-122.910154

9 samples
6 samples
6 samples
4 samples

Full Disposal at Sea Suite as well as PCB Congeners
Full Disposal at Sea Suite as well as PCB Aroclors
Full Disposal at Sea Suite WITHOUT PCBs
Metals, TOC, % Moisture & % Grain Size

Project
Report To
ALS File No.
Date Received
Date

DAVE HART, PORT METRO VANCOUVER
L895760
09-Jun-10 15:45
05-Jul-10

RESULTS OF ANALYSIS

Sample ID	SAND HEADS - 1	SAND HEADS - 2	SAND HEADS REACH - 1	SAND HEADS REACH - 2	SAND HEADS REACH - 3	SAND HEADS REACH - 4	SAND HEADS BEND - 1	STEVESTON CUT - 1	STEVESTON CUT - 2	STEVESTON CUT - 3	STEVESTON CUT - 4	STEVESTON CUT - 5	STEVESTON BEND - 2
Date Sampled	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	L895760-12	L895760-10	L895760-2	L895760-3	L895760-4	L895760-5	L895760-6	L895760-11	L895760-10	L895760-9	L895760-8	L895760-7	L895760-13
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
% Gravel (>2mm)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	<1.0	<1.0
% Sand (2.0mm - 0.063mm)	47.6	93.1	38.2	72.1	95.2	93.5	93.5	27.7	40.8	96.5	97.8	97.8	70.7
% Silt (0.063mm - 4um)	39.2	5.8	50.1	23.8	3.4	5.0	5.3	60.5	51.3	1.4	1.5	1.6	23.9
% Clay (<4um)	13.2	1.2	11.7	4.2	1.4	1.5	1.1	11.7	8.0	<1.0	<1.0	<1.0	5.1
Total Organic Carbon	1.12	<0.10	0.06	0.32	<0.10	<0.10	0.12	0.87	0.70	<0.10	<0.10	<0.10	0.39
PCB 1	4.31	<1.0	4.65	<0.70	<0.90	<0.70	<2.0	<1.2	4.59	<1.2	<0.50	1.7	<0.90
PCB 2	<0.40	<0.70	<0.50	<0.60	<0.70	<0.50	<1.1	<0.70	<0.30	<0.90	<0.40	<1.0	<0.50
PCB 3	2.38	<0.70	<0.60	<0.60	<0.70	<0.50	<1.2	<0.70	<0.30	<0.80	<0.40	<1.0	<0.60
PCB 4/10	<1.4	<2.8	<1.6	<9.8	<9.8	<1.3	<7.9	<1.8	<1.3	<1.0	<1.1	<5.7	<1.4
PCB 5	<7.2	<1.4	<7.1	<4.0	<4.5	<3.4	<1.5	<4.8	<4.7	<5.2	<3.5	<6.1	<5.5
PCB 6	<8.9	<1.4	<7.1	<3.9	<4.3	<3.2	<1.5	<4.6	<4.5	<4.9	<3.4	<5.8	<4.8
PCB 7	<6.6	<1.3	<6.5	<3.7	<4.1	<3.1	<1.4	<4.4	<4.3	<4.7	<3.2	<5.5	<5.0
PCB 8	<6.5	<1.3	<6.6	<3.6	<4.0	<3.0	<1.4	<4.3	<4.2	<4.6	<3.2	<5.4	<5.1
PCB 9	<6.7	<1.3	<7.0	<3.8	<4.2	<3.1	<1.5	<4.5	<4.4	<4.8	<3.3	<5.6	<5.3
PCB 11	<6.7	<1.3	<6.7	<3.8	<4.2	<3.1	<1.4	<4.5	<4.4	<4.8	<3.3	<5.7	<5.1
PCB 12	<7.0	<1.4	<6.9	<3.9	<4.4	<3.3	<1.5	<4.7	<4.6	<5.0	<3.4	<5.9	<5.3
PCB 13	<6.3	<1.2	<6.3	<3.5	<3.9	<2.9	<1.4	<4.2	<4.1	<4.5	<3.1	<5.3	<4.8
PCB 14	<6.6	<1.3	<6.7	<3.7	<4.1	<3.1	<1.5	<4.4	<4.3	<4.7	<3.3	<5.6	<5.2
PCB 15	<7.4	<1.5	<7.2	<4.2	<4.6	<3.5	<1.6	<4.9	<4.9	<4.7	<3.3	<6.2	<5.5
PCB 16	5.3	<1.8	<1.4	<0.90	<1.0	<0.70	<2.2	<1.5	<0.80	<1.2	<0.70	<1.3	<1.2
PCB 17	6.3	<1.4	<1.1	3.42	3.01	2.21	<1.8	6.7	2.92	<0.90	<0.50	1.6	3.9
PCB 18	7.42	4.59	9.98	4.44	3.94	3.93	6.7	9.72	5.51	7.50	<0.40	3.91	5.88
PCB 19	<1.2	<1.7	<1.4	<0.80	<0.90	<0.70	<2.2	<1.4	<0.80	<1.1	<0.60	<1.2	2.6
PCB 21/20/33	5.88	3.86	5.54	3.29	2.39	1.55	3.35	6.70	2.66	3.20	2.46	2.83	2.45
PCB 22	3.60	<0.60	<0.50	2.15	1.70	1.22	<0.70	4.22	<0.30	<0.40	<0.20	<0.30	1.76
PCB 23	<0.40	<0.60	<0.60	<0.30	<0.30	<0.30	<1.0	<0.50	<0.30	<0.40	<0.30	<0.40	<0.50
PCB 24	<0.80	<0.60	<0.60	<0.50	<0.60	<1.1	<1.3	<0.90	<0.40	<0.70	<0.40	<0.50	<0.70
PCB 25	<0.40	<0.50	<0.40	<0.20	<0.30	<0.20	<0.70	1.37	<0.30	<0.40	<0.20	<0.30	<0.30
PCB 26	1.83	<0.60	<0.50	<0.30	1.08	<0.30	<0.70	2.20	<0.30	<0.40	<0.20	<0.30	<0.40
PCB 27	<0.80	<1.0	<0.80	<0.50	<0.60	<0.40	<1.3	<0.90	<0.50	<0.70	<0.40	<0.70	<0.70
PCB 28	7.68	4.48	8.52	4.58	4.10	4.59	6.46	11.2	4.43	4.98	3.23	4.64	4.70
PCB 29	<0.40	<0.60	<0.60	<0.30	<0.30	<0.30	<0.90	<0.50	<0.30	<0.40	<0.30	<0.30	<0.40
PCB 30	<0.80	<1.1	<0.80	<0.40	<0.50	<0.40	<1.3	<0.90	<0.40	<0.70	<0.40	<0.50	<0.70
PCB 31	8.54	5.10	8.01	4.13	3.88	3.31	4.98	10.1	4.71	4.31	3.69	3.68	4.32
PCB 32	3.77	<1.0	2.82	<0.50	<0.50	<0.40	<1.2	4.68	2.38	<0.70	1.89	<0.70	<0.70
PCB 34	<0.50	<0.60	<0.60	<0.30	<0.30	<0.30	<1.0	<0.50	<0.30	<0.50	<0.30	<0.40	<0.50
PCB 35	<0.40	<0.60	<0.50	<0.30	<0.30	<0.20	<0.70	<0.40	<0.30	<0.40	<0.20	<0.30	<0.40
PCB 36	<0.40	<0.50	<0.50	<0.30	<0.30	<0.20	<0.70	<0.40	<0.30	<0.40	<0.20	<0.30	<0.40
PCB 37	2.61	<0.60	2.92	1.68	1.25	1.21	<0.80	3.25	<0.30	1.25	<0.20	1.70	1.76
PCB 38	<0.40	<0.50	<0.50	<0.30	<0.30	<0.20	<0.70	<0.40	<0.30	<0.40	<0.20	<0.30	<0.40
PCB 39	<0.40	<0.50	<0.40	<0.20	<0.30	<0.20	<0.70	<0.40	<0.30	<0.40	<0.20	<0.30	<0.40
PCB 40/68	<0.20	<0.10	<0.20	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
PCB 41	<0.80	<0.80	<0.60	<0.50	<0.40	<0.30	<0.90	2.22	<0.50	<0.40	<0.30	<0.50	<0.50
PCB 43/52	19.2	<0.20	11.6	7.65	6.46	4.61	8.38	24.1	7.02	6.72	4.79	6.58	6.58
PCB 44	11.4	<0.80	7.29	4.83	4.58	3.71	3.13	14.1	5.16	<0.40	<0.30	5.85	3.97
PCB 45	<0.90	<0.80	<0.70	<0.50	1.17	<0.30	<0.90	<0.90	<0.50	<0.40	<0.30	<0.50	<0.50
PCB 46	<0.80	<0.80	<0.70	<0.50	<0.40	<0.30	<0.90	<0.90	<0.50	<0.40	<0.30	<0.50	<0.50
PCB 47	<0.60	<0.60	<0.50	2.79	2.64	<0.20	<0.60	4.52	2.79	2.15	<0.20	1.78	1.62
PCB 48/49	11.0	<0.70	<0.50	4.63	5.58	2.72	<0.70	12.1	<0.40	<0.40	<0.20	4.58	3.61
PCB 50	<0.80	<0.80	<0.60	<0.40	<0.40	<0.30	<0.80	<0.80	<0.50	<0.40	<0.30	<0.50	<0.50
PCB 51	<0.70	<0.70	<0.60	<0.40	<0.40	<0.30	<0.80	<0.80	<0.40	<0.40	<0.20	<0.40	<0.40
PCB 53	<0.80	<0.70	<0.60	<0.40	<0.40	<0.30	<0.80	<0.80	<0.50	<0.40	<0.30	<0.40	<0.40
PCB 54	<0.80	<0.80	<0.80	<0.50	<0.40	<0.30	<1.0	<0.90	<0.50	<0.40	<0.20	<0.50	<0.60
PCB 55	<0.30	<0.20	<0.30	<0.10	<0.10	<0.10	<0.30	<0.30	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 56	3.02	<0.20	1.24	1.21	1.21	2.23	<0.30	2.62	<0.10	<0.10	<0.10	<0.10	<0.20
PCB 57	<0.30	<0.20	<0.20	<0.10	<0.10	<0.10	<0.30	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 58/67	<0.30	<0.20	<0.20	<0.10	<0.10	<0.10	<0.30	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 59/42	<0.60	<0.60	<0.50	1.54	<0.30	<0.20	<0.60	5.29	<0.40	<0.30	<0.20	<0.40	<0.40
PCB 60	<0.30	<0.20	<0.20	<0.10	<0.10	0.57	<0.30	1.77	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 61	<0.30	<0.20	<0.30	<0.10	<0.10	<0.10	<0.40	<0.30	<0.20	<0.20	<0.10	<0.10	<0.20
PCB 63/76	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20
PCB 64	4.61	<0.50	2.16	2.17	2.03	<0.20	<0.50	6.48	<0.30	<0.30	1.73	1.69	2.50
PCB 66	5.34	<0.20	4.65	2.01	1.63	1.78	3.40	7.49	1.88	1.87	1.75	1.93	2.17
PCB 69	<0.50	<0.50	<0.40	<0.30	<0.30	<0.20	<0.60	<0.30	<0.30	<0.20	<0.30	<0.30	<0.30
PCB 70	11.8	5.12	6.98	5.39	5.28	3.93	4.28	14.9	5.36	3.55	3.22	5.84	4.02
PCB 71	2.58	<0.50	<0.30	1.61	<0.30	<0.20	<0.50	4.28	<0.20	4.28	<0.20	<0.30	<0.30
PCB 72	<0.30	<0.30	<0.30	<0.10	<0.10	<0.10	<0.30	<0.40	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 73	<0.60	<0.60	<0.40	<0.30	<0.30	<0.20	<0.60	<0.60	<0.30	<0.30	<0.20	<0.30	<0.30
PCB 74	2.52	<0.20	<0.20	1.17	<0.10	<0.10	<0.10	3.36	1.03	<0.10	<0.10	1.04	1.20
PCB 75/65/62	<0.50	<0.50	<0.40	<0.30	<0.30	<0.20	<0.60	<0.30	<0.30	<0.20	<0.30	<0.30	<0.30
PCB 77	<0.30	<0.20	<0.30	<0.20	<0.10	<0.10	3.90	<0.30	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 78	<0.30	<0.20	<0.30	<0.10	<0.10	<0.10	<0.30	<0.30	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 79	<0.30	<0.20	<0.20	<0.10	<0.10	<0.10	<0.30	<0.30	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 80	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.30	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10
PCB 81	<0.30	<0.30	<0.30	<0.20	<0.20	<0.10	<0.40	<0.30	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 82	<0.50	<0.50	<0.40	<0.30	<0.30	<0.20	<0.80	<0.50	<0.40	<0.30	<0.20	<0.30	<0.30
PCB 83/119	<0.70	<0.60	<0.70	<0.40	<0.40	<0.30	<1.3	<0.60	<0.30</				

PCB 136	<0.40	<0.30	<0.50	<0.20	<0.20	<0.20	<0.50	<0.40	<0.20	<0.30	<0.20	<0.20	<0.30
PCB 137	<0.50	<0.40	<0.50	<0.20	<0.20	<0.20	<0.60	<0.60	<0.30	<0.30	<0.20	<0.20	<0.30
PCB 138	7.75	<0.30	<0.60	1.91	<0.20	<0.20	<0.60	10.2	3.05	<0.30	<0.20	<0.20	<0.30
PCB 139/143	<0.50	<0.30	<0.60	<0.20	<0.20	<0.20	<0.60	<0.50	<0.30	<0.30	<0.20	<0.20	<0.30
PCB 140	<0.40	<0.30	<0.60	<0.20	<0.20	<0.20	<0.70	<0.50	<0.30	<0.30	<0.20	<0.20	<0.30
PCB 141	<0.40	<0.20	<0.40	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20
PCB 144	<0.50	<0.30	<0.60	<0.20	<0.20	<0.20	<0.60	<0.60	<0.30	<0.30	<0.20	<0.20	<0.30
PCB 145	<0.40	<0.20	<0.50	<0.10	<0.20	<0.20	<0.50	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20
PCB 146	<0.40	<0.30	<0.50	<0.20	<0.20	<0.20	<0.60	<0.50	<0.30	<0.30	<0.20	<0.20	<0.30
PCB 147/149	3.86	<0.30	<0.60	1.22	<0.20	<0.20	<0.60	5.71	<0.30	<0.30	<0.20	<0.20	<0.30
PCB 148	<0.50	<0.40	<0.60	<0.20	<0.20	<0.20	<0.70	<0.60	<0.30	<0.30	<0.20	<0.30	<0.40
PCB 150	<0.30	<0.20	<0.50	<0.10	<0.20	<0.20	<0.50	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20
PCB 151	<0.50	<0.40	<0.60	<0.20	<0.20	<0.20	<0.70	<0.60	<0.30	<0.40	<0.30	<0.40	<0.40
PCB 152	<0.40	<0.30	<0.50	<0.20	<0.20	<0.20	<0.50	<0.40	<0.20	<0.30	<0.20	<0.20	<0.30
PCB 153/168	5.56	<0.30	<0.50	<0.20	<0.20	<0.20	<0.60	8.44	1.94	<0.30	<0.20	<0.20	<0.30
PCB 154	<0.40	<0.20	<0.50	<0.20	<0.20	<0.20	<0.50	<0.40	<0.20	<0.20	<0.20	<0.20	<0.30
PCB 155	<0.60	<0.50	<0.70	<0.30	<0.40	<0.30	<0.70	<0.70	<0.40	<0.40	<0.30	<0.40	<0.30
PCB 156	1.18	<0.30	<0.40	<0.20	<0.20	<0.20	<0.50	<0.50	<0.30	<0.20	<0.20	<0.20	<0.30
PCB 157	<0.50	<0.30	<0.50	<0.20	<0.20	<0.20	<0.60	<0.50	<0.30	<0.30	<0.20	<0.20	<0.30
PCB 158/129	<0.40	<0.30	<0.40	<0.20	<0.20	<0.20	<0.50	<0.50	<0.30	<0.30	<0.20	<0.20	<0.20
PCB 159	<0.40	<0.30	<0.40	<0.20	<0.20	<0.20	<0.40	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20
PCB 160/163	1.28	<0.20	<0.40	<0.10	<0.20	<0.10	<0.40	2.15	1.04	<0.20	<0.10	<0.10	<0.20
PCB 161	<0.40	<0.30	<0.50	<0.20	<0.20	<0.20	<0.50	<0.40	<0.20	<0.30	<0.20	<0.20	<0.30
PCB 164	<0.30	<0.20	<0.40	<0.10	<0.10	<0.10	<0.40	<0.40	<0.20	<0.20	<0.10	<0.10	<0.20
PCB 165	<0.40	<0.20	<0.50	<0.20	<0.20	<0.20	<0.50	<0.40	<0.20	<0.20	<0.20	<0.20	<0.30
PCB 166	<0.40	<0.30	<0.40	<0.20	<0.20	<0.20	<0.40	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20
PCB 167	<0.40	<0.30	<0.50	<0.20	<0.20	<0.20	<0.50	<0.50	<0.30	<0.20	<0.20	<0.20	<0.20
PCB 169	<0.40	<0.30	<0.40	<0.20	<0.20	<0.20	<0.50	<0.50	<0.30	<0.20	<0.20	<0.20	<0.20
PCB 170	1.51	<0.30	<0.40	<0.10	<0.20	<0.10	<0.60	2.90	<0.30	<0.20	<0.10	<0.10	<0.20
PCB 171	<0.60	<0.60	<0.50	<0.20	<0.30	<0.20	<0.70	<0.40	<0.40	<0.30	<0.20	<0.20	<0.30
PCB 172	<0.40	<0.30	<0.50	<0.10	<0.20	<0.10	<0.60	<0.30	<0.30	<0.20	<0.10	<0.20	<0.30
PCB 173	<0.70	<0.60	<0.50	<0.30	<0.20	<0.20	<0.70	<0.40	<0.40	<0.30	<0.20	<0.20	<0.30
PCB 174	<0.60	<0.60	<0.50	<0.20	<0.30	<0.20	<0.70	4.20	<0.40	<0.30	<0.20	<0.20	<0.30
PCB 175/182	<0.60	<0.50	<0.50	<0.20	<0.30	<0.20	<0.70	<0.40	<0.40	<0.30	<0.20	<0.20	<0.30
PCB 176	<0.50	<0.40	<0.40	<0.20	<0.20	<0.20	<0.50	<0.50	<0.30	<0.20	<0.20	<0.20	<0.30
PCB 177	<0.70	<0.60	<0.60	<0.30	<0.30	<0.20	<0.80	<0.40	<0.40	<0.30	<0.20	<0.30	<0.30
PCB 178	<0.60	<0.60	<0.50	<0.20	<0.30	<0.20	<0.70	<0.40	<0.40	<0.30	<0.20	<0.20	<0.30
PCB 179	<1.1	<1.0	<0.40	<0.40	<0.50	<0.40	<0.50	<0.70	<0.60	<0.50	<0.40	<0.40	<0.20
PCB 180	2.52	<0.30	2.25	<0.10	<0.20	<0.10	<0.50	6.02	1.76	<0.20	<0.10	<0.10	<0.20
PCB 181	<0.60	<0.60	<0.50	<0.20	<0.30	<0.20	<0.70	<0.40	<0.40	<0.30	<0.20	<0.20	<0.30
PCB 183	<0.60	<0.60	<0.50	<0.20	<0.30	<0.20	<0.50	<0.40	2.38	<0.40	<0.20	<0.20	<0.30
PCB 184	<0.50	<0.50	<0.50	<0.20	<0.20	<0.20	<0.60	<0.30	<0.30	<0.20	<0.20	<0.20	<0.30
PCB 185	<0.60	<0.60	<0.50	<0.20	<0.30	<0.20	<0.70	<0.40	<0.40	<0.30	<0.20	<0.20	<0.30
PCB 186	<0.50	<0.40	<0.40	<0.20	<0.20	<0.20	<0.50	<0.30	<0.30	<0.20	<0.20	<0.20	<0.30
PCB 187	<0.60	<0.50	<0.50	<0.20	<0.20	<0.20	<0.60	3.14	<0.30	<0.30	<0.20	<0.20	<0.30
PCB 188	<0.60	<0.60	<0.50	<0.20	<0.30	<0.20	<0.60	<0.40	<0.40	<0.30	<0.20	<0.20	<0.30
PCB 189	<0.40	<0.30	<0.40	<0.10	<0.20	<0.10	1.33	<0.30	<0.30	<0.20	<0.10	<0.10	<0.20
PCB 190	<0.50	<0.50	<0.40	<0.20	<0.20	<0.20	<0.50	<0.30	<0.30	<0.20	<0.20	<0.20	<0.20
PCB 191	<0.30	<0.30	<0.40	<0.10	<0.10	<0.10	<0.50	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
PCB 192	<0.50	<0.50	<0.40	<0.20	<0.20	<0.20	<0.60	<0.30	<0.30	<0.20	<0.20	<0.20	<0.20
PCB 193	<0.40	<0.40	<0.40	<0.20	<0.20	<0.10	<0.50	<0.30	<0.30	<0.20	<0.10	<0.20	<0.20
PCB 194	<0.40	<0.40	<0.40	<0.20	<0.20	<0.10	<0.60	<0.30	<0.30	<0.20	<0.10	<0.20	<0.20
PCB 195	<0.50	<0.30	<0.40	<0.20	<0.20	<0.10	<0.60	<0.30	<0.30	<0.20	<0.20	<0.20	<0.30
PCB 203/196	<0.40	<0.30	<0.30	<0.20	<0.20	<0.10	<0.50	<0.20	0.67	<0.30	<0.20	<0.20	<0.20
PCB 197	<0.30	<0.30	<0.30	<0.10	<0.20	<0.10	<0.50	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20
PCB 198	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.50	<0.30	<0.30	<0.20	<0.20	<0.20	<0.20
PCB 199	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.60	<0.30	<0.30	<0.20	<0.20	<0.20	<0.20
PCB 200	<0.30	<0.30	<0.30	<0.10	<0.10	<0.10	<0.50	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20
PCB 201/204	<0.30	<0.20	<0.30	<0.10	<0.20	<0.10	<0.50	<0.20	<0.20	<0.20	<0.10	<0.10	<0.20
PCB 202	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.60	<0.30	<0.30	<0.20	<0.10	<0.20	<0.30
PCB 205	<0.40	<0.30	<0.40	<0.20	<0.20	<0.10	<0.60	<0.30	<0.20	<0.20	<0.10	<0.20	<0.30
PCB 206	<0.50	<0.20	<0.30	<0.30	<0.20	<0.20	<0.30	<0.40	<0.50	<0.20	<0.20	<0.20	<0.10
PCB 207	<0.40	<0.20	<0.30	<0.20	<0.20	<0.10	<0.30	<0.30	<0.40	<0.20	<0.20	<0.20	<0.10
PCB 208	<0.50	<0.20	<0.40	<0.30	<0.20	<0.20	<0.30	<0.40	<0.40	<0.20	<0.20	<0.20	<0.10
Total PCB	184	18	71	70	46	34	26	221	57	23	22	21	58
Total HeptaCB	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	8.3	<5.0	<5.0	<5.0	<5.0	<5.0
Total HexaCE	18.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	19.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total Mono-TrCB	58	13	42	24	21	17	15	60	19	12	<10	<10	27
Total Nona-DecaCE	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total OctaCB	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	36.2	<5.0	<5.0	<5.0	<5.0	<5.0
Total PentaCB	56.9	<5.0	7.5	10.3	<5.0	<5.0	<5.0	<5.0	10.1	<5.0	<5.0	<5.0	16.1
Total TEQ	0	0	0	0	0	0	0	0	0	0	0	0	0
Total TetraCB	47.0	5.1	21.1	33.0	20.1	15.5	11.3	96.5	23.6	10.6	9.7	16.6	14.8
Surrogate: 13C12 PCB 1	35	23	43	29	33	27	27	24	38	20	48	17	25
Surrogate: 13C12 PCB 4	43	30	49	33	38	34	36	33	48	28	50	22	33
Surrogate: 13C12 PCB 15	51	34	57	43	46	46	45	46	61	42	57	33	41
Surrogate: 13C12 PCB 28	94	69	97	75	73	83	80	80	105	48	64	55	82
Surrogate: 13C12 PCB 37	65	48	68	56	53	53	54	57	73	44	65	43	54
Surrogate: 13C12 PCB 54	47	37	55	44	43	49	48	50	57	37	48	31	48
Surrogate: 13C12 PCB 77	69	72	82	75	71	68	71	76	85	68	81	65	76
Surrogate: 13C12 PCB 81	67	66	77	69	64	64	66	72	82	65	80	59	71
Surrogate: 13C12 PCB 105	77	79	83	69	73	69	75	76	81	75	83	75	67
Surrogate: 13C12 PCB 111	86	77	100	82	76	76	91	95	95	69	72	77	89

Project
Report To
ALS File No.
Date Received
Date

DAVE HART, PORT METRO VANCOUVER
 L895760
 09-Jun-10 15:45
 05-Jul-10

DETECTION LIMITS

Sample ID	SAND HEADS - 2	SAND HEADS REACH - 1	SAND HEADS REACH - 2	SAND HEADS REACH - 3	SAND HEADS REACH - 4	SAND HEADS BEND - 1	STEVESTON CUT - 5	STEVESTON CUT - 4	STEVESTON CUT - 3	STEVESTON CUT - 2	STEVESTON CUT - 1	SAND HEADS - 1	STEVESTON BEND - 2
Date Sampled	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10	09-JUN-10
Time Sampled	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00	00:00
ALS Sample ID	L895760-1	L895760-2	L895760-3	L895760-4	L895760-5	L895760-6	L895760-7	L895760-8	L895760-9	L895760-10	L895760-11	L895760-12	L895760-13
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Particle Size													
% Gravel (>2mm)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Sand (2.0mm - 0.063mm)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Silt (0.063mm - 4um)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
% Clay (<4um)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Organic / Inorganic Carbon													
Total Organic Carbon	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Polychlorinated Biphenyls													
PCB 1	1.0	0.80	0.70	0.90	0.70	2.0	1.5	0.50	1.2	0.30	1.2	0.50	0.90
PCB 2	0.70	0.50	0.60	0.70	0.50	1.1	1.0	0.40	0.90	0.30	0.70	0.40	0.50
PCB 3	0.70	0.60	0.60	0.70	0.50	1.2	1.0	0.40	0.80	0.30	0.70	0.40	0.60
PCB 4/10	28	16	9.6	9.8	7.9	38	17	5.7	11	10	13	14	14
PCB 5	14	7.1	4.0	4.5	3.4	15	8.1	3.5	5.2	4.7	4.8	7.2	5.5
PCB 6	14	7.1	3.9	4.3	3.2	15	5.8	3.4	4.9	4.5	4.6	6.9	5.5
PCB 7	13	6.5	3.7	4.1	3.1	14	5.5	3.2	4.7	4.3	4.4	6.6	5.0
PCB 8	13	6.6	3.6	4.0	3.0	14	5.4	3.2	4.6	4.2	4.3	6.5	5.1
PCB 9	13	7.0	3.8	4.2	3.1	15	5.6	3.3	4.8	4.4	4.5	6.7	5.3
PCB 11	13	6.7	3.8	4.2	3.1	14	5.7	3.3	4.8	4.4	4.5	6.7	5.1
PCB 12	14	6.9	3.9	4.4	3.3	15	5.9	3.4	5.0	4.6	4.7	7.0	5.3
PCB 13	12	6.3	3.5	3.9	2.9	14	5.3	3.1	4.5	4.1	4.2	6.3	4.8
PCB 14	13	6.7	3.7	4.1	3.1	15	5.6	3.3	4.7	4.3	4.4	6.6	5.2
PCB 15	15	7.2	4.2	4.6	3.5	16	6.2	3.3	4.7	4.9	4.9	7.4	5.5
PCB 16	1.8	1.4	0.80	1.0	0.70	2.2	1.3	1.0	1.2	0.80	1.5	1.3	1.2
PCB 17	1.4	1.1	0.70	0.70	0.50	1.8	1.0	0.50	0.90	0.70	1.1	1.0	1.0
PCB 18	0.90	0.90	0.40	0.50	0.40	1.4	0.50	0.40	0.70	0.50	0.70	0.70	0.70
PCB 19	1.7	1.4	0.80	0.90	0.70	2.2	1.2	0.60	1.1	0.80	1.4	1.2	1.2
PCB 21/20/33	0.50	0.50	0.20	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.40
PCB 22	0.60	0.60	0.30	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.40
PCB 23	0.60	0.60	0.30	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.40
PCB 24	1.1	0.90	0.50	0.60	0.40	1.3	0.80	0.40	0.70	0.50	0.90	0.80	0.70
PCB 25	0.50	0.40	0.20	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.30
PCB 26	0.60	0.50	0.30	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.40
PCB 27	1.0	0.80	0.50	0.60	0.40	1.3	0.70	0.40	0.70	0.50	0.90	0.80	0.70
PCB 28	0.50	0.50	0.20	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.40
PCB 29	0.60	0.60	0.30	0.30	0.20	0.90	0.30	0.30	0.40	0.30	0.50	0.40	0.40
PCB 30	1.1	0.90	0.50	0.60	0.40	1.3	0.80	0.40	0.70	0.50	0.90	0.80	0.70
PCB 31	0.50	0.40	0.20	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.30
PCB 32	1.0	0.80	0.50	0.50	0.40	1.2	0.70	0.40	0.70	0.50	0.80	0.70	0.70
PCB 34	0.60	0.60	0.30	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.50	0.50	0.50
PCB 35	0.60	0.50	0.30	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.40
PCB 36	0.50	0.50	0.30	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.40
PCB 37	0.60	0.50	0.30	0.30	0.20	0.80	0.30	0.20	0.40	0.30	0.50	0.40	0.40
PCB 38	0.50	0.50	0.30	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.40
PCB 39	0.50	0.50	0.20	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.40	0.40	0.30
PCB 40/68	0.10	0.20	0.10	0.10	0.10	0.20	0.10	0.10	0.10	0.10	0.20	0.20	0.10
PCB 41	0.80	0.60	0.50	0.40	0.30	0.90	0.50	0.30	0.40	0.50	0.90	0.80	0.50
PCB 43/52	0.80	0.60	0.40	0.40	0.30	0.80	0.40	0.30	0.40	0.50	0.80	0.80	0.50
PCB 44	0.80	0.60	0.50	0.40	0.30	0.90	0.50	0.30	0.40	0.50	0.90	0.80	0.50
PCB 45	0.80	0.70	0.50	0.40	0.30	0.90	0.50	0.30	0.40	0.50	0.90	0.90	0.50
PCB 46	0.80	0.70	0.50	0.40	0.30	0.90	0.50	0.30	0.40	0.50	0.90	0.90	0.50
PCB 47	0.60	0.50	0.40	0.30	0.20	0.60	0.40	0.20	0.30	0.40	0.60	0.60	0.40
PCB 48/49	0.70	0.50	0.40	0.30	0.20	0.70	0.40	0.20	0.40	0.40	0.70	0.70	0.40
PCB 50	0.80	0.60	0.40	0.40	0.30	0.80	0.40	0.30	0.40	0.50	0.80	0.80	0.50
PCB 51	0.70	0.60	0.40	0.40	0.30	0.80	0.40	0.20	0.40	0.40	0.80	0.70	0.40
PCB 53	0.70	0.60	0.40	0.40	0.30	0.80	0.40	0.20	0.40	0.40	0.80	0.80	0.40
PCB 54	0.80	0.60	0.50	0.40	0.30	1.0	0.50	0.20	0.40	0.50	0.90	0.80	0.60
PCB 55	0.20	0.30	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 56	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 57	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.20	0.30	0.20
PCB 58/67	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.20	0.30	0.20
PCB 59/42	0.60	0.50	0.40	0.30	0.20	0.60	0.40	0.20	0.30	0.40	0.60	0.60	0.40
PCB 60	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 61	0.20	0.30	0.10	0.10	0.10	0.40	0.10	0.10	0.20	0.20	0.30	0.30	0.20
PCB 63/76	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.10	0.20	0.20	0.20
PCB 64	0.50	0.40	0.30	0.30	0.20	0.50	0.30	0.20	0.30	0.20	0.50	0.50	0.30
PCB 66	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 69	0.50	0.40	0.30	0.30	0.20	0.60	0.30	0.20	0.30	0.30	0.60	0.50	0.30
PCB 70	0.40	0.30	0.30	0.20	0.20	0.40	0.30	0.20	0.20	0.30	0.50	0.50	0.20
PCB 71	0.50	0.40	0.30	0.30	0.20	0.50	0.30	0.20	0.30	0.30	0.60	0.50	0.30
PCB 72	0.20	0.30	0.10	0.10	0.10	0.40	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 73	0.60	0.40	0.30	0.30	0.20	0.60	0.30	0.20	0.30	0.30	0.60	0.60	0.30
PCB 74	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.20	0.20	0.20
PCB 75/65/62	0.50	0.40	0.30	0.30	0.20	0.60	0.30	0.20	0.30	0.30	0.60	0.50	0.30
PCB 77	0.20	0.30	0.20	0.10	0.10	0.40	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 78	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 79	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 80	0.20	0.20	0.10	0.10	0.10	0.30	0.10	0.10	0.10	0.10	0.20	0.20	0.10
PCB 81	0.30	0.30	0.20	0.20	0.10	0.40	0.10	0.10	0.10	0.20	0.30	0.30	0.20
PCB 82	0.50	0.40	0.30	0.30	0.20	0.80	0.30	0.20	0.30	0.40	0.50	0.50	

PCB 131/142/133	0.30	0.70	0.20	0.20	0.20	0.70	0.20	0.20	0.30	0.30	0.60	0.50	0.30
PCB 132	0.30	0.60	0.20	0.20	0.20	0.70	0.20	0.20	0.30	0.30	0.60	0.50	0.30
PCB 134	0.30	0.60	0.20	0.30	0.20	0.70	0.20	0.20	0.30	0.30	0.60	0.50	0.30
PCB 135	0.40	0.70	0.20	0.30	0.20	0.70	0.30	0.20	0.30	0.30	0.60	0.50	0.40
PCB 136	0.30	0.50	0.20	0.20	0.20	0.50	0.20	0.20	0.30	0.20	0.40	0.40	0.30
PCB 137	0.40	0.50	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.30	0.60	0.50	0.30
PCB 138	0.30	0.60	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.30	0.60	0.50	0.30
PCB 139/143	0.30	0.60	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.30	0.50	0.50	0.30
PCB 140	0.30	0.60	0.20	0.20	0.20	0.70	0.20	0.20	0.30	0.30	0.50	0.40	0.30
PCB 141	0.20	0.40	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.20	0.50	0.40	0.20
PCB 144	0.30	0.60	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.30	0.60	0.50	0.30
PCB 145	0.20	0.50	0.10	0.20	0.20	0.50	0.20	0.20	0.20	0.20	0.40	0.40	0.20
PCB 146	0.30	0.50	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.30	0.50	0.40	0.30
PCB 147/149	0.30	0.60	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.30	0.50	0.40	0.30
PCB 148	0.40	0.60	0.20	0.30	0.20	0.70	0.30	0.20	0.30	0.30	0.60	0.50	0.40
PCB 150	0.20	0.50	0.10	0.20	0.20	0.50	0.20	0.20	0.20	0.20	0.40	0.30	0.20
PCB 151	0.40	0.60	0.20	0.30	0.20	0.70	0.30	0.30	0.40	0.30	0.60	0.50	0.40
PCB 152	0.30	0.50	0.20	0.20	0.20	0.50	0.20	0.20	0.30	0.20	0.40	0.40	0.30
PCB 153/168	0.30	0.50	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.30	0.50	0.40	0.30
PCB 154	0.20	0.50	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.20	0.40	0.40	0.30
PCB 155	0.50	0.70	0.30	0.40	0.30	0.70	0.40	0.30	0.40	0.40	0.70	0.60	0.30
PCB 156	0.30	0.40	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.30	0.50	0.40	0.30
PCB 157	0.30	0.50	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.30	0.50	0.40	0.30
PCB 158/129	0.30	0.40	0.20	0.20	0.20	0.50	0.20	0.20	0.30	0.20	0.50	0.40	0.20
PCB 159	0.30	0.40	0.20	0.20	0.20	0.40	0.20	0.20	0.20	0.20	0.40	0.40	0.20
PCB 160/163	0.20	0.40	0.10	0.20	0.10	0.40	0.10	0.10	0.20	0.20	0.40	0.30	0.20
PCB 161	0.30	0.50	0.20	0.20	0.20	0.50	0.20	0.20	0.30	0.20	0.40	0.40	0.30
PCB 164	0.20	0.40	0.10	0.10	0.10	0.40	0.10	0.10	0.20	0.20	0.40	0.30	0.20
PCB 165	0.20	0.50	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.20	0.40	0.40	0.30
PCB 166	0.30	0.40	0.20	0.20	0.20	0.40	0.20	0.20	0.20	0.20	0.50	0.40	0.20
PCB 167	0.30	0.50	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.30	0.50	0.40	0.20
PCB 169	0.30	0.40	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.30	0.50	0.40	0.20
PCB 170	0.30	0.40	0.10	0.20	0.10	0.60	0.10	0.10	0.20	0.30	0.30	0.40	0.20
PCB 171	0.60	0.50	0.20	0.30	0.20	0.70	0.30	0.20	0.40	0.30	0.60	0.50	0.30
PCB 172	0.30	0.50	0.10	0.20	0.10	0.60	0.20	0.10	0.20	0.30	0.30	0.40	0.30
PCB 173	0.60	0.50	0.30	0.30	0.20	0.70	0.20	0.20	0.30	0.40	0.40	0.70	0.30
PCB 174	0.60	0.50	0.20	0.30	0.20	0.70	0.20	0.20	0.30	0.40	0.40	0.60	0.30
PCB 175/182	0.50	0.50	0.20	0.30	0.20	0.70	0.20	0.20	0.30	0.40	0.40	0.60	0.30
PCB 176	0.40	0.40	0.20	0.30	0.20	0.50	0.20	0.20	0.30	0.40	0.40	0.60	0.30
PCB 177	0.60	0.60	0.30	0.30	0.20	0.80	0.30	0.20	0.30	0.40	0.40	0.70	0.30
PCB 178	0.60	0.50	0.20	0.30	0.20	0.70	0.20	0.20	0.30	0.40	0.40	0.60	0.30
PCB 179	1.0	0.40	0.40	0.50	0.40	0.50	0.40	0.40	0.50	0.60	0.70	1.1	0.20
PCB 180	0.30	0.40	0.10	0.20	0.10	0.50	0.10	0.10	0.20	0.30	0.30	0.40	0.20
PCB 181	0.20	0.40	0.10	0.10	0.10	0.40	0.10	0.10	0.20	0.20	0.40	0.30	0.20
PCB 183	0.50	0.50	0.20	0.30	0.20	0.70	0.20	0.20	0.30	0.40	0.40	0.60	0.30
PCB 184	0.50	0.50	0.20	0.20	0.20	0.60	0.20	0.20	0.20	0.30	0.30	0.50	0.30
PCB 185	0.60	0.50	0.20	0.30	0.20	0.70	0.20	0.20	0.30	0.40	0.40	0.60	0.30
PCB 186	0.40	0.40	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.30	0.30	0.50	0.20
PCB 187	0.60	0.40	0.20	0.30	0.20	0.60	0.20	0.20	0.30	0.30	0.30	0.50	0.20
PCB 188	0.60	0.60	0.20	0.30	0.20	0.80	0.20	0.20	0.20	0.40	0.40	0.60	0.30
PCB 189	0.30	0.40	0.10	0.20	0.10	0.60	0.10	0.10	0.20	0.30	0.30	0.40	0.20
PCB 190	0.50	0.40	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.30	0.30	0.50	0.20
PCB 191	0.30	0.40	0.10	0.10	0.10	0.50	0.10	0.10	0.10	0.20	0.20	0.30	0.20
PCB 192	0.50	0.40	0.20	0.20	0.20	0.60	0.20	0.20	0.30	0.20	0.30	0.50	0.20
PCB 193	0.40	0.40	0.20	0.20	0.10	0.50	0.20	0.10	0.20	0.30	0.30	0.50	0.20
PCB 194	0.30	0.40	0.20	0.20	0.10	0.60	0.20	0.20	0.20	0.20	0.30	0.40	0.20
PCB 195	0.30	0.40	0.20	0.20	0.10	0.60	0.20	0.20	0.20	0.30	0.30	0.50	0.20
PCB 203/196	0.30	0.30	0.20	0.20	0.10	0.50	0.20	0.20	0.20	0.30	0.30	0.40	0.20
PCB 197	0.30	0.30	0.10	0.20	0.10	0.50	0.20	0.10	0.20	0.20	0.30	0.30	0.20
PCB 198	0.40	0.40	0.20	0.20	0.20	0.50	0.20	0.20	0.20	0.30	0.30	0.40	0.20
PCB 199	0.40	0.40	0.20	0.20	0.20	0.60	0.20	0.20	0.20	0.30	0.30	0.40	0.20
PCB 200	0.30	0.30	0.10	0.20	0.10	0.50	0.20	0.10	0.20	0.20	0.20	0.30	0.20
PCB 201/204	0.20	0.30	0.10	0.20	0.10	0.50	0.10	0.10	0.20	0.20	0.20	0.30	0.20
PCB 202	0.40	0.40	0.20	0.20	0.20	0.60	0.20	0.10	0.20	0.30	0.30	0.40	0.30
PCB 205	0.30	0.40	0.20	0.20	0.10	0.60	0.20	0.10	0.20	0.20	0.30	0.40	0.20
PCB 206	0.20	0.30	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.50	0.40	0.50	0.10
PCB 207	0.20	0.30	0.20	0.20	0.10	0.30	0.20	0.20	0.20	0.40	0.30	0.40	0.10
PCB 208	0.20	0.40	0.30	0.20	0.20	0.30	0.20	0.20	0.20	0.40	0.40	0.50	0.10
Total PCB	10	10	10	10	10	10	10	10	10	10	10	10	10
Total HeptaCB	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total HexaCB	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total Mono-TrCB	10	10	10	10	10	10	10	10	10	10	10	10	10
Total Nona/DecaCB	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total OctaCB	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total PentaCB	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total TEQ	-	-	-	-	-	-	-	-	-	-	-	-	-
Total TetraCB	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Surrogate: 13C12 PCB 1	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 4	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 15	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 28	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 37	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 54	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 77	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 81	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 105	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 111	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 114	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 118	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 123	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 126	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 155	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 156	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 157	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 167	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 169	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 178	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 189	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 205	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 206	-	-	-	-	-	-	-	-	-	-	-	-	-
Surrogate: 13C12 PCB 209	-	-	-	-	-	-	-	-	-	-	-	-	-
PCB 209	0.30	0.40	0.20	0.20	0.20	0.60	0.20	0.10	0.20	0.20	0.30	0.40	0.20

Project Report To ALS File No. Date Received Date DAVE HART, PORT METRO VANCOUVER L895760 09-Jun-10 15:45 05-Jul-10

UNITS

Table with 15 columns: Sample ID, SAND HEADS - 2, SAND HEADS REACH - 1, SAND HEADS REACH - 2, SAND HEADS REACH - 3, SAND HEADS REACH - 4, SAND HEADS BEND - 1, STEVESTON CUT - 5, STEVESTON CUT - 4, STEVESTON CUT - 3, STEVESTON CUT - 2, SAND HEADS - 1, STEVESTON CUT - 1, STEVESTON CUT - 2. Rows include Date Sampled, Time Sampled, ALS Sample ID, Matrix, and Particle Size (% Gravel, Sand, Silt, Clay).

Organic / Inorganic Carbon

Table with 15 columns corresponding to the units in the previous table, with rows for Total Organic Carbon and Polychlorinated Biphenyls.

Polychlorinated Biphenyls

Table with 15 columns corresponding to the units, listing concentrations for 130 different PCB congeners (PCB 1 to PCB 130) across all sample units.



CHEMICAL ANALYSIS REPORT

Date: June 24, 2005

ALS File No. V8960

Report On: Fraser River Soil Analysis

Report To: Fraser River Port Authority
505 - 713 Columbia Street
New Westminster, BC
V3M 1B2

Attention: Mr. Dave Hart

Received: June 6, 2005

ALS ENVIRONMENTAL

per:

Can Dang, B.Sc. - Project Chemist
Andre Langlais, M.Sc. - Project Chemist

RESULTS OF ANALYSIS - Sediment/Soil

Sample ID	FRASER 1	FRASER 3	FRASER 5	FRASER 7	FRASER 9	
ALS ID	1	2	3	4	5	
<u>Physical Tests</u>						
Moisture %	45.1	37.7	28.2	31.2	32.3	
<u>Polycyclic Aromatic Hydrocarbons</u>						
Acenaphthene	<0.040	<0.040	<0.040	<0.040	<0.040	
Acenaphthylene	<0.050	<0.050	<0.050	<0.050	<0.050	
Anthracene	<0.050	<0.050	<0.050	<0.050	<0.050	
Benz(a)anthracene	<0.050	<0.050	<0.050	<0.050	<0.050	
Benzo(a)pyrene	<0.050	<0.050	<0.050	<0.050	<0.050	
Benzo(b)fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050	
Benzo(g,h,i)perylene	<0.050	<0.050	<0.050	<0.050	<0.050	
Benzo(k)fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050	
Chrysene	<0.050	<0.050	<0.050	<0.050	<0.050	
Dibenz(a,h)anthracene	<0.050	<0.050	<0.050	<0.050	<0.050	
Fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050	
Fluorene	<0.050	<0.050	<0.050	<0.050	<0.050	
Indeno(1,2,3-c,d)pyrene	<0.050	<0.050	<0.050	<0.050	<0.050	
Naphthalene	<0.050	<0.050	<0.050	<0.050	0.094	
Phenanthrene	<0.050	<0.050	<0.050	<0.050	<0.050	
Pyrene	<0.050	<0.050	<0.050	<0.050	<0.050	
Total PAHs	<0.79	<0.79	<0.79	<0.79	<0.79	
Low Molecular Weight PAHs	<0.29	<0.29	<0.29	<0.29	<0.29	
High Molecular Weight PAHs	<0.50	<0.50	<0.50	<0.50	<0.50	
<u>Organic Parameters</u>						
Total Organic Carbon	C	0.965	1.06	<0.050	0.357	0.428

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

RESULTS OF ANALYSIS - Sediment/Soil



Sample ID		FRASER 11	FRASER 13	FRASER 15	FRASER 17	FRASER 19
ALS ID		6	7	8	9	10
Physical Tests						
Moisture	%	26.7	27.1	27.0	24.5	27.7
Polycyclic Aromatic Hydrocarbons						
Acenaphthene		<0.040	<0.040	<0.040	<0.040	<0.040
Acenaphthylene		<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene		<0.050	<0.050	<0.050	<0.050	<0.050
Benz(a)anthracene		<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene		<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(b)fluoranthene		<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene		<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene		<0.050	<0.050	<0.050	<0.050	<0.050
Chrysene		<0.050	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene		<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene		<0.050	<0.050	<0.050	<0.050	<0.050
Fluorene		<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene		<0.050	<0.050	<0.050	<0.050	<0.050
Naphthalene		<0.050	<0.050	<0.050	<0.050	<0.050
Phenanthrene		<0.050	<0.050	<0.050	<0.050	<0.050
Pyrene		<0.050	<0.050	<0.050	<0.050	<0.050
Total PAHs		<0.79	<0.79	<0.79	<0.79	<0.79
Low Molecular Weight PAHs		<0.29	<0.29	<0.29	<0.29	<0.29
High Molecular Weight PAHs		<0.50	<0.50	<0.50	<0.50	<0.50
Organic Parameters						
Total Organic Carbon	C	<0.050	<0.050	<0.050	<0.050	<0.050

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

RESULTS OF ANALYSIS - Sediment/Soil



Sample ID	FRASER 21	FRASER 23	FRASER 25	FRASER 27	FRASER 29
ALS ID	11	12	13	14	15
Physical Tests					
Moisture %	24.4	23.7	24.4	24.3	22.9
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	<0.040	<0.040	<0.040	<0.040	<0.040
Acenaphthylene	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	<0.050	<0.050	<0.050	<0.050	<0.050
Benz(a)anthracene	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(b)fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050
Chrysene	<0.050	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050
Fluorene	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	<0.050	<0.050	<0.050	<0.050	<0.050
Naphthalene	<0.050	<0.050	<0.050	<0.050	<0.050
Phenanthrene	<0.050	<0.050	<0.050	<0.050	<0.050
Pyrene	<0.050	<0.050	<0.050	<0.050	<0.050
Total PAHs	<0.79	<0.79	<0.79	<0.79	<0.79
Low Molecular Weight PAHs	<0.29	<0.29	<0.29	<0.29	<0.29
High Molecular Weight PAHs	<0.50	<0.50	<0.50	<0.50	<0.50
Organic Parameters					
Total Organic Carbon	C	<0.050	<0.050	<0.050	<0.050

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

RESULTS OF ANALYSIS - Sediment/Soil

Sample ID	FRASER 31	FRASER 33	FRASER 35	FRASER 37	FRASER 39
ALS ID	16	17	18	19	20
<u>Physical Tests</u>					
Moisture %	22.2	25.8	21.6	21.9	22.9
<u>Polycyclic Aromatic Hydrocarbons</u>					
Acenaphthene	<0.040	<0.040	<0.040	<0.040	<0.040
Acenaphthylene	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	<0.050	<0.050	<0.050	<0.050	<0.050
Benz(a)anthracene	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(b)fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050
Chrysene	<0.050	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	<0.050	<0.050	<0.050	<0.050	<0.050
Fluorene	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	<0.050	<0.050	<0.050	<0.050	<0.050
Naphthalene	<0.050	<0.050	<0.050	<0.050	<0.050
Phenanthrene	<0.050	<0.050	<0.050	<0.050	<0.050
Pyrene	<0.050	<0.050	<0.050	<0.050	<0.050
Total PAHs	<0.79	<0.79	<0.79	<0.79	<0.79
Low Molecular Weight PAHs	<0.29	<0.29	<0.29	<0.29	<0.29
High Molecular Weight PAHs	<0.50	<0.50	<0.50	<0.50	<0.50
<u>Organic Parameters</u>					
Total Organic Carbon	C	<0.050	<0.050	<0.050	<0.050

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

RESULTS OF ANALYSIS - Sediment/Soil

Sample ID		FRASER 41	FRASER 2	FRASER 4	FRASER 6	FRASER 8
ALS ID		21	22	23	24	25
Physical Tests						
Moisture	%	23.4	42.7	36.5	27.9	30.2
Total Metals						
Cadmium	T-Cd	-	0.16	0.12	<0.10	<0.10
Copper	T-Cu	-	36.6	27.5	5.9	19.7
Lead	T-Pb	-	<30	<30	<30	<30
Mercury	T-Hg	-	0.0594	0.0445	0.0226	0.0348
Zinc	T-Zn	-	74.7	60.0	25.0	47.2
Polycyclic Aromatic Hydrocarbons						
Acenaphthene		<0.040	-	-	-	-
Acenaphthylene		<0.050	-	-	-	-
Anthracene		<0.050	-	-	-	-
Benz(a)anthracene		<0.050	-	-	-	-
Benzo(a)pyrene		<0.050	-	-	-	-
Benzo(b)fluoranthene		<0.050	-	-	-	-
Benzo(g,h,i)perylene		<0.050	-	-	-	-
Benzo(k)fluoranthene		<0.050	-	-	-	-
Chrysene		<0.050	-	-	-	-
Dibenz(a,h)anthracene		<0.050	-	-	-	-
Fluoranthene		<0.050	-	-	-	-
Fluorene		<0.050	-	-	-	-
Indeno(1,2,3-c,d)pyrene		<0.050	-	-	-	-
Naphthalene		<0.050	-	-	-	-
Phenanthrene		<0.050	-	-	-	-
Pyrene		<0.050	-	-	-	-
Total PAHs		<0.79	-	-	-	-
Low Molecular Weight PAHs		<0.29	-	-	-	-
High Molecular Weight PAHs		<0.50	-	-	-	-
Organic Parameters						
Total Organic Carbon	C	<0.050	-	-	-	-

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

RESULTS OF ANALYSIS - Sediment/Soil

Sample ID		FRASER 10	FRASER 12	FRASER 14	FRASER 16	FRASER 18
ALS ID		26	27	28	29	30
Physical Tests						
Moisture	%	31.9	26.1	25.6	26.8	22.7
Total Metals						
Cadmium	T-Cd	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	T-Cu	21.8	12.4	12.5	12.6	12.7
Lead	T-Pb	<30	<30	<30	<30	<30
Mercury	T-Hg	0.0348	0.0203	0.0205	0.100	0.0214
Zinc	T-Zn	49.6	35.3	36.9	35.7	35.1

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

RESULTS OF ANALYSIS - Sediment/Soil

Sample ID		FRASER 20	FRASER 22	FRASER 24	FRASER 26	FRASER 28
ALS ID		31	32	33	34	35
Physical Tests						
Moisture	%	27.2	26.7	25.7	24.6	25.3
Total Metals						
Cadmium	T-Cd	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	T-Cu	12.7	12.5	12.3	12.8	13.2
Lead	T-Pb	<30	<30	<30	<30	<30
Mercury	T-Hg	0.0418	0.0250	0.0179	0.0178	0.0184
Zinc	T-Zn	35.4	36.2	34.6	35.4	36.3

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

**RESULTS OF ANALYSIS - Sediment/Soil**

Sample ID		FRASER 30	FRASER 32	FRASER 34	FRASER 36	FRASER 38
ALS ID		36	37	38	39	40
Physical Tests						
Moisture	%	23.0	22.1	22.6	21.6	22.7
Total Metals						
Cadmium	T-Cd	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	T-Cu	12.0	12.8	12.7	12.8	13.3
Lead	T-Pb	<30	<30	<30	<30	<30
Mercury	T-Hg	0.0205	0.0181	0.0262	0.0205	0.0193
Zinc	T-Zn	34.5	35.3	34.2	35.1	34.1

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

File No. V8960

RESULTS OF ANALYSIS - Sediment/Soil



Sample ID		FRASER 40	FRASER 42
ALS ID		41	42
<hr/>			
Physical Tests			
Moisture	%	22.6	23.2
Total Metals			
Cadmium	T-Cd	<0.10	<0.10
Copper	T-Cu	13.3	12.5
Lead	T-Pb	<30	<30
Mercury	T-Hg	0.0171	0.0319
Zinc	T-Zn	35.0	33.4

Total Organic Carbon results are expressed as percent, dry weight basis.
< = Less than the detection limit indicated.
Results are expressed as milligrams per dry kilogram except where noted.



Appendix 1 - REGULATORY CRITERIA

Ocean Disposal - Excavations

Interim Contaminant Testing Guidelines for Ocean Disposal
(Pacific & Yukon Region) for Excavated Material, April 1991.
All limits are screening/rejection limits.
Limits expressed as milligrams per kilogram, dry weight basis
except as noted.

		Lower Limit	Upper Limit	Notes
<u>Total Metals</u>				
Cadmium	T-Cd	-	0.6 mg/kg	
Copper	T-Cu	-	1000 mg/kg	1
Lead	T-Pb	-	500 mg/kg	1
Mercury	T-Hg	-	0.75 mg/kg	
Zinc	T-Zn	-	1000 mg/kg	1
<u>Polycyclic Aromatic Hydrocarbons</u>				
Total PAHs		-	2.5 mg/kg	2

1 General limits; more stringent limits may apply.

2 Interim rejection limits.

Appendix 2 - QUALITY CONTROL - Replicates



Sediment/Soil	FRASER 5	FRASER 5	FRASER 9	FRASER 9
		QC # 444771		QC # 444759
Physical Tests				
Moisture %	28.2	28.3	32.3	32.5
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	<0.040	<0.040	<0.040	<0.040
Acenaphthylene	<0.050	<0.050	<0.050	<0.050
Anthracene	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	<0.050	<0.050	<0.050	<0.050
Benzo(b)fluoranthene	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	<0.050	<0.050	<0.050	<0.050
Chrysene	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	<0.050	<0.050	<0.050	<0.050
Fluoranthene	<0.050	<0.050	<0.050	<0.050
Fluorene	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	<0.050	<0.050	<0.050	<0.050
Naphthalene	<0.050	<0.050	0.094	<0.050
Phenanthrene	<0.050	<0.050	<0.050	<0.050
Pyrene	<0.050	<0.050	<0.050	<0.050
Total PAHs	<0.79	<0.79	<0.79	<0.79
Low Molecular Weight PAHs	<0.29	<0.29	<0.29	<0.29
High Molecular Weight PAHs	<0.50	<0.50	<0.50	<0.50

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

Appendix 2 - QUALITY CONTROL - Replicates



Sediment/Soil	FRASER 23	FRASER 23 QC # 444760	FRASER 33	FRASER 33 QC # 444761
Physical Tests				
Moisture %	23.7	24.0	25.8	24.6
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	<0.040	<0.040	<0.040	<0.040
Acenaphthylene	<0.050	<0.050	<0.050	<0.050
Anthracene	<0.050	<0.050	<0.050	<0.050
Benz(a)anthracene	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	<0.050	<0.050	<0.050	<0.050
Benzo(b)fluoranthene	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	<0.050	<0.050	<0.050	<0.050
Chrysene	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	<0.050	<0.050	<0.050	<0.050
Fluoranthene	<0.050	<0.050	<0.050	<0.050
Fluorene	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-c,d)pyrene	<0.050	<0.050	<0.050	<0.050
Naphthalene	<0.050	<0.050	<0.050	<0.050
Phenanthrene	<0.050	<0.050	<0.050	<0.050
Pyrene	<0.050	<0.050	<0.050	<0.050
Total PAHs	<0.79	<0.79	<0.79	<0.79
Low Molecular Weight PAHs	<0.29	<0.29	<0.29	<0.29
High Molecular Weight PAHs	<0.50	<0.50	<0.50	<0.50

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

Appendix 2 - QUALITY CONTROL - Replicates



Sediment/Soil		FRASER 10	FRASER 10	FRASER 10	FRASER 10
			QC # 444772	QC # 444775	QC # 444776
Physical Tests					
Moisture	%	31.9	31.8	-	-
Total Metals					
Cadmium	T-Cd	<0.10	<0.10	<0.10	<0.10
Copper	T-Cu	21.8	21.0	20.8	21.0
Lead	T-Pb	<30	<30	<30	<30
Mercury	T-Hg	0.0348	0.0337	0.0372	0.0355
Zinc	T-Zn	49.6	49.4	48.6	49.0

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

Appendix 2 - QUALITY CONTROL - Replicates



Sediment/Soil		FRASER 10	FRASER 10
			QC # 444777
<hr/>			
Physical Tests			
Moisture	%	31.9	-
Total Metals			
Cadmium	T-Cd	<0.10	<0.10
Copper	T-Cu	21.8	20.8
Lead	T-Pb	<30	<30
Mercury	T-Hg	0.0348	0.0349
Zinc	T-Zn	49.6	49.7

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

Appendix 2 - QUALITY CONTROL - Replicates



Sediment/Soil	FRASER 14	FRASER 14	FRASER 14	FRASER 14
		QC # 444773	QC # 444778	QC # 444779
Physical Tests				
Moisture %	25.6	26.3	-	-
Total Metals				
Cadmium T-Cd	<0.10	<0.10	<0.10	<0.10
Copper T-Cu	12.5	12.8	12.4	12.1
Lead T-Pb	<30	<30	<30	<30
Mercury T-Hg	0.0205	0.0298	0.0254	0.0191
Zinc T-Zn	36.9	36.8	36.3	36.6

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

Appendix 2 - QUALITY CONTROL - Replicates



Sediment/Soil		FRASER 14	FRASER 14	FRASER 14
			QC # 444780	QC # 444781
Physical Tests				
Moisture	%	25.6	-	-
Total Metals				
Cadmium	T-Cd	<0.10	<0.10	<0.10
Copper	T-Cu	12.5	12.9	12.3
Lead	T-Pb	<30	<30	<30
Mercury	T-Hg	0.0205	0.0167	0.0175
Zinc	T-Zn	36.9	38.1	36.2

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

Appendix 2 - QUALITY CONTROL - Replicates



Sediment/Soil		FRASER 22	FRASER 22	FRASER 22	FRASER 22
			QC # 444774	QC # 444782	QC # 444783
Physical Tests					
Moisture	%	26.7	26.0	-	-
Total Metals					
Cadmium	T-Cd	<0.10	<0.10	<0.10	<0.10
Copper	T-Cu	12.5	12.5	12.9	12.7
Lead	T-Pb	<30	<30	<30	<30
Mercury	T-Hg	0.0250	0.0201	0.0214	0.0224
Zinc	T-Zn	36.2	36.0	36.3	36.7

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.

Appendix 2 - QUALITY CONTROL - Replicates



Sediment/Soil		FRASER 22	FRASER 22	FRASER 22
			QC # 444784	QC # 444785
Physical Tests				
Moisture	%	26.7	-	-
Total Metals				
Cadmium	T-Cd	<0.10	<0.10	<0.10
Copper	T-Cu	12.5	12.6	12.3
Lead	T-Pb	<30	<30	<30
Mercury	T-Hg	0.0250	0.0223	0.0251
Zinc	T-Zn	36.2	36.3	35.9

Total Organic Carbon results are expressed as percent, dry weight basis.
 < = Less than the detection limit indicated.
 Results are expressed as milligrams per dry kilogram except where noted.



Outlines of the methodologies utilized for the analysis of the samples submitted are as follows

Moisture in Sediment/Soil

This analysis is carried out gravimetrically by drying the sample at 103 C for a minimum of six hours.

Recommended Holding Time:

Sample: 14 days

Reference: Puget

For more detail see ALS Environmental "Collection & Sampling Guide"

Polycyclic Aromatic Hydrocarbons in Sediment/Soil

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Methods 3545 & 8270, published by the United States Environmental Protection Agency (EPA). The procedure uses an automated system (Accelerated Solvent Extractor - ASE) to extract a subsample of the sediment/soil with a 1:1 mixture of hexane and acetone. The extract is then solvent exchanged to toluene. The final extract is analysed by capillary column gas chromatography with mass spectrometric detection (GC/MS).

Recommended Holding Time:

Sample: 14 days Extract: 40 days

Reference: EPA

For more detail see ALS Environmental "Collection & Sampling Guide"

Total Carbon, Total Organic Carbon and Inorganic Carbon in Sediment/Soil

This analysis is carried out in accordance with U.S. EPA Method 9060A (Publ. # SW-846 3rd ed., Washington, DC 20460). Total Carbon is determined by high temperature oxidation of carbon to carbon dioxide which is then measured by means of a nondispersive infrared analyzer. Inorganic Carbon is determined by reaction with phosphoric acid to convert all carbonates to carbon dioxide which is also measured by means of a nondispersive infrared analyzer. Total Organic Carbon is determined as the difference between Total and Inorganic Carbons.

Recommended Holding Time:

Sample: 14 days

Reference: Puget

For more detail see ALS "Collection & Sampling Guide"

Metals in Sediment/Soil

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 Method 3050B or Method 3051, published by the United States Environmental Protection Agency (EPA). The sample is



manually homogenized and a representative subsample of the wet material is weighed. The sample is then digested by either hotplate or microwave oven using a 1:1 ratio of nitric acid and hydrochloric acid. Instrumental analysis is by atomic absorption/emission/fluorescence spectrophotometry (EPA Method 7000 series), inductively coupled plasma - optical emission spectrophotometry (EPA Method 6010B), and/or inductively coupled plasma - mass spectrometry (EPA Method 6020).

Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that may become "environmentally available." By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Recommended Holding Time:

Sample/Extract: 6 months (Mercury = 28 days)

Reference: EPA

For more detail see ALS Environmental "Collection & Sampling Guide"

Results contained within this report relate only to the samples as submitted.

This Chemical Analysis Report shall only be reproduced in full, except with the written approval of ALS Environmental.

End of Report



Environmental Division

Certificate of Analysis

D.B. TECHNICAL SERVICES INC.

ATTN: DUANE BROTHERS

4663 WOODRIDGE PLACE

WEST VANCOUVER BC V7S 2X1

Reported On: 21-JAN-09 04:45 PM

Lab Work Order #: **L725009**

Date Received: **14-JAN-09**

Project P.O. #:

Job Reference: FRASER RIVER SHIPPING CHANNEL (FOR MARINE PORT VANCOUVER)

Legal Site Desc:

CofC Numbers:

Other Information:

Comments:

Can Dang
Account Manager

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ALL SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ALS LABORATORY GROUP ANALYTICAL REPORT

		Sample ID	L725009-1	L725009-2	L725009-3	L725009-4	L725009-5
		Description					
		Sampled Date	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09
		Sampled Time					
		Client ID	DBT-MPV-FRASER 1	DBT-MPV-FRASER 2	DBT-MPV-FRASER 3	DBT-MPV-FRASER 4	DBT-MPV-FRASER 5
Grouping	Analyte						
SOIL							
Physical Tests	% Moisture (%)		26.8	25.9	23.8	25.3	21.5
Particle Size	% Gravel (>2mm) (%)		<1	<1	<1	<1	<1
	% Sand (2.0mm - 0.063mm) (%)		89	95	97	94	96
	% Silt (0.063mm - 4um) (%)		8	3	2	4	2
	% Clay (<4um) (%)		4	2	1	2	2
Organic / Inorganic Carbon	Total Organic Carbon (%)		0.2	0.1	<0.1	0.1	0.1
Metals	Cadmium (Cd) (mg/kg)		0.11	<0.10	<0.10	<0.10	<0.10
	Lead (Pb) (mg/kg)		<30	<30	<30	<30	<30
	Mercury (Hg) (mg/kg)		0.0322	0.0231	0.0181	0.0211	0.0311
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)		<0.040	<0.040	<0.040	<0.040	<0.040
	Acenaphthylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benz(a)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(a)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(b)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(g,h,i)perylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(k)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Chrysene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Dibenz(a,h)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluorene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Heavy Molecular Wt. Pah Sum (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Indeno(1,2,3-c,d)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Light Molecular Wt. Pah Sum (mg/kg)		<0.10	<0.10	<0.10	<0.10	<0.10
	Naphthalene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Total PAHs (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Phenanthrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Surrogate: d10-Acenaphthene (SS) (%)		96	96	93	95	104
	Surrogate: d12-Chrysene (SS) (%)		98	96	89	96	101
	Surrogate: d8-Naphthalene (SS) (%)		95	97	94	95	103
Surrogate: d10-Phenanthrene (SS) (%)		89	89	87	88	95	

ALS LABORATORY GROUP ANALYTICAL REPORT

		Sample ID	L725009-6	L725009-7	L725009-8	L725009-9	L725009-10
		Description					
		Sampled Date	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09
		Sampled Time					
		Client ID	DBT-MPV-FRASER 6	DBT-MPV-FRASER 7	DBT-MPV-FRASER 8	DBT-MPV-FRASER 9	DBT-MPV-FRASER 10
Grouping	Analyte						
SOIL							
Physical Tests	% Moisture (%)		27.9	24.2	22.9	27.0	23.1
Particle Size	% Gravel (>2mm) (%)		<1	<1	<1	<1	<1
	% Sand (2.0mm - 0.063mm) (%)		94	98	98	97	98
	% Silt (0.063mm - 4um) (%)		4	1	1	2	1
	% Clay (<4um) (%)		2	1	1	1	1
Organic / Inorganic Carbon	Total Organic Carbon (%)		0.2	0.1	<0.1	0.1	0.1
Metals	Cadmium (Cd) (mg/kg)		<0.10	<0.10	<0.10	<0.10	<0.10
	Lead (Pb) (mg/kg)		<30	<30	<30	<30	<30
	Mercury (Hg) (mg/kg)		0.0237	0.0189	0.0178	0.0225	0.0493
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)		<0.040	<0.040	<0.040	<0.040	<0.040
	Acenaphthylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benz(a)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(a)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(b)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(g,h,i)perylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(k)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Chrysene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Dibenz(a,h)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluorene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Heavy Molecular Wt. Pah Sum (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Indeno(1,2,3-c,d)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Light Molecular Wt. Pah Sum (mg/kg)		<0.10	<0.10	<0.10	<0.10	<0.10
	Naphthalene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Total PAHs (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Phenanthrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Surrogate: d10-Acenaphthene (SS) (%)		91	88	91	104	98
	Surrogate: d12-Chrysene (SS) (%)		90	85	89	102	93
	Surrogate: d8-Naphthalene (SS) (%)		91	88	92	102	99
Surrogate: d10-Phenanthrene (SS) (%)		85	81	84	94	89	

ALS LABORATORY GROUP ANALYTICAL REPORT

		Sample ID	L725009-11	L725009-12	L725009-13	L725009-14	L725009-15
		Description					
		Sampled Date	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09
		Sampled Time					
		Client ID	DBT-MPV-FRASER 11	DBT-MPV-FRASER 12	DBT-MPV-FRASER 13	DBT-MPV-FRASER 14	DBT-MPV-FRASER 15
Grouping	Analyte						
SOIL							
Physical Tests	% Moisture (%)		22.9	24.6	21.8	24.7	23.7
Particle Size	% Gravel (>2mm) (%)		1	<1	7	<1	<1
	% Sand (2.0mm - 0.063mm) (%)		98	98	91	99	98
	% Silt (0.063mm - 4um) (%)		1	1	<1	1	<1
	% Clay (<4um) (%)		1	1	2	<1	2
Organic / Inorganic Carbon	Total Organic Carbon (%)		<0.1	<0.1	0.1	0.1	0.1
Metals	Cadmium (Cd) (mg/kg)		<0.10	<0.10	0.20	0.10	0.11
	Lead (Pb) (mg/kg)		<30	<30	<30	<30	<30
	Mercury (Hg) (mg/kg)		0.0214	0.125	0.0169	0.0316	0.0249
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)		<0.040	<0.040	<0.040	<0.040	<0.040
	Acenaphthylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benz(a)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(a)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(b)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(g,h,i)perylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(k)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Chrysene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Dibenz(a,h)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluorene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Heavy Molecular Wt. Pah Sum (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Indeno(1,2,3-c,d)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Light Molecular Wt. Pah Sum (mg/kg)		<0.10	<0.10	<0.10	<0.10	<0.10
	Naphthalene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Total PAHs (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Phenanthrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Surrogate: d10-Acenaphthene (SS) (%)		101	97	102	95	101
	Surrogate: d12-Chrysene (SS) (%)		97	94	98	90	96
	Surrogate: d8-Naphthalene (SS) (%)		101	97	102	94	100
Surrogate: d10-Phenanthrene (SS) (%)		92	89	93	86	91	

ALS LABORATORY GROUP ANALYTICAL REPORT

		Sample ID	L725009-16	L725009-17	L725009-18	L725009-19	L725009-20
		Description					
		Sampled Date	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09
		Sampled Time					
		Client ID	DBT-MPV-FRASER 16	DBT-MPV-FRASER 17	DBT-MPV-FRASER 18	DBT-MPV-FRASER 19	DBT-MPV-FRASER 20
Grouping	Analyte						
SOIL							
Physical Tests	% Moisture (%)		22.0	17.1	24.9	24.9	21.0
Particle Size	% Gravel (>2mm) (%)		<1	9	<1	4	1
	% Sand (2.0mm - 0.063mm) (%)		99	89	99	95	98
	% Silt (0.063mm - 4um) (%)		<1	1	<1	<1	<1
	% Clay (<4um) (%)		1	<1	1	1	1
Organic / Inorganic Carbon	Total Organic Carbon (%)		<0.1	<0.1	<0.1	<0.1	<0.1
Metals	Cadmium (Cd) (mg/kg)		0.11	<0.10	0.11	0.14	0.12
	Lead (Pb) (mg/kg)		<30	<30	<30	<30	<30
	Mercury (Hg) (mg/kg)		0.0203	0.0203	0.0199	0.0249	0.0234
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)		<0.040	<0.040	<0.040	<0.040	<0.040
	Acenaphthylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benz(a)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(a)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(b)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(g,h,i)perylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(k)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Chrysene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Dibenz(a,h)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluorene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Heavy Molecular Wt. Pah Sum (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Indeno(1,2,3-c,d)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Light Molecular Wt. Pah Sum (mg/kg)		<0.10	<0.10	<0.10	<0.10	<0.10
	Naphthalene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Total PAHs (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Phenanthrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Surrogate: d10-Acenaphthene (SS) (%)		102	106	95	93	101
	Surrogate: d12-Chrysene (SS) (%)		95	99	89	88	95
Surrogate: d8-Naphthalene (SS) (%)		100	106	96	92	100	
Surrogate: d10-Phenanthrene (SS) (%)		92	95	85	83	91	

ALS LABORATORY GROUP ANALYTICAL REPORT

		Sample ID	L725009-21	L725009-22	L725009-23	L725009-24	L725009-25
		Description					
		Sampled Date	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09
		Sampled Time					
		Client ID	DBT-MPV-FRASER 21	DBT-MPV-FRASER 1 PAH QC	DBT-MPV-FRASER 7 PAH QC	DBT-MPV-FRASER 15 PAH QC	DBT-MPV-FRASER 18 PAH QC
Grouping	Analyte						
SOIL							
Physical Tests	% Moisture (%)		22.0	25.8	25.5	23.8	25.2
Particle Size	% Gravel (>2mm) (%)		<1				
	% Sand (2.0mm - 0.063mm) (%)		99				
	% Silt (0.063mm - 4um) (%)		<1				
	% Clay (<4um) (%)		1				
Organic / Inorganic Carbon	Total Organic Carbon (%)		<0.1				
Metals	Cadmium (Cd) (mg/kg)		0.12				
	Lead (Pb) (mg/kg)		<30				
	Mercury (Hg) (mg/kg)		0.0228				
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)		<0.040	<0.040	<0.040	<0.040	<0.040
	Acenaphthylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benz(a)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(a)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(b)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(g,h,i)perylene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Benzo(k)fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Chrysene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Dibenz(a,h)anthracene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluoranthene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Fluorene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Heavy Molecular Wt. Pah Sum (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Indeno(1,2,3-c,d)pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Light Molecular Wt. Pah Sum (mg/kg)		<0.10	<0.10	<0.10	<0.10	<0.10
	Naphthalene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Total PAHs (mg/kg)		<0.20	<0.20	<0.20	<0.20	<0.20
	Phenanthrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Pyrene (mg/kg)		<0.050	<0.050	<0.050	<0.050	<0.050
	Surrogate: d10-Acenaphthene (SS) (%)		90	90	88	89	90
	Surrogate: d12-Chrysene (SS) (%)		85	85	85	84	88
	Surrogate: d8-Naphthalene (SS) (%)		89	88	87	89	89
Surrogate: d10-Phenanthrene (SS) (%)		82	81	80	81	81	

ALS LABORATORY GROUP ANALYTICAL REPORT

		Sample ID	L725009-26	L725009-27	L725009-28	L725009-29	L725009-30
		Description					
		Sampled Date	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09	13-JAN-09
		Sampled Time					
		Client ID	DBT-MPV-FRASER 3 METALS QC1	DBT-MPV-FRASER 3 METALS QC2	DBT-MPV-FRASER 3 METALS QC3	DBT-MPV-FRASER 3 METALS QC4	DBT-MPV-FRASER 12 METALS QC1
Grouping	Analyte						
SOIL							
Physical Tests	% Moisture (%)		24.3	24.7	23.1	23.5	24.3
Particle Size	% Gravel (>2mm) (%)						
	% Sand (2.0mm - 0.063mm) (%)						
	% Silt (0.063mm - 4um) (%)						
	% Clay (<4um) (%)						
Organic / Inorganic Carbon	Total Organic Carbon (%)						
Metals	Cadmium (Cd) (mg/kg)		<0.10	<0.10	<0.10	<0.10	<0.10
	Lead (Pb) (mg/kg)		<30	<30	<30	<30	<30
	Mercury (Hg) (mg/kg)		0.0242	0.0185	0.0199	0.0211	0.0236
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)						
	Acenaphthylene (mg/kg)						
	Anthracene (mg/kg)						
	Benz(a)anthracene (mg/kg)						
	Benzo(a)pyrene (mg/kg)						
	Benzo(b)fluoranthene (mg/kg)						
	Benzo(g,h,i)perylene (mg/kg)						
	Benzo(k)fluoranthene (mg/kg)						
	Chrysene (mg/kg)						
	Dibenz(a,h)anthracene (mg/kg)						
	Fluoranthene (mg/kg)						
	Fluorene (mg/kg)						
	Heavy Molecular Wt. Pah Sum (mg/kg)						
	Indeno(1,2,3-c,d)pyrene (mg/kg)						
	Light Molecular Wt. Pah Sum (mg/kg)						
	Naphthalene (mg/kg)						
	Total PAHs (mg/kg)						
	Phenanthrene (mg/kg)						
	Pyrene (mg/kg)						
	Surrogate: d10-Acenaphthene (SS) (%)						
	Surrogate: d12-Chrysene (SS) (%)						
Surrogate: d8-Naphthalene (SS) (%)							
Surrogate: d10-Phenanthrene (SS) (%)							

ALS LABORATORY GROUP ANALYTICAL REPORT

		Sample ID	L725009-31	L725009-32	L725009-33		
		Description					
		Sampled Date	13-JAN-09	13-JAN-09	13-JAN-09		
		Sampled Time					
		Client ID	DBT-MPV-FRASER 12 METALS QC2	DBT-MPV-FRASER 12 METALS QC3	DBT-MPV-FRASER 12 METALS QC4		
Grouping	Analyte						
SOIL							
Physical Tests	% Moisture (%)	24.1	23.7	23.2			
Particle Size	% Gravel (>2mm) (%)						
	% Sand (2.0mm - 0.063mm) (%)						
	% Silt (0.063mm - 4um) (%)						
	% Clay (<4um) (%)						
Organic / Inorganic Carbon	Total Organic Carbon (%)						
Metals	Cadmium (Cd) (mg/kg)	<0.10	<0.10	<0.10			
	Lead (Pb) (mg/kg)	<30	<30	<30			
	Mercury (Hg) (mg/kg)	0.0202	0.0197	0.0181			
Polycyclic Aromatic Hydrocarbons	Acenaphthene (mg/kg)						
	Acenaphthylene (mg/kg)						
	Anthracene (mg/kg)						
	Benz(a)anthracene (mg/kg)						
	Benzo(a)pyrene (mg/kg)						
	Benzo(b)fluoranthene (mg/kg)						
	Benzo(g,h,i)perylene (mg/kg)						
	Benzo(k)fluoranthene (mg/kg)						
	Chrysene (mg/kg)						
	Dibenz(a,h)anthracene (mg/kg)						
	Fluoranthene (mg/kg)						
	Fluorene (mg/kg)						
	Heavy Molecular Wt. Pah Sum (mg/kg)						
	Indeno(1,2,3-c,d)pyrene (mg/kg)						
	Light Molecular Wt. Pah Sum (mg/kg)						
	Naphthalene (mg/kg)						
	Total PAHs (mg/kg)						
	Phenanthrene (mg/kg)						
	Pyrene (mg/kg)						
	Surrogate: d10-Acenaphthene (SS) (%)						
	Surrogate: d12-Chrysene (SS) (%)						
	Surrogate: d8-Naphthalene (SS) (%)						
	Surrogate: d10-Phenanthrene (SS) (%)						

Reference Information

Additional Comments for Sample Listed:

Samplenum	Matrix	Report Remarks	Sample Comments
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Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Analytical Method Reference(Based On)
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C-TOT-ORG-LECO-SK	Soil	Organic Carbon by combustion method	SSSA (1996) p. 973
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Total Organic Carbon (C-TOT-ORG-LECO-SK, C-TOT-ORG-SK)

Total C and inorganic C are determined on separate samples. The total C is determined by combustion and thermal conductivity detection, while inorganic C is determined by weight loss after addition of hydrochloric acid. Organic C is calculated by the difference between these two determinations.

Reference for Total C:

Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 961-1010 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

Reference for Inorganic C:

Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

HG-HOTP-CVAFS-VA	Soil	Mercury in Soil by CVAFS	EPA 3050B/7471A/245.7
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This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 Method 3050B published by the United States Environmental Protection Agency (EPA). The sample is manually homogenized and a representative subsample of the wet material is weighed. The sample is then digested by hotplate using a 1:1 ratio of nitric acid and hydrochloric acid. Instrumental analysis is by atomic fluorescence spectrophotometry (EPA 7471A/245.7).

Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that may become "environmentally available." By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

MET-HOTP-MS-VA	Soil	Metals in Soil by ICPMS	EPA 3050B/6020A
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This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 Method 3050B published by the United States Environmental Protection Agency (EPA). The sample is manually homogenized and a representative subsample of the wet material is weighed. The sample is then digested by hotplate using a 1:1 ratio of nitric acid and hydrochloric acid. Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that may become "environmentally available." By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

MOISTURE-VA	Soil	Moisture content	ASTM METHOD D2794-00
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This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.

MOISTURE-VA	Soil		ASTM METHOD D2794-00
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This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.

PAH-HIGHLOW-CALC-VA	Soil	Sum of low,high PAH's	CALCULATION
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These results are determined according to the British Columbia Ministry of Environment, Lands, and Parks Analytical Method for Contaminated Sites "Calculation of Volatile Petroleum Hydrocarbons in Solids or Water" (Version 2.1, July 20, 1999). According to this method, the concentrations of specific Monocyclic Aromatic Hydrocarbons (Benzene, Toluene, Ethylbenzene, Xylenes and Styrene) are subtracted from the collective concentration of Volatile Hydrocarbons (VH) that elute between n-hexane (nC6) and n-decane (nC10). Analysis of Volatile Hydrocarbons adheres to all prescribed elements of BCMELP method "Volatile Hydrocarbons in Solids by GC/FID" (Version 2.1, July 20, 1999).

PAH-SUM-CALC-VA	Soil	Sum of PAH's	CALCULATION
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Total PAH represents the sum of all PAH analytes reported for a given sample. Note that regulatory agencies and criteria differ in their definitions of Total PAH in terms of the individual PAH analytes to be included.

PAH-TUMB-H/A-MS-VA	Soil	PAH by Tumbler HEX/ACE with GCMS	EPA METHODS 3570 & 8270.
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Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Analytical Method Reference(Based On)
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Polycyclic Aromatic Hydrocarbons in Sediment/Soil

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Methods 3570 & 8270, published by the United States Environmental Protection Agency (EPA). The procedure uses a mechanical shaking technique to extract a subsample of the sediment/soil with a 1:1 mixture of hexane and acetone. The extract is then solvent exchanged to toluene. The final extract is analysed by capillary column gas chromatography with mass spectrometric detection (GC/MS). Surrogate recoveries may not be reported in cases where interferences from the sample matrix prevent accurate quantitation.

ALS Test Code	Matrix	Test Description	Analytical Method Reference(Based On)
PSA-PIPET+GRAVEL-SK	Soil	Particle size - Sieve and Pipette	FORESTRY CANADA (1991) P. 46-48 MOD

Particle size analysis involves the measurement of the proportions of the various primary soil particle sizes (ie. clay < 0.004 mm, silt 0.004-0.063 mm, sand 0.063-2.0 mm and gravel > 2.0 mm). In this method, the gravel and sand portions are determined by sieving, while the clay portion is determined by sedimentation using Stokes Law, which relates the radius of the particles to the velocity of the sedimentation in water. Silt is calculated as 100% - (sand% + clay%)

Pretreatment of the soil with Calgon (sodium hexametaphosphate) is used to ensure the complete dispersion of the primary soil particles. Additional pretreatment may be necessary to remove cementing materials such as CaCO₃ and organic matter.

Reference

Y.P. Kalra, and D.G. Maynard, 1991. Methods Manual For Forest Soil and Plant Analysis, Northwest Region. Forestry Canada (modified sand, silt and clay size ranges)

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies. The last two letters of the above ALS Test Code column indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
SK	ALS LABORATORY GROUP - SASKATOON, SASKATCHEWAN, CANADA	VA	ALS LABORATORY GROUP - VANCOUVER, BC, CANADA

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, ALS Laboratory Group assumes no liability for the use or interpretation of the results.



ALS Environmental
excellence in analytical testing

L725809

1988 Triumph Street, Vancouver, BC Canada V5L 1K5
Tel: 604-253-4188 Toll Free: 1-800-665-0243 Fax: 604-253-6700

#2 -21 Highfield Circle SE, Calgary, AB Canada T2G 5N6
Tel: 403-214-5431 Toll Free: 1-866-722-6231 Fax: 403-214-5430

www.alsenviro.com

CHAIN OF CUSTODY / ANALYTICAL REQUEST FORM

PAGE 1 OF 1

SEND REPORT TO:

Yes No

COMPANY: ID.B. Technical Services Inc.

ADDRESS: 4663 Woodridge Place

CITY: West Vancouver

PROV: B.C.

POSTAL CODE: V7S 2X1

CONTACT: Duane Brothers

TELEPHONE:

ANALYSIS REQUESTED:

PROJECT NAME#: Fraser River Shipping Channel

SAMPLER: Duane Brothers

(for Marine Port Vancouver)

ALSO CONTACT: Can Dang

REPORT FORMAT:

INVOICE FORMAT:

Hardcopy

Fax #:

Hardcopy

Fax #:

E-mail Specify file type:

PDF and XL

E-mail (pdf format)

E-mail Address:

E-mail Address:

Routine Turn Around

Rush (Surcharges May Apply)

Specify Due Date: 2009 January 23

FOR LAB USE ONLY	SAMPLE IDENTIFICATION			DATE / TIME COLLECTED		MATRIX	PAH (Disposal at Sea)	Cd	Hg	particle size	TOC	NOTES (sample specific comments, due dates, etc.)
				YYYY-MM-DD	Time							
	DBT-MPV-FRASER		1	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		2	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		3	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		4	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		5	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		6	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		7	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		8	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		9	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		10	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		11	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		12	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		13	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		14	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		15	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		16	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		17	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		18	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		19	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		20	2009-01-13		sed./soil	X	X	X	X	X	
	DBT-MPV-FRASER		21	2009-01-13		sed./soil	X	X	X	X	X	

RELINQUISHED BY:

RECEIVED BY: *GMM*

NAME: DATE:

NAME: DATE: *Jan. 14/09*

OF: TIME:

OF: TIME: *12:10*

NAME: DATE:

NAME: DATE:

OF: TIME:

OF: ALS Environmental TIME:

Special Instructions / Comments (billing details, QC reporting, etc.):

Disposal at Sea criteria - Archive all remaining samples as discrete *DRUGGED MATERIAL*
e-mail draft data to Duane asap.

FOR LAB USE ONLY

Cooler Seal Intact? Yes ___ No ___ N/A ___

Sample Temperature: *5* °C Frozen? Yes ___ No ___

Cooling Method? Icepacks ___ Ice ___ None ___

Fraser River - Deep-Sea Shipping Channel
Proposed Sample Locations - Disposal at Sea Criteria
 January 2009

Sample Station	Easting	Northing	Latitude	Longitude	Lat Degrees	Lat Min	Lat Sec	Long Degrees	Long Min	Long Sec
S-1	477412.4761	5438734.1403	49.1010	-123.3094	49	6	3.744574971	-123	18	33.9906232
S-2	478089.2490	5439164.0248	49.1049	-123.3002	49	6	17.75373884	-123	18	0.697417206
S-3	480008.7549	5440393.2828	49.1161	-123.2740	49	6	57.79648753	-123	16	26.24254673
S-4	483122.4050	5442021.5706	49.1308	-123.2314	49	7	50.86187414	-123	13	52.88128727
S-5	484858.4837	5441466.3981	49.1258	-123.2075	49	7	33.04640809	-123	12	27.13426888
S-6	485833.5809	5440869.1975	49.1205	-123.1942	49	7	13.79076251	-123	11	38.94443178
S-7	487210.4171	5440105.7955	49.1137	-123.1753	49	6	49.17788882	-123	10	30.92717439
S-8	488725.3780	5439584.3990	49.1090	-123.1545	49	6	32.39999156	-123	9	16.1400098
S-9	490986.2809	5439600.2679	49.1092	-123.1235	49	6	33.04815301	-123	7	24.61868935
S-10	493204.9630	5440290.4080	49.1154	-123.0931	49	6	55.50000549	-123	5	35.22001363
S-11	494622.7020	5441152.2500	49.1232	-123.0737	49	7	23.46000935	-123	4	25.32001956
S-12	496102.5901	5442846.4786	49.1384	-123.0534	49	8	18.36520357	-123	3	12.36019522
S-13	496909.7478	5443628.0815	49.1455	-123.0424	49	8	43.69269758	-123	2	32.54378669
S-14	498349.4552	5444134.6459	49.1500	-123.0226	49	9	0.116971529	-123	1	21.4831455
S-15	499997.4373	5444692.1284	49.1550	-123.0000	49	9	18.17811358	-123	0	0.126526674
S-16	501512.4672	5444915.7793	49.1571	-122.9793	49	9	25.41396926	-122	58	45.32282818
S-17	503079.2854	5444772.7870	49.1558	-122.9578	49	9	20.76230771	-122	57	27.96606113
S-18	505248.0879	5446279.6510	49.1693	-122.9280	49	10	9.506549819	-122	55	40.81484847
S-19	505644.0957	5447300.0646	49.1785	-122.9226	49	10	42.53816424	-122	55	21.2058502
S-20	505986.8540	5448097.2470	49.1857	-122.9178	49	11	8.341751118	-122	55	4.232344716
S-21	506106.3553	5448623.7367	49.1904	-122.9162	49	11	25.38689109	-122	54	58.29985206

Samples to be taken by Duane Brothers of DB Technical - 1st or 2nd week of January 2009
 Samples to be analyzed for Disposal at Sea Criteria - Partical size analysis to be included

Your Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Your C.O.C. #: G079055, G079056, G079057

Attention: Julien Traverse
 HEMMERA ENVIROCHEM INC.
 #250 - 1380 BURRARD STREET
 VANCOUVER, BC
 Canada V6Z 2H3

Report Date: 2014/03/03
Report #: R1526078
Version: 3

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3B0652
Received: 2013/11/28, 14:25

Sample Matrix: Sediment
 # Samples Received: 30

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Elements by ICPMS (total)	30	2014/01/24	2014/01/24	BBY7SOP-00001	EPA 6020a
pH (2:1 DI Water Extract)	30	2014/01/24	2014/01/24	BBY6SOP-00028	BC Env Lab Manual
PSD - Ocean Dumping Complete	19	N/A	2014/02/24	BBY6SOP-00051	Carter SSMA 47.4
PSD - Ocean Dumping Complete	11	N/A	2014/03/03	BBY6SOP-00051	Carter SSMA 47.4
PCB + Congeners Soil HRMS Subcontract (1)	30	N/A	2014/02/11		
TOC Soil Subcontract (1)	30	2014/02/11	2014/02/11		

* Results relate only to the items tested.

(1) This test was performed by Maxxam Ontario (From Burnaby)

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Amandeep Nagra, Account Specialist
 Email: ANagra@maxxam.ca
 Phone# (604) 639-2602

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B3B0652
 Report Date: 2014/03/03

 HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

RESULTS OF CHEMICAL ANALYSES OF SEDIMENT

Maxxam ID		IF1068	IF1069	IF1070	IF1071	IF1072	IF1073	IF1074	IF1075	IF1076		
Sampling Date		2013/11/28 08:59	2013/11/28 09:15	2013/11/28 09:22	2013/11/28 09:30	2013/11/28 09:35	2013/11/28 09:40	2013/11/28 09:47	2013/11/28 09:55	2013/11/28 10:04		
	UNITS	FR30-1	FR29-1	FR28-1	FR27-1	FR26-1	FR1-1	FR2-1	FR3-1	FR4-1	RDL	QC Batch
Parameter												
Subcontract Parameter	N/A	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	N/A	7378691

Maxxam ID		IF1077	IF1078	IF1079	IF1107	IF1108	IF1109	IF1110	IF1111	IF1112		
Sampling Date		2013/11/28 10:05	2013/11/28 10:12	2013/11/28 10:30	2013/11/28 10:34	2013/11/28 10:40	2013/11/28 10:45	2013/11/28 10:50	2013/11/28 11:00	2013/11/28 11:25		
	UNITS	FR5-1	FR6-1	FR7-1	FR8-1	FR9-1	FR10-1	FR11-1	FR12-1	FR13-1	RDL	QC Batch
Parameter												
Subcontract Parameter	N/A	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	N/A	7378691

Maxxam ID		IF1113	IF1114	IF1116	IF1117	IF1118	IF1137				
Sampling Date		2013/11/28 11:20	2013/11/28 11:30	2013/11/28 11:34	2013/11/28 11:40	2013/11/28 11:42	2013/11/28 11:47				
	UNITS	FR14-1	FR15-1	FR16-1	FR17-1	FR18-1	FR19-1	RDL	QC Batch		
Parameter											
Subcontract Parameter	N/A	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	N/A	7378691	

Maxxam ID		IF1138	IF1139	IF1140	IF1141	IF1142	IF1143		
Sampling Date		2013/11/28 11:52	2013/11/28 11:57	2013/11/28 12:05	2013/11/28 12:08	2013/11/28 12:16	2013/11/28 12:23		
	UNITS	FR20-1	FR21-1	FR22-1	FR23-1	FR24-1	FR25-1	RDL	QC Batch
Parameter									
Subcontract Parameter	N/A	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	ATTACHED	N/A	7378691

 N/A = Not Applicable
 RDL = Reportable Detection Limit

Maxxam Job #: B3B0652
 Report Date: 2014/03/03

 HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

PARTICLE SIZE DISTRIBUTION ANALYSIS (SEDIMENT)

Maxxam ID		IF1068	IF1069	IF1070	IF1071	IF1072	IF1073	IF1074	IF1075		
Sampling Date		2013/11/28 08:59	2013/11/28 09:15	2013/11/28 09:22	2013/11/28 09:30	2013/11/28 09:35	2013/11/28 09:40	2013/11/28 09:47	2013/11/28 09:55		
	UNITS	FR30-1	FR29-1	FR28-1	FR27-1	FR26-1	FR1-1	FR2-1	FR3-1	RDL	QC Batch
Physical Properties											
<2.00mm, Sieve #10	%	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.030	<0.010	0.010	7375256
<1.00mm, Sieve #18	%	<0.010	<0.010	<0.010	<0.010	0.220	<0.010	0.060	0.060	0.010	7375256
<0.500mm, Sieve #35	%	0.030	<0.010	0.220	0.440	7.36	0.130	8.04	3.27	0.010	7375256
<0.250mm, Sieve #60	%	8.69	4.42	59.2	34.2	77.9	22.1	61.2	49.8	0.010	7375256
<0.125mm, Sieve #120	%	78.9	62.7	31.9	19.3	12.5	55.5	27.9	42.6	0.010	7375256
<0.063mm, Sieve #230	%	12.4	32.9	8.67	46.1	1.99	22.2	2.76	4.28	0.010	7375256
>2.00mm	%	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.030	<0.010	0.010	7375256
<2.00mm & >0.063mm	%	95.1	76.6	88.5	35.2	91.2	65.6	95.5	98.3	0.010	7375256
<0.063mm & >0.004mm	%	1.90	19.0	8.60	47.6	7.40	25.6	3.00	<0.010	0.010	7375256
<0.004mm	%	3.00	4.40	2.90	17.3	1.40	8.80	1.60	1.70	0.010	7375256
% Sand <2.00mm & >0.063mm	%	95.1	76.6	88.5	35.2	91.2	65.6	95.5	98.3	0.010	7375256
% Silt <0.063mm & >0.004mm	%	1.90	19.0	8.60	47.6	7.40	25.6	3.00	<0.010	0.010	7375256
% Clay <0.004mm	%	3.00	4.40	2.90	17.3	1.40	8.80	1.60	1.70	0.010	7375256

Maxxam ID		IF1076	IF1077	IF1078	IF1079	IF1107	IF1108	IF1109	IF1110	IF1111		
Sampling Date		2013/11/28 10:04	2013/11/28 10:05	2013/11/28 10:12	2013/11/28 10:30	2013/11/28 10:34	2013/11/28 10:40	2013/11/28 10:45	2013/11/28 10:50	2013/11/28 11:00		
	UNITS	FR4-1	FR5-1	FR6-1	FR7-1	FR8-1	FR9-1	FR10-1	FR11-1	FR12-1	RDL	QC Batch
Physical Properties												
<2.00mm, Sieve #10	%	<0.010	<0.010	<0.010	<0.010	<0.010	0.080	<0.010	1.03	<0.010	0.010	7382612
<1.00mm, Sieve #18	%	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7382612
<0.500mm, Sieve #35	%	0.570	0.240	0.030	0.160	0.060	0.570	0.200	<0.010	0.100	0.010	7382612
<0.250mm, Sieve #60	%	24.6	55.6	24.2	8.18	15.8	74.3	35.3	20.1	28.2	0.010	7382612
<0.125mm, Sieve #120	%	67.9	38.8	64.9	76.0	77.4	24.5	56.2	67.8	61.2	0.010	7382612
<0.063mm, Sieve #230	%	6.92	5.34	10.9	15.7	6.79	0.620	8.38	11.2	10.5	0.010	7382612
>2.00mm	%	<0.010	<0.010	<0.010	<0.010	<0.010	0.080	<0.010	1.03	<0.010	0.010	7382612
<2.00mm & >0.063mm	%	95.9	97.6	98.7	92.0	94.3	98.9	91.4	94.3	88.3	0.010	7382612
<0.063mm & >0.004mm	%	4.30	2.80	1.60	7.00	6.10	1.60	6.10	6.10	9.10	0.010	7382612
<0.004mm	%	<0.010	<0.010	<0.010	1.00	<0.010	<0.010	2.40	<0.010	2.60	0.010	7382612
% Sand <2.00mm & >0.063mm	%	95.9	97.6	98.7	92.0	94.3	98.9	91.4	94.3	88.3	0.010	7382612
% Silt <0.063mm & >0.004mm	%	4.30	2.80	1.60	7.00	6.10	1.60	6.10	6.10	9.10	0.010	7382612
% Clay <0.004mm	%	<0.010	<0.010	<0.010	1.00	<0.010	<0.010	2.40	<0.010	2.60	0.010	7382612

RDL = Reportable Detection Limit



Maxxam Job #: B3B0652
 Report Date: 2014/03/03

HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

PARTICLE SIZE DISTRIBUTION ANALYSIS (SEDIMENT)

Maxxam ID		IF1112	IF1113		IF1114	IF1116	IF1117	IF1118	IF1137		
Sampling Date		2013/11/28 11:25	2013/11/28 11:20		2013/11/28 11:30	2013/11/28 11:34	2013/11/28 11:40	2013/11/28 11:42	2013/11/28 11:47		
	UNITS	FR13-1	FR14-1	QC Batch	FR15-1	FR16-1	FR17-1	FR18-1	FR19-1	RDL	QC Batch
Physical Properties											
<2.00mm, Sieve #10	%	<0.010	<0.010	7382612	<0.010	<0.010	<0.010	<0.010	0.090	0.010	7384372
<1.00mm, Sieve #18	%	<0.010	<0.010	7382612	0.150	<0.010	0.080	0.030	0.230	0.010	7384372
<0.500mm, Sieve #35	%	<0.010	0.600	7382612	3.86	2.38	1.50	1.10	2.75	0.010	7384372
<0.250mm, Sieve #60	%	39.3	58.1	7382612	71.6	75.2	77.2	83.1	70.4	0.010	7384372
<0.125mm, Sieve #120	%	56.1	39.6	7382612	23.4	21.7	20.2	15.5	25.1	0.010	7384372
<0.063mm, Sieve #230	%	4.65	1.67	7382612	0.990	0.730	0.990	0.280	1.40	0.010	7384372
>2.00mm	%	<0.010	<0.010	7382612	<0.010	<0.010	<0.010	<0.010	0.090	0.010	7384372
<2.00mm & >0.063mm	%	97.2	96.9	7382612	95.6	98.5	98.3	98.7	98.3	0.010	7384372
<0.063mm & >0.004mm	%	3.10	3.20	7382612	4.40	1.60	1.80	1.60	1.90	0.010	7384372
<0.004mm	%	<0.010	<0.010	7382612	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7384372
% Sand <2.00mm & >0.063mm	%	97.2	96.9	7382612	95.6	98.5	98.3	98.7	98.3	0.010	7384372
% Silt <0.063mm & >0.004mm	%	3.10	3.20	7382612	4.40	1.60	1.80	1.60	1.90	0.010	7384372
% Clay <0.004mm	%	<0.010	<0.010	7382612	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7384372

Maxxam ID		IF1138	IF1139	IF1140	IF1141	IF1142	IF1143		
Sampling Date		2013/11/28 11:52	2013/11/28 11:57	2013/11/28 12:05	2013/11/28 12:08	2013/11/28 12:16	2013/11/28 12:23		
	UNITS	FR20-1	FR21-1	FR22-1	FR23-1	FR24-1	FR25-1	RDL	QC Batch
Physical Properties									
<2.00mm, Sieve #10	%	0.090	0.060	<0.010	<0.010	<0.010	<0.010	0.010	7384372
<1.00mm, Sieve #18	%	0.150	0.150	<0.010	0.030	<0.010	0.360	0.010	7384372
<0.500mm, Sieve #35	%	3.41	1.30	0.320	0.640	1.86	4.50	0.010	7384372
<0.250mm, Sieve #60	%	72.6	43.4	65.4	70.5	74.6	64.4	0.010	7384372
<0.125mm, Sieve #120	%	23.1	50.5	32.6	27.4	22.0	29.3	0.010	7384372
<0.063mm, Sieve #230	%	0.650	4.58	1.68	1.44	1.56	1.39	0.010	7384372
>2.00mm	%	0.090	0.060	<0.010	<0.010	<0.010	<0.010	0.010	7384372
<2.00mm & >0.063mm	%	98.7	91.2	98.6	99.6	98.5	98.0	0.010	7384372
<0.063mm & >0.004mm	%	1.60	7.30	1.60	0.400	1.70	1.90	0.010	7384372
<0.004mm	%	<0.010	1.40	<0.010	<0.010	<0.010	0.100	0.010	7384372
% Sand <2.00mm & >0.063mm	%	98.7	91.2	98.6	99.6	98.5	98.0	0.010	7384372
% Silt <0.063mm & >0.004mm	%	1.60	7.30	1.60	0.400	1.70	1.90	0.010	7384372
% Clay <0.004mm	%	<0.010	1.40	<0.010	<0.010	<0.010	0.100	0.010	7384372

RDL = Reportable Detection Limit



Maxxam Job #: B3B0652
 Report Date: 2014/03/03

HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

CSR/CCME METALS IN SOIL (SEDIMENT)

Maxxam ID		IF1068	IF1069	IF1070	IF1071	IF1072	IF1073	IF1074	IF1075	IF1076	IF1077		
Sampling Date		2013/11/28 08:59	2013/11/28 09:15	2013/11/28 09:22	2013/11/28 09:30	2013/11/28 09:35	2013/11/28 09:40	2013/11/28 09:47	2013/11/28 09:55	2013/11/28 10:04	2013/11/28 10:05		
	UNITS	FR30-1	FR29-1	FR28-1	FR27-1	FR26-1	FR1-1	FR2-1	FR3-1	FR4-1	FR5-1	RDL	QC Batch
Physical Properties													
Soluble (2:1) pH	pH	7.93	8.02	7.87	8.20	8.01	8.12	7.79	7.59	7.69	7.73	N/A	7359659
Total Metals by ICPMS													
Total Aluminum (Al)	mg/kg	7060	10900	8120	11100	8530	11200	7840	7750	7770	7650	100	7359654
Total Antimony (Sb)	mg/kg	0.25	0.58	0.21	0.34	0.23	0.37	0.20	0.20	0.23	0.20	0.10	7359654
Total Arsenic (As)	mg/kg	3.10	4.86	3.13	4.36	3.17	4.40	2.86	2.74	2.95	2.79	0.50	7359654
Total Barium (Ba)	mg/kg	28.7	50.3	30.3	45.4	36.4	52.6	33.2	35.9	31.4	26.9	0.10	7359654
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7359654
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	<0.10	0.10	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	0.10	7359654
Total Cadmium (Cd)	mg/kg	0.182	0.401	0.165	0.298	0.202	0.303	0.166	0.228	0.194	0.183	0.050	7359654
Total Calcium (Ca)	mg/kg	5110	7150	4260	6000	4400	6570	3870	4080	4420	4390	100	7359654
Total Chromium (Cr)	mg/kg	49.6	36.4	27.0	36.6	28.8	32.0	29.7	32.2	27.0	26.6	1.0	7359654
Total Cobalt (Co)	mg/kg	9.74	11.5	7.96	10.8	7.93	11.0	7.83	7.56	7.74	7.65	0.30	7359654
Total Copper (Cu)	mg/kg	15.1	25.5	14.4	23.4	12.7	25.8	13.0	12.3	13.2	13.6	0.50	7359654
Total Iron (Fe)	mg/kg	25200	26100	18300	24800	18300	24400	17400	17700	18100	18000	100	7359654
Total Lead (Pb)	mg/kg	2.86	5.11	2.84	5.11	2.98	5.47	2.70	2.53	2.54	2.40	0.10	7359654
Total Lithium (Li)	mg/kg	7.1	11.9	8.5	12.6	8.4	13.5	7.9	7.6	7.5	7.7	5.0	7359654
Total Magnesium (Mg)	mg/kg	8420	10100	7360	9460	7210	9480	7130	7140	7430	7190	100	7359654
Total Manganese (Mn)	mg/kg	324	394	290	378	332	387	294	297	283	283	0.20	7359654
Total Mercury (Hg)	mg/kg	<0.050	0.054	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7359654
Total Molybdenum (Mo)	mg/kg	0.57	1.25	0.41	0.55	0.32	0.65	0.38	0.35	0.40	0.40	0.10	7359654
Total Nickel (Ni)	mg/kg	40.6	42.5	33.5	40.9	31.1	39.2	32.5	32.1	31.4	33.2	0.80	7359654
Total Phosphorus (P)	mg/kg	552	626	444	576	444	591	426	422	444	439	10	7359654
Total Potassium (K)	mg/kg	493	1140	643	1050	594	1110	589	566	606	535	100	7359654
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7359654
Total Silver (Ag)	mg/kg	<0.050	0.101	<0.050	0.091	0.051	0.092	<0.050	<0.050	<0.050	<0.050	0.050	7359654
Total Sodium (Na)	mg/kg	1900	6600	2260	4230	2200	4310	1850	2000	3250	2190	100	7359654
Total Strontium (Sr)	mg/kg	22.6	40.5	25.4	34.0	20.8	37.4	23.0	20.8	23.6	22.2	0.10	7359654
Total Thallium (Tl)	mg/kg	<0.050	0.076	<0.050	0.070	<0.050	0.071	<0.050	<0.050	<0.050	<0.050	0.050	7359654
Total Tin (Sn)	mg/kg	0.22	0.31	0.23	0.32	0.24	0.32	0.21	0.21	0.19	0.24	0.10	7359654
Total Titanium (Ti)	mg/kg	747	859	690	771	647	704	607	654	662	665	1.0	7359654
Total Uranium (U)	mg/kg	0.363	0.539	0.288	0.499	0.239	0.541	0.298	0.303	0.291	0.262	0.050	7359654
Total Vanadium (V)	mg/kg	62.8	53.6	39.3	47.5	40.4	44.0	37.2	39.1	39.0	39.8	2.0	7359654
Total Zinc (Zn)	mg/kg	43.4	57.7	39.8	58.2	38.2	60.0	39.7	38.9	39.8	38.8	1.0	7359654
Total Zirconium (Zr)	mg/kg	4.97	8.19	5.52	6.54	4.79	6.76	4.93	4.94	5.45	5.19	0.50	7359654

N/A = Not Applicable
 RDL = Reportable Detection Limit



Maxxam Job #: B3B0652
 Report Date: 2014/03/03

HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

CSR/CCME METALS IN SOIL (SEDIMENT)

Maxxam ID		IF1078	IF1079	IF1107	IF1108	IF1109	IF1110		IF1111		IF1112		
Sampling Date		2013/11/28 10:12	2013/11/28 10:30	2013/11/28 10:34	2013/11/28 10:40	2013/11/28 10:45	2013/11/28 10:50	QC Batch	2013/11/28 11:00	QC Batch	2013/11/28 11:25	RDL	QC Batch
	UNITS	FR6-1	FR7-1	FR8-1	FR9-1	FR10-1	FR11-1						
Physical Properties													
Soluble (2:1) pH	pH	7.79	7.94	7.64	7.34	8.02	7.82	7359659	7.89	7359646	7.70	N/A	7359659
Total Metals by ICPMS													
Total Aluminum (Al)	mg/kg	7210	7550	7580	7870	9490	8090	7359654	7970	7359643	7750	100	7359654
Total Antimony (Sb)	mg/kg	0.27	0.28	0.26	0.19	0.30	0.24	7359654	0.27	7359643	0.28	0.10	7359654
Total Arsenic (As)	mg/kg	2.97	3.19	2.79	2.67	3.26	3.29	7359654	2.56	7359643	3.18	0.50	7359654
Total Barium (Ba)	mg/kg	31.9	40.0	29.8	30.2	39.9	33.2	7359654	33.9	7359643	30.1	0.10	7359654
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	7359654	<0.40	7359643	<0.40	0.40	7359654
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	7359654	<0.10	7359643	<0.10	0.10	7359654
Total Cadmium (Cd)	mg/kg	0.164	0.203	0.151	0.193	0.239	0.144	7359654	0.227	7359643	0.183	0.050	7359654
Total Calcium (Ca)	mg/kg	4570	4770	4630	3980	5220	4940	7359654	4820	7359643	4250	100	7359654
Total Chromium (Cr)	mg/kg	28.1	27.0	29.7	26.3	29.3	28.8	7359654	29.8	7359643	28.6	1.0	7359654
Total Cobalt (Co)	mg/kg	7.63	8.17	8.37	7.29	8.95	8.31	7359654	8.24	7359643	8.24	0.30	7359654
Total Copper (Cu)	mg/kg	13.7	15.5	14.0	12.0	18.4	15.2	7359654	14.9	7359643	13.3	0.50	7359654
Total Iron (Fe)	mg/kg	18300	19700	20800	17000	20800	19800	7359654	20100	7359643	21000	100	7359654
Total Lead (Pb)	mg/kg	2.76	2.85	2.59	2.41	3.59	2.89	7359654	2.86	7359643	2.64	0.10	7359654
Total Lithium (Li)	mg/kg	7.1	8.1	7.1	7.1	9.7	8.4	7359654	8.0	7359643	7.5	5.0	7359654
Total Magnesium (Mg)	mg/kg	7160	7530	7580	7120	8200	7720	7359654	7440	7359643	7620	100	7359654
Total Manganese (Mn)	mg/kg	285	302	295	275	339	308	7359654	318	7359643	303	0.20	7359654
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	7359654	<0.050	7359643	<0.050	0.050	7359654
Total Molybdenum (Mo)	mg/kg	0.44	0.41	0.43	0.36	0.46	0.47	7359654	0.42	7359643	0.37	0.10	7359654
Total Nickel (Ni)	mg/kg	32.2	32.5	33.8	31.9	35.0	34.0	7359654	34.2	7359643	36.5	0.80	7359654
Total Phosphorus (P)	mg/kg	460	493	485	422	510	483	7359654	452	7359643	460	10	7359654
Total Potassium (K)	mg/kg	584	603	523	522	765	634	7359654	594	7359643	562	100	7359654
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	7359654	<0.50	7359643	<0.50	0.50	7359654
Total Silver (Ag)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.068	0.058	7359654	0.053	7359643	<0.050	0.050	7359654
Total Sodium (Na)	mg/kg	3160	2090	1710	1760	3230	3290	7359654	1710	7359643	2380	100	7359654
Total Strontium (Sr)	mg/kg	23.6	25.3	22.3	20.5	29.5	25.3	7359654	25.4	7359643	22.4	0.10	7359654
Total Thallium (Tl)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	7359654	<0.050	7359643	<0.050	0.050	7359654
Total Tin (Sn)	mg/kg	0.21	0.22	0.21	0.21	0.25	0.40	7359654	0.25	7359643	0.22	0.10	7359654
Total Titanium (Ti)	mg/kg	654	616	672	671	713	724	7359654	700	7359643	698	1.0	7359654
Total Uranium (U)	mg/kg	0.275	0.410	0.294	0.247	0.413	0.317	7359654	0.332	7359643	0.284	0.050	7359654
Total Vanadium (V)	mg/kg	41.2	41.1	47.9	38.0	42.8	42.4	7359654	44.5	7359643	49.5	2.0	7359654
Total Zinc (Zn)	mg/kg	38.7	41.9	40.3	37.9	47.7	43.6	7359654	40.0	7359643	41.5	1.0	7359654
Total Zirconium (Zr)	mg/kg	5.43	5.31	5.23	5.12	6.04	5.56	7359654	5.40	7359643	5.21	0.50	7359654

N/A = Not Applicable
 RDL = Reportable Detection Limit

Maxxam Job #: B3B0652
 Report Date: 2014/03/03

 HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

CSR/CCME METALS IN SOIL (SEDIMENT)

Maxxam ID		IF1113		IF1114	IF1116		IF1117	IF1118		IF1137		
Sampling Date		2013/11/28 11:20		2013/11/28 11:30	2013/11/28 11:34		2013/11/28 11:40	2013/11/28 11:42		2013/11/28 11:47		
	UNITS	FR14-1	QC Batch	FR15-1	FR16-1	QC Batch	FR17-1	FR18-1	QC Batch	FR19-1	RDL	QC Batch
Physical Properties												
Soluble (2:1) pH	pH	7.71	7359659	7.81	7.37	7359646	7.20	7.34	7359659	7.47	N/A	7359646
Total Metals by ICPMS												
Total Aluminum (Al)	mg/kg	8290	7359654	8290	7180	7359643	8850	8450	7359654	7810	100	7359643
Total Antimony (Sb)	mg/kg	0.25	7359654	0.23	0.16	7359643	0.18	0.22	7359654	0.19	0.10	7359643
Total Arsenic (As)	mg/kg	2.80	7359654	2.71	2.70	7359643	2.67	2.53	7359654	2.30	0.50	7359643
Total Barium (Ba)	mg/kg	25.4	7359654	35.7	32.0	7359643	25.4	27.1	7359654	25.2	0.10	7359643
Total Beryllium (Be)	mg/kg	<0.40	7359654	<0.40	<0.40	7359643	<0.40	<0.40	7359654	<0.40	0.40	7359643
Total Bismuth (Bi)	mg/kg	<0.10	7359654	<0.10	<0.10	7359643	<0.10	<0.10	7359654	<0.10	0.10	7359643
Total Cadmium (Cd)	mg/kg	0.161	7359654	0.186	0.177	7359643	0.210	0.176	7359654	0.182	0.050	7359643
Total Calcium (Ca)	mg/kg	4950	7359654	4180	3540	7359643	5090	4840	7359654	4430	100	7359643
Total Chromium (Cr)	mg/kg	41.8	7359654	25.8	21.6	7359643	35.4	33.6	7359654	27.6	1.0	7359643
Total Cobalt (Co)	mg/kg	9.60	7359654	7.76	6.77	7359643	8.61	8.67	7359654	7.54	0.30	7359643
Total Copper (Cu)	mg/kg	13.4	7359654	13.9	11.9	7359643	12.9	13.2	7359654	12.4	0.50	7359643
Total Iron (Fe)	mg/kg	25500	7359654	17900	15300	7359643	19800	21800	7359654	17200	100	7359643
Total Lead (Pb)	mg/kg	2.50	7359654	2.82	2.27	7359643	2.36	2.39	7359654	2.26	0.10	7359643
Total Lithium (Li)	mg/kg	7.4	7359654	8.5	7.0	7359643	8.1	7.1	7359654	7.3	5.0	7359643
Total Magnesium (Mg)	mg/kg	8920	7359654	7070	6130	7359643	8120	8130	7359654	7130	100	7359643
Total Manganese (Mn)	mg/kg	322	7359654	300	286	7359643	315	338	7359654	321	0.20	7359643
Total Mercury (Hg)	mg/kg	<0.050	7359654	<0.050	<0.050	7359643	<0.050	<0.050	7359654	<0.050	0.050	7359643
Total Molybdenum (Mo)	mg/kg	0.42	7359654	0.40	0.31	7359643	0.36	0.43	7359654	0.40	0.10	7359643
Total Nickel (Ni)	mg/kg	43.1	7359654	32.6	27.4	7359643	37.5	37.0	7359654	32.6	0.80	7359643
Total Phosphorus (P)	mg/kg	497	7359654	406	363	7359643	451	462	7359654	404	10	7359643
Total Potassium (K)	mg/kg	482	7359654	596	524	7359643	517	484	7359654	540	100	7359643
Total Selenium (Se)	mg/kg	<0.50	7359654	<0.50	<0.50	7359643	<0.50	<0.50	7359654	<0.50	0.50	7359643
Total Silver (Ag)	mg/kg	<0.050	7359654	0.054	<0.050	7359643	<0.050	<0.050	7359654	<0.050	0.050	7359643
Total Sodium (Na)	mg/kg	1980	7359654	1810	1730	7359643	1940	1720	7359654	1700	100	7359643
Total Strontium (Sr)	mg/kg	19.8	7359654	22.5	20.4	7359643	21.6	21.0	7359654	20.7	0.10	7359643
Total Thallium (Tl)	mg/kg	<0.050	7359654	<0.050	<0.050	7359643	<0.050	<0.050	7359654	<0.050	0.050	7359643
Total Tin (Sn)	mg/kg	0.25	7359654	0.35	0.21	7359643	0.22	0.24	7359654	0.21	0.10	7359643
Total Titanium (Ti)	mg/kg	741	7359654	677	588	7359643	779	803	7359654	697	1.0	7359643
Total Uranium (U)	mg/kg	0.281	7359654	0.300	0.242	7359643	0.283	0.260	7359654	0.252	0.050	7359643
Total Vanadium (V)	mg/kg	70.9	7359654	38.0	32.2	7359643	49.5	58.9	7359654	39.7	2.0	7359643
Total Zinc (Zn)	mg/kg	43.8	7359654	38.9	34.0	7359643	40.5	40.9	7359654	34.8	1.0	7359643
Total Zirconium (Zr)	mg/kg	4.98	7359654	5.49	4.93	7359643	5.36	5.36	7359654	5.45	0.50	7359643

N/A = Not Applicable

RDL = Reportable Detection Limit

Maxxam Job #: B3B0652
 Report Date: 2014/03/03

 HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

CSR/CCME METALS IN SOIL (SEDIMENT)

Maxxam ID		IF1138	IF1139	IF1140	IF1141	IF1142	IF1143		
Sampling Date		2013/11/28 11:52	2013/11/28 11:57	2013/11/28 12:05	2013/11/28 12:08	2013/11/28 12:16	2013/11/28 12:23		
	UNITS	FR20-1	FR21-1	FR22-1	FR23-1	FR24-1	FR25-1	RDL	QC Batch
Physical Properties									
Soluble (2:1) pH	pH	7.63	7.91	7.56	7.07	7.23	7.36	N/A	7359646
Total Metals by ICPMS									
Total Aluminum (Al)	mg/kg	7520	7930	7190	7610	7580	7600	100	7359643
Total Antimony (Sb)	mg/kg	0.18	0.24	0.21	0.22	0.20	0.21	0.10	7359643
Total Arsenic (As)	mg/kg	2.42	2.36	1.93	2.10	2.53	2.27	0.50	7359643
Total Barium (Ba)	mg/kg	28.5	38.7	32.1	29.6	28.5	29.2	0.10	7359643
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7359643
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7359643
Total Cadmium (Cd)	mg/kg	0.180	0.203	0.196	0.195	0.227	0.139	0.050	7359643
Total Calcium (Ca)	mg/kg	3670	4100	3920	3980	4090	3810	100	7359643
Total Chromium (Cr)	mg/kg	24.5	25.2	24.3	28.4	21.5	21.6	1.0	7359643
Total Cobalt (Co)	mg/kg	7.04	7.87	7.14	7.59	7.14	7.08	0.30	7359643
Total Copper (Cu)	mg/kg	12.3	14.7	12.3	13.7	13.0	12.7	0.50	7359643
Total Iron (Fe)	mg/kg	15900	17900	16400	17800	16000	15900	100	7359643
Total Lead (Pb)	mg/kg	2.28	2.53	2.24	2.31	2.31	2.30	0.10	7359643
Total Lithium (Li)	mg/kg	7.3	8.5	7.3	7.4	7.2	7.6	5.0	7359643
Total Magnesium (Mg)	mg/kg	6650	7180	6600	7390	6670	6420	100	7359643
Total Manganese (Mn)	mg/kg	323	295	314	339	318	330	0.20	7359643
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7359643
Total Molybdenum (Mo)	mg/kg	0.39	0.42	0.40	0.42	0.40	0.37	0.10	7359643
Total Nickel (Ni)	mg/kg	30.8	33.4	30.1	34.0	31.0	28.7	0.80	7359643
Total Phosphorus (P)	mg/kg	379	412	385	412	415	400	10	7359643
Total Potassium (K)	mg/kg	576	649	558	510	541	548	100	7359643
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7359643
Total Silver (Ag)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.050	<0.050	0.050	7359643
Total Sodium (Na)	mg/kg	1670	2180	2600	1670	1900	1760	100	7359643
Total Strontium (Sr)	mg/kg	19.7	23.8	21.3	21.4	20.8	21.9	0.10	7359643
Total Thallium (Tl)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7359643
Total Tin (Sn)	mg/kg	0.19	0.21	0.18	0.24	0.19	0.20	0.10	7359643
Total Titanium (Ti)	mg/kg	631	670	611	686	646	648	1.0	7359643
Total Uranium (U)	mg/kg	0.274	0.317	0.254	0.299	0.264	0.257	0.050	7359643
Total Vanadium (V)	mg/kg	34.3	38.0	36.5	41.9	35.1	35.0	2.0	7359643
Total Zinc (Zn)	mg/kg	35.6	38.8	34.9	36.6	35.6	36.2	1.0	7359643
Total Zirconium (Zr)	mg/kg	5.12	5.81	5.02	5.39	5.35	5.30	0.50	7359643

N/A = Not Applicable

RDL = Reportable Detection Limit

Maxxam Job #: B3B0652
 Report Date: 2014/03/03

 HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7359643	Total Antimony (Sb)	2014/01/24	98	75 - 125	96	75 - 125	<0.10	mg/kg	NC	30	103	70 - 130
7359643	Total Arsenic (As)	2014/01/24	93	75 - 125	91	75 - 125	<0.50	mg/kg	NC	30	87	70 - 130
7359643	Total Barium (Ba)	2014/01/24	NC	75 - 125	98	75 - 125	<0.10	mg/kg	0.1	35	101	70 - 130
7359643	Total Beryllium (Be)	2014/01/24	101	75 - 125	95	75 - 125	<0.40	mg/kg	NC	30		
7359643	Total Cadmium (Cd)	2014/01/24	100	75 - 125	98	75 - 125	<0.050	mg/kg	NC	30	96	70 - 130
7359643	Total Chromium (Cr)	2014/01/24	NC	75 - 125	99	75 - 125	<1.0	mg/kg	4.7	30	104	70 - 130
7359643	Total Cobalt (Co)	2014/01/24	102	75 - 125	101	75 - 125	<0.30	mg/kg	0.8	30	95	70 - 130
7359643	Total Copper (Cu)	2014/01/24	102	75 - 125	102	75 - 125	<0.50	mg/kg	2.1	30	87	70 - 130
7359643	Total Lead (Pb)	2014/01/24	103	75 - 125	106	75 - 125	<0.10	mg/kg	2.1	35	101	70 - 130
7359643	Total Lithium (Li)	2014/01/24	101	75 - 125	95	75 - 125	<5.0	mg/kg	NC	30		
7359643	Total Manganese (Mn)	2014/01/24	NC	75 - 125	102	75 - 125	<0.20	mg/kg	4.6	30	102	70 - 130
7359643	Total Mercury (Hg)	2014/01/24	97	75 - 125	92	75 - 125	<0.050	mg/kg	NC	35	89	70 - 130
7359643	Total Molybdenum (Mo)	2014/01/24	106	75 - 125	97	75 - 125	<0.10	mg/kg	NC	35	126	70 - 130
7359643	Total Nickel (Ni)	2014/01/24	NC	75 - 125	101	75 - 125	<0.80	mg/kg	4.1	30	93	70 - 130
7359643	Total Selenium (Se)	2014/01/24	93	75 - 125	90	75 - 125	<0.50	mg/kg	NC	30		
7359643	Total Silver (Ag)	2014/01/24	76	75 - 125	75	75 - 125	<0.050	mg/kg	NC	35		
7359643	Total Strontium (Sr)	2014/01/24	NC	75 - 125	98	75 - 125	<0.10	mg/kg	1.2	35	105	70 - 130
7359643	Total Thallium (Tl)	2014/01/24	101	75 - 125	103	75 - 125	<0.050	mg/kg	NC	30	97	70 - 130
7359643	Total Tin (Sn)	2014/01/24	98	75 - 125	94	75 - 125	<0.10	mg/kg	NC	35		
7359643	Total Titanium (Ti)	2014/01/24	NC	75 - 125	97	75 - 125	<1.0	mg/kg	4.3	35	109	70 - 130
7359643	Total Uranium (U)	2014/01/24	104	75 - 125	101	75 - 125	<0.050	mg/kg	0.5	30	91	70 - 130
7359643	Total Vanadium (V)	2014/01/24	NC	75 - 125	97	75 - 125	<2.0	mg/kg	3.5	30	105	70 - 130
7359643	Total Zinc (Zn)	2014/01/24	NC	75 - 125	96	75 - 125	<1.0	mg/kg	3.8	30	82	70 - 130
7359643	Total Aluminum (Al)	2014/01/24					<100	mg/kg	3.2	35	103	70 - 130
7359643	Total Calcium (Ca)	2014/01/24					<100	mg/kg	6.2	30	99	70 - 130
7359643	Total Iron (Fe)	2014/01/24					<100	mg/kg	4.3	30	96	70 - 130
7359643	Total Magnesium (Mg)	2014/01/24					<100	mg/kg	2.6	30	92	70 - 130
7359643	Total Phosphorus (P)	2014/01/24					<10	mg/kg	2.7	30	87	70 - 130
7359643	Total Bismuth (Bi)	2014/01/24					<0.10	mg/kg	NC	30		
7359643	Total Potassium (K)	2014/01/24					<100	mg/kg	5.8	35		
7359643	Total Sodium (Na)	2014/01/24					<100	mg/kg	3.5	35		
7359643	Total Zirconium (Zr)	2014/01/24					<0.50	mg/kg	2.3	30		
7359646	Soluble (2:1) pH	2014/01/24			100	97 - 103			0.4	20		
7359654	Total Antimony (Sb)	2014/01/24	100	75 - 125	102	75 - 125	<0.10	mg/kg	NC	30	98	70 - 130
7359654	Total Arsenic (As)	2014/01/24	96	75 - 125	98	75 - 125	<0.50	mg/kg	2.0	30	95	70 - 130
7359654	Total Barium (Ba)	2014/01/24	NC	75 - 125	100	75 - 125	<0.10	mg/kg	4.3	35	104	70 - 130
7359654	Total Beryllium (Be)	2014/01/24	104	75 - 125	102	75 - 125	<0.40	mg/kg	NC	30		
7359654	Total Cadmium (Cd)	2014/01/24	103	75 - 125	105	75 - 125	<0.050	mg/kg	NC	30	99	70 - 130
7359654	Total Chromium (Cr)	2014/01/24	NC	75 - 125	103	75 - 125	<1.0	mg/kg	27.8	30	108	70 - 130
7359654	Total Cobalt (Co)	2014/01/24	100	75 - 125	105	75 - 125	<0.30	mg/kg	1.5	30	99	70 - 130



Maxxam Job #: B3B0652
 Report Date: 2014/03/03

HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7359654	Total Copper (Cu)	2014/01/24	95	75 - 125	104	75 - 125	0.64, RDL=0.50	mg/kg	6.7	30	89	70 - 130
7359654	Total Lead (Pb)	2014/01/24	104	75 - 125	108	75 - 125	<0.10	mg/kg	0.2	35	105	70 - 130
7359654	Total Lithium (Li)	2014/01/24	101	75 - 125	101	75 - 125	<5.0	mg/kg	NC	30		
7359654	Total Manganese (Mn)	2014/01/24	NC	75 - 125	105	75 - 125	<0.20	mg/kg	1.8	30	104	70 - 130
7359654	Total Mercury (Hg)	2014/01/24	101	75 - 125	100	75 - 125	<0.050	mg/kg	NC	35	103	70 - 130
7359654	Total Molybdenum (Mo)	2014/01/24	103	75 - 125	103	75 - 125	<0.10	mg/kg	NC	35	113	70 - 130
7359654	Total Nickel (Ni)	2014/01/24	NC	75 - 125	104	75 - 125	<0.80	mg/kg	2.7	30	95	70 - 130
7359654	Total Selenium (Se)	2014/01/24	98	75 - 125	101	75 - 125	<0.50	mg/kg	NC	30		
7359654	Total Silver (Ag)	2014/01/24	76	75 - 125	77	75 - 125	<0.050	mg/kg	NC	35		
7359654	Total Strontium (Sr)	2014/01/24	99	75 - 125	101	75 - 125	<0.10	mg/kg	3.0	35	108	70 - 130
7359654	Total Thallium (Tl)	2014/01/24	105	75 - 125	104	75 - 125	<0.050	mg/kg	NC	30	101	70 - 130
7359654	Total Tin (Sn)	2014/01/24	97	75 - 125	99	75 - 125	<0.10	mg/kg	NC	35		
7359654	Total Titanium (Ti)	2014/01/24	NC	75 - 125	98	75 - 125	<1.0	mg/kg	4.7	35	111	70 - 130
7359654	Total Uranium (U)	2014/01/24	104	75 - 125	104	75 - 125	<0.050	mg/kg	0.8	30	95	70 - 130
7359654	Total Vanadium (V)	2014/01/24	NC	75 - 125	103	75 - 125	<2.0	mg/kg	3.6	30	110	70 - 130
7359654	Total Zinc (Zn)	2014/01/24	NC	75 - 125	104	75 - 125	<1.0	mg/kg	1.6	30	89	70 - 130
7359654	Total Aluminum (Al)	2014/01/24					<100	mg/kg	4.4	35	107	70 - 130
7359654	Total Calcium (Ca)	2014/01/24					<100	mg/kg	2.9	30	104	70 - 130
7359654	Total Iron (Fe)	2014/01/24					<100	mg/kg	0.7	30	100	70 - 130
7359654	Total Magnesium (Mg)	2014/01/24					<100	mg/kg	1.6	30	97	70 - 130
7359654	Total Phosphorus (P)	2014/01/24					<10	mg/kg	0.4	30	92	70 - 130
7359654	Total Bismuth (Bi)	2014/01/24					<0.10	mg/kg	NC	30		
7359654	Total Potassium (K)	2014/01/24					<100	mg/kg	NC	35		
7359654	Total Sodium (Na)	2014/01/24					<100	mg/kg	2.5	35		
7359654	Total Zirconium (Zr)	2014/01/24					<0.50	mg/kg	0.6	30		
7359659	Soluble (2:1) pH	2014/01/24			101	97 - 103			1.4	20		
7375256	<2.00mm, Sieve #10	2014/02/24							NC	N/A	0.00	N/A
7375256	<1.00mm, Sieve #18	2014/02/24							NC	N/A	11	N/A
7375256	<0.500mm, Sieve #35	2014/02/24							22.8	N/A	29	N/A
7375256	<0.250mm, Sieve #60	2014/02/24							3.1	N/A	31	N/A
7375256	<0.125mm, Sieve #120	2014/02/24							2.8	N/A	17	N/A
7375256	<0.063mm, Sieve #230	2014/02/24							1.0	N/A	11	N/A
7375256	>2.00mm	2014/02/24							NC	N/A	0.00	N/A
7375256	<2.00mm & >0.063mm	2014/02/24							0.6	N/A	97	N/A
7375256	<0.063mm & >0.004mm	2014/02/24							0.6	N/A	136	N/A
7375256	<0.004mm	2014/02/24							0	N/A	59	N/A
7375256	% Sand <2.00mm & >0.063mm	2014/02/24							0.6	N/A	97	N/A
7375256	% Silt <0.063mm & >0.004mm	2014/02/24							0.6	N/A	136	N/A
7375256	% Clay <0.004mm	2014/02/24							0	N/A	59	N/A
7382612	<2.00mm, Sieve #10	2014/02/24							NC	N/A	0.12	N/A

Maxxam Job #: B3B0652
 Report Date: 2014/03/03

 HEMMERA ENVIROCHEM INC.
 Client Project #: 302-042.02 DREDGING STUDIES
 Site Location: DELTAPORT
 Sampler Initials: JT

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7382612	<1.00mm, Sieve #18	2014/02/24							NC	N/A	13	N/A
7382612	<0.500mm, Sieve #35	2014/02/24							22.2	N/A	28	N/A
7382612	<0.250mm, Sieve #60	2014/02/24							6.7	N/A	30	N/A
7382612	<0.125mm, Sieve #120	2014/02/24							4.1	N/A	19	N/A
7382612	<0.063mm, Sieve #230	2014/02/24							0.8	N/A	10	N/A
7382612	>2.00mm	2014/02/24							NC	N/A	0.12	N/A
7382612	<2.00mm & >0.063mm	2014/02/24							0.2	N/A	103	N/A
7382612	<0.063mm & >0.004mm	2014/02/24							3.2	N/A	98	N/A
7382612	<0.004mm	2014/02/24							4.1	N/A	86	N/A
7382612	% Sand <2.00mm & >0.063mm	2014/02/24							0.2	N/A	103	N/A
7382612	% Silt <0.063mm & >0.004mm	2014/02/24							3.2	N/A	98	N/A
7382612	% Clay <0.004mm	2014/02/24							4.1	N/A	86	N/A
7384372	<2.00mm, Sieve #10	2014/03/03							40.0	N/A	0.040	N/A
7384372	<1.00mm, Sieve #18	2014/03/03							14.0	N/A	16	N/A
7384372	<0.500mm, Sieve #35	2014/03/03							2.6	N/A	29	N/A
7384372	<0.250mm, Sieve #60	2014/03/03							0.1	N/A	25	N/A
7384372	<0.125mm, Sieve #120	2014/03/03							0.08	N/A	17	N/A
7384372	<0.063mm, Sieve #230	2014/03/03							2.1	N/A	13	N/A
7384372	>2.00mm	2014/03/03							40.0	N/A	0.040	N/A
7384372	<2.00mm & >0.063mm	2014/03/03							0.1	N/A	100	N/A
7384372	<0.063mm & >0.004mm	2014/03/03							0	N/A	123	N/A
7384372	<0.004mm	2014/03/03							NC	N/A	87	N/A
7384372	% Sand <2.00mm & >0.063mm	2014/03/03							0.1	N/A	100	N/A
7384372	% Silt <0.063mm & >0.004mm	2014/03/03							0	N/A	123	N/A
7384372	% Clay <0.004mm	2014/03/03							NC	N/A	87	N/A

N/A = Not Applicable

RD = Reportable Detection Limit

RPD = Relative Percent Difference

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B3B0652

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Jennifer Villocero, Project Manager



Rob Reinert, Data Validation Coordinator

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam

4600 Dorset

J. Traversa

Phone: 1 800 669 8586 Fax: 504 741 2386

CHAIN OF CUSTODY RECORD

Page: 2 of 3

Jan 21 2014

B3B0652

G 079056

Invoice To: Request Report? Yes
 Company Name: Hemmera
 Contact Name: J. Traversa
 Address: 250-1380 Prairie

Phone / Fax: 504 669 0424 Phone / Fax:
 E-mail: Jtraversa@hemmera.com E-mail:

PCS #
 Quotation #
 Project # 302-042-02
 Proj Name Dredging Studies
 Client Deltaport
 Sample ID JT

REGULATORY REQUIREMENTS SERVICE REQUESTED:

- CSR Regular Turn Around Time (TAT) (5 days for most tests)
 CCME RUSH (Please contact the lab)
 BC Water Quality 1 Day 2 Day 3 Day
 Other Date Required:
 DRINKING WATER

Special Instructions:
 Return Cooler Ship Sample Bottles (please specify)

ANALYSIS REQUESTED															
ITEM	UNIT	TEST	TECH	LF/HP/DPH	DOMESTIC (Maximum 14 Ppt BTEX)	DOMESTIC (Maximum 2-4)	DOMESTIC (Maximum 1 Ppt BTEX)	Filtered to 0.45µm	Filtered to 0.45µm	Filtered to 0.45µm	Filtered to 0.45µm	Filtered to 0.45µm	Filtered to 0.45µm	Filtered to 0.45µm	Filtered to 0.45µm
1		FR8-1													
2		FR9-1													
3		FR10-1													
4		FR11-1													
5		FR12-1													
6		FR13-1													
7		FR14-1													
8		FR15-1													
9		FR15-2													
10		FR16-1													
11		FR17-1													
12		FR18-1													

Sample Identification	Lab Identification	Sample Type	Date/Time Sampled
1 FR8-1	107	BED	1/28 1034
2 FR9-1	108		1/28 1040
3 FR10-1	109		1/28 1045
4 FR11-1	110		1/28 1050
5 FR12-1	111		1/28 1100
6 FR13-1	112		1/28 1125
7 FR14-1	113		1/28 1120
8 FR15-1	114		1/28 1130
9 FR15-2	115		1/28 1134
10 FR16-1	116		1/28 1140
11 FR17-1	117		1/28 1142
12 FR18-1	118		1/28 1142

Relinquished by: JT Date (YY/MM/DD): 13/1/28 Time: 14:25
 Received by: [Signature] Date (YY/MM/DD): 13/1/28 Time: 14:25
 Temperature on Receipt (C): 8.8/8.8/9.5
 Custody Seal intact on Cooler? NA

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TEST DELAYS.

JS 12,10,10/11,11,12/ 10,9,9/10,13,11/11,12,9/11,11,9/9,9,10/10,11,11
 12,11,11/9,10,10 JS



B3B0652

Maxxam

4801 Carleton Place, Brampton, ON

J. Traverso
Jan 21 2014

Lab Fax: 504 721 2367

B0652

CHAIN OF CUSTODY RECORD

Page: 3 of 3
G 079057

Invoice To: regular report? Yes No

Company Name: Hemmers Comp: _____
 Contact Name: J. Traverso Contact name: _____
 Address: 150-1380 Fairview St. Address: _____
 PC: _____ PC: _____
 Phone / Fax: 504 669 0424 Phone / Fax: _____
 E-mail: JTraverso@hemmers.com E-mail: labdata@hemmers.com

Project #: 302-042.02
 Project Name: Deltafort - Dredging Studies
 Location: Deltafort
 Sample No.: JT

REGULATORY REQUIREMENTS SERVICE REQUESTED:

CSR Regular Turn Around Time (TAT)
 CCME (5 days for most tests)
 BC Water Quality FLUSH (Please contact the lab)
 Other 1 Day 2 Day 3 Day
 Date Required: _____

DRINKING WATER

Special Instructions: _____
 Return Cooler Ship Sample Bottles (please specify)

ANALYSIS REQUESTED										
TEST	UNIT	REMARKS	DATE	TIME	BY	LAB	STATUS	REMARKS	DATE	TIME
TOC	mg/L		1/28	11:47			✓			
POD	mg/L		1/28	11:52			✓			
FR 19-1			1/28	11:57			✓			
FR 20-1			1/28	12:06			✓			
FR 21-1			1/28	12:08			✓			
FR 22-1			1/28	12:16			✓			
FR 23-1			1/28	12:23			✓			
FR 24-1										
FR 25-1										
FR 26-1										
DUP 13 1129-1			1/28				✓			
DUP 13 1129-2			1/28				✓			
DUP 13 1129-3			1/28				✓			

Sample Identification	Lab Identification	Sample Type	Date/Time Sampled
FR 19-1	IF1137	SED	1/28 11:47
FR 20-1	IF1138		1/28 11:52
FR 21-1	IF1139		1/28 11:57
FR 22-1	IF1140		1/28 12:06
FR 23-1	IF1141		1/28 12:08
FR 24-1	IF1142		1/28 12:16
FR 25-1	IF1143		1/28 12:23
FR 26-1			
DUP 13 1129-1	IF1144		1/28
DUP 13 1129-2	IF1145		1/28
DUP 13 1129-3	IF1146		1/28

Prepared by: <u>[Signature]</u>	Date (YY/MM/DD): <u>26/11/13</u>	Time: <u>14:25</u>	Received by: <u>[Signature]</u>	Date (YY/MM/DD): <u>2013/11/28</u>	Time: <u>14:29</u>	Temperature on Receipt (C): <u>5 89.8/89.9</u>	Customer Initials on Quota: <u>[Signature]</u>
<p>It is the responsibility of the releasor to ensure the accuracy of the chain of custody records as incomplete copies or omissions may result in invalidation of results.</p>						Yes <input type="checkbox"/> No <input type="checkbox"/>	

12,10,10/11,12/10,9,9/10,13,11/11,12,9/11,11,9/9,9,10
 10,11,11/12,11,11/9,10,10,10,5



B390652

Your Project #: B3B0652
 Your C.O.C. #: NA

Attention: Amandeep Nagra

Maxxam Analytics
 4606 Canada Way
 Burnaby, BC
 V5G 1K5

Report Date: 2014/02/10
Report #: R2858757
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B412082

Received: 2014/01/24, 09:15

Sample Matrix: SEDIMENT
 # Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Moisture	30	N/A	2014/01/24	CAM SOP-00445	R.Carter,1993
PCB Congeners in Soil (1668A) (1)	7	2014/01/26	2014/01/28	BRL SOP-00408	EPA 1668A mod.
PCB Congeners in Soil (1668A) (1)	8	2014/01/26	2014/01/29	BRL SOP-00408	EPA 1668A mod.
PCB Congeners in Soil (1668A) (1)	10	2014/01/26	2014/01/30	BRL SOP-00408	EPA 1668A mod.
PCB Congeners in Soil (1668A) (1)	5	2014/01/26	2014/01/31	BRL SOP-00408	EPA 1668A mod.
Total Organic Carbon in Soil	16	N/A	2014/02/04	CAM SOP-00468	LECO Combustion
Total Organic Carbon in Soil	14	N/A	2014/02/07	CAM SOP-00468	LECO Combustion

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Marsela Wijaya, Project Manager
 Email: MWijaya@maxxam.ca
 Phone# (905) 817-5700

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

RESULTS OF ANALYSES OF SEDIMENT

Maxxam ID		UQ8512	UQ8513	UQ8514	UQ8515			
Sampling Date		2013/11/28 08:59	2013/11/28 09:15	2013/11/28 09:22	2013/11/28 09:30			
COC Number		NA	NA	NA	NA			
	Units	IF1068-03R\FR30-1	IF1069-03R\FR29-1	IF1070-03R\FR28-1	IF1071-03R\FR27-1	RDL	MDL	QC Batch

Moisture	%	24	27	24	31	1.0	0.040	3492879
Total Organic Carbon	mg/kg	670	2500	1200	6700	500	100	3500644

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam ID		UQ8515	UQ8516	UQ8517	UQ8518			
Sampling Date		2013/11/28 09:30	2013/11/28 09:35	2013/11/28 09:40	2013/11/28 09:47			
COC Number		NA	NA	NA	NA			
	Units	IF1071-03R\FR27-1 Lab-Dup	IF1072-03R\FR26-1	IF1073-03R\FR1-1	IF1074-03R\FR2-1	RDL	MDL	QC Batch

Moisture	%	N/A	20	26	20	1.0	0.040	3492879
Total Organic Carbon	mg/kg	6800	800	3300	1100	500	100	3500644

 N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam ID		UQ8519	UQ8520	UQ8521	UQ8522			
Sampling Date		2013/11/28 09:55	2013/11/28 10:04	2013/11/28 10:05	2013/11/28 10:12			
COC Number		NA	NA	NA	NA			
	Units	IF1075-03R\FR3-1	IF1076-03R\FR4-1	IF1077-03R\FR5-1	IF1078-03R\FR6-1	RDL	MDL	QC Batch

Moisture	%	21	24	22	24	1.0	0.040	3492879
Total Organic Carbon	mg/kg	560	580	530	930	500	100	3500644

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

RESULTS OF ANALYSES OF SEDIMENT

Maxxam ID		UQ8523	UQ8523	UQ8524	UQ8525			
Sampling Date		2013/11/28 10:30	2013/11/28 10:30	2013/11/28 10:34	2013/11/28 10:40			
COC Number		NA	NA	NA	NA			
	Units	IF1079-03R\FR7-1	IF1079-03R\FR7-1 Lab-Dup	IF1107-03R\FR8-1	IF1108-03R\FR9-1	RDL	MDL	QC Batch

Moisture	%	25	26	23	22	1.0	0.040	3492879
Total Organic Carbon	mg/kg	910	N/A	680	520	500	100	3500644

N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam ID		UQ8526	UQ8527		UQ8528			
Sampling Date		2013/11/28 10:45	2013/11/28 10:50		2013/11/28 11:00			
COC Number		NA	NA		NA			
	Units	IF1109-03R\FR10-1	IF1110-03R\FR11-1	QC Batch	IF1111-03R\FR12-1	RDL	MDL	QC Batch

Moisture	%	25	25	3492879	22	1.0	0.040	3492879
Total Organic Carbon	mg/kg	800	1500	3500644	1300	500	100	3503688

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam ID		UQ8528	UQ8529	UQ8530	UQ8531			
Sampling Date		2013/11/28 11:00	2013/11/28 11:25	2013/11/28 11:20	2013/11/28 11:30			
COC Number		NA	NA	NA	NA			
	Units	IF1111-03R\FR12-1 Lab-Dup	IF1112-03R\FR13-1	IF1113-03R\FR14-1	IF1114-03R\FR15-1	RDL	MDL	QC Batch

Moisture	%	N/A	23	22	21	1.0	0.040	3492879
Total Organic Carbon	mg/kg	1200	640	510	890	500	100	3503688

N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

RESULTS OF ANALYSES OF SEDIMENT

Maxxam ID		UQ8532	UQ8533	UQ8534	UQ8535			
Sampling Date		2013/11/28 11:34	2013/11/28 11:40	2013/11/28 11:42	2013/11/28 11:47			
COC Number		NA	NA	NA	NA			
	Units	IF1116-03R\FR16-1	IF1117-03R\FR17-1	IF1118-03R\FR18-1	IF1137-03R\FR19-1	RDL	MDL	QC Batch

Moisture	%	22	22	22	23	1.0	0.040	3492890
Total Organic Carbon	mg/kg	610	<500	<500	500	500	100	3503688

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam ID		UQ8536	UQ8537	UQ8538	UQ8539			
Sampling Date		2013/11/28 11:52	2013/11/28 11:57	2013/11/28 12:05	2013/11/28 12:08			
COC Number		NA	NA	NA	NA			
	Units	IF1138-03R\FR20-1	IF1139-03R\FR21-1	IF1140-03R\FR22-1	IF1141-03R\FR23-1	RDL	MDL	QC Batch

Moisture	%	20	26	25	23	1.0	0.040	3492890
Total Organic Carbon	mg/kg	580	1600	<500	<500	500	100	3503688

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam ID		UQ8540	UQ8541	UQ8541				
Sampling Date		2013/11/28 12:16	2013/11/28 12:23	2013/11/28 12:23				
COC Number		NA	NA	NA				
	Units	IF1142-03R\FR24-1	IF1143-03R\FR25-1	IF1143-03R\FR25-1 Lab-Dup	RDL	MDL	QC Batch	

Moisture	%	20	20	19	1.0	0.040	3492890
Total Organic Carbon	mg/kg	570	760	N/A	500	100	3503688

 N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\VR30-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.00019	0.00019	0.0095	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00018	0.00018	0.0095	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.0022	0.0022	0.0095	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0041	0.0041	0.0095	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0034	0.0034	0.0095	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0035	0.0035	0.0095	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0030	0.0030	0.0095	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0034	0.0034	0.0095	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0015	0.0015	0.0095	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0036	0.0036	0.0095	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0037	0.0037	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0035	0.0035	0.0095	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.0062	0.0062	0.0095	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.00063	0.00063	0.0095	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.00061	0.00061	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	0.00078	0.00048	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.00062	0.00062	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.00149	0.00034	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	<0.00055 (1)	0.00055	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	0.00062	0.00036	0.0095	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.00036	0.00036	0.0095	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.00047	0.00047	0.0095	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(25)	ng/g	<0.00036	0.00036	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.00034	0.00034	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.00042	0.00042	0.0095	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00139	0.00032	0.0095	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.00039	0.00039	0.0095	N/A	N/A	N/A	N/A	3495556

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\VR30-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'5'-TriCB-(34)	ng/g	<0.00036	0.00036	0.0095	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.00036	0.00036	0.0095	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00032	0.00032	0.0095	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	0.00050	0.00044	0.0095	N/A	N/A	N/A	N/A	3495556
345-TriCB-(38)	ng/g	<0.00037	0.00037	0.0095	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00034	0.00034	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.00050	0.00050	0.028	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.00058	0.00058	0.0095	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.00061	0.00061	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.00117	0.00049	0.028	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.00051	0.00051	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.00061	0.00061	0.0095	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.00049	0.00049	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	0.00049	0.00046	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.00048	0.00048	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	<0.00072 (1)	0.00072	0.0095	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00035	0.00035	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00017	0.00017	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	0.00041	0.00019	0.0095	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00017	0.00017	0.0095	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00038	0.00038	0.028	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	0.00037	0.00018	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	<0.0017 (1)	0.0017	0.038	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.00042	0.00042	0.0095	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00099	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\VR30-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	<0.00015	0.00015	0.0095	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00015	0.00015	0.0095	N/A	N/A	N/A	N/A	3495556
23'5'6'-TetraCB-(73)	ng/g	<0.00041	0.00041	0.0095	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00019	0.00019	0.0095	N/A	0.000100	0.0000000190	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00018	0.00018	0.0095	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
344'5'-TetraCB-(81)	ng/g	<0.00019	0.00019	0.0095	N/A	0.000300	0.0000000570	N/A	3495556
22'33'4'-PentaCB-(82)	ng/g	<0.00033	0.00033	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.00033 (1)	0.00033	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6'-PentaCB-(84)	ng/g	<0.00033	0.00033	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.00024	0.00024	0.028	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00059 (1)	0.00059	0.057	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.00027	0.00027	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00030	0.00030	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	<0.00060 (1)	0.00060	0.028	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.00028	0.00028	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00028	0.00028	0.038	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00029	0.00029	0.0095	N/A	N/A	N/A	N/A	3495556
22'35'6'-PentaCB-(95)	ng/g	<0.00045 (1)	0.00045	0.0095	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00013	0.00013	0.0095	N/A	N/A	N/A	N/A	3495556
22'45'6'-PentaCB-(103)	ng/g	<0.00025	0.00025	0.0095	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00018	0.00018	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.00053 (1)	0.00053	0.0095	N/A	0.0000300	0.0000000159	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00027	0.00027	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(107)	ng/g	<0.00024	0.00024	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00025	0.00025	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00103	0.00024	0.019	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\FR30-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

233'55'-PentaCB-(111)	ng/g	<0.00021	0.00021	0.0095	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00022	0.00022	0.0095	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00028	0.00028	0.0095	N/A	0.0000300	0.0000000840	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00094	0.00028	0.0095	N/A	0.0000300	0.0000000282	N/A	3495556
23'45'5'-PentaCB-(120)	ng/g	<0.00021	0.00021	0.0095	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00020	0.00020	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00028	0.00028	0.0095	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00031	0.00031	0.0095	N/A	0.0000300	0.00000000930	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00028	0.00028	0.0095	N/A	0.100	0.0000280	N/A	3495556
33'45'5'-PentaCB-(127)	ng/g	<0.00026	0.00026	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.00054	0.00054	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.00083	0.00059	0.028	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.00067	0.00067	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.00073	0.00073	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.00064	0.00064	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00060	0.00060	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.00067	0.00067	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00017	0.00017	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00012	0.00012	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00065	0.00065	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00055	0.00055	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.00062	0.00062	0.0095	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.00065	0.00065	0.0095	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00013	0.00013	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.00056	0.00056	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.00054	0.00054	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00012	0.00012	0.0095	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\VR30-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/g	<0.00011	0.00011	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.00078	0.00047	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00014	0.00014	0.0095	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00017	0.00017	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00033	0.00033	0.019	N/A	0.0000300	0.0000000990	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.00045	0.00045	0.0095	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00036	0.00036	0.0095	N/A	N/A	N/A	N/A	3495556
233'456-HexaCB-(160)	ng/g	<0.00049	0.00049	0.0095	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.00045	0.00045	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00035	0.00035	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.00045	0.00045	0.0095	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.00048	0.00048	0.0095	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00035	0.00035	0.0095	N/A	0.0000300	0.0000000105	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00036	0.00036	0.0095	N/A	0.0300	0.0000108	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.00042	0.00042	0.0095	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.00053	0.00053	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.00054	0.00054	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.00050	0.00050	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00037	0.00037	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00028	0.00028	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.00052	0.00052	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.00041	0.00041	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00028	0.00028	0.0095	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.00042	0.00042	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.00048	0.00048	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00039	0.00039	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.00045	0.00045	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00026	0.00026	0.0095	N/A	N/A	N/A	N/A	3495556
22'3455'6-HeptaCB-(185)	ng/g	<0.00046	0.00046	0.0095	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
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 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\VR30-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/g	<0.00029	0.00029	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00035	0.00035	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00044	0.00044	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.00035	0.00035	0.0095	N/A	0.0000300	0.000000105	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.00042	0.00042	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00040	0.00040	0.0095	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.00042	0.00042	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.00042	0.00042	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.00045	0.00045	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00040	0.00040	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00026	0.00026	0.0095	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.00039	0.00039	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00030	0.00030	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00027	0.00027	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00037	0.00037	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00036	0.00036	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00027	0.00027	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00030	0.00030	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00069	0.00069	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.00056	0.00056	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.00063	0.00063	0.0095	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.00046	0.00046	0.0095	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0118	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000390	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\VR30-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'33'55'66'-OctaCB-(202)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6-HeptaCB-(178)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6'-TriCB-(19)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	54	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6'-OctaCB-(205)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	46	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	51	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\FR30-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.00038 (1)	0.00038	0.0095	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00018	0.00018	0.0095	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00021	0.00021	0.0095	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.0027	0.0027	0.0095	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0034	0.0034	0.0095	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0028	0.0028	0.0095	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0029	0.0029	0.0095	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0025	0.0025	0.0095	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0028	0.0028	0.0095	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0018	0.0018	0.0095	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0030	0.0030	0.0095	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0031	0.0031	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0029	0.0029	0.0095	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.0051	0.0051	0.0095	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0015	0.0015	0.0095	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	<0.0011 (1)	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	0.00058	0.00020	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	0.00056	0.00020	0.0095	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.00020	0.00020	0.0095	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0011	0.0011	0.0095	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.00020	0.00020	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.00019 (1)	0.00019	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.00097	0.00097	0.0095	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	<0.00090 (1)	0.00090	0.0095	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\FR30-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
24'6-TriCB-(32)	ng/g	<0.00090	0.00090	0.0095	N/A	N/A	N/A	N/A	3495556
23'5-TriCB-(34)	ng/g	<0.00020	0.00020	0.0095	N/A	N/A	N/A	N/A	3495556
33'4-TriCB-(35)	ng/g	<0.00020	0.00020	0.0095	N/A	N/A	N/A	N/A	3495556
33'5-TriCB-(36)	ng/g	<0.00018	0.00018	0.0095	N/A	N/A	N/A	N/A	3495556
344-TriCB-(37)	ng/g	0.00048	0.00025	0.0095	N/A	N/A	N/A	N/A	3495556
345-TriCB-(38)	ng/g	<0.00021	0.00021	0.0095	N/A	N/A	N/A	N/A	3495556
34'5-TriCB-(39)	ng/g	<0.00019	0.00019	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.00048	0.00048	0.029	N/A	N/A	N/A	N/A	3495556
22'34-TetraCB-(42)	ng/g	<0.00056	0.00056	0.0095	N/A	N/A	N/A	N/A	3495556
22'35-TetraCB-(43)	ng/g	<0.00058	0.00058	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	<0.00078 (1)	0.00078	0.029	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.00048	0.00048	0.019	N/A	N/A	N/A	N/A	3495556
22'36-TetraCB-(46)	ng/g	<0.00058	0.00058	0.0095	N/A	N/A	N/A	N/A	3495556
22'45-TetraCB-(48)	ng/g	<0.00047	0.00047	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.00048 (1)	0.00048	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.00046	0.00046	0.019	N/A	N/A	N/A	N/A	3495556
22'55-TetraCB-(52)	ng/g	0.00094	0.00044	0.0095	N/A	N/A	N/A	N/A	3495556
22'66-TetraCB-(54)	ng/g	<0.00038	0.00038	0.0095	N/A	N/A	N/A	N/A	3495556
233'4-TetraCB-(55)	ng/g	<0.00028	0.00028	0.0095	N/A	N/A	N/A	N/A	3495556
233'4-Tetra CB(56)	ng/g	<0.00048 (1)	0.00048	0.0095	N/A	N/A	N/A	N/A	3495556
233'5-TetraCB-(57)	ng/g	<0.00028	0.00028	0.0095	N/A	N/A	N/A	N/A	3495556
233'5-TetraCB-(58)	ng/g	<0.00027	0.00027	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00036	0.00036	0.029	N/A	N/A	N/A	N/A	3495556
2344-TetraCB -(60)	ng/g	<0.00029	0.00029	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00204	0.00028	0.038	N/A	N/A	N/A	N/A	3495556
234'5-TetraCB-(63)	ng/g	<0.00026	0.00026	0.0095	N/A	N/A	N/A	N/A	3495556
234'6-TetraCB-(64)	ng/g	<0.00040	0.00040	0.0095	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\FR30-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'44'-TetraCB-(66)	ng/g	0.00094	0.00027	0.0095	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00027	0.00027	0.0095	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00025	0.00025	0.0095	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00025	0.00025	0.0095	N/A	N/A	N/A	N/A	3495556
23'56'-TetraCB-(73)	ng/g	<0.00039	0.00039	0.0095	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00031	0.00031	0.0095	N/A	0.000100	0.0000000310	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00029	0.00029	0.0095	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00026	0.00026	0.0095	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00026	0.00026	0.0095	N/A	N/A	N/A	N/A	3495556
344'5'-TetraCB-(81)	ng/g	<0.00032	0.00032	0.0095	N/A	0.000300	0.0000000960	N/A	3495556
22'33'4'-PentaCB-(82)	ng/g	<0.00049	0.00049	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.00042	0.00042	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6'-PentaCB-(84)	ng/g	<0.00049	0.00049	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.00035	0.00035	0.029	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00073 (1)	0.00073	0.057	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.00040	0.00040	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00044	0.00044	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	0.00098	0.00036	0.029	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.00041	0.00041	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00042	0.00042	0.038	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00043	0.00043	0.0095	N/A	N/A	N/A	N/A	3495556
22'35'6'-PentaCB-(95)	ng/g	<0.00039	0.00039	0.0095	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.000076	0.000076	0.0095	N/A	N/A	N/A	N/A	3495556
22'45'6'-PentaCB-(103)	ng/g	<0.00036	0.00036	0.0095	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00010	0.00010	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.00050 (1)	0.00050	0.0095	N/A	0.0000300	0.0000000150	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00025	0.00025	0.0095	N/A	N/A	N/A	N/A	3495556

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\FR30-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

233'4'5'-PentaCB-(107)	ng/g	<0.00023	0.00023	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00024	0.00024	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00113	0.00036	0.019	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.00030	0.00030	0.0095	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00033	0.00033	0.0095	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00027	0.00027	0.0095	N/A	0.0000300	0.00000000810	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00111	0.00027	0.0095	N/A	0.0000300	0.0000000333	N/A	3495556
23'45'5'-PentaCB-(120)	ng/g	<0.00030	0.00030	0.0095	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00030	0.00030	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00027	0.00027	0.0095	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00030	0.00030	0.0095	N/A	0.0000300	0.00000000900	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00027	0.00027	0.0095	N/A	0.100	0.0000270	N/A	3495556
33'45'5'-PentaCB-(127)	ng/g	<0.00025	0.00025	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.00058	0.00058	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	<0.00064	0.00064	0.029	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.00072	0.00072	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.00079	0.00079	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.00069	0.00069	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00065	0.00065	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.00073	0.00073	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	0.00034	0.00014	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00010	0.00010	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00070	0.00070	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00059	0.00059	0.019	N/A	N/A	N/A	N/A	3495556
22'345'5'-HexaCB-(141)	ng/g	<0.00067	0.00067	0.0095	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.00070	0.00070	0.0095	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00014	0.00014	0.0095	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00011	0.00011	0.0095	N/A	N/A	N/A	N/A	3495556

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\FR30-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'34'55'-HexaCB-(146)	ng/g	<0.00060	0.00060	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.00058	0.00058	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00014	0.00014	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00010	0.00010	0.0095	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.000094	0.000094	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.00072	0.00050	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00012	0.00012	0.0095	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00015	0.00015	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00019	0.00019	0.019	N/A	0.0000300	0.00000000570	N/A	3495556
233'44'6'-HexaCB-(158)	ng/g	<0.00049	0.00049	0.0095	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00021	0.00021	0.0095	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.00053	0.00053	0.0095	N/A	N/A	N/A	N/A	3495556
233'45'6'-HexaCB-(161)	ng/g	<0.00049	0.00049	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00020	0.00020	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'5'6'-HexaCB-(164)	ng/g	<0.00048	0.00048	0.0095	N/A	N/A	N/A	N/A	3495556
233'55'6'-HexaCB-(165)	ng/g	<0.00052	0.00052	0.0095	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00021	0.00021	0.0095	N/A	0.0000300	0.00000000630	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00021	0.00021	0.0095	N/A	0.0300	0.00000630	N/A	3495556
22'33'44'5'-HeptaCB-(170)	ng/g	<0.00061	0.00061	0.0095	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.00077	0.00077	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.00079	0.00079	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.00072	0.00072	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00017	0.00017	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00013	0.00013	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.00076	0.00076	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00019	0.00019	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00013	0.00013	0.0095	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.00060	0.00060	0.019	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R1FR30-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'56'-HeptaCB-(181)	ng/g	<0.00070	0.00070	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00018	0.00018	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'5'6'-HeptaCB-(183)	ng/g	<0.00065	0.00065	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00012	0.00012	0.0095	N/A	N/A	N/A	N/A	3495556
22'3455'6'-HeptaCB-(185)	ng/g	<0.00067	0.00067	0.0095	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00013	0.00013	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00016	0.00016	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00020	0.00020	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.00042	0.00042	0.0095	N/A	0.0000300	0.0000000126	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.00062	0.00062	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00059	0.00059	0.0095	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.00062	0.00062	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.00041	0.00041	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.00043	0.00043	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00050	0.00050	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00032	0.00032	0.0095	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.00049	0.00049	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00037	0.00037	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00034	0.00034	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00046	0.00046	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00046	0.00046	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00034	0.00034	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00029	0.00029	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00054	0.00054	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.00043	0.00043	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.00049	0.00049	0.0095	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.00051	0.00051	0.0095	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.00982	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\FR30-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000335	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'45'6'6'-NonaCB-(208)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'6'-OctaCB-(202)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'56'6'-HeptaCB-(188)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	70	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	58	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	39	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6'-OctaCB-(205)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5'-PentaCB-(114)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5'-PentaCB-(118)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5'-PentaCB-(123)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	33	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5'-PentaCB-(126)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5'-TetraCB-(81)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8512							
Sampling Date		2013/11/28 08:59							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1068-03R\FR30-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-344'-TriCB-(37)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	70	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	36	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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 QC Batch = Quality Control Batch
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 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8513							
Sampling Date		2013/11/28 09:15							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1069-03R\VR29-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.0011 (1)	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00028	0.00028	0.0097	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00032	0.00032	0.0097	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.0024	0.0024	0.0097	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0032	0.0032	0.0097	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0027	0.0027	0.0097	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0028	0.0028	0.0097	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0024	0.0024	0.0097	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0027	0.0027	0.0097	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0028	0.0028	0.0097	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0029	0.0029	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0027	0.0027	0.0097	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.0049	0.0049	0.0097	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	0.0028	0.0015	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.00625	0.00064	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	0.00272	0.00068	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	0.00205	0.00068	0.0097	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.00067	0.00067	0.0097	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(25)	ng/g	<0.00067	0.00067	0.0097	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	0.00109	0.00065	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00459	0.00060	0.0097	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8513							
Sampling Date		2013/11/28 09:15							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1069-03R\VR29-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'5'-TriCB-(34)	ng/g	<0.00067	0.00067	0.0097	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.00068	0.00068	0.0097	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00060	0.00060	0.0097	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	0.00180	0.00083	0.0097	N/A	N/A	N/A	N/A	3495556
345-TriCB-(38)	ng/g	<0.00069	0.00069	0.0097	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00063	0.00063	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.0021 (1)	0.0021	0.029	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0012 (1)	0.0012	0.0097	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.00020	0.00020	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.00434	0.00016	0.029	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	0.00078	0.00017	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.00026 (1)	0.00026	0.0097	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	0.00064	0.00016	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0026 (1)	0.0026	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	0.00051	0.00016	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.00432	0.00015	0.0097	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00022	0.00022	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00033	0.00033	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	0.00203	0.00036	0.0097	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00032	0.00032	0.0097	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00031	0.00031	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00033 (1)	0.00033	0.029	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	0.00076	0.00034	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00660	0.00033	0.039	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00031	0.00031	0.0097	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.0016 (1)	0.0016	0.0097	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00391	0.00031	0.0097	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00031	0.00031	0.0097	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8513							
Sampling Date		2013/11/28 09:15							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1069-03R\VR29-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'45'-TetraCB-(68)	ng/g	<0.00029	0.00029	0.0097	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00030	0.00030	0.0097	N/A	N/A	N/A	N/A	3495556
23'5'6'-TetraCB-(73)	ng/g	<0.00013	0.00013	0.0097	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	0.00050	0.00036	0.0097	N/A	0.000100	0.0000000500	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00034	0.00034	0.0097	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00030	0.00030	0.0097	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00030	0.00030	0.0097	N/A	N/A	N/A	N/A	3495556
344'5'-TetraCB-(81)	ng/g	<0.00037	0.00037	0.0097	N/A	0.000300	0.000000111	N/A	3495556
22'33'4'-PentaCB-(82)	ng/g	<0.00040 (1)	0.00040	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	0.00246	0.00033	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6'-PentaCB-(84)	ng/g	0.00099	0.00038	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	0.00071	0.00027	0.029	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00275	0.00028	0.058	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	0.00052	0.00031	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00034	0.00034	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	0.00380	0.00028	0.029	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.00057 (1)	0.00057	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00032	0.00032	0.039	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00033	0.00033	0.0097	N/A	N/A	N/A	N/A	3495556
22'35'6'-PentaCB-(95)	ng/g	0.00263	0.00030	0.0097	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00014	0.00014	0.0097	N/A	N/A	N/A	N/A	3495556
22'45'6'-PentaCB-(103)	ng/g	<0.00028	0.00028	0.0097	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00019	0.00019	0.0097	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	0.00170	0.00041	0.0097	N/A	0.0000300	0.0000000510	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00038	0.00038	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(107)	ng/g	<0.00034	0.00034	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00035	0.00035	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00479	0.00028	0.019	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8513							
Sampling Date		2013/11/28 09:15							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1069-03R\VR29-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

233'55'-PentaCB-(111)	ng/g	<0.00024	0.00024	0.0097	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00026	0.00026	0.0097	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00041	0.00041	0.0097	N/A	0.0000300	0.000000123	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	<0.0036 (1)	0.0036	0.0097	N/A	0.0000300	0.000000108	N/A	3495556
23'455'-PentaCB-(120)	ng/g	<0.00024	0.00024	0.0097	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00023	0.00023	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00040	0.00040	0.0097	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00045	0.00045	0.0097	N/A	0.0000300	0.0000000135	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00040	0.00040	0.0097	N/A	0.100	0.0000400	N/A	3495556
33'455'-PentaCB-(127)	ng/g	<0.00037	0.00037	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.00047	0.00047	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.00474	0.00052	0.029	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.00058	0.00058	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.00064	0.00064	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	0.00144	0.00056	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00052	0.00052	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.00059	0.00059	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	0.00126	0.00021	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00039 (1)	0.00039	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00056	0.00056	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00048	0.00048	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.00072 (1)	0.00072	0.0097	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.00056	0.00056	0.0097	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00021	0.00021	0.0097	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00016	0.00016	0.0097	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	0.00079	0.00049	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	0.00282	0.00047	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00021	0.00021	0.0097	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8513							
Sampling Date		2013/11/28 09:15							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1069-03R\VR29-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'34'66'-HexaCB-(150)	ng/g	<0.00015	0.00015	0.0097	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00014	0.00014	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.00355	0.00041	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00018	0.00018	0.0097	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00022	0.00022	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00054 (1)	0.00054	0.019	N/A	0.0000300	0.0000000162	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	0.00042	0.00039	0.0097	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00021	0.00021	0.0097	N/A	N/A	N/A	N/A	3495556
233'456-HexaCB-(160)	ng/g	<0.00043	0.00043	0.0097	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.00039	0.00039	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00020	0.00020	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.00039	0.00039	0.0097	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.00042	0.00042	0.0097	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00020	0.00020	0.0097	N/A	0.0000300	0.00000000600	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00021	0.00021	0.0097	N/A	0.0300	0.00000630	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.00088 (1)	0.00088	0.0097	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.00037	0.00037	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.00038	0.00038	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	0.00117	0.00035	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00016	0.00016	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00012	0.00012	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	0.00058	0.00037	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.00018	0.00018	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00034 (1)	0.00034	0.0097	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	0.00242	0.00029	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.00033	0.00033	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00017	0.00017	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.00031	0.00031	0.0097	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8513							
Sampling Date		2013/11/28 09:15							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1069-03R\VR29-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/g	<0.00011	0.00011	0.0097	N/A	N/A	N/A	N/A	3495556
22'3455'6'-HeptaCB-(185)	ng/g	<0.00032	0.00032	0.0097	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00013	0.00013	0.0097	N/A	N/A	N/A	N/A	3495556
22'34'55'6'-HeptaCB-(187)	ng/g	0.00125	0.00015	0.0097	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00019	0.00019	0.0097	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.00051	0.00051	0.0097	N/A	0.0000300	0.0000000153	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.00030	0.00030	0.0097	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00028	0.00028	0.0097	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.00030	0.00030	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.00049 (1)	0.00049	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.00026	0.00026	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00019	0.00019	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00012	0.00012	0.0097	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	0.00086	0.00019	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00014	0.00014	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00013	0.00013	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00018	0.00018	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00036 (1)	0.00036	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00013	0.00013	0.0097	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00018	0.00018	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0011 (1)	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.00057	0.00057	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.00064	0.00064	0.0097	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	0.00209	0.00035	0.0097	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0894	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000467	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

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QC Batch = Quality Control Batch

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8513							
Sampling Date		2013/11/28 09:15							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1069-03R\FR29-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'33'44'55'6'-NonaCB-(206)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6'-TriCB-(19)	%	66	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	39	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6'-OctaCB-(205)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	126	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5'-PentaCB-(114)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5'-PentaCB-(118)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5'-PentaCB-(123)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	25	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5'-PentaCB-(126)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5'-TetraCB-(81)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	35	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8513							
Sampling Date		2013/11/28 09:15							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1069-03R\FR29-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-HexaCB-(156)+(157)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8514							
Sampling Date		2013/11/28 09:22							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1070-03R\FR28-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00021	0.00021	0.0098	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00024	0.00024	0.0098	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.0031	0.0031	0.0098	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0045	0.0045	0.0098	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0037	0.0037	0.0098	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0039	0.0039	0.0098	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0033	0.0033	0.0098	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0038	0.0038	0.0098	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0021	0.0021	0.0098	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0040	0.0040	0.0098	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0040	0.0040	0.020	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0038	0.0038	0.0098	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.0068	0.0068	0.0098	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	0.00130	0.00084	0.020	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.00248	0.00045	0.020	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	0.00125	0.00047	0.020	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	0.00100	0.00047	0.0098	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.00084	0.00084	0.0098	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(25)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.00045	0.00045	0.020	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00189	0.00042	0.0098	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.00069	0.00069	0.0098	N/A	N/A	N/A	N/A	3495556
2,3',5'-TriCB-(34)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8514							
Sampling Date		2013/11/28 09:22							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1070-03R\VR28-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

33'4'-TriCB-(35)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00042	0.00042	0.0098	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	0.00068	0.00058	0.0098	N/A	N/A	N/A	N/A	3495556
345-TriCB-(38)	ng/g	<0.00049	0.00049	0.0098	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	0.00081	0.00025	0.029	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	0.00047	0.00029	0.0098	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.00030	0.00030	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.00196	0.00024	0.029	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.00025	0.00025	0.020	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.00030	0.00030	0.0098	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	0.00097	0.00023	0.020	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.00024	0.00024	0.020	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.00159	0.00023	0.0098	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	<0.00068 (1)	0.00068	0.0098	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00036	0.00036	0.0098	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00019	0.00019	0.029	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00268	0.00036	0.039	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00034	0.00034	0.0098	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	0.00068	0.00021	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00141	0.00034	0.0098	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00032	0.00032	0.0098	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8514							
Sampling Date		2013/11/28 09:22							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1070-03R\FR28-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'55'-TetraCB-(72)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
23'56'-TetraCB-(73)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00040	0.00040	0.0098	N/A	0.000100	0.0000000400	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00038	0.00038	0.0098	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00034	0.00034	0.0098	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
344'5'-TetraCB-(81)	ng/g	<0.00041	0.00041	0.0098	N/A	0.000300	0.000000123	N/A	3495556
22'33'4'-PentaCB-(82)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.00070 (1)	0.00070	0.020	N/A	N/A	N/A	N/A	3495556
22'33'6'-PentaCB-(84)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.00029	0.00029	0.029	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00079 (1)	0.00079	0.059	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.00033	0.00033	0.020	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00036	0.00036	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	0.00107	0.00030	0.029	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.00034	0.00034	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00035	0.00035	0.039	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00036	0.00036	0.0098	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(95)	ng/g	0.00076	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00015	0.00015	0.0098	N/A	N/A	N/A	N/A	3495556
22'456'-PentaCB-(103)	ng/g	<0.00030	0.00030	0.0098	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00021	0.00021	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	0.00059	0.00020	0.0098	N/A	0.0000300	0.0000000177	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00019	0.00019	0.0098	N/A	N/A	N/A	N/A	3495556
233'45'-PentaCB-(107)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00018	0.00018	0.020	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00157	0.00029	0.020	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8514							
Sampling Date		2013/11/28 09:22							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1070-03R\VR28-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

233'56'-PentaCB-(112)	ng/g	<0.00027	0.00027	0.0098	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00020	0.00020	0.0098	N/A	0.0000300	0.0000000600	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00167	0.00020	0.0098	N/A	0.0000300	0.0000000501	N/A	3495556
23'455'-PentaCB-(120)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00022	0.00022	0.0098	N/A	0.0000300	0.0000000660	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00020	0.00020	0.0098	N/A	0.100	0.0000200	N/A	3495556
33'455'-PentaCB-(127)	ng/g	<0.00018	0.00018	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.00045	0.00045	0.020	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.00142	0.00049	0.029	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.00055	0.00055	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.00060	0.00060	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.00056	0.00056	0.020	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00019	0.00019	0.020	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00014	0.00014	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00045	0.00045	0.020	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.00051	0.00051	0.0098	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00019	0.00019	0.0098	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00014	0.00014	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.00046	0.00046	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	0.00068	0.00045	0.020	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00019	0.00019	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00014	0.00014	0.0098	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00013	0.00013	0.0098	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8514							
Sampling Date		2013/11/28 09:22							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1070-03R\VR28-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

HexaCB-(153)+(168)	ng/g	<0.00097 (1)	0.00097	0.020	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00028	0.00028	0.020	N/A	0.0000300	0.00000000840	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.00040	0.00040	0.0098	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00030	0.00030	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.00040	0.00040	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00030	0.00030	0.0098	N/A	0.0000300	0.00000000900	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00031	0.00031	0.0098	N/A	0.0300	0.00000930	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.00047	0.00047	0.020	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.00049	0.00049	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00015	0.00015	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00012	0.00012	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00012	0.00012	0.0098	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.00037	0.00037	0.020	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.00043	0.00043	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00016	0.00016	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.00040	0.00040	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00011	0.00011	0.0098	N/A	N/A	N/A	N/A	3495556
22'3455'6-HeptaCB-(185)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8514							
Sampling Date		2013/11/28 09:22							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1070-03R\VR28-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/g	<0.00012	0.00012	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00015	0.00015	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00018	0.00018	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.00048	0.00048	0.0098	N/A	0.0000300	0.0000000144	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.00038	0.00038	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00036	0.00036	0.0098	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.00038	0.00038	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00034	0.00034	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.00033	0.00033	0.020	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00032	0.00032	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.00042	0.00042	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.00048	0.00048	0.0098	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.00057 (1)	0.00057	0.0098	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0269	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000296	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
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 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8514							
Sampling Date		2013/11/28 09:22							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1070-03R\FR28-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'33'455'66'-NonaCB-(208)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6-HeptaCB-(178)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	44	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	35	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	42	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8515							
Sampling Date		2013/11/28 09:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1071-03R\FR27-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.00161	0.00036	0.0097	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00034 (1)	0.00034	0.0097	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00060 (1)	0.00060	0.0097	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.0023	0.0023	0.0097	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0035	0.0035	0.0097	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0029	0.0029	0.0097	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0030	0.0030	0.0097	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0043 (1)	0.0043	0.0097	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0029	0.0029	0.0097	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0040 (1)	0.0040	0.0097	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0032	0.0032	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0030	0.0030	0.0097	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.0053	0.0053	0.0097	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	0.0032	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	0.00520	0.00090	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.0126	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	0.0057	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	0.0042	0.0010	0.0097	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.0010	0.0010	0.0097	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	0.00147	0.00090	0.0097	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.0011 (1)	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	0.0025	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.00079	0.00079	0.0097	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00984	0.00093	0.0097	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	0.00226	0.00074	0.0097	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
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 Maxxam Analytics
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8515							
Sampling Date		2013/11/28 09:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1071-03R\FR27-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.0010	0.0010	0.0097	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.0010	0.0010	0.0097	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00093	0.00093	0.0097	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	0.0039	0.0013	0.0097	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00098	0.00098	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	0.00533	0.00030	0.029	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	0.00292	0.00035	0.0097	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.00036	0.00036	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.0105	0.00029	0.029	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	0.00174	0.00030	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.00047 (1)	0.00047	0.0097	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	0.00203	0.00029	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	0.00617	0.00027	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	0.00124	0.00029	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.00974	0.00027	0.0097	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00025	0.00025	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00053	0.00053	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	0.00390	0.00058	0.0097	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00051	0.00051	0.0097	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00050	0.00050	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	0.00076	0.00022	0.029	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	0.00211	0.00053	0.0097	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0146	0.00052	0.039	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00049	0.00049	0.0097	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	0.00447	0.00025	0.0097	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00801	0.00049	0.0097	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00050	0.00050	0.0097	N/A	N/A	N/A	N/A	3495556

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 Maxxam Analytics
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8515							
Sampling Date		2013/11/28 09:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1071-03R\FR27-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	<0.00046	0.00046	0.0097	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00047	0.00047	0.0097	N/A	N/A	N/A	N/A	3495556
23'5'6-TetraCB-(73)	ng/g	<0.00024	0.00024	0.0097	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	0.00081	0.00058	0.0097	N/A	0.000100	0.0000000810	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00054	0.00054	0.0097	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB(79)	ng/g	<0.00048	0.00048	0.0097	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00048	0.00048	0.0097	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.00059	0.00059	0.0097	N/A	0.000300	0.000000177	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	<0.00086	0.00086	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	0.00576	0.00070	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	0.00249	0.00081	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	0.00145	0.00058	0.029	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00598	0.00060	0.058	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.0012 (1)	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00073	0.00073	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	0.00832	0.00059	0.029	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	0.00170	0.00068	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00069	0.00069	0.039	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00071	0.00071	0.0097	N/A	N/A	N/A	N/A	3495556
22'35'6-PentaCB-(95)	ng/g	<0.0057 (1)	0.0057	0.0097	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00024	0.00024	0.0097	N/A	N/A	N/A	N/A	3495556
22'45'6-PentaCB-(103)	ng/g	<0.00060	0.00060	0.0097	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00032	0.00032	0.0097	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	0.00414	0.00056	0.0097	N/A	0.0000300	0.000000124	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00053	0.00053	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'5-PentaCB-(107)	ng/g	0.00056	0.00047	0.0097	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00049	0.00049	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.0121	0.00059	0.019	N/A	N/A	N/A	N/A	3495556

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8515							
Sampling Date		2013/11/28 09:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1071-03R\FR27-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/g	<0.00050	0.00050	0.0097	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00055	0.00055	0.0097	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00056	0.00056	0.0097	N/A	0.0000300	0.0000000168	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.0106	0.00056	0.0097	N/A	0.0000300	0.000000318	N/A	3495556
23'455'-PentaCB-(120)	ng/g	<0.00050	0.00050	0.0097	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00050	0.00050	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00056	0.00056	0.0097	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00062	0.00062	0.0097	N/A	0.0000300	0.0000000186	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00056	0.00056	0.0097	N/A	0.100	0.0000560	N/A	3495556
33'455'-PentaCB-(127)	ng/g	<0.00051	0.00051	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	0.00172	0.00085	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.0139	0.00093	0.029	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	0.0042	0.0010	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00094	0.00094	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	0.00392	0.00024	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	0.00120	0.00017	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.0010	0.0010	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00087	0.00087	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0017 (1)	0.0017	0.0097	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0010	0.0010	0.0097	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00059 (1)	0.00059	0.0097	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00018	0.00018	0.0097	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	0.00240	0.00088	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	0.00800	0.00085	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00023	0.00023	0.0097	N/A	N/A	N/A	N/A	3495556

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8515							
Sampling Date		2013/11/28 09:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1071-03R\FR27-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/g	<0.00017	0.00017	0.0097	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00016	0.00016	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.0104	0.00073	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00021	0.00021	0.0097	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00025	0.00025	0.0097	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	0.00163	0.00060	0.019	N/A	0.0000300	0.0000000489	N/A	3495556
233'44'6'-HexaCB-(158)	ng/g	<0.0011 (1)	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00064	0.00064	0.0097	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.00077	0.00077	0.0097	N/A	N/A	N/A	N/A	3495556
233'45'6'-HexaCB-(161)	ng/g	<0.00071	0.00071	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00063	0.00063	0.0097	N/A	N/A	N/A	N/A	3495556
233'4'5'6'-HexaCB-(164)	ng/g	<0.0011 (1)	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
233'55'6'-HexaCB-(165)	ng/g	<0.00076	0.00076	0.0097	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00063	0.00063	0.0097	N/A	0.0000300	0.0000000189	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00064	0.00064	0.0097	N/A	0.0300	0.0000192	N/A	3495556
22'33'44'5'-HeptaCB-(170)	ng/g	0.00276	0.00032	0.0097	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.00063 (1)	0.00063	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.00042	0.00042	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0022 (1)	0.0022	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00030	0.00030	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00028 (1)	0.00028	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0016 (1)	0.0016	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00058 (1)	0.00058	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.0011 (1)	0.0011	0.0097	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	0.00732	0.00032	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(181)	ng/g	<0.00037	0.00037	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00032	0.00032	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'5'6'-HeptaCB-(183)	ng/g	0.00145	0.00034	0.0097	N/A	N/A	N/A	N/A	3495556

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 RDL = Reportable Detection Limit
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 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8515							
Sampling Date		2013/11/28 09:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1071-03R\FR27-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/g	<0.00021	0.00021	0.0097	N/A	N/A	N/A	N/A	3495556
22'3455'6'-HeptaCB-(185)	ng/g	<0.00035	0.00035	0.0097	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00024	0.00024	0.0097	N/A	N/A	N/A	N/A	3495556
22'34'55'6'-HeptaCB-(187)	ng/g	0.00434	0.00028	0.0097	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00036	0.00036	0.0097	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.00099	0.00099	0.0097	N/A	0.0000300	0.0000000297	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	0.00055	0.00032	0.0097	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00031	0.00031	0.0097	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.00032	0.00032	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0013 (1)	0.0013	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.00067	0.00067	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	0.00091	0.00081	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00053	0.00053	0.0097	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.0018 (1)	0.0018	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00061	0.00061	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00056	0.00056	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00076	0.00076	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00088	0.00088	0.0097	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00056	0.00056	0.0097	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00045	0.00045	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00080	0.00080	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.00064	0.00064	0.0097	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.00073	0.00073	0.0097	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	0.00172	0.00078	0.0097	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.246	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000760	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8515							
Sampling Date		2013/11/28 09:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1071-03R\FR27-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'33'44'55'6'-NonaCB-(206)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'45'5'66'-NonaCB-(208)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6'-TriCB-(19)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	42	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6'-OctaCB-(205)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5'-PentaCB-(114)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5'-PentaCB-(118)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5'-PentaCB-(123)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	26	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5'-PentaCB-(126)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5'-TetraCB-(81)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	40	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8515							
Sampling Date		2013/11/28 09:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1071-03R\FR27-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-HexaCB-(156)+(157)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8516							
Sampling Date		2013/11/28 09:35							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1072-03R/FR26-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00018	0.00018	0.0098	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00021	0.00021	0.0098	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.0027	0.0027	0.0098	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0025	0.0025	0.0098	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0021	0.0021	0.0098	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0022	0.0022	0.0098	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0019	0.0019	0.0098	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0021	0.0021	0.0098	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0018	0.0018	0.0098	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0023	0.0023	0.0098	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0023	0.0023	0.020	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0022	0.0022	0.0098	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.0039	0.0039	0.0098	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	0.00118	0.00094	0.020	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.00319	0.00033	0.020	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	0.00151	0.00035	0.020	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.0010 (1)	0.0010	0.0098	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.00094	0.00094	0.0098	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	0.00058	0.00034	0.020	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.00083	0.00083	0.0098	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	<0.0024 (1)	0.0024	0.0098	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.00077	0.00077	0.0098	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8516							
Sampling Date		2013/11/28 09:35							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1072-03R1FR26-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	<0.0010 (1)	0.0010	0.0098	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.00036	0.00036	0.0098	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	0.00112	0.00040	0.029	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.00048 (1)	0.00048	0.0098	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.00049	0.00049	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	<0.0023 (1)	0.0023	0.029	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.00040	0.00040	0.020	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.00049	0.00049	0.0098	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.00039	0.00039	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	0.00124	0.00036	0.020	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.00038	0.00038	0.020	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.00196	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00015	0.00015	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00019	0.00019	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	0.00087	0.00021	0.0098	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00018	0.00018	0.0098	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00018	0.00018	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00030	0.00030	0.029	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00048 (1)	0.00048	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00376	0.00019	0.039	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00018	0.00018	0.0098	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	0.00108	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	<0.0020 (1)	0.0020	0.0098	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00018	0.00018	0.0098	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
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 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8516							
Sampling Date		2013/11/28 09:35							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1072-03R\FR26-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
23'5'6'-TetraCB-(73)	ng/g	<0.00032	0.00032	0.0098	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00032 (1)	0.00032	0.0098	N/A	0.000100	0.0000000320	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00019	0.00019	0.0098	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB(79)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
344'5'-TetraCB-(81)	ng/g	<0.00021	0.00021	0.0098	N/A	0.000300	0.0000000630	N/A	3495556
22'33'4'-PentaCB-(82)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	0.00099	0.00021	0.020	N/A	N/A	N/A	N/A	3495556
22'33'6'-PentaCB-(84)	ng/g	<0.00045 (1)	0.00045	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.00022 (1)	0.00022	0.029	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00152	0.00019	0.059	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.00020	0.00020	0.020	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	0.00182	0.00018	0.029	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	0.00032	0.00021	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00021	0.00021	0.039	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495556
22'35'6'-PentaCB-(95)	ng/g	<0.0013 (1)	0.0013	0.0098	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00012	0.00012	0.0098	N/A	N/A	N/A	N/A	3495556
22'45'6'-PentaCB-(103)	ng/g	<0.00018	0.00018	0.0098	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00016	0.00016	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.00075	0.00075	0.0098	N/A	0.0000300	0.0000000225	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(107)	ng/g	<0.00021	0.00021	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00022	0.00022	0.020	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00246	0.00018	0.020	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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233'55'-PentaCB-(111)	ng/g	<0.00015	0.00015	0.0098	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00025	0.00025	0.0098	N/A	0.0000300	0.00000000750	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00226	0.00025	0.0098	N/A	0.0000300	0.0000000678	N/A	3495556
23'45'5'-PentaCB-(120)	ng/g	<0.00015	0.00015	0.0098	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00015	0.00015	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	0.00042	0.00027	0.0098	N/A	0.0000300	0.0000000126	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00024	0.00024	0.0098	N/A	0.100	0.0000240	N/A	3495556
33'45'5'-PentaCB-(127)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.00029	0.00029	0.020	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.00256	0.00032	0.029	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.00040	0.00040	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.00059 (1)	0.00059	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.00037	0.00037	0.020	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00045 (1)	0.00045	0.020	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00012 (1)	0.00012	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00030	0.00030	0.020	N/A	N/A	N/A	N/A	3495556
22'345'5'-HexaCB-(141)	ng/g	<0.00034 (1)	0.00034	0.0098	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.000091	0.000091	0.0098	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.000069	0.000069	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.00098 (1)	0.00098	0.020	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.000090	0.000090	0.0098	N/A	N/A	N/A	N/A	3495556

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Maxxam ID		UQ8516							
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COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1072-03R/FR26-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/g	<0.000066	0.000066	0.0098	N/A	N/A	N/A	N/A	3495556
22'35'66'-HexaCB-(152)	ng/g	<0.000062	0.000062	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.00162	0.00025	0.020	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.000079	0.000079	0.0098	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.000096	0.000096	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00025	0.00025	0.020	N/A	0.0000300	0.00000000750	N/A	3495556
233'44'6'-HexaCB-(158)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
233'45'5'-HexaCB-(159)	ng/g	<0.00026	0.00026	0.0098	N/A	N/A	N/A	N/A	3495556
233'45'6'-HexaCB-(160)	ng/g	<0.00027	0.00027	0.0098	N/A	N/A	N/A	N/A	3495556
233'45'6'-HexaCB-(161)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00026	0.00026	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'5'6'-HexaCB-(164)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
233'55'6'-HexaCB-(165)	ng/g	<0.00026	0.00026	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00026	0.00026	0.0098	N/A	0.0000300	0.00000000780	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00027	0.00027	0.0098	N/A	0.0300	0.00000810	N/A	3495556
22'33'44'5'-HeptaCB-(170)	ng/g	<0.00049	0.00049	0.0098	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.00062	0.00062	0.020	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.00064	0.00064	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.00058	0.00058	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00021	0.00021	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00016	0.00016	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.00062	0.00062	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00022 (1)	0.00022	0.0098	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	0.00097	0.00049	0.020	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(181)	ng/g	<0.00056	0.00056	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'5'6'-HeptaCB-(183)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495556

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Maxxam ID		UQ8516							
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COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1072-03R\FR26-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/g	<0.00015	0.00015	0.0098	N/A	N/A	N/A	N/A	3495556
22'3455'6'-HeptaCB-(185)	ng/g	<0.00054	0.00054	0.0098	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00017	0.00017	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'55'6'-HeptaCB-(187)	ng/g	0.00064	0.00020	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00026	0.00026	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.00039	0.00039	0.0098	N/A	0.0000300	0.0000000117	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.00038	0.00038	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00048	0.00048	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.00047	0.00047	0.020	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00036	0.00036	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00026	0.00026	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00062	0.00062	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.00057	0.00057	0.0098	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0321	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000323	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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C13-22'33'44'5-HeptaCB-(170)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'45'56'-NonaCB-(208)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6-HeptaCB-(178)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	42	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	35	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	130	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	42	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8517							
Sampling Date		2013/11/28 09:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1073-03R\FR1-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.00327	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	0.00100	0.00029	0.0098	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.0023	0.0023	0.0098	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0029	0.0029	0.0098	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0024	0.0024	0.0098	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0025	0.0025	0.0098	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0041 (1)	0.0041	0.0098	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0025	0.0025	0.0098	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0039 (1)	0.0039	0.0098	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0026	0.0026	0.020	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0025	0.0025	0.0098	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.0045 (1)	0.0045	0.0098	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	0.0030	0.0015	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	0.0046	0.0012	0.020	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.00941	0.00071	0.020	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	0.00405	0.00074	0.020	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	0.00303	0.00074	0.0098	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	0.0014	0.0012	0.0098	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	0.00110	0.00073	0.0098	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	0.00187	0.00071	0.020	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00716	0.00066	0.0098	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	0.00181	0.00096	0.0098	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8517							
Sampling Date		2013/11/28 09:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1073-03R\FR1-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.00073	0.00073	0.0098	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	0.00300	0.00091	0.0098	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.00076	0.00076	0.0098	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00069	0.00069	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	0.00276	0.00035	0.030	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	0.00179	0.00041	0.0098	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.00043	0.00043	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.00616	0.00034	0.030	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	0.00100	0.00036	0.020	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.00043	0.00043	0.0098	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	0.00095	0.00035	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0035 (1)	0.0035	0.020	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.00067 (1)	0.00067	0.020	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.00554	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00025	0.00025	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	0.00280	0.00048	0.0098	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00043	0.00043	0.0098	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00037 (1)	0.00037	0.030	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	0.00170	0.00044	0.0098	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0111	0.00043	0.039	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	0.00278	0.00029	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00596	0.00041	0.0098	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00042	0.00042	0.0098	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8517							
Sampling Date		2013/11/28 09:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1073-03R\FR1-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	<0.00038	0.00038	0.0098	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00039	0.00039	0.0098	N/A	N/A	N/A	N/A	3495556
23'5'6-TetraCB-(73)	ng/g	<0.00029	0.00029	0.0098	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	0.00075	0.00048	0.0098	N/A	0.000100	0.0000000750	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB(79)	ng/g	<0.00040	0.00040	0.0098	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00040	0.00040	0.0098	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.00049	0.00049	0.0098	N/A	0.000300	0.000000147	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	0.00072	0.00044	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	0.00346	0.00038	0.020	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	0.00139	0.00044	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.00090 (1)	0.00090	0.030	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00423	0.00033	0.059	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.00052 (1)	0.00052	0.020	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00040	0.00040	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	<0.0049 (1)	0.0049	0.030	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	0.00116	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00038	0.00038	0.039	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00039	0.00039	0.0098	N/A	N/A	N/A	N/A	3495556
22'35'6-PentaCB-(95)	ng/g	<0.0033 (1)	0.0033	0.0098	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495556
22'45'6-PentaCB-(103)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00027	0.00027	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	0.00331	0.00033	0.0098	N/A	0.0000300	0.0000000993	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'5-PentaCB-(107)	ng/g	<0.00028	0.00028	0.0098	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00029	0.00029	0.020	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00758	0.00032	0.020	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8517							
Sampling Date		2013/11/28 09:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1073-03R\FR1-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/g	<0.00027	0.00027	0.0098	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00030	0.00030	0.0098	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00033	0.00033	0.0098	N/A	0.0000300	0.0000000990	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00679	0.00033	0.0098	N/A	0.0000300	0.000000204	N/A	3495556
23'455'-PentaCB-(120)	ng/g	<0.00027	0.00027	0.0098	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00027	0.00027	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00037	0.00037	0.0098	N/A	0.0000300	0.0000000111	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00033	0.00033	0.0098	N/A	0.100	0.0000330	N/A	3495556
33'455'-PentaCB-(127)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	0.00107	0.00073	0.020	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.00793	0.00080	0.030	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.00091	0.00091	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0017 (1)	0.0017	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00082	0.00082	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.00092	0.00092	0.020	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	0.00193	0.00019	0.020	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00068 (1)	0.00068	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00088	0.00088	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00075	0.00075	0.020	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	0.00093	0.00084	0.0098	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.00088	0.00088	0.0098	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00019	0.00019	0.0098	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00014	0.00014	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	0.00109	0.00076	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.0043 (1)	0.0043	0.020	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00019	0.00019	0.0098	N/A	N/A	N/A	N/A	3495556

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8517							
Sampling Date		2013/11/28 09:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1073-03R\FR-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/g	<0.00014	0.00014	0.0098	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00013	0.00013	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.00547	0.00063	0.020	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00016	0.00016	0.0098	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	0.00096	0.00044	0.020	N/A	0.0000300	0.0000000288	N/A	3495556
233'44'6'-HexaCB-(158)	ng/g	<0.00062	0.00062	0.0098	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495556
233'45'6'-HexaCB-(161)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00046	0.00046	0.0098	N/A	N/A	N/A	N/A	3495556
233'4'5'6'-HexaCB-(164)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495556
233'55'6'-HexaCB-(165)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00046	0.00046	0.0098	N/A	0.0000300	0.0000000138	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00047	0.00047	0.0098	N/A	0.0300	0.0000141	N/A	3495556
22'33'44'5'-HeptaCB-(170)	ng/g	0.00168	0.00081	0.0098	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	0.00150	0.00096	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00048	0.00048	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0011 (1)	0.0011	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	0.00079	0.00036	0.0098	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	0.00409	0.00081	0.020	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(181)	ng/g	<0.00093	0.00093	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00051	0.00051	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'5'6'-HeptaCB-(183)	ng/g	<0.00087	0.00087	0.0098	N/A	N/A	N/A	N/A	3495556

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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8517							
Sampling Date		2013/11/28 09:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1073-03R\FR1-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/g	<0.00034	0.00034	0.0098	N/A	N/A	N/A	N/A	3495556
22'3455'6'-HeptaCB-(185)	ng/g	<0.00090	0.00090	0.0098	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00038	0.00038	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'55'6'-HeptaCB-(187)	ng/g	0.00195	0.00045	0.0098	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00057	0.00057	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.00059	0.00059	0.0098	N/A	0.0000300	0.0000000177	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.00082	0.00082	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00078	0.00078	0.0098	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.00082	0.00082	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.00073 (1)	0.00073	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.00057	0.00057	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00078	0.00078	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	0.00114	0.00077	0.020	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00058	0.00058	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00054	0.00054	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00073	0.00073	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00072	0.00072	0.0098	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00038	0.00038	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00092	0.00092	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.00084	0.00084	0.0098	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.00065	0.00065	0.0098	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.147	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000477	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8517							
Sampling Date		2013/11/28 09:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1073-03R\FR1-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'33'44'55'6'-NonaCB-(206)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'45'56'6'-NonaCB-(208)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	43	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6'-OctaCB-(205)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5'-PentaCB-(114)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5'-PentaCB-(118)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5'-PentaCB-(123)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	34	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5'-PentaCB-(126)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5'-TetraCB-(81)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	44	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8517							
Sampling Date		2013/11/28 09:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1073-03R\FR1-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-HexaCB-(156)+(157)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8518							
Sampling Date		2013/11/28 09:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1074-03R\FR2-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.00021	0.00021	0.0093	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00017	0.00017	0.0093	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00020	0.00020	0.0093	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.0021	0.0021	0.0093	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0023	0.0023	0.0093	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0019	0.0019	0.0093	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0020	0.0020	0.0093	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0017	0.0017	0.0093	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0019	0.0019	0.0093	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0020	0.0020	0.0093	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0021	0.0021	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0019	0.0019	0.0093	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.0035	0.0035	0.0093	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0014	0.0014	0.0093	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	0.0016	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	0.0026	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0014	0.0014	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.00498	0.00052	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	0.00158	0.00055	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	0.00155	0.00055	0.0093	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.00054	0.00054	0.0093	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(25)	ng/g	<0.00054	0.00054	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	0.00084	0.00052	0.019	N/A	N/A	N/A	N/A	3495556
2,3,6'-TriCB-(27)	ng/g	<0.00093	0.00093	0.0093	N/A	N/A	N/A	N/A	3495556
2,4,5-TriCB-(31)	ng/g	0.00353	0.00049	0.0093	N/A	N/A	N/A	N/A	3495556
2,4,6-TriCB-(32)	ng/g	<0.0025 (1)	0.0025	0.0093	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8518							
Sampling Date		2013/11/28 09:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1074-03R\FR2-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'5'-TriCB-(34)	ng/g	<0.00054	0.00054	0.0093	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.00055	0.00055	0.0093	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00049	0.00049	0.0093	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	0.00145	0.00067	0.0093	N/A	N/A	N/A	N/A	3495556
345-TriCB-(38)	ng/g	<0.00056	0.00056	0.0093	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00051	0.00051	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	0.00184	0.000091	0.028	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	0.00092	0.00011	0.0093	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.00011	0.00011	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.00415	0.000089	0.028	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.00054 (1)	0.00054	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.00011	0.00011	0.0093	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.00049 (1)	0.00049	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0020 (1)	0.0020	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.00034 (1)	0.00034	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.00339	0.000085	0.0093	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00035	0.00035	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00028	0.00028	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	0.00159	0.00031	0.0093	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00027	0.00027	0.0093	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00026	0.00026	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00019 (1)	0.00019	0.028	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00057 (1)	0.00057	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00573	0.00028	0.037	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00026	0.00026	0.0093	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	0.00178	0.000076	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	<0.0031 (1)	0.0031	0.0093	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00027	0.00027	0.0093	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8518							
Sampling Date		2013/11/28 09:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1074-03R\FR2-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'45'-TetraCB-(68)	ng/g	<0.00025	0.00025	0.0093	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00025	0.00025	0.0093	N/A	N/A	N/A	N/A	3495556
23'5'6'-TetraCB-(73)	ng/g	<0.000075	0.000075	0.0093	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00033	0.00033	0.0093	N/A	0.000100	0.0000000330	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00029	0.00029	0.0093	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00026	0.00026	0.0093	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00025	0.00025	0.0093	N/A	N/A	N/A	N/A	3495556
344'5'-TetraCB-(81)	ng/g	<0.00032	0.00032	0.0093	N/A	0.000300	0.0000000960	N/A	3495556
22'33'4'-PentaCB-(82)	ng/g	<0.00048 (1)	0.00048	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	0.00288	0.00023	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6'-PentaCB-(84)	ng/g	<0.00063 (1)	0.00063	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.0011 (1)	0.0011	0.028	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00291	0.00020	0.056	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	0.00051	0.00022	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00025	0.00025	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	0.00326	0.00020	0.028	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	0.00051	0.00023	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00023	0.00023	0.037	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00024	0.00024	0.0093	N/A	N/A	N/A	N/A	3495556
22'35'6'-PentaCB-(95)	ng/g	0.00164	0.00022	0.0093	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00015	0.00015	0.0093	N/A	N/A	N/A	N/A	3495556
22'45'6'-PentaCB-(103)	ng/g	<0.00020	0.00020	0.0093	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00021	0.00021	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	0.00271	0.00031	0.0093	N/A	0.0000300	0.0000000813	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00029	0.00029	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(107)	ng/g	<0.00026	0.00026	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00027	0.00027	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00575	0.00020	0.019	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8518							
Sampling Date		2013/11/28 09:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1074-03R\FR2-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

233'55'-PentaCB-(111)	ng/g	<0.00017	0.00017	0.0093	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00018	0.00018	0.0093	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00031	0.00031	0.0093	N/A	0.0000300	0.0000000930	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00504	0.00031	0.0093	N/A	0.0000300	0.000000151	N/A	3495556
23'45'5'-PentaCB-(120)	ng/g	<0.00017	0.00017	0.0093	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00017	0.00017	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00031	0.00031	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00034	0.00034	0.0093	N/A	0.0000300	0.0000000102	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00031	0.00031	0.0093	N/A	0.100	0.0000310	N/A	3495556
33'45'5'-PentaCB-(127)	ng/g	<0.00028	0.00028	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.00045 (1)	0.00045	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.00345	0.00038	0.028	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.00043	0.00043	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.00048	0.00048	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	0.00118	0.00041	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00039	0.00039	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.00044	0.00044	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	0.00103	0.00015	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00035 (1)	0.00035	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00042	0.00042	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00036	0.00036	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	0.00043	0.00040	0.0093	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.00042	0.00042	0.0093	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00015	0.00015	0.0093	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00012	0.00012	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	0.00053	0.00036	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	0.00215	0.00035	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00015	0.00015	0.0093	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8518							
Sampling Date		2013/11/28 09:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1074-03R\FR2-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'34'66'-HexaCB-(150)	ng/g	<0.00011	0.00011	0.0093	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00010	0.00010	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	<0.0020 (1)	0.0020	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00013	0.00013	0.0093	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00016	0.00016	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00024	0.00024	0.019	N/A	0.0000300	0.00000000720	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.00031 (1)	0.00031	0.0093	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00026	0.00026	0.0093	N/A	N/A	N/A	N/A	3495556
233'456-HexaCB-(160)	ng/g	<0.00032	0.00032	0.0093	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.00029	0.00029	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00025	0.00025	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.00029	0.00029	0.0093	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.00031	0.00031	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00025	0.00025	0.0093	N/A	0.0000300	0.00000000750	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00026	0.00026	0.0093	N/A	0.0300	0.00000780	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.00061 (1)	0.00061	0.0093	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.00035	0.00035	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.00036	0.00036	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.00050 (1)	0.00050	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00019	0.00019	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00015	0.00015	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.00034	0.00034	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.00021	0.00021	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00014	0.00014	0.0093	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	0.00130	0.00027	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.00031	0.00031	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00020	0.00020	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.00029	0.00029	0.0093	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8518							
Sampling Date		2013/11/28 09:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1074-03R\FR2-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/g	<0.00014	0.00014	0.0093	N/A	N/A	N/A	N/A	3495556
22'3455'6'-HeptaCB-(185)	ng/g	<0.00030	0.00030	0.0093	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00015	0.00015	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'55'6'-HeptaCB-(187)	ng/g	0.00082	0.00018	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00023	0.00023	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.00049	0.00049	0.0093	N/A	0.0000300	0.0000000147	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.00028	0.00028	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00026	0.00026	0.0093	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.00028	0.00028	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.00045	0.00045	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.00048	0.00048	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00045	0.00045	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00029	0.00029	0.0093	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.00044	0.00044	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00034	0.00034	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00031	0.00031	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00042	0.00042	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00042	0.00042	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00031	0.00031	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00033	0.00033	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00061	0.00061	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.00049	0.00049	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.00056	0.00056	0.0093	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.0011 (1)	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0735	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000392	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8518							
Sampling Date		2013/11/28 09:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1074-03R\FR2-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'33'44'55'6'-NonaCB-(206)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'45'5'6'-NonaCB-(208)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-OctaCB-(202)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'4'55'-HeptaCB-(180)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'56'6'-HeptaCB-(188)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6'-TriCB-(19)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	46	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6'-OctaCB-(205)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5'-PentaCB-(114)	%	126	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5'-PentaCB-(118)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5'-PentaCB-(123)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	37	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5'-PentaCB-(126)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5'-TetraCB-(81)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	45	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8518							
Sampling Date		2013/11/28 09:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1074-03R\FR2-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-HexaCB-(156)+(157)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495556
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 EDL = Estimated Detection Limit
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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8519							
Sampling Date		2013/11/28 09:55							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1075-03R\FR3-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.00064	0.00064	0.0096	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00053	0.00053	0.0096	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00060	0.00060	0.0096	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.020	0.020	0.0096	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.011	0.011	0.0096	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0087	0.0087	0.0096	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0088	0.0088	0.0096	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0072	0.0072	0.0096	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0086	0.0086	0.0096	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.013	0.013	0.0096	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0093	0.0093	0.0096	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0092	0.0092	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0089	0.0089	0.0096	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.015	0.015	0.0096	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0054	0.0054	0.0096	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0035	0.0035	0.0096	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0027	0.0027	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0035	0.0035	0.0096	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.0015	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	<0.0010	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0022	0.0022	0.0096	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.0010	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.0023	0.0023	0.0096	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00106	0.00095	0.0096	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.0022	0.0022	0.0096	N/A	N/A	N/A	N/A	3495556
2,3',5'-TriCB-(34)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8519							
Sampling Date		2013/11/28 09:55							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1075-03R\FR3-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00094	0.00094	0.0096	N/A	N/A	N/A	N/A	3495556
344'4'-TriCB-(37)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.0016	0.0016	0.029	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0021	0.0021	0.0096	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.0023	0.0023	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.0019	0.0016	0.029	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.0016	0.0016	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.0019	0.0019	0.0096	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0014	0.0014	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.0015	0.0015	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00096	0.00096	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00099	0.00099	0.0096	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00096	0.00096	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.0012	0.0012	0.029	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0021	0.0010	0.038	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00094	0.00094	0.0096	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00129	0.00096	0.0096	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00092	0.00092	0.0096	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00089	0.00089	0.0096	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00092	0.00092	0.0096	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8519							
Sampling Date		2013/11/28 09:55							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1075-03R\FR3-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.0011	0.0011	0.0096	N/A	0.000100	0.000000110	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB(79)	ng/g	<0.00090	0.00090	0.0096	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00091	0.00091	0.0096	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.0012	0.0012	0.0096	N/A	0.000300	0.000000360	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.0014	0.0014	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.0012	0.0012	0.029	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0012	0.0012	0.058	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	<0.0012	0.0012	0.029	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0014	0.0014	0.038	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
22'35'6-PentaCB-(95)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00050	0.00050	0.0096	N/A	N/A	N/A	N/A	3495556
22'45'6-PentaCB-(103)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00066	0.00066	0.0096	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.00066	0.00066	0.0096	N/A	0.0000300	0.0000000198	N/A	3495556
233'45-PentaCB-(106)	ng/g	<0.00060	0.00060	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'5-PentaCB-(107)	ng/g	<0.00061	0.00061	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00059	0.00059	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
233'56-PentaCB-(112)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
2344'5-PentaCB-(114)	ng/g	<0.00066	0.00066	0.0096	N/A	0.0000300	0.0000000198	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8519							
Sampling Date		2013/11/28 09:55							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1075-03R\FR3-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'44'5'-PentaCB-(118)	ng/g	0.00098	0.00066	0.0096	N/A	0.0000300	0.0000000294	N/A	3495556
23'45'5'-PentaCB-(120)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00098	0.00098	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00066	0.00066	0.0096	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00072	0.00072	0.0096	N/A	0.0000300	0.0000000216	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00065	0.00065	0.0096	N/A	0.100	0.0000650	N/A	3495556
33'45'5'-PentaCB-(127)	ng/g	<0.00060	0.00060	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	<0.0015	0.0015	0.029	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0017	0.0017	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0017	0.0017	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00082	0.00082	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00060	0.00060	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.0014	0.0014	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00080	0.00080	0.0096	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00061	0.00061	0.0096	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.0014	0.0014	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00079	0.00079	0.0096	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00055	0.00055	0.0096	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00059	0.00059	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00073	0.00073	0.0096	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8519							
Sampling Date		2013/11/28 09:55							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1075-03R\FR3-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'44'66'-HexaCB-(155)	ng/g	<0.00085	0.00085	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.0015	0.0015	0.019	N/A	0.0000300	0.0000000450	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.0016	0.0016	0.0096	N/A	0.0000300	0.0000000480	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.0016	0.0016	0.0096	N/A	0.0300	0.0000480	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0018	0.0018	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00097	0.00097	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00072	0.00072	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00071	0.00071	0.0096	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00067	0.00067	0.0096	N/A	N/A	N/A	N/A	3495556
22'3455'6-HeptaCB-(185)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00075	0.00075	0.0096	N/A	N/A	N/A	N/A	3495556
22'34'55'6-HeptaCB-(187)	ng/g	<0.00089	0.00089	0.0096	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

RDL = Reportable Detection Limit

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8519							
Sampling Date		2013/11/28 09:55							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1075-03R\FR3-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	<0.0013	0.0013	0.0096	N/A	0.0000300	0.0000000390	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'66'OctaCB-(197)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.0018	0.0018	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.0017	0.0017	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0024	0.0024	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.0020	0.0020	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.0022	0.0022	0.0096	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.0020	0.0020	0.0096	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.00890	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000114	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8519							
Sampling Date		2013/11/28 09:55							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1075-03R\FR3-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'34'566'-HeptaCB-(188)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	65	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	60	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	41	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	32	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	36	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8520							
Sampling Date		2013/11/28 10:04							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1076-03R\FR4-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00091	0.00091	0.0093	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.030	0.030	0.0093	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.014	0.014	0.0093	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.011	0.011	0.0093	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.011	0.011	0.0093	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0093	0.0093	0.0093	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.011	0.011	0.0093	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.020	0.020	0.0093	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.012	0.012	0.0093	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.012	0.012	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.011	0.011	0.0093	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.019	0.019	0.0093	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0047	0.0047	0.0093	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0031	0.0031	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0024	0.0024	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0030	0.0030	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.0017	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0019	0.0019	0.0093	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.0020	0.0020	0.0093	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.0014	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.0019	0.0019	0.0093	N/A	N/A	N/A	N/A	3495556
2,3',5'-TriCB-(34)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8520							
Sampling Date		2013/11/28 10:04							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1076-03R\FR4-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

33'4'-TriCB-(35)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	<0.0014	0.0014	0.0093	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.0013	0.0013	0.028	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0017	0.0017	0.0093	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.0019	0.0019	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.0017	0.0012	0.028	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.0016	0.0016	0.0093	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00087	0.00087	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00052	0.00052	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	<0.00060	0.00060	0.0093	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00054	0.00054	0.0093	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00052	0.00052	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00093	0.00093	0.028	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00055	0.00055	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00160	0.00054	0.037	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00051	0.00051	0.0093	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00097	0.00052	0.0093	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00050	0.00050	0.0093	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00048	0.00048	0.0093	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00050	0.00050	0.0093	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8520							
Sampling Date		2013/11/28 10:04							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1076-03R\FR4-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'56-TetraCB-(73)	ng/g	<0.00087	0.00087	0.0093	N/A	N/A	N/A	N/A	3495556
33'44-TetraCB-(77)	ng/g	<0.00061	0.00061	0.0093	N/A	0.000100	0.0000000610	N/A	3495556
33'45-TetraCB-(78)	ng/g	<0.00055	0.00055	0.0093	N/A	N/A	N/A	N/A	3495556
33'45-TetraCB-(79)	ng/g	<0.00049	0.00049	0.0093	N/A	N/A	N/A	N/A	3495556
33'55-TetraCB-(80)	ng/g	<0.00049	0.00049	0.0093	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.00063	0.00063	0.0093	N/A	0.000300	0.000000189	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	<0.0016	0.0016	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.0015	0.0015	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	<0.0017	0.0017	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.0012	0.0012	0.028	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0013	0.0013	0.056	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.0014	0.0014	0.019	N/A	N/A	N/A	N/A	3495556
22'346-PentaCB-(89)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	<0.0012	0.0012	0.028	N/A	N/A	N/A	N/A	3495556
22'355-PentaCB-(92)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0015	0.0015	0.037	N/A	N/A	N/A	N/A	3495556
22'356-PentaCB-(94)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
22'35'6-PentaCB-(95)	ng/g	<0.0014	0.0014	0.0093	N/A	N/A	N/A	N/A	3495556
22'366-PentaCB-(96)	ng/g	<0.00046	0.00046	0.0093	N/A	N/A	N/A	N/A	3495556
22'45'6-PentaCB-(103)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
22'466-PentaCB-(104)	ng/g	<0.00060	0.00060	0.0093	N/A	N/A	N/A	N/A	3495556
233'44-PentaCB-(105)	ng/g	<0.00063	0.00063	0.0093	N/A	0.0000300	0.0000000189	N/A	3495556
233'45-PentaCB-(106)	ng/g	<0.00058	0.00058	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5-PentaCB-(107)	ng/g	<0.00059	0.00059	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00057	0.00057	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
233'55-PentaCB-(111)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
233'56-PentaCB-(112)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
2344'5-PentaCB-(114)	ng/g	<0.00063	0.00063	0.0093	N/A	0.0000300	0.0000000189	N/A	3495556

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Maxxam Job #: B412082
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 Maxxam Analytics
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8520							
Sampling Date		2013/11/28 10:04							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1076-03R\FR4-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'44'5'-PentaCB-(118)	ng/g	0.00108	0.00063	0.0093	N/A	0.0000300	0.0000000324	N/A	3495556
23'45'5'-PentaCB-(120)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00064	0.00064	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00070	0.00070	0.0093	N/A	0.0000300	0.0000000210	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00063	0.00063	0.0093	N/A	0.100	0.0000630	N/A	3495556
33'45'5'-PentaCB-(127)	ng/g	<0.00058	0.00058	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.00086	0.00086	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	<0.00095	0.00095	0.028	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00075	0.00075	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00055	0.00055	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00097	0.00097	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00090	0.00090	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00074	0.00074	0.0093	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00056	0.00056	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.00089	0.00089	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.00091	0.00091	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00073	0.00073	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00051	0.00051	0.0093	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00055	0.00055	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.00082	0.00076	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00067	0.00067	0.0093	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8520							
Sampling Date		2013/11/28 10:04							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1076-03R\FR4-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'44'66'-HexaCB-(155)	ng/g	<0.00078	0.00078	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00092	0.00092	0.019	N/A	0.0000300	0.000000276	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.00073	0.00073	0.0093	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00099	0.00099	0.0093	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.00080	0.00080	0.0093	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.00075	0.00075	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00097	0.00097	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.00078	0.00078	0.0093	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.00079	0.00079	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00098	0.00098	0.0093	N/A	0.0000300	0.000000294	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.0010	0.0010	0.0093	N/A	0.0300	0.0000300	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00056	0.00056	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00041	0.00041	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.00058	0.00058	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00041	0.00041	0.0093	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.00098	0.00098	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00057	0.00057	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00039	0.00039	0.0093	N/A	N/A	N/A	N/A	3495556
22'3455'6-HeptaCB-(185)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00043	0.00043	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'55'6-HeptaCB-(187)	ng/g	<0.00051	0.00051	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00064	0.00064	0.0093	N/A	N/A	N/A	N/A	3495556

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8520							
Sampling Date		2013/11/28 10:04							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1076-03R\FR4-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	<0.0014	0.0014	0.0093	N/A	0.0000300	0.0000000420	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00096	0.00096	0.0093	N/A	N/A	N/A	N/A	3495556
233'45'5'6'-HeptaCB-(192)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00087	0.00087	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00065	0.00065	0.0093	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.00086	0.00086	0.019	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(200)	ng/g	<0.00056	0.00056	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00060	0.00060	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00085	0.00085	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00079	0.00079	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'56'6'-OctaCB-(204)	ng/g	<0.00063	0.00063	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00083	0.00083	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0018	0.0018	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'56'6'-NonaCB-(207)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'56'6'-NonaCB-(208)	ng/g	<0.0017	0.0017	0.0093	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.0017	0.0017	0.0093	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.00923	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000934	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	71	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'45'56'6'-NonaCB-(208)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8520							
Sampling Date		2013/11/28 10:04							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1076-03R\FR4-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'34'566'-HeptaCB-(188)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	57	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	52	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	31	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	21	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	63	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	27	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8521							
Sampling Date		2013/11/28 10:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1077-03R\FR5-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0018	0.0018	0.0095	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.0015	0.0015	0.0095	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.0017	0.0017	0.0095	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.025	0.025	0.0095	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.011	0.011	0.0095	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0089	0.0089	0.0095	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0089	0.0089	0.0095	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0073	0.0073	0.0095	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0087	0.0087	0.0095	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.017	0.017	0.0095	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0095	0.0095	0.0095	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0094	0.0094	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0090	0.0090	0.0095	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.015	0.015	0.0095	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0071	0.0071	0.0095	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0046	0.0046	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0036	0.0036	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0045	0.0045	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.0020	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.0012	0.0012	0.0095	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0028	0.0028	0.0095	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.0031	0.0031	0.0095	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.0013	0.0011	0.0095	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.0028	0.0028	0.0095	N/A	N/A	N/A	N/A	3495556
2,3',5'-TriCB-(34)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

RDL = Reportable Detection Limit

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8521							
Sampling Date		2013/11/28 10:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1077-03R\FR5-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.0011	0.0011	0.0095	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	<0.0016	0.0016	0.0095	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.0012	0.0012	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.0012	0.0012	0.028	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0016	0.0016	0.0095	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.0018	0.0018	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	<0.0017 (1)	0.0017	0.028	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.0015	0.0015	0.0095	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.0011	0.0011	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	<0.0012	0.0012	0.0095	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00092	0.00092	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00087	0.00087	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	<0.00099	0.00099	0.0095	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00090	0.00090	0.0095	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00088	0.00088	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00088	0.00088	0.028	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00091	0.00091	0.0095	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00189	0.00090	0.038	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00085	0.00085	0.0095	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.00098	0.00098	0.0095	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00095	0.00087	0.0095	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00083	0.00083	0.0095	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00080	0.00080	0.0095	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8521							
Sampling Date		2013/11/28 10:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1077-03R\FR5-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'55'-TetraCB-(72)	ng/g	<0.00084	0.00084	0.0095	N/A	N/A	N/A	N/A	3495556
23'56'-TetraCB-(73)	ng/g	<0.00081	0.00081	0.0095	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.0010	0.0010	0.0095	N/A	0.000100	0.000000100	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00093	0.00093	0.0095	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00082	0.00082	0.0095	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00082	0.00082	0.0095	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.0011	0.0011	0.0095	N/A	0.000300	0.000000330	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	<0.0015	0.0015	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	<0.0016	0.0016	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.0011	0.0011	0.028	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0012	0.0012	0.057	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	<0.0011	0.0011	0.028	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0014	0.0014	0.038	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(95)	ng/g	<0.0012	0.0012	0.0095	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00041	0.00041	0.0095	N/A	N/A	N/A	N/A	3495556
22'456'-PentaCB-(103)	ng/g	<0.0012	0.0012	0.0095	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00053	0.00053	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.00043	0.00043	0.0095	N/A	0.0000300	0.0000000129	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00039	0.00039	0.0095	N/A	N/A	N/A	N/A	3495556
233'45'-PentaCB-(107)	ng/g	<0.00040	0.00040	0.0095	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00038	0.00038	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.00098	0.00098	0.0095	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.0011	0.0011	0.0095	N/A	N/A	N/A	N/A	3495556

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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8521							
Sampling Date		2013/11/28 10:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1077-03R\FR5-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.00043	0.00043	0.0095	N/A	0.0000300	0.0000000129	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00107	0.00043	0.0095	N/A	0.0000300	0.0000000321	N/A	3495556
23'455'-PentaCB-(120)	ng/g	<0.00097	0.00097	0.0095	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00095	0.00095	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00043	0.00043	0.0095	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	0.00130	0.00047	0.0095	N/A	0.0000300	0.0000000390	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00042	0.00042	0.0095	N/A	0.100	0.0000420	N/A	3495556
33'455'-PentaCB-(127)	ng/g	<0.00039	0.00039	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	<0.0012	0.0012	0.028	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0016	0.0016	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0014	0.0014	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00057	0.00057	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00041	0.00041	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00056	0.00056	0.0095	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00042	0.00042	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.0012	0.0012	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00055	0.00055	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00038	0.00038	0.0095	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00041	0.00041	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	<0.00098	0.00098	0.019	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8521							
Sampling Date		2013/11/28 10:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1077-03R\FR5-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'44'56'-HexaCB-(154)	ng/g	<0.00051	0.00051	0.0095	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00059	0.00059	0.0095	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00098	0.00098	0.019	N/A	0.0000300	0.000000294	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.00094	0.00094	0.0095	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.0010	0.0010	0.0095	N/A	N/A	N/A	N/A	3495556
233'456-HexaCB-(160)	ng/g	<0.0010	0.0010	0.0095	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.00097	0.00097	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.0010	0.0010	0.0095	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.0010	0.0010	0.0095	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.0010	0.0010	0.0095	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.0010	0.0010	0.0095	N/A	0.0000300	0.0000000300	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.0011	0.0011	0.0095	N/A	0.0300	0.0000330	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0017	0.0017	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0017	0.0017	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0017	0.0017	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00078	0.00078	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00058	0.00058	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0017	0.0017	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.00081	0.00081	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00057	0.00057	0.0095	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.0016	0.0016	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00081	0.00081	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00054	0.00054	0.0095	N/A	N/A	N/A	N/A	3495556
22'3455'6-HeptaCB-(185)	ng/g	<0.0016	0.0016	0.0095	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00060	0.00060	0.0095	N/A	N/A	N/A	N/A	3495556
22'34'55'6-HeptaCB-(187)	ng/g	<0.00072	0.00072	0.0095	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8521							
Sampling Date		2013/11/28 10:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1077-03R\FR5-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.00090	0.00090	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.0020	0.0020	0.0095	N/A	0.0000300	0.000000600	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0012	0.0012	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.0013	0.0013	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.0011	0.0011	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'66'OctaCB-(197)	ng/g	<0.00085	0.00085	0.0095	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00074	0.00074	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00078	0.00078	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.0011	0.0011	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.0010	0.0010	0.0095	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00082	0.00082	0.0095	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00091	0.00091	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0024	0.0024	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.0019	0.0019	0.0095	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.0022	0.0022	0.0095	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.0014	0.0014	0.0095	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.00853	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000756	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8521							
Sampling Date		2013/11/28 10:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1077-03R\FR5-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	59	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	53	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	35	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	25	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	31	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8522							
Sampling Date		2013/11/28 10:12							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1078-03R\FR6-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0017	0.0017	0.0096	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.024	0.024	0.0096	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.012	0.012	0.0096	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0098	0.0098	0.0096	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0099	0.0099	0.0096	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0081	0.0081	0.0096	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0097	0.0097	0.0096	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.016	0.016	0.0096	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.010	0.010	0.0096	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.010	0.010	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.010	0.010	0.0096	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.017	0.017	0.0096	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0045	0.0045	0.0096	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0030	0.0030	0.0096	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0023	0.0023	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0029	0.0029	0.0096	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.0019	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.0020	0.0020	0.0096	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.0014	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
2,3',5'-TriCB-(34)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

RDL = Reportable Detection Limit

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8522							
Sampling Date		2013/11/28 10:12							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1078-03R\FR6-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

33'4'-TriCB-(35)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
344'4'-TriCB-(37)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.0010	0.0010	0.029	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.0015	0.0010	0.029	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.0013	0.0013	0.0096	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.0010	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.00094	0.00094	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.0010	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.0012	0.0010	0.0096	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00087	0.00087	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00050	0.00050	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	<0.00057	0.00057	0.0096	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00052	0.00052	0.0096	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00050	0.00050	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00077	0.00077	0.029	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00052	0.00052	0.0096	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00193	0.00052	0.038	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00049	0.00049	0.0096	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.00087	0.00087	0.0096	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00084	0.00050	0.0096	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00048	0.00048	0.0096	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00046	0.00046	0.0096	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00048	0.00048	0.0096	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8522							
Sampling Date		2013/11/28 10:12							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1078-03R\FR6-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'56-TetraCB-(73)	ng/g	<0.00072	0.00072	0.0096	N/A	N/A	N/A	N/A	3495556
33'44-TetraCB-(77)	ng/g	<0.00058	0.00058	0.0096	N/A	0.000100	0.0000000580	N/A	3495556
33'45-TetraCB-(78)	ng/g	<0.00053	0.00053	0.0096	N/A	N/A	N/A	N/A	3495556
33'45-TetraCB-(79)	ng/g	<0.00047	0.00047	0.0096	N/A	N/A	N/A	N/A	3495556
33'55-TetraCB-(80)	ng/g	<0.00047	0.00047	0.0096	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.00060	0.00060	0.0096	N/A	0.000300	0.000000180	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	<0.0017	0.0017	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.0015	0.0015	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.0013	0.0013	0.029	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0013	0.0013	0.057	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.0015	0.0015	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	<0.0013	0.0013	0.029	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0015	0.0015	0.038	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
22'35'6-PentaCB-(95)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00040	0.00040	0.0096	N/A	N/A	N/A	N/A	3495556
22'45'6-PentaCB-(103)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00053	0.00053	0.0096	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.0011	0.0011	0.0096	N/A	0.0000300	0.0000000330	N/A	3495556
233'45-PentaCB-(106)	ng/g	<0.00097	0.00097	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'5-PentaCB-(107)	ng/g	<0.00099	0.00099	0.0096	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00096	0.00096	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
233'56-PentaCB-(112)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
2344'5-PentaCB-(114)	ng/g	<0.0011	0.0011	0.0096	N/A	0.0000300	0.0000000330	N/A	3495556

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Maxxam Job #: B412082
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 Maxxam Analytics
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8522							
Sampling Date		2013/11/28 10:12							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1078-03R\FR6-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'44'5'-PentaCB-(118)	ng/g	<0.0011	0.0011	0.0096	N/A	0.0000300	0.0000000330	N/A	3495556
23'45'5'-PentaCB-(120)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.0011	0.0011	0.0096	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.0012	0.0012	0.0096	N/A	0.0000300	0.0000000360	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.0010	0.0010	0.0096	N/A	0.100	0.000100	N/A	3495556
33'45'5'-PentaCB-(127)	ng/g	<0.00098	0.00098	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.0019	0.0019	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	<0.0021	0.0021	0.029	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0025	0.0025	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0027	0.0027	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0024	0.0024	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.0023	0.0023	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0025	0.0025	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00060	0.00060	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00044	0.00044	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.0022	0.0022	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.0020	0.0020	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0024	0.0024	0.0096	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0024	0.0024	0.0096	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00059	0.00059	0.0096	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00045	0.00045	0.0096	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.0020	0.0020	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.0020	0.0020	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00058	0.00058	0.0096	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00040	0.00040	0.0096	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00044	0.00044	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	<0.0017	0.0017	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00053	0.00053	0.0096	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8522							
Sampling Date		2013/11/28 10:12							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1078-03R\FR6-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'44'66'-HexaCB-(155)	ng/g	<0.00063	0.00063	0.0096	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.0014	0.0014	0.019	N/A	0.0000300	0.0000000420	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.0017	0.0017	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.0015	0.0015	0.0096	N/A	0.0000300	0.0000000450	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.0015	0.0015	0.0096	N/A	0.0300	0.0000450	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0019	0.0019	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0020	0.0020	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0019	0.0019	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00080	0.00080	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00060	0.00060	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0020	0.0020	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.00083	0.00083	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00058	0.00058	0.0096	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.0015	0.0015	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00083	0.00083	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.0016	0.0016	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00056	0.00056	0.0096	N/A	N/A	N/A	N/A	3495556
22'3455'6-HeptaCB-(185)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00062	0.00062	0.0096	N/A	N/A	N/A	N/A	3495556
22'34'55'6-HeptaCB-(187)	ng/g	<0.00074	0.00074	0.0096	N/A	N/A	N/A	N/A	3495556
22'34'566'-HeptaCB-(188)	ng/g	<0.00092	0.00092	0.0096	N/A	N/A	N/A	N/A	3495556

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8522							
Sampling Date		2013/11/28 10:12							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1078-03R\FR6-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	<0.0013	0.0013	0.0096	N/A	0.0000300	0.0000000390	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0014	0.0014	0.0096	N/A	N/A	N/A	N/A	3495556
233'45'5'6'-HeptaCB-(192)	ng/g	<0.0015	0.0015	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.0012	0.0012	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.00099	0.00099	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.00074	0.00074	0.0096	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.00098	0.00098	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00064	0.00064	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00068	0.00068	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.00097	0.00097	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.00090	0.00090	0.0096	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00071	0.00071	0.0096	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.00088	0.00088	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0023	0.0023	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.0021	0.0021	0.0096	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.0018	0.0018	0.0096	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.00884	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000145	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	126	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8522							
Sampling Date		2013/11/28 10:12							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1078-03R\FR6-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'34'566'-HeptaCB-(188)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	71	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	65	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	43	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	33	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	74	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	38	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8523							
Sampling Date		2013/11/28 10:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1079-03R\FR7-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00097	0.00097	0.0093	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.023	0.023	0.0093	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.012	0.012	0.0093	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0093	0.0093	0.0093	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0094	0.0094	0.0093	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0077	0.0077	0.0093	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0092	0.0092	0.0093	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.016	0.016	0.0093	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0099	0.0099	0.0093	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0098	0.0098	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0095	0.0095	0.0093	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.016	0.016	0.0093	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0030	0.0030	0.0093	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0020	0.0020	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0015	0.0015	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0019	0.0019	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.00210	0.00079	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	<0.00095 (1)	0.00095	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.00083	0.00083	0.0093	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.00079	0.00079	0.0093	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.00079	0.00079	0.0093	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.00079	0.00079	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00187	0.00072	0.0093	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556

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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8523							
Sampling Date		2013/11/28 10:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1079-03R\FR7-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.00082	0.00082	0.0093	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.00083	0.00083	0.0093	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00072	0.00072	0.0093	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	<0.00099	0.00099	0.0093	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.00080	0.00080	0.0093	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00076	0.00076	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.00095	0.00095	0.028	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.0014	0.0014	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.00248	0.00094	0.028	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.00096	0.00096	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.00093	0.00093	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	0.00090	0.00086	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.00093	0.00093	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.00176	0.00095	0.0093	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00086	0.00086	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00067	0.00067	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	<0.00076	0.00076	0.0093	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00068	0.00068	0.0093	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00067	0.00067	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00071	0.00071	0.028	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00069	0.00069	0.0093	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00278	0.00069	0.037	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00065	0.00065	0.0093	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.00079	0.00079	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00153	0.00066	0.0093	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00063	0.00063	0.0093	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00061	0.00061	0.0093	N/A	N/A	N/A	N/A	3495556

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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8523							
Sampling Date		2013/11/28 10:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1079-03R\FR7-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'55'-TetraCB-(72)	ng/g	<0.00064	0.00064	0.0093	N/A	N/A	N/A	N/A	3495556
23'56'-TetraCB-(73)	ng/g	<0.00066	0.00066	0.0093	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00077	0.00077	0.0093	N/A	0.000100	0.0000000770	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00070	0.00070	0.0093	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00062	0.00062	0.0093	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00062	0.00062	0.0093	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.00080	0.00080	0.0093	N/A	0.000300	0.000000240	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.00090	0.00090	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.00076	0.00076	0.028	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00116	0.00077	0.056	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.00086	0.00086	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00095	0.00095	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	0.00160	0.00077	0.028	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.00089	0.00089	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00090	0.00090	0.037	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00092	0.00092	0.0093	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(95)	ng/g	0.00114	0.00083	0.0093	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00040	0.00040	0.0093	N/A	N/A	N/A	N/A	3495556
22'45'6-PentaCB-(103)	ng/g	<0.00079	0.00079	0.0093	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00052	0.00052	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.0011	0.0011	0.0093	N/A	0.0000300	0.0000000330	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00097	0.00097	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5-PentaCB-(107)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00096	0.00096	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00185	0.00072	0.019	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.00065	0.00065	0.0093	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00070	0.00070	0.0093	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8523							
Sampling Date		2013/11/28 10:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1079-03R\FR7-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.0011	0.0011	0.0093	N/A	0.0000300	0.0000000330	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.0015	0.0011	0.0093	N/A	0.0000300	0.0000000450	N/A	3495556
23'455'-PentaCB-(120)	ng/g	<0.00064	0.00064	0.0093	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00063	0.00063	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.0012	0.0012	0.0093	N/A	0.0000300	0.0000000360	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.0011	0.0011	0.0093	N/A	0.100	0.000110	N/A	3495556
33'455'-PentaCB-(127)	ng/g	<0.00098	0.00098	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.0024	0.0014	0.028	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0016	0.0016	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0017	0.0017	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.0014	0.0014	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0016	0.0016	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00085	0.00085	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00062	0.00062	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.0014	0.0014	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00083	0.00083	0.0093	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00063	0.00063	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00083	0.00083	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00057	0.00057	0.0093	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00062	0.00062	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.0017	0.0011	0.019	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8523							
Sampling Date		2013/11/28 10:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1079-03R\FR7-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00076	0.00076	0.0093	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00089	0.00089	0.0093	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00088	0.00088	0.019	N/A	0.0000300	0.0000000264	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00094	0.00094	0.0093	N/A	N/A	N/A	N/A	3495556
233'456-HexaCB-(160)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00092	0.00092	0.0093	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00093	0.00093	0.0093	N/A	0.0000300	0.0000000279	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00095	0.00095	0.0093	N/A	0.0300	0.0000285	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0016	0.0016	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0016	0.0016	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.0010	0.0010	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00077	0.00077	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0016	0.0016	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00075	0.00075	0.0093	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	0.0020	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.0014	0.0014	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00071	0.00071	0.0093	N/A	N/A	N/A	N/A	3495556
22'3455'6-HeptaCB-(185)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00079	0.00079	0.0093	N/A	N/A	N/A	N/A	3495556
22'34'55'6-HeptaCB-(187)	ng/g	<0.00095	0.00095	0.0093	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8523							
Sampling Date		2013/11/28 10:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1079-03R\FR7-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.0018	0.0018	0.0093	N/A	0.0000300	0.0000000540	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0020	0.0020	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.0022	0.0022	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'66'OctaCB-(197)	ng/g	<0.00093	0.00093	0.0093	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00081	0.00081	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00086	0.00086	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.0012	0.0012	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.0011	0.0011	0.0093	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00090	0.00090	0.0093	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.0015	0.0015	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0022	0.0022	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.0018	0.0018	0.0093	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.0020	0.0020	0.0093	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.0013	0.0013	0.0093	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0269	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000139	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6'-HeptaCB-(178)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495556
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8523							
Sampling Date		2013/11/28 10:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1079-03R\FR7-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'344'55'-HeptaCB-(180)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	74	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	43	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	29	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	39	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8524							
Sampling Date		2013/11/28 10:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1107-03R\FR8-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.00050 (1)	0.00050	0.0089	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00029	0.00029	0.0089	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00033	0.00033	0.0089	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.013	0.013	0.0089	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0076	0.0076	0.0089	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0061	0.0061	0.0089	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0061	0.0061	0.0089	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0050	0.0050	0.0089	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0060	0.0060	0.0089	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0090	0.0090	0.0089	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0065	0.0065	0.0089	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0064	0.0064	0.018	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0062	0.0062	0.0089	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.010	0.010	0.0089	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0020	0.0020	0.0089	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0013	0.0013	0.0089	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0010	0.0010	0.018	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0013	0.0013	0.0089	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.0020	0.0011	0.018	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	<0.0010	0.0010	0.018	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.00081	0.00081	0.0089	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.0011	0.0011	0.018	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.00088	0.00088	0.0089	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00159	0.00097	0.0089	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.00081	0.00081	0.0089	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

RDL = Reportable Detection Limit

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8524							
Sampling Date		2013/11/28 10:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1107-03R\FR8-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00096	0.00096	0.0089	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	<0.0013	0.0013	0.0089	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.0010	0.0010	0.0089	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.0011	0.0011	0.027	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0015	0.0015	0.0089	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.0017	0.0017	0.0089	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.0027	0.0011	0.027	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.0012	0.0012	0.018	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.0014	0.0014	0.0089	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0010	0.0010	0.018	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.0011	0.0011	0.018	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.0012	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00077	0.00077	0.0089	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00078	0.00078	0.0089	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	<0.00088	0.00088	0.0089	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00080	0.00080	0.0089	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00078	0.00078	0.0089	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00085	0.00085	0.027	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00081	0.00081	0.0089	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00220	0.00080	0.036	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00075	0.00075	0.0089	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.00095	0.00095	0.0089	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00119	0.00077	0.0089	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00074	0.00074	0.0089	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00071	0.00071	0.0089	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8524							
Sampling Date		2013/11/28 10:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1107-03R\FR8-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	<0.00074	0.00074	0.0089	N/A	N/A	N/A	N/A	3495556
23'56'-TetraCB-(73)	ng/g	<0.00079	0.00079	0.0089	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00090	0.00090	0.0089	N/A	0.000100	0.0000000900	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00082	0.00082	0.0089	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00073	0.00073	0.0089	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00073	0.00073	0.0089	N/A	N/A	N/A	N/A	3495556
344'5'-TetraCB-(81)	ng/g	<0.00093	0.00093	0.0089	N/A	0.000300	0.000000279	N/A	3495556
22'33'4'-PentaCB-(82)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.0010	0.0010	0.018	N/A	N/A	N/A	N/A	3495556
22'33'6'-PentaCB-(84)	ng/g	<0.0012	0.0012	0.0089	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.00086	0.00086	0.027	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00087	0.00087	0.053	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.00097	0.00097	0.018	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	<0.0011 (1)	0.0011	0.027	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.0010	0.0010	0.0089	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0010	0.0010	0.036	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.0010	0.0010	0.0089	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(95)	ng/g	<0.00094	0.00094	0.0089	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00030	0.00030	0.0089	N/A	N/A	N/A	N/A	3495556
22'45'6'-PentaCB-(103)	ng/g	<0.00090	0.00090	0.0089	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00039	0.00039	0.0089	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.00057	0.00057	0.0089	N/A	0.0000300	0.0000000171	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00052	0.00052	0.0089	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(107)	ng/g	<0.00053	0.00053	0.0089	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00051	0.00051	0.018	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00126	0.00082	0.018	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.00074	0.00074	0.0089	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8524							
Sampling Date		2013/11/28 10:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1107-03R\FR8-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

233'56'-PentaCB-(112)	ng/g	<0.00080	0.00080	0.0089	N/A	N/A	N/A	N/A	3495556
2344'5'-PentaCB-(114)	ng/g	<0.00057	0.00057	0.0089	N/A	0.0000300	0.0000000171	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00132	0.00057	0.0089	N/A	0.0000300	0.0000000396	N/A	3495556
23'455'-PentaCB-(120)	ng/g	<0.00073	0.00073	0.0089	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00072	0.00072	0.0089	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00057	0.00057	0.0089	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00063	0.00063	0.0089	N/A	0.0000300	0.0000000189	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00056	0.00056	0.0089	N/A	0.100	0.0000560	N/A	3495556
33'455'-PentaCB-(127)	ng/g	<0.00052	0.00052	0.0089	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.0017	0.0017	0.018	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	<0.0018	0.0018	0.027	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0021	0.0021	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0023	0.0023	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0020	0.0020	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.0019	0.0019	0.0089	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0021	0.0021	0.018	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00081	0.00081	0.018	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00059	0.00059	0.0089	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.0019	0.0019	0.0089	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.0017	0.0017	0.018	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0020	0.0020	0.0089	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0021	0.0021	0.0089	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00079	0.00079	0.0089	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00060	0.00060	0.0089	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.0017	0.0017	0.0089	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.0018	0.0018	0.018	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00078	0.00078	0.0089	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00054	0.00054	0.0089	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00058	0.00058	0.0089	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8524							
Sampling Date		2013/11/28 10:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1107-03R\FR8-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

HexaCB-(153)+(168)	ng/g	<0.0015	0.0015	0.018	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00072	0.00072	0.0089	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00084	0.00084	0.0089	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.0021	0.0021	0.018	N/A	0.0000300	0.0000000630	N/A	3495556
233'44'6'-HexaCB-(158)	ng/g	<0.0014	0.0014	0.0089	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.0023	0.0023	0.0089	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.0016	0.0016	0.0089	N/A	N/A	N/A	N/A	3495556
233'45'6'-HexaCB-(161)	ng/g	<0.0015	0.0015	0.0089	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.0022	0.0022	0.0089	N/A	N/A	N/A	N/A	3495556
233'4'5'6'-HexaCB-(164)	ng/g	<0.0015	0.0015	0.0089	N/A	N/A	N/A	N/A	3495556
233'55'6'-HexaCB-(165)	ng/g	<0.0015	0.0015	0.0089	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.0022	0.0022	0.0089	N/A	0.0000300	0.0000000660	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.0023	0.0023	0.0089	N/A	0.0300	0.0000690	N/A	3495556
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0019	0.0019	0.0089	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0025	0.0025	0.018	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0025	0.0025	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0025	0.0025	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(175)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00079	0.00079	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0025	0.0025	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'55'6'-HeptaCB-(178)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00077	0.00077	0.0089	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.0019	0.0019	0.018	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(181)	ng/g	<0.0023	0.0023	0.0089	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.0011	0.0011	0.0089	N/A	N/A	N/A	N/A	3495556
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0020	0.0020	0.0089	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00074	0.00074	0.0089	N/A	N/A	N/A	N/A	3495556
22'3455'6'-HeptaCB-(185)	ng/g	<0.0023	0.0023	0.0089	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00082	0.00082	0.0089	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

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 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8524							
Sampling Date		2013/11/28 10:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1107-03R\FR8-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00098	0.00098	0.0089	N/A	N/A	N/A	N/A	3495556
22'34'56'6'-HeptaCB-(188)	ng/g	<0.0012	0.0012	0.0089	N/A	N/A	N/A	N/A	3495556
233'44'55'5'-HeptaCB-(189)	ng/g	<0.0019	0.0019	0.0089	N/A	0.0000300	0.0000000570	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.0020	0.0020	0.0089	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0018	0.0018	0.0089	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.0020	0.0020	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0018	0.0018	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.0019	0.0019	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.0022	0.0022	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.0016	0.0016	0.0089	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.0022	0.0022	0.018	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.0014	0.0014	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.0015	0.0015	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.0021	0.0021	0.0089	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.0020	0.0020	0.0089	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.0016	0.0016	0.0089	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.0014	0.0014	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0027	0.0027	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.0022	0.0022	0.0089	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.0025	0.0025	0.0089	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.0034	0.0034	0.0089	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0135	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000126	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8524							
Sampling Date		2013/11/28 10:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1107-03R\FR8-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'33'55'6-HeptaCB-(178)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	72	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8525							
Sampling Date		2013/11/28 10:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1108-03R\FR9-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.00247	0.00043	0.0094	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.00036	0.00036	0.0094	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.00043 (1)	0.00043	0.0094	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.012	0.012	0.0094	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.0092	0.0092	0.0094	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0073	0.0073	0.0094	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0074	0.0074	0.0094	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0060	0.0060	0.0094	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0072	0.0072	0.0094	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.0082	0.0082	0.0094	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0078	0.0078	0.0094	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0077	0.0077	0.019	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0074	0.0074	0.0094	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.013	0.013	0.0094	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0022	0.0022	0.0094	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0015	0.0015	0.0094	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0014	0.0014	0.0094	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.0029	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	0.0011	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.0011	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.00090	0.00090	0.0094	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.0010	0.0010	0.019	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.00097	0.00097	0.0094	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.00264	0.00094	0.0094	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.00090	0.00090	0.0094	N/A	N/A	N/A	N/A	3495556

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 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8525							
Sampling Date		2013/11/28 10:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1108-03R\FR9-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'5'-TriCB-(34)	ng/g	<0.0011	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
33'4'-TriCB-(35)	ng/g	<0.0011	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.00093	0.00093	0.0094	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	<0.0013	0.0013	0.0094	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.00099	0.00099	0.0094	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.0012	0.0012	0.028	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0016	0.0016	0.0094	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.0018	0.0018	0.0094	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.0028	0.0012	0.028	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.0015	0.0015	0.0094	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.0012	0.0012	0.0094	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	0.0014	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.0022	0.0012	0.0094	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00081	0.00081	0.0094	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00052	0.00052	0.0094	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB(56)	ng/g	0.00159	0.00059	0.0094	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00053	0.00053	0.0094	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00052	0.00052	0.0094	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00090	0.00090	0.028	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	0.00085	0.00054	0.0094	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00625	0.00054	0.038	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00051	0.00051	0.0094	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	0.0012	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00351	0.00052	0.0094	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00050	0.00050	0.0094	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00048	0.00048	0.0094	N/A	N/A	N/A	N/A	3495556

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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8525							
Sampling Date		2013/11/28 10:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1108-03R\FR9-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'55'-TetraCB-(72)	ng/g	<0.00050	0.00050	0.0094	N/A	N/A	N/A	N/A	3495556
23'56'-TetraCB-(73)	ng/g	<0.00083	0.00083	0.0094	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00061	0.00061	0.0094	N/A	0.000100	0.0000000610	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00055	0.00055	0.0094	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB-(79)	ng/g	<0.00049	0.00049	0.0094	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00049	0.00049	0.0094	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.00063	0.00063	0.0094	N/A	0.000300	0.000000189	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	<0.0014	0.0014	0.0094	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	0.0014	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	<0.0014	0.0014	0.0094	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.0010	0.0010	0.028	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0015	0.0011	0.057	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.0013	0.0013	0.0094	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	0.0022	0.0011	0.028	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.0012	0.0012	0.0094	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0012	0.0012	0.038	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.0013	0.0013	0.0094	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(95)	ng/g	0.0014	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00040	0.00040	0.0094	N/A	N/A	N/A	N/A	3495556
22'45'6-PentaCB-(103)	ng/g	<0.0011	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00052	0.00052	0.0094	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	0.00142	0.00064	0.0094	N/A	0.0000300	0.0000000426	N/A	3495556
233'45'-PentaCB-(106)	ng/g	<0.00058	0.00058	0.0094	N/A	N/A	N/A	N/A	3495556
233'4'5-PentaCB-(107)	ng/g	<0.00060	0.00060	0.0094	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00057	0.00057	0.019	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00271	0.00099	0.019	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.00090	0.00090	0.0094	N/A	N/A	N/A	N/A	3495556
233'56'-PentaCB-(112)	ng/g	<0.00096	0.00096	0.0094	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8525							
Sampling Date		2013/11/28 10:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1108-03R\FR9-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2344'5'-PentaCB-(114)	ng/g	<0.00064	0.00064	0.0094	N/A	0.0000300	0.0000000192	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00298	0.00064	0.0094	N/A	0.0000300	0.0000000894	N/A	3495556
23'455'-PentaCB-(120)	ng/g	<0.00088	0.00088	0.0094	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00087	0.00087	0.0094	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00064	0.00064	0.0094	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00070	0.00070	0.0094	N/A	0.0000300	0.0000000210	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00063	0.00063	0.0094	N/A	0.100	0.0000630	N/A	3495556
33'455'-PentaCB-(127)	ng/g	<0.00059	0.00059	0.0094	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.00082	0.00082	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.00229	0.00091	0.028	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0012	0.0012	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.00096	0.00096	0.0094	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00078	0.00078	0.0094	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.00093	0.00093	0.0094	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.00086	0.00086	0.019	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00079	0.00079	0.0094	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.00086	0.00086	0.0094	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.0012 (1)	0.0012	0.019	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.0010	0.0010	0.0094	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00072	0.00072	0.0094	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00077	0.00077	0.0094	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8525							
Sampling Date		2013/11/28 10:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1108-03R\FR9-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

HexaCB-(153)+(168)	ng/g	0.00162	0.00073	0.019	N/A	N/A	N/A	N/A	3495556
22'44'56'-HexaCB-(154)	ng/g	<0.00095	0.00095	0.0094	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.0011	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.0011	0.0011	0.019	N/A	0.0000300	0.0000000330	N/A	3495556
233'44'6'-HexaCB-(158)	ng/g	<0.00070	0.00070	0.0094	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.0011	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
233'456'-HexaCB-(160)	ng/g	<0.00077	0.00077	0.0094	N/A	N/A	N/A	N/A	3495556
233'45'6'-HexaCB-(161)	ng/g	<0.00072	0.00072	0.0094	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.0011	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
233'4'5'6'-HexaCB-(164)	ng/g	<0.00075	0.00075	0.0094	N/A	N/A	N/A	N/A	3495556
233'55'6'-HexaCB-(165)	ng/g	<0.00076	0.00076	0.0094	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.0011	0.0011	0.0094	N/A	0.0000300	0.0000000330	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.0011	0.0011	0.0094	N/A	0.0300	0.0000330	N/A	3495556
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0022	0.0022	0.0094	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0028	0.0028	0.019	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0028	0.0028	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0028	0.0028	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00056	0.00056	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00042	0.00042	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0028	0.0028	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00058	0.00058	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00041	0.00041	0.0094	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.0021	0.0021	0.019	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(181)	ng/g	<0.0026	0.0026	0.0094	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00058	0.00058	0.0094	N/A	N/A	N/A	N/A	3495556
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0023	0.0023	0.0094	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00039	0.00039	0.0094	N/A	N/A	N/A	N/A	3495556
22'3455'6'-HeptaCB-(185)	ng/g	<0.0026	0.0026	0.0094	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00043	0.00043	0.0094	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8525							
Sampling Date		2013/11/28 10:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1108-03R\FR9-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00052	0.00052	0.0094	N/A	N/A	N/A	N/A	3495556
22'34'56'6'-HeptaCB-(188)	ng/g	<0.00065	0.00065	0.0094	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-HeptaCB-(189)	ng/g	<0.0016	0.0016	0.0094	N/A	0.0000300	0.0000000480	N/A	3495556
233'44'56'-HeptaCB-(190)	ng/g	<0.0022	0.0022	0.0094	N/A	N/A	N/A	N/A	3495556
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0021	0.0021	0.0094	N/A	N/A	N/A	N/A	3495556
233'455'6'-HeptaCB-(192)	ng/g	<0.0022	0.0022	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0014	0.0014	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(195)	ng/g	<0.0015	0.0015	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.0024	0.0024	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'44'66'-OctaCB-(197)	ng/g	<0.0018	0.0018	0.0094	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.0023	0.0023	0.019	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.0015	0.0015	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.0016	0.0016	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.0023	0.0023	0.0094	N/A	N/A	N/A	N/A	3495556
22'344'55'6'-OctaCB-(203)	ng/g	<0.0022	0.0022	0.0094	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.0017	0.0017	0.0094	N/A	N/A	N/A	N/A	3495556
233'44'55'6'-OctaCB-(205)	ng/g	<0.0011	0.0011	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0020	0.0020	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.0016	0.0016	0.0094	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.0019	0.0019	0.0094	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.0033	0.0033	0.0094	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0465	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000965	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6'-NonaCB-(206)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5'-HeptaCB-(170)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8525							
Sampling Date		2013/11/28 10:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1108-03R\FR9-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'33'55'6-HeptaCB-(178)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'344'55'-HeptaCB-(180)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8526							
Sampling Date		2013/11/28 10:45							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1109-03R\FR10-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0019	0.0019	0.0090	N/A	N/A	N/A	N/A	3495556
3-MonoCB-(2)	ng/g	<0.0016	0.0016	0.0090	N/A	N/A	N/A	N/A	3495556
4-MonoCB-(3)	ng/g	<0.0018	0.0018	0.0090	N/A	N/A	N/A	N/A	3495556
2,2'-DiCB-(4)	ng/g	<0.022	0.022	0.0090	N/A	N/A	N/A	N/A	3495556
2,3-DiCB-(5)	ng/g	<0.011	0.011	0.0090	N/A	N/A	N/A	N/A	3495556
2,3'-DiCB-(6)	ng/g	<0.0088	0.0088	0.0090	N/A	N/A	N/A	N/A	3495556
2,4-DiCB-(7)	ng/g	<0.0088	0.0088	0.0090	N/A	N/A	N/A	N/A	3495556
2,4'-DiCB-(8)	ng/g	<0.0072	0.0072	0.0090	N/A	N/A	N/A	N/A	3495556
2,5-DiCB-(9)	ng/g	<0.0087	0.0087	0.0090	N/A	N/A	N/A	N/A	3495556
2,6-DiCB-(10)	ng/g	<0.015	0.015	0.0090	N/A	N/A	N/A	N/A	3495556
3,3'-DiCB-(11)	ng/g	<0.0094	0.0094	0.0090	N/A	N/A	N/A	N/A	3495556
DiCB-(12)+(13)	ng/g	<0.0093	0.0093	0.018	N/A	N/A	N/A	N/A	3495556
3,5-DiCB-(14)	ng/g	<0.0089	0.0089	0.0090	N/A	N/A	N/A	N/A	3495556
4,4'-DiCB-(15)	ng/g	<0.015	0.015	0.0090	N/A	N/A	N/A	N/A	3495556
2,2',3-TriCB-(16)	ng/g	<0.0042	0.0042	0.0090	N/A	N/A	N/A	N/A	3495556
2,2',4-TriCB-(17)	ng/g	<0.0028	0.0028	0.0090	N/A	N/A	N/A	N/A	3495556
TriCB-(18)+(30)	ng/g	<0.0021	0.0021	0.018	N/A	N/A	N/A	N/A	3495556
2,2',6-TriCB-(19)	ng/g	<0.0027	0.0027	0.0090	N/A	N/A	N/A	N/A	3495556
TriCB-(20) + (28)	ng/g	0.0019	0.0015	0.018	N/A	N/A	N/A	N/A	3495556
TriCB-(21)+(33)	ng/g	<0.0015	0.0015	0.018	N/A	N/A	N/A	N/A	3495556
2,3,4'-TriCB-(22)	ng/g	<0.0016	0.0016	0.0090	N/A	N/A	N/A	N/A	3495556
2,3,5-TriCB-(23)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
2,3,6-TriCB-(24)	ng/g	<0.0017	0.0017	0.0090	N/A	N/A	N/A	N/A	3495556
2,3',4-TriCB-(25)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
TriCB-(26)+(29)	ng/g	<0.0015	0.0015	0.018	N/A	N/A	N/A	N/A	3495556
2,3',6-TriCB-(27)	ng/g	<0.0018	0.0018	0.0090	N/A	N/A	N/A	N/A	3495556
2,4',5-TriCB-(31)	ng/g	0.0017	0.0014	0.0090	N/A	N/A	N/A	N/A	3495556
2,4',6-TriCB-(32)	ng/g	<0.0017	0.0017	0.0090	N/A	N/A	N/A	N/A	3495556
2,3',5'-TriCB-(34)	ng/g	<0.0016	0.0016	0.0090	N/A	N/A	N/A	N/A	3495556

N/A = Not Applicable

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8526							
Sampling Date		2013/11/28 10:45							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1109-03R\FR10-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0016	0.0016	0.0090	N/A	N/A	N/A	N/A	3495556
33'5'-TriCB-(36)	ng/g	<0.0014	0.0014	0.0090	N/A	N/A	N/A	N/A	3495556
344'-TriCB-(37)	ng/g	<0.0019	0.0019	0.0090	N/A	N/A	N/A	N/A	3495556
345'-TriCB-(38)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
34'5'-TriCB-(39)	ng/g	<0.0014	0.0014	0.0090	N/A	N/A	N/A	N/A	3495556
TetraCB-(40)+(41)+(71)	ng/g	<0.0012	0.0012	0.027	N/A	N/A	N/A	N/A	3495556
22'34'-TetraCB-(42)	ng/g	<0.0016	0.0016	0.0090	N/A	N/A	N/A	N/A	3495556
22'35'-TetraCB-(43)	ng/g	<0.0018	0.0018	0.0090	N/A	N/A	N/A	N/A	3495556
TetraCB-(44)+(47)+(65)	ng/g	0.0022	0.0012	0.027	N/A	N/A	N/A	N/A	3495556
TetraCB-(45)+(51)	ng/g	<0.0012	0.0012	0.018	N/A	N/A	N/A	N/A	3495556
22'36'-TetraCB-(46)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
22'45'-TetraCB-(48)	ng/g	<0.0012	0.0012	0.0090	N/A	N/A	N/A	N/A	3495556
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0011	0.0011	0.018	N/A	N/A	N/A	N/A	3495556
TetraCB-(50)+(53)	ng/g	<0.0012	0.0012	0.018	N/A	N/A	N/A	N/A	3495556
22'55'-TetraCB-(52)	ng/g	0.0013	0.0012	0.0090	N/A	N/A	N/A	N/A	3495556
22'66'-TetraCB-(54)	ng/g	<0.00087	0.00087	0.0090	N/A	N/A	N/A	N/A	3495556
233'4'-TetraCB-(55)	ng/g	<0.00044	0.00044	0.0090	N/A	N/A	N/A	N/A	3495556
233'4'-Tetra CB-(56)	ng/g	0.00062	0.00050	0.0090	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(57)	ng/g	<0.00045	0.00045	0.0090	N/A	N/A	N/A	N/A	3495556
233'5'-TetraCB-(58)	ng/g	<0.00044	0.00044	0.0090	N/A	N/A	N/A	N/A	3495556
TetraCB-(59)+(62)+(75)	ng/g	<0.00091	0.00091	0.027	N/A	N/A	N/A	N/A	3495556
2344'-TetraCB -(60)	ng/g	<0.00045	0.00045	0.0090	N/A	N/A	N/A	N/A	3495556
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00213	0.00045	0.036	N/A	N/A	N/A	N/A	3495556
234'5'-TetraCB-(63)	ng/g	<0.00042	0.00042	0.0090	N/A	N/A	N/A	N/A	3495556
234'6'-TetraCB-(64)	ng/g	<0.0010	0.0010	0.0090	N/A	N/A	N/A	N/A	3495556
23'44'-TetraCB-(66)	ng/g	0.00136	0.00043	0.0090	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(67)	ng/g	<0.00042	0.00042	0.0090	N/A	N/A	N/A	N/A	3495556
23'45'-TetraCB-(68)	ng/g	<0.00040	0.00040	0.0090	N/A	N/A	N/A	N/A	3495556
23'55'-TetraCB-(72)	ng/g	<0.00042	0.00042	0.0090	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8526							
Sampling Date		2013/11/28 10:45							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1109-03R\FR10-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	<0.00085	0.00085	0.0090	N/A	N/A	N/A	N/A	3495556
33'44'-TetraCB-(77)	ng/g	<0.00051	0.00051	0.0090	N/A	0.000100	0.0000000510	N/A	3495556
33'45'-TetraCB-(78)	ng/g	<0.00046	0.00046	0.0090	N/A	N/A	N/A	N/A	3495556
33'45'-TetraCB(79)	ng/g	<0.00041	0.00041	0.0090	N/A	N/A	N/A	N/A	3495556
33'55'-TetraCB-(80)	ng/g	<0.00041	0.00041	0.0090	N/A	N/A	N/A	N/A	3495556
344'5-TetraCB-(81)	ng/g	<0.00052	0.00052	0.0090	N/A	0.000300	0.000000156	N/A	3495556
22'33'4-PentaCB-(82)	ng/g	<0.0010	0.0010	0.0090	N/A	N/A	N/A	N/A	3495556
PentaCB-(83)+(99)	ng/g	<0.00092	0.00092	0.018	N/A	N/A	N/A	N/A	3495556
22'33'6-PentaCB-(84)	ng/g	<0.0011	0.0011	0.0090	N/A	N/A	N/A	N/A	3495556
PentaCB-(85)+(116)+(117)	ng/g	<0.00078	0.00078	0.027	N/A	N/A	N/A	N/A	3495556
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00096	0.00079	0.054	N/A	N/A	N/A	N/A	3495556
PentaCB-(88)+(91)	ng/g	<0.00088	0.00088	0.018	N/A	N/A	N/A	N/A	3495556
22'346'-PentaCB-(89)	ng/g	<0.00098	0.00098	0.0090	N/A	N/A	N/A	N/A	3495556
PentaCB-(90)+(101)+(113)	ng/g	<0.0011 (1)	0.0011	0.027	N/A	N/A	N/A	N/A	3495556
22'355'-PentaCB-(92)	ng/g	<0.00092	0.00092	0.0090	N/A	N/A	N/A	N/A	3495556
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00093	0.00093	0.036	N/A	N/A	N/A	N/A	3495556
22'356'-PentaCB-(94)	ng/g	<0.00095	0.00095	0.0090	N/A	N/A	N/A	N/A	3495556
22'35'6-PentaCB-(95)	ng/g	<0.00086	0.00086	0.0090	N/A	N/A	N/A	N/A	3495556
22'366'-PentaCB-(96)	ng/g	<0.00042	0.00042	0.0090	N/A	N/A	N/A	N/A	3495556
22'45'6-PentaCB-(103)	ng/g	<0.00082	0.00082	0.0090	N/A	N/A	N/A	N/A	3495556
22'466'-PentaCB-(104)	ng/g	<0.00055	0.00055	0.0090	N/A	N/A	N/A	N/A	3495556
233'44'-PentaCB-(105)	ng/g	<0.00046	0.00046	0.0090	N/A	0.0000300	0.0000000138	N/A	3495556
233'45-PentaCB-(106)	ng/g	<0.00042	0.00042	0.0090	N/A	N/A	N/A	N/A	3495556
233'4'5-PentaCB-(107)	ng/g	<0.00043	0.00043	0.0090	N/A	N/A	N/A	N/A	3495556
PentaCB-(108)+(124)	ng/g	<0.00041	0.00041	0.018	N/A	N/A	N/A	N/A	3495556
PentaCB-(110)+(115)	ng/g	0.00149	0.00074	0.018	N/A	N/A	N/A	N/A	3495556
233'55'-PentaCB-(111)	ng/g	<0.00067	0.00067	0.0090	N/A	N/A	N/A	N/A	3495556
233'56-PentaCB-(112)	ng/g	<0.00072	0.00072	0.0090	N/A	N/A	N/A	N/A	3495556

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8526							
Sampling Date		2013/11/28 10:45							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1109-03R\FR10-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.00046	0.00046	0.0090	N/A	0.0000300	0.0000000138	N/A	3495556
23'44'5'-PentaCB-(118)	ng/g	0.00138	0.00046	0.0090	N/A	0.0000300	0.0000000414	N/A	3495556
23'45'5'-PentaCB-(120)	ng/g	<0.00066	0.00066	0.0090	N/A	N/A	N/A	N/A	3495556
23'45'6'-PentaCB-(121)	ng/g	<0.00065	0.00065	0.0090	N/A	N/A	N/A	N/A	3495556
233'4'5'-PentaCB-(122)	ng/g	<0.00046	0.00046	0.0090	N/A	N/A	N/A	N/A	3495556
23'44'5'-PentaCB-(123)	ng/g	<0.00050	0.00050	0.0090	N/A	0.0000300	0.0000000150	N/A	3495556
33'44'5'-PentaCB-(126)	ng/g	<0.00045	0.00045	0.0090	N/A	0.100	0.0000450	N/A	3495556
33'45'5'-PentaCB-(127)	ng/g	<0.00042	0.00042	0.0090	N/A	N/A	N/A	N/A	3495556
HexaCB-(128)+(166)	ng/g	<0.0011	0.0011	0.018	N/A	N/A	N/A	N/A	3495556
HexaCB-(129)+(138)+(163)	ng/g	0.0015	0.0012	0.027	N/A	N/A	N/A	N/A	3495556
22'33'45'-HexaCB-(130)	ng/g	<0.0014	0.0014	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(131)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'46'-HexaCB-(132)	ng/g	<0.0013	0.0013	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'55'-HexaCB-(133)	ng/g	<0.0013	0.0013	0.0090	N/A	N/A	N/A	N/A	3495556
HexaCB-(134)+(143)	ng/g	<0.0014	0.0014	0.018	N/A	N/A	N/A	N/A	3495556
HexaCB-(135)+(151)	ng/g	<0.00078	0.00078	0.018	N/A	N/A	N/A	N/A	3495556
22'33'66'-HexaCB-(136)	ng/g	<0.00056	0.00056	0.0090	N/A	N/A	N/A	N/A	3495556
22'344'5'-HexaCB-(137)	ng/g	<0.0012	0.0012	0.0090	N/A	N/A	N/A	N/A	3495556
HexaCB-(139)+(140)	ng/g	<0.0011	0.0011	0.018	N/A	N/A	N/A	N/A	3495556
22'3455'-HexaCB-(141)	ng/g	<0.0013	0.0013	0.0090	N/A	N/A	N/A	N/A	3495556
22'3456'-HexaCB-(142)	ng/g	<0.0014	0.0014	0.0090	N/A	N/A	N/A	N/A	3495556
22'345'6'-HexaCB-(144)	ng/g	<0.00076	0.00076	0.0090	N/A	N/A	N/A	N/A	3495556
22'3466'-HexaCB-(145)	ng/g	<0.00057	0.00057	0.0090	N/A	N/A	N/A	N/A	3495556
22'34'55'-HexaCB-(146)	ng/g	<0.0011	0.0011	0.0090	N/A	N/A	N/A	N/A	3495556
HexaCB-(147)+(149)	ng/g	<0.0011	0.0011	0.018	N/A	N/A	N/A	N/A	3495556
22'34'56'-HexaCB-(148)	ng/g	<0.00075	0.00075	0.0090	N/A	N/A	N/A	N/A	3495556
22'34'66'-HexaCB-(150)	ng/g	<0.00052	0.00052	0.0090	N/A	N/A	N/A	N/A	3495556
22'3566'-HexaCB-(152)	ng/g	<0.00056	0.00056	0.0090	N/A	N/A	N/A	N/A	3495556
HexaCB-(153)+(168)	ng/g	0.00111	0.00097	0.018	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8526							
Sampling Date		2013/11/28 10:45							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1109-03R\FR10-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00069	0.00069	0.0090	N/A	N/A	N/A	N/A	3495556
22'44'66'-HexaCB-(155)	ng/g	<0.00081	0.00081	0.0090	N/A	N/A	N/A	N/A	3495556
HexaCB-(156)+(157)	ng/g	<0.00089	0.00089	0.018	N/A	0.0000300	0.0000000267	N/A	3495556
233'44'6-HexaCB-(158)	ng/g	<0.00092	0.00092	0.0090	N/A	N/A	N/A	N/A	3495556
233'455'-HexaCB-(159)	ng/g	<0.00095	0.00095	0.0090	N/A	N/A	N/A	N/A	3495556
233'456-HexaCB-(160)	ng/g	<0.0010	0.0010	0.0090	N/A	N/A	N/A	N/A	3495556
233'45'6-HexaCB-(161)	ng/g	<0.00095	0.00095	0.0090	N/A	N/A	N/A	N/A	3495556
233'4'55'-HexaCB-(162)	ng/g	<0.00093	0.00093	0.0090	N/A	N/A	N/A	N/A	3495556
233'4'5'6-HexaCB-(164)	ng/g	<0.00099	0.00099	0.0090	N/A	N/A	N/A	N/A	3495556
233'55'6-HexaCB-(165)	ng/g	<0.0010	0.0010	0.0090	N/A	N/A	N/A	N/A	3495556
23'44'55'-HexaCB-(167)	ng/g	<0.00094	0.00094	0.0090	N/A	0.0000300	0.0000000282	N/A	3495556
33'44'55'-HexaCB-(169)	ng/g	<0.00096	0.00096	0.0090	N/A	0.0300	0.0000288	N/A	3495556
22'33'44'5-HeptaCB-(170)	ng/g	<0.0011	0.0011	0.0090	N/A	N/A	N/A	N/A	3495556
HeptaCB-(171)+(173)	ng/g	<0.0015	0.0015	0.018	N/A	N/A	N/A	N/A	3495556
22'33'455'-HeptaCB-(172)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'456'-HeptaCB-(174)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'45'6-HeptaCB-(175)	ng/g	<0.00069	0.00069	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'466'-HeptaCB-(176)	ng/g	<0.00052	0.00052	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'55'6-HeptaCB-(178)	ng/g	<0.00072	0.00072	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'566'-HeptaCB-(179)	ng/g	<0.00051	0.00051	0.0090	N/A	N/A	N/A	N/A	3495556
HeptaCB-(180)+(193)	ng/g	<0.0011	0.0011	0.018	N/A	N/A	N/A	N/A	3495556
22'344'56-HeptaCB-(181)	ng/g	<0.0014	0.0014	0.0090	N/A	N/A	N/A	N/A	3495556
22'344'56'-HeptaCB-(182)	ng/g	<0.00072	0.00072	0.0090	N/A	N/A	N/A	N/A	3495556
22'344'5'6-HeptaCB-(183)	ng/g	<0.0012	0.0012	0.0090	N/A	N/A	N/A	N/A	3495556
22'344'66'-HeptaCB-(184)	ng/g	<0.00048	0.00048	0.0090	N/A	N/A	N/A	N/A	3495556
22'3455'6-HeptaCB-(185)	ng/g	<0.0014	0.0014	0.0090	N/A	N/A	N/A	N/A	3495556
22'34566'-HeptaCB-(186)	ng/g	<0.00053	0.00053	0.0090	N/A	N/A	N/A	N/A	3495556
22'34'55'6-HeptaCB-(187)	ng/g	<0.00064	0.00064	0.0090	N/A	N/A	N/A	N/A	3495556

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Maxxam Job #: B412082
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 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8526							
Sampling Date		2013/11/28 10:45							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1109-03R\FR10-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.00080	0.00080	0.0090	N/A	N/A	N/A	N/A	3495556
233'44'55'-HeptaCB-(189)	ng/g	<0.0016	0.0016	0.0090	N/A	0.0000300	0.0000000480	N/A	3495556
233'44'56-HeptaCB-(190)	ng/g	<0.0012	0.0012	0.0090	N/A	N/A	N/A	N/A	3495556
233'44'5'6-HeptaCB-(191)	ng/g	<0.0011	0.0011	0.0090	N/A	N/A	N/A	N/A	3495556
233'455'6-HeptaCB-(192)	ng/g	<0.0012	0.0012	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'44'55'-OctaCB-(194)	ng/g	<0.0012	0.0012	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'44'56-OctaCB-(195)	ng/g	<0.0013	0.0013	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'44'56'-OctaCB-(196)	ng/g	<0.0010	0.0010	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'44'66'OctaCB-(197)	ng/g	<0.00079	0.00079	0.0090	N/A	N/A	N/A	N/A	3495556
OctaCB-(198)+(199)	ng/g	<0.0010	0.0010	0.018	N/A	N/A	N/A	N/A	3495556
22'33'4566'-OctaCB-(200)	ng/g	<0.00068	0.00068	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'45'66'-OctaCB-(201)	ng/g	<0.00072	0.00072	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'55'66'-OctaCB-(202)	ng/g	<0.0010	0.0010	0.0090	N/A	N/A	N/A	N/A	3495556
22'344'55'6-OctaCB-(203)	ng/g	<0.00096	0.00096	0.0090	N/A	N/A	N/A	N/A	3495556
22'344'566'-OctaCB-(204)	ng/g	<0.00076	0.00076	0.0090	N/A	N/A	N/A	N/A	3495556
233'44'55'6-OctaCB-(205)	ng/g	<0.00092	0.00092	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'44'55'6-NonaCB-(206)	ng/g	<0.0017	0.0017	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'44'566'-NonaCB-(207)	ng/g	<0.0014	0.0014	0.0090	N/A	N/A	N/A	N/A	3495556
22'33'455'66'-NonaCB-(208)	ng/g	<0.0015	0.0015	0.0090	N/A	N/A	N/A	N/A	3495556
DecaCB-(209)	ng/g	<0.00088	0.00088	0.0090	N/A	N/A	N/A	N/A	3495556
Total PCB	ng/g	0.0176	N/A	N/A	N/A	N/A	N/A	N/A	3495556
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000742	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'55'6-NonaCB-(206)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'44'5-HeptaCB-(170)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'455'66'-NonaCB-(208)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'66'-OctaCB-(202)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'33'55'6-HeptaCB-(178)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8526							
Sampling Date		2013/11/28 10:45							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1109-03R\FR10-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'34'566'-HeptaCB-(188)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'44'66'-HexaCB-(155)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'466'-PentaCB-(104)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'66'-TetraCB-(54)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'6-TriCB-(19)	%	60	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-22'-DiCB-(4)	%	38	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'6-OctaCB-(205)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'55'-HeptaCB-(189)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'44'-PentaCB-(105)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-233'55'-PentaCB-(111)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'55'-HexaCB-(167)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2344'5-PentaCB-(114)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-23'44'5-PentaCB-(118)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2'344'5-PentaCB-(123)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-2-MonoCB-(1)	%	25	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'55'-HexaCB-(169)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'5-PentaCB-(126)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-33'44'-TetraCB-(77)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'5-TetraCB-(81)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-344'-TriCB-(37)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-44'-DiCB-(15)	%	74	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-4-MonoCB-(3)	%	34	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-DecaCB-(209)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495556
C13-HexaCB-(156)+(157)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495556

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 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8527							
Sampling Date		2013/11/28 10:50							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1110-03R\FR11-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.00167	0.00044	0.0097	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.00038	0.00038	0.0097	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	0.00141	0.00041	0.0097	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0091	0.0091	0.0097	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0087	0.0087	0.0097	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0079	0.0079	0.0097	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0079	0.0079	0.0097	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0076	0.0076	0.0097	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0081	0.0081	0.0097	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0060	0.0060	0.0097	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0084	0.0084	0.0097	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0084	0.0084	0.019	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0081	0.0081	0.0097	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.013	0.013	0.0097	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0030	0.0030	0.0097	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0023	0.0023	0.0097	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	0.0029	0.0018	0.019	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0023	0.0023	0.0097	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0045	0.0020	0.019	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	0.0027	0.0022	0.019	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0021	0.0021	0.0097	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0022	0.0022	0.0097	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0020	0.0020	0.0097	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0021	0.0021	0.019	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0047	0.0019	0.0097	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.0015	0.0015	0.0097	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.0020	0.0020	0.0097	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8527							
Sampling Date		2013/11/28 10:50							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1110-03R\FR11-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0020	0.0020	0.0097	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0026	0.0026	0.0097	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0021	0.0021	0.0097	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0020	0.0020	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0020 (1)	0.0020	0.029	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.0035	0.0013	0.029	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	0.0026	0.0011	0.019	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	0.0045	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00077	0.00077	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00061	0.00061	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	0.00126	0.00067	0.0097	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00060	0.00060	0.0097	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00060	0.00060	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00096	0.00096	0.029	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	0.00081	0.00061	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00474	0.00061	0.039	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00058	0.00058	0.0097	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	0.0018	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00237	0.00057	0.0097	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00055	0.00055	0.0097	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00054	0.00054	0.0097	N/A	N/A	N/A	N/A	3495945

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8527							
Sampling Date		2013/11/28 10:50							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1110-03R\FR11-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	<0.00056	0.00056	0.0097	N/A	N/A	N/A	N/A	3495945
23'5'6'-TetraCB-(73)	ng/g	<0.00089	0.00089	0.0097	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00068	0.00068	0.0097	N/A	0.000100	0.0000000680	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00063	0.00063	0.0097	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.00053	0.00053	0.0097	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00055	0.00055	0.0097	N/A	N/A	N/A	N/A	3495945
344'5'-TetraCB-(81)	ng/g	<0.00070	0.00070	0.0097	N/A	0.000300	0.000000210	N/A	3495945
22'33'4'-PentaCB-(82)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	0.0027	0.0016	0.019	N/A	N/A	N/A	N/A	3495945
22'33'6'-PentaCB-(84)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.0014	0.0014	0.029	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0034	0.0014	0.058	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0015	0.0015	0.019	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	0.0039	0.0014	0.029	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0016	0.0016	0.039	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
22'35'6'-PentaCB-(95)	ng/g	0.0023	0.0015	0.0097	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00087	0.00087	0.0097	N/A	N/A	N/A	N/A	3495945
22'45'6'-PentaCB-(103)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0019 (1)	0.0019	0.0097	N/A	0.0000300	0.0000000570	N/A	3495945
233'45'-PentaCB-(106)	ng/g	<0.00049	0.00049	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(107)	ng/g	<0.00052	0.00052	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00050	0.00050	0.019	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.0054	0.0013	0.019	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8527							
Sampling Date		2013/11/28 10:50							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1110-03R\FR11-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56'-PentaCB-(112)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495945
2344'5'-PentaCB-(114)	ng/g	<0.00056	0.00056	0.0097	N/A	0.0000300	0.0000000168	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	<0.0040 (1)	0.0040	0.0097	N/A	0.0000300	0.000000120	N/A	3495945
23'455'-PentaCB-(120)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.00055	0.00055	0.0097	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.00062	0.00062	0.0097	N/A	0.0000300	0.0000000186	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.00055	0.00055	0.0097	N/A	0.100	0.0000550	N/A	3495945
33'455'-PentaCB-(127)	ng/g	<0.00051	0.00051	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0014	0.0014	0.019	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	0.0048	0.0015	0.029	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0018	0.0018	0.019	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	0.0013	0.0010	0.019	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00076	0.00076	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0014	0.0014	0.019	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00078	0.00078	0.0097	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	0.0029	0.0015	0.019	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.0010	0.0010	0.0097	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00071	0.00071	0.0097	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8527							
Sampling Date		2013/11/28 10:50							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1110-03R\FR11-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/g	<0.00074	0.00074	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	0.0033	0.0012	0.019	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00091	0.00091	0.0097	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.0013	0.0013	0.019	N/A	0.0000300	0.0000000390	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.0014	0.0014	0.0097	N/A	0.0000300	0.0000000420	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.0014	0.0014	0.0097	N/A	0.0300	0.0000420	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0015	0.0015	0.0097	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0019	0.0019	0.019	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00059	0.00059	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00046	0.00046	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00062	0.00062	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00044	0.00044	0.0097	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	0.0022	0.0015	0.019	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00062	0.00062	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0015	0.0015	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00042	0.00042	0.0097	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

RDL = Reportable Detection Limit

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8527							
Sampling Date		2013/11/28 10:50							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1110-03R\FR11-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(186)	ng/g	<0.00046	0.00046	0.0097	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00095 (1)	0.00095	0.0097	N/A	N/A	N/A	N/A	3495945
22'34'566'-HeptaCB-(188)	ng/g	<0.00071	0.00071	0.0097	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.0023	0.0023	0.0097	N/A	0.0000300	0.000000690	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0015	0.0015	0.0097	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
233'455'6'-HeptaCB-(192)	ng/g	<0.0015	0.0015	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0022	0.0022	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0024	0.0024	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'66'-OctaCB-(197)	ng/g	<0.00085	0.00085	0.0097	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00094	0.00094	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00095	0.00095	0.0097	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0029	0.0029	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.0023	0.0023	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0027	0.0027	0.0097	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0036 (1)	0.0036	0.0097	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0716	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000976	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	126	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8527							
Sampling Date		2013/11/28 10:50							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1110-03R\FR11-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'33'455'66'-NonaCB-(208)	%	126	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	73	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8528							
Sampling Date		2013/11/28 11:00							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1111-03R\FR12-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.00089	0.00089	0.010	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.00076	0.00076	0.010	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.00084	0.00084	0.010	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.011	0.011	0.010	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0090	0.0090	0.010	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0083	0.0083	0.010	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0083	0.0083	0.010	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0079	0.0079	0.010	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0084	0.0084	0.010	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0070	0.0070	0.010	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0088	0.0088	0.010	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0088	0.0088	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0085	0.0085	0.010	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.014	0.014	0.010	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0029	0.0029	0.010	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0023	0.0023	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	0.0025	0.0018	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0023	0.0023	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.00316	0.00068	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	0.00162	0.00075	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	0.00117	0.00074	0.010	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.00078	0.00078	0.010	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.00069	0.00069	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.00072	0.00072	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.00264	0.00066	0.010	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.00071	0.00071	0.010	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8528							
Sampling Date		2013/11/28 11:00							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1111-03R\FR12-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.00069	0.00069	0.010	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.00065	0.00065	0.010	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.00089	0.00089	0.010	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.00074	0.00074	0.010	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.00069	0.00069	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	0.00115	0.00081	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.00240	0.00079	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.00081	0.00081	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.00097	0.00097	0.010	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.00079	0.00079	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	0.00131	0.00072	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.00078	0.00078	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	0.00241	0.00082	0.010	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00059	0.00059	0.010	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00046	0.00046	0.010	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	0.00092	0.00051	0.010	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00046	0.00046	0.010	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00046	0.00046	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00060	0.00060	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	0.00051	0.00047	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00367	0.00046	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00044	0.00044	0.010	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	0.00110	0.00066	0.010	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00190	0.00044	0.010	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00041	0.00041	0.010	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.00043	0.00043	0.010	N/A	N/A	N/A	N/A	3495945

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 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8528							
Sampling Date		2013/11/28 11:00							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1111-03R\FR12-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'5'6-TetraCB-(73)	ng/g	<0.00056	0.00056	0.010	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00052	0.00052	0.010	N/A	0.000100	0.0000000520	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00048	0.00048	0.010	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB-(79)	ng/g	<0.00041	0.00041	0.010	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.00053	0.00053	0.010	N/A	0.000300	0.000000159	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.00071	0.00071	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	0.00107	0.00062	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.00072	0.00072	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.00053	0.00053	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00151	0.00053	0.060	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.00059	0.00059	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.00065	0.00065	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	0.00172	0.00053	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.00062	0.00062	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00063	0.00063	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.00064	0.00064	0.010	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	0.00131	0.00057	0.010	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00030	0.00030	0.010	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.00055	0.00055	0.010	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00039	0.00039	0.010	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.00079 (1)	0.00079	0.010	N/A	0.0000300	0.0000000237	N/A	3495945
233'45-PentaCB-(106)	ng/g	<0.00041	0.00041	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.00043	0.00043	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00041	0.00041	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.00237	0.00049	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00044	0.00044	0.010	N/A	N/A	N/A	N/A	3495945
233'56-PentaCB-(112)	ng/g	<0.00048	0.00048	0.010	N/A	N/A	N/A	N/A	3495945

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
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 Maxxam Analytics
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8528							
Sampling Date		2013/11/28 11:00							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1111-03R\FR12-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5-PentaCB-(114)	ng/g	<0.00047	0.00047	0.010	N/A	0.0000300	0.0000000141	N/A	3495945
23'44'5-PentaCB-(118)	ng/g	0.00209	0.00047	0.010	N/A	0.0000300	0.0000000627	N/A	3495945
23'455'-PentaCB-(120)	ng/g	<0.00044	0.00044	0.010	N/A	N/A	N/A	N/A	3495945
23'45'6-PentaCB-(121)	ng/g	<0.00044	0.00044	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.00046	0.00046	0.010	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.00051	0.00051	0.010	N/A	0.0000300	0.0000000153	N/A	3495945
33'44'5-PentaCB-(126)	ng/g	<0.00046	0.00046	0.010	N/A	0.100	0.0000460	N/A	3495945
33'455'-PentaCB-(127)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.00080	0.00080	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	0.00231	0.00088	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.00097	0.00097	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.00092	0.00092	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00056	0.00056	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00041	0.00041	0.010	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.00092	0.00092	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.00084	0.00084	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.00094	0.00094	0.010	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.00099	0.00099	0.010	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00057	0.00057	0.010	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.00082	0.00082	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	0.00136	0.00088	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00054	0.00054	0.010	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00039	0.00039	0.010	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00040	0.00040	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	0.00162	0.00069	0.020	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8528							
Sampling Date		2013/11/28 11:00							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1111-03R\FR12-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00049	0.00049	0.010	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00059	0.00059	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00096	0.00096	0.020	N/A	0.0000300	0.0000000288	N/A	3495945
233'44'6-HexaCB-(158)	ng/g	<0.00066	0.00066	0.010	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
233'456-HexaCB-(160)	ng/g	<0.00074	0.00074	0.010	N/A	N/A	N/A	N/A	3495945
233'45'6-HexaCB-(161)	ng/g	<0.00069	0.00069	0.010	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00097	0.00097	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'6-HexaCB-(164)	ng/g	<0.00072	0.00072	0.010	N/A	N/A	N/A	N/A	3495945
233'55'6-HexaCB-(165)	ng/g	<0.00073	0.00073	0.010	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.0010	0.0010	0.010	N/A	0.0000300	0.0000000300	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.0010	0.0010	0.010	N/A	0.0300	0.0000300	N/A	3495945
22'33'44'5-HeptaCB-(170)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'6-HeptaCB-(175)	ng/g	<0.00066	0.00066	0.010	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00050	0.00050	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'6-HeptaCB-(178)	ng/g	<0.00068	0.00068	0.010	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00049	0.00049	0.010	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56-HeptaCB-(181)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00068	0.00068	0.010	N/A	N/A	N/A	N/A	3495945
22'344'5'6-HeptaCB-(183)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00047	0.00047	0.010	N/A	N/A	N/A	N/A	3495945
22'3455'6-HeptaCB-(185)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00051	0.00051	0.010	N/A	N/A	N/A	N/A	3495945
22'34'55'6-HeptaCB-(187)	ng/g	<0.00061	0.00061	0.010	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8528							
Sampling Date		2013/11/28 11:00							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1111-03R\FR12-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.00079	0.00079	0.010	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.00096	0.00096	0.010	N/A	0.0000300	0.0000000288	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
233'455'6'-HeptaCB-(192)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00082	0.00082	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'66'OctaCB-(197)	ng/g	<0.00052	0.00052	0.010	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00081	0.00081	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00065	0.00065	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00057	0.00057	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00083	0.00083	0.010	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.00076	0.00076	0.010	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00058	0.00058	0.010	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.00093	0.00093	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0418	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000764	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	129	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945
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 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8528							
Sampling Date		2013/11/28 11:00							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1111-03R\FR12-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'344'55'-HeptaCB-(180)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	57	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	42	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	52	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8529							
Sampling Date		2013/11/28 11:25							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1112-03R\FR13-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0019	0.0019	0.0099	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.013	0.013	0.0099	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.013	0.013	0.0099	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.012	0.012	0.0099	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.012	0.012	0.0099	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.011	0.011	0.0099	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.012	0.012	0.0099	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0087	0.0087	0.0099	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.013	0.013	0.0099	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.013	0.013	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.012	0.012	0.0099	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.020	0.020	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0030	0.0030	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0023	0.0023	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	0.0036	0.0018	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0023	0.0023	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0038	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(25)	ng/g	0.0013	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	0.0028	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0045	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945

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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8529							
Sampling Date		2013/11/28 11:25							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1112-03R\FR13-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0010 (1)	0.0010	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.00212	0.00092	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.00095	0.00095	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.00092	0.00092	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	0.00130	0.00084	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.00091	0.00091	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	0.00207	0.00096	0.0099	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00087	0.00087	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00053	0.00053	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00070	0.00070	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.00055	0.00055	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00250	0.00054	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00051	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	0.00091	0.00077	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00120	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00049	0.00049	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00048	0.00048	0.0099	N/A	N/A	N/A	N/A	3495945

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 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8529							
Sampling Date		2013/11/28 11:25							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1112-03R\FR13-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
23'5'6'-TetraCB-(73)	ng/g	<0.00065	0.00065	0.0099	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00060	0.00060	0.0099	N/A	0.000100	0.0000000600	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00056	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.00047	0.00047	0.0099	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00049	0.00049	0.0099	N/A	N/A	N/A	N/A	3495945
344'5'-TetraCB-(81)	ng/g	<0.00062	0.00062	0.0099	N/A	0.000300	0.000000186	N/A	3495945
22'33'4'-PentaCB-(82)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.00087	0.00087	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6'-PentaCB-(84)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.00075	0.00075	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00075	0.00075	0.059	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.00083	0.00083	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.00091	0.00091	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.00074	0.00074	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.00087	0.00087	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00088	0.00088	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.00090	0.00090	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'6'-PentaCB-(95)	ng/g	<0.00080	0.00080	0.0099	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00031	0.00031	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'6'-PentaCB-(103)	ng/g	<0.00078	0.00078	0.0099	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00041	0.00041	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.00052	0.00052	0.0099	N/A	0.0000300	0.0000000156	N/A	3495945
233'45'-PentaCB-(106)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(107)	ng/g	<0.00048	0.00048	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00046	0.00046	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.00087	0.00069	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00062	0.00062	0.0099	N/A	N/A	N/A	N/A	3495945
233'56'-PentaCB-(112)	ng/g	<0.00067	0.00067	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

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 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8529							
Sampling Date		2013/11/28 11:25							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1112-03R\FR13-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.00052	0.00052	0.0099	N/A	0.0000300	0.0000000156	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	<0.00087 (1)	0.00087	0.0099	N/A	0.0000300	0.0000000261	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00062	0.00062	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00062	0.00062	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.00051	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.00057	0.00057	0.0099	N/A	0.0000300	0.0000000171	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.00051	0.00051	0.0099	N/A	0.100	0.0000510	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.00047	0.00047	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0012	0.0012	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00059	0.00059	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00043	0.00043	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00044	0.00044	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00057	0.00057	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00041	0.00041	0.0099	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00042	0.00042	0.0099	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8529							
Sampling Date		2013/11/28 11:25							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1112-03R\FR13-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	<0.00093	0.00093	0.020	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00062	0.00062	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00072	0.00072	0.020	N/A	0.0000300	0.0000000216	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.00089	0.00089	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00075	0.00075	0.0099	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.00093	0.00093	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00073	0.00073	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.00097	0.00097	0.0099	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.00098	0.00098	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.00076	0.00076	0.0099	N/A	0.0000300	0.0000000228	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00078	0.00078	0.0099	N/A	0.0300	0.0000234	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00070	0.00070	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00073	0.00073	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00073	0.00073	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00055	0.00055	0.0099	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8529							
Sampling Date		2013/11/28 11:25							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1112-03R\FR13-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00065	0.00065	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'56'6'-HeptaCB-(188)	ng/g	<0.00084	0.00084	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.0013	0.0013	0.0099	N/A	0.0000300	0.0000000390	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'6'-HeptaCB-(192)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.00095	0.00095	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00074	0.00074	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'66'-OctaCB-(197)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00073	0.00073	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00058	0.00058	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00051	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00074	0.00074	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.00068	0.00068	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.00074	0.00074	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0281	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000748	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	77	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	126	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8529							
Sampling Date		2013/11/28 11:25							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1112-03R\FR13-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'33'55'6-HeptaCB-(178)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	62	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	62	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	40	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	31	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	72	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	36	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8530							
Sampling Date		2013/11/28 11:20							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1113-03R\FR14-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0090	0.0090	0.0099	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0083	0.0083	0.0099	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0076	0.0076	0.0099	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0076	0.0076	0.0099	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0072	0.0072	0.0099	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0077	0.0077	0.0099	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0060	0.0060	0.0099	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0081	0.0081	0.0099	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0080	0.0080	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0078	0.0078	0.0099	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.013	0.013	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0023	0.0023	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0027	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0019	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

RDL = Reportable Detection Limit

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8530							
Sampling Date		2013/11/28 11:20							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1113-03R\FR14-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0013	0.0013	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0019	0.0019	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.0016	0.0013	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00083	0.00083	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.00056	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.0010	0.0010	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.00051	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00309	0.00050	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00048	0.00048	0.0099	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00192	0.00047	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00045	0.00045	0.0099	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8530							
Sampling Date		2013/11/28 11:20							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1113-03R\FR14-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	<0.00093	0.00093	0.0099	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00056	0.00056	0.0099	N/A	0.000100	0.0000000560	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.00044	0.00044	0.0099	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00045	0.00045	0.0099	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.00058	0.00058	0.0099	N/A	0.000300	0.000000174	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.00099	0.00099	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.00085	0.00085	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00085	0.00085	0.059	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.00094	0.00094	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	0.00093	0.00084	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.00099	0.00099	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0010	0.0010	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	<0.00090	0.00090	0.0099	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00031	0.00031	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.00088	0.00088	0.0099	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00040	0.00040	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.00040	0.00040	0.0099	N/A	0.0000300	0.0000000120	N/A	3495945
233'45-PentaCB-(106)	ng/g	<0.00035	0.00035	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.00037	0.00037	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00035	0.00035	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.00144	0.00078	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00070	0.00070	0.0099	N/A	N/A	N/A	N/A	3495945
233'56-PentaCB-(112)	ng/g	<0.00076	0.00076	0.0099	N/A	N/A	N/A	N/A	3495945
2344'5-PentaCB-(114)	ng/g	<0.00040	0.00040	0.0099	N/A	0.0000300	0.0000000120	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8530							
Sampling Date		2013/11/28 11:20							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1113-03R\FR14-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5'-PentaCB-(118)	ng/g	0.00123	0.00040	0.0099	N/A	0.0000300	0.0000000369	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00071	0.00071	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00070	0.00070	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.00039	0.00039	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.00044	0.00044	0.0099	N/A	0.0000300	0.0000000132	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.00039	0.00039	0.0099	N/A	0.100	0.0000390	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.00036	0.00036	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0014	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00072	0.00072	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00074	0.00074	0.0099	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00055	0.00055	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00071	0.00071	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00064	0.00064	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8530							
Sampling Date		2013/11/28 11:20							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1113-03R\FR14-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	<0.00076	0.00076	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00084	0.00084	0.020	N/A	0.0000300	0.0000000252	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00087	0.00087	0.0099	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00085	0.00085	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.00089	0.00089	0.0099	N/A	0.0000300	0.0000000267	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00091	0.00091	0.0099	N/A	0.0300	0.0000273	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0020	0.0020	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0021	0.0021	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0020	0.0020	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00085	0.00085	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00066	0.00066	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0020	0.0020	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00089	0.00089	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00064	0.00064	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0019	0.0019	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00089	0.00089	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00061	0.00061	0.0099	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0019	0.0019	0.0099	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00067	0.00067	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00079	0.00079	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'566'-HeptaCB-(188)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8530							
Sampling Date		2013/11/28 11:20							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1113-03R\FR14-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	<0.0012	0.0012	0.0099	N/A	0.0000300	0.0000000360	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'6'-HeptaCB-(192)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'66'-OctaCB-(197)	ng/g	<0.00076	0.00076	0.0099	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00095	0.00095	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00084	0.00084	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00085	0.00085	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.00082	0.00082	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0021	0.0021	0.0099	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0148	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000667	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8530							
Sampling Date		2013/11/28 11:20							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1113-03R\FR14-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'34'566'-HeptaCB-(188)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8531							
Sampling Date		2013/11/28 11:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1114-03R\FR15-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0052	0.0052	0.010	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0082	0.0082	0.010	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0076	0.0076	0.010	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0076	0.0076	0.010	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0072	0.0072	0.010	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0077	0.0077	0.010	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0035	0.0035	0.010	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0080	0.0080	0.010	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0080	0.0080	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0077	0.0077	0.010	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.013	0.013	0.010	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0025	0.0025	0.010	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	0.0016	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0033	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	0.0016	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0032	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8531							
Sampling Date		2013/11/28 11:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1114-03R\FR15-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
344'4'-TriCB-(37)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	0.00108	0.00078	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.00099	0.00099	0.010	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.00193	0.00077	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.00079	0.00079	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.00095	0.00095	0.010	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.00076	0.00076	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	0.00132	0.00070	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.00075	0.00075	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	0.00208	0.00080	0.010	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00061	0.00061	0.010	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00046	0.00046	0.010	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	0.00118	0.00051	0.010	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00045	0.00045	0.010	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00046	0.00046	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00058	0.00058	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.00047	0.00047	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00420	0.00046	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00044	0.00044	0.010	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	0.00103	0.00064	0.010	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00235	0.00043	0.010	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00041	0.00041	0.010	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8531							
Sampling Date		2013/11/28 11:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1114-03R\FR15-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	<0.00054	0.00054	0.010	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00051	0.00051	0.010	N/A	0.000100	0.0000000510	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00048	0.00048	0.010	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.00040	0.00040	0.010	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.00053	0.00053	0.010	N/A	0.000300	0.000000159	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.00096	0.00096	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	0.00102	0.00084	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.00098	0.00098	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.00072	0.00072	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00113	0.00072	0.060	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.00080	0.00080	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.00088	0.00088	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	0.00153	0.00072	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.00084	0.00084	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00085	0.00085	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.00086	0.00086	0.010	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	0.00103	0.00077	0.010	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00041	0.00041	0.010	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.00075	0.00075	0.010	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00053	0.00053	0.010	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	0.00101	0.00046	0.010	N/A	0.0000300	0.0000000303	N/A	3495945
233'45-PentaCB-(106)	ng/g	<0.00040	0.00040	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.00043	0.00043	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00041	0.00041	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.00203	0.00066	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00060	0.00060	0.010	N/A	N/A	N/A	N/A	3495945
233'56-PentaCB-(112)	ng/g	<0.00065	0.00065	0.010	N/A	N/A	N/A	N/A	3495945
2344'5-PentaCB-(114)	ng/g	<0.00046	0.00046	0.010	N/A	0.0000300	0.0000000138	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8531							
Sampling Date		2013/11/28 11:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1114-03R\FR15-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'44'5'-PentaCB-(118)	ng/g	0.00203	0.00046	0.010	N/A	0.0000300	0.0000000609	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00060	0.00060	0.010	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00060	0.00060	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.00045	0.00045	0.010	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.00051	0.00051	0.010	N/A	0.0000300	0.0000000153	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.00045	0.00045	0.010	N/A	0.100	0.0000450	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.00041	0.00041	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.00048	0.00048	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	0.00191	0.00053	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.00061	0.00061	0.010	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.00067	0.00067	0.010	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.00058	0.00058	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.00056	0.00056	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.00064	0.00064	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00067	0.00067	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00049	0.00049	0.010	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.00055	0.00055	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.00051	0.00051	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.00057	0.00057	0.010	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.00060	0.00060	0.010	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00069	0.00069	0.010	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00050	0.00050	0.010	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.00050	0.00050	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	0.00108	0.00053	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00065	0.00065	0.010	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00046	0.00046	0.010	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00048	0.00048	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	0.00116	0.00042	0.020	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00059	0.00059	0.010	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8531							
Sampling Date		2013/11/28 11:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1114-03R\FR15-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	<0.00070	0.00070	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00090	0.00090	0.020	N/A	0.0000300	0.000000270	N/A	3495945
233'44'6-HexaCB-(158)	ng/g	<0.00040	0.00040	0.010	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00093	0.00093	0.010	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.00045	0.00045	0.010	N/A	N/A	N/A	N/A	3495945
233'45'6-HexaCB-(161)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00091	0.00091	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'6-HexaCB-(164)	ng/g	<0.00044	0.00044	0.010	N/A	N/A	N/A	N/A	3495945
233'55'6-HexaCB-(165)	ng/g	<0.00044	0.00044	0.010	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.00095	0.00095	0.010	N/A	0.0000300	0.000000285	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00098	0.00098	0.010	N/A	0.0300	0.0000294	N/A	3495945
22'33'44'5-HeptaCB-(170)	ng/g	<0.00088	0.00088	0.010	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'6-HeptaCB-(175)	ng/g	<0.00035	0.00035	0.010	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00027	0.00027	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'6-HeptaCB-(178)	ng/g	<0.00036	0.00036	0.010	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00026	0.00026	0.010	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.00086	0.00086	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56-HeptaCB-(181)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00036	0.00036	0.010	N/A	N/A	N/A	N/A	3495945
22'344'5'6-HeptaCB-(183)	ng/g	<0.00088	0.00088	0.010	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00025	0.00025	0.010	N/A	N/A	N/A	N/A	3495945
22'3455'6-HeptaCB-(185)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00027	0.00027	0.010	N/A	N/A	N/A	N/A	3495945
22'34'55'6-HeptaCB-(187)	ng/g	<0.00032	0.00032	0.010	N/A	N/A	N/A	N/A	3495945
22'34'566'-HeptaCB-(188)	ng/g	<0.00042	0.00042	0.010	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8531							
Sampling Date		2013/11/28 11:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1114-03R\FR15-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	<0.0011	0.0011	0.010	N/A	0.0000300	0.0000000330	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.00088	0.00088	0.010	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.00082	0.00082	0.010	N/A	N/A	N/A	N/A	3495945
233'45'5'6'-HeptaCB-(192)	ng/g	<0.00087	0.00087	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'66'-OctaCB-(197)	ng/g	<0.00065	0.00065	0.010	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00082	0.00082	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00072	0.00072	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.00096	0.00096	0.010	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00073	0.00073	0.010	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.00078	0.00078	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00093	0.00093	0.010	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0388	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000748	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	87	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8531							
Sampling Date		2013/11/28 11:30							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1114-03R\FR15-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'34'566'-HeptaCB-(188)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	71	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	70	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8532							
Sampling Date		2013/11/28 11:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1116-03R\FR16-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.00067	0.00067	0.0098	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0081	0.0081	0.0098	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0082	0.0082	0.0098	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0076	0.0076	0.0098	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0076	0.0076	0.0098	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0072	0.0072	0.0098	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0077	0.0077	0.0098	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0054	0.0054	0.0098	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0080	0.0080	0.0098	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0080	0.0080	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0077	0.0077	0.0098	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.013	0.013	0.0098	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0024	0.0024	0.0098	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0018	0.0018	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0019	0.0019	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0019	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.00199	0.00097	0.0098	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8532							
Sampling Date		2013/11/28 11:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF11116-03R\FR16-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.00095	0.00095	0.0098	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0012	0.0012	0.029	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.0013	0.0011	0.029	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00060	0.00060	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB-(56)	ng/g	0.00080	0.00055	0.0098	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00049	0.00049	0.0098	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00088	0.00088	0.029	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.00051	0.00051	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00291	0.00050	0.039	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.00096	0.00096	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00183	0.00047	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.00046	0.00046	0.0098	N/A	N/A	N/A	N/A	3495945

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8532							
Sampling Date		2013/11/28 11:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1116-03R\FR16-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	<0.00081	0.00081	0.0098	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00056	0.00056	0.0098	N/A	0.000100	0.0000000560	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00052	0.00052	0.0098	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB-(79)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.00058	0.00058	0.0098	N/A	0.000300	0.000000174	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.0010	0.0010	0.029	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0010	0.0010	0.059	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'34'6-PentaCB-(89)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.0010	0.0010	0.029	N/A	N/A	N/A	N/A	3495945
22'35'5-PentaCB-(92)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0012	0.0012	0.039	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(94)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
22'36'6-PentaCB-(96)	ng/g	<0.00046	0.00046	0.0098	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
22'46'6-PentaCB-(104)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.00046	0.00046	0.0098	N/A	0.0000300	0.0000000138	N/A	3495945
233'45'-PentaCB-(106)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.00043	0.00043	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00041	0.00041	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	<0.00093	0.00093	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00083	0.00083	0.0098	N/A	N/A	N/A	N/A	3495945
233'56'-PentaCB-(112)	ng/g	<0.00091	0.00091	0.0098	N/A	N/A	N/A	N/A	3495945
2344'5-PentaCB-(114)	ng/g	<0.00046	0.00046	0.0098	N/A	0.0000300	0.0000000138	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8532							
Sampling Date		2013/11/28 11:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1116-03R\FR16-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5'-PentaCB-(118)	ng/g	0.00104	0.00046	0.0098	N/A	0.0000300	0.0000000312	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00084	0.00084	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00084	0.00084	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.00051	0.00051	0.0098	N/A	0.0000300	0.0000000153	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.00046	0.00046	0.0098	N/A	0.100	0.0000460	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.00042	0.00042	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0018	0.0018	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0020	0.0020	0.029	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0023	0.0023	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0025	0.0025	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0022	0.0022	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0021	0.0021	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0024	0.0024	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00066	0.00066	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00049	0.00049	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0021	0.0021	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0019	0.0019	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0022	0.0022	0.0098	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0023	0.0023	0.0098	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00068	0.00068	0.0098	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0019	0.0019	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0020	0.0020	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00065	0.00065	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00046	0.00046	0.0098	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00048	0.00048	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00059	0.00059	0.0098	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8532							
Sampling Date		2013/11/28 11:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1116-03R\FR16-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	<0.00070	0.00070	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00075	0.00075	0.020	N/A	0.0000300	0.0000000225	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00078	0.00078	0.0098	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0017	0.0017	0.0098	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00076	0.00076	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.0017	0.0017	0.0098	N/A	N/A	N/A	N/A	3495945
2'3'44'55'-HexaCB-(167)	ng/g	<0.00079	0.00079	0.0098	N/A	0.0000300	0.0000000237	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00081	0.00081	0.0098	N/A	0.0300	0.0000243	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0017	0.0017	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00079	0.00079	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0017	0.0017	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00083	0.00083	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00059	0.00059	0.0098	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00082	0.00082	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00056	0.00056	0.0098	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00062	0.00062	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'566'-HeptaCB-(188)	ng/g	<0.00095	0.00095	0.0098	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

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 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8532							
Sampling Date		2013/11/28 11:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF11116-03R\FR16-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	<0.0011	0.0011	0.0098	N/A	0.0000300	0.0000000330	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
233'455'6'-HeptaCB-(192)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00081	0.00081	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'66'-OctaCB-(197)	ng/g	<0.00051	0.00051	0.0098	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00080	0.00080	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00064	0.00064	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00057	0.00057	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00081	0.00081	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.00075	0.00075	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00057	0.00057	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.00085	0.00085	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000707	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8532							
Sampling Date		2013/11/28 11:34							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF11116-03R\FR16-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'34'566'-HeptaCB-(188)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8533							
Sampling Date		2013/11/28 11:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1117-03R\FR17-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0015	0.0015	0.0097	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0072	0.0072	0.0097	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0081	0.0081	0.0097	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0075	0.0075	0.0097	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0075	0.0075	0.0097	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0071	0.0071	0.0097	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0076	0.0076	0.0097	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0048	0.0048	0.0097	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0079	0.0079	0.0097	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0079	0.0079	0.019	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0076	0.0076	0.0097	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.013	0.013	0.0097	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0017	0.0017	0.0097	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0010	0.0010	0.019	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.00174	0.00060	0.019	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.00066	0.00066	0.019	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.00065	0.00065	0.0097	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.00068	0.00068	0.0097	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.00091	0.00091	0.0097	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.00061	0.00061	0.0097	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.00064	0.00064	0.019	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.00089	0.00089	0.0097	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.00151	0.00058	0.0097	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.00081	0.00081	0.0097	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.00062	0.00062	0.0097	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8533							
Sampling Date		2013/11/28 11:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1117-03R\FR17-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.00060	0.00060	0.0097	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.00057	0.00057	0.0097	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.00078	0.00078	0.0097	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.00065	0.00065	0.0097	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.00061	0.00061	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0012	0.0012	0.029	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0015	0.0015	0.0097	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.0012	0.0011	0.029	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0012	0.0012	0.019	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0011	0.0011	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0010	0.0010	0.019	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0011	0.0011	0.019	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.0012	0.0012	0.0097	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00061	0.00061	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00044	0.00044	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.00049	0.00049	0.0097	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00043	0.00043	0.0097	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00044	0.00044	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00087	0.00087	0.029	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.00045	0.00045	0.0097	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00194	0.00044	0.039	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00042	0.00042	0.0097	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.00095	0.00095	0.0097	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00116	0.00041	0.0097	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00040	0.00040	0.0097	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00039	0.00039	0.0097	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.00041	0.00041	0.0097	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8533							
Sampling Date		2013/11/28 11:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1117-03R\FR17-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	<0.00081	0.00081	0.0097	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00049	0.00049	0.0097	N/A	0.000100	0.0000000490	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00046	0.00046	0.0097	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.00039	0.00039	0.0097	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00040	0.00040	0.0097	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.00051	0.00051	0.0097	N/A	0.000300	0.000000153	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.00058	0.00058	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.00051	0.00051	0.019	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.00059	0.00059	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.00043	0.00043	0.029	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00043	0.00043	0.058	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.00048	0.00048	0.019	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.00053	0.00053	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	0.00080	0.00043	0.029	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.00050	0.00050	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00051	0.00051	0.039	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.00052	0.00052	0.0097	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	<0.00046	0.00046	0.0097	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00026	0.00026	0.0097	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.00045	0.00045	0.0097	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00033	0.00033	0.0097	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0010	0.0010	0.0097	N/A	0.0000300	0.0000000300	N/A	3495945
233'45-PentaCB-(106)	ng/g	<0.00089	0.00089	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.00093	0.00093	0.0097	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00090	0.00090	0.019	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	<0.00088 (1)	0.00088	0.019	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00036	0.00036	0.0097	N/A	N/A	N/A	N/A	3495945
233'56-PentaCB-(112)	ng/g	<0.00039	0.00039	0.0097	N/A	N/A	N/A	N/A	3495945

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 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8533							
Sampling Date		2013/11/28 11:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1117-03R\FR17-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.0010	0.0010	0.0097	N/A	0.0000300	0.0000000300	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	<0.0010	0.0010	0.0097	N/A	0.0000300	0.0000000300	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00036	0.00036	0.0097	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00036	0.00036	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.00099	0.00099	0.0097	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0011	0.0011	0.0097	N/A	0.0000300	0.0000000330	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.0010	0.0010	0.0097	N/A	0.100	0.000100	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.00091	0.00091	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0015	0.0015	0.019	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0017	0.0017	0.029	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0021	0.0021	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0020	0.0020	0.019	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00030	0.00030	0.019	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00023	0.00023	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0016	0.0016	0.019	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0018	0.0018	0.0097	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0019	0.0019	0.0097	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00031	0.00031	0.0097	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00023	0.00023	0.0097	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0016	0.0016	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0017	0.0017	0.019	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00030	0.00030	0.0097	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00021	0.00021	0.0097	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00022	0.00022	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.0013	0.0013	0.019	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8533							
Sampling Date		2013/11/28 11:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1117-03R\FR17-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00027	0.00027	0.0097	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00032	0.00032	0.0097	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00055	0.00055	0.019	N/A	0.0000300	0.0000000165	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00056	0.00056	0.0097	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.0013	0.0013	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00055	0.00055	0.0097	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.0014	0.0014	0.0097	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.00058	0.00058	0.0097	N/A	0.0000300	0.0000000174	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00059	0.00059	0.0097	N/A	0.0300	0.0000177	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.00073	0.00073	0.0097	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.00090	0.00090	0.019	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.00092	0.00092	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.00089	0.00089	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00037	0.00037	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00028	0.00028	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.00090	0.00090	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00038	0.00038	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00028	0.00028	0.0097	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.00071	0.00071	0.019	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.00084	0.00084	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00038	0.00038	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.00073	0.00073	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00026	0.00026	0.0097	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.00086	0.00086	0.0097	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00029	0.00029	0.0097	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00034	0.00034	0.0097	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

RDL = Reportable Detection Limit

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8533							
Sampling Date		2013/11/28 11:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1117-03R\FR17-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.00044	0.00044	0.0097	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.00044	0.00044	0.0097	N/A	0.0000300	0.0000000132	N/A	3495945
233'44'56-HeptaCB-(190)	ng/g	<0.00073	0.00073	0.0097	N/A	N/A	N/A	N/A	3495945
233'44'5'6-HeptaCB-(191)	ng/g	<0.00068	0.00068	0.0097	N/A	N/A	N/A	N/A	3495945
233'455'6-HeptaCB-(192)	ng/g	<0.00072	0.00072	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.00023	0.00023	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'56-OctaCB-(195)	ng/g	<0.00025	0.00025	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00037	0.00037	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'66'OctaCB-(197)	ng/g	<0.00023	0.00023	0.0097	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00036	0.00036	0.019	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00029	0.00029	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00025	0.00025	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00037	0.00037	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'55'6-OctaCB-(203)	ng/g	<0.00034	0.00034	0.0097	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00026	0.00026	0.0097	N/A	N/A	N/A	N/A	3495945
233'44'55'6-OctaCB-(205)	ng/g	<0.00018	0.00018	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6-NonaCB-(206)	ng/g	<0.00052	0.00052	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00041	0.00041	0.0097	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.00047	0.00047	0.0097	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.00063	0.00063	0.0097	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.00834	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000118	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6-NonaCB-(206)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5-HeptaCB-(170)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6-HeptaCB-(178)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8533							
Sampling Date		2013/11/28 11:40							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1117-03R\FR17-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	114	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8534							
Sampling Date		2013/11/28 11:42							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1118-03R\FR18-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0093	0.0093	0.0098	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0099	0.0099	0.0098	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0091	0.0091	0.0098	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0091	0.0091	0.0098	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0086	0.0086	0.0098	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0092	0.0092	0.0098	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0062	0.0062	0.0098	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0097	0.0097	0.0098	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0096	0.0096	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0093	0.0093	0.0098	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.015	0.015	0.0098	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0020	0.0020	0.0098	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.00160	0.00080	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.00089	0.00089	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.00087	0.00087	0.0098	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.00092	0.00092	0.0098	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.00082	0.00082	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.00085	0.00085	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.00144	0.00078	0.0098	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.00098	0.00098	0.0098	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.00083	0.00083	0.0098	N/A	N/A	N/A	N/A	3495945

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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8534							
Sampling Date		2013/11/28 11:42							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1118-03R\FR18-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.00081	0.00081	0.0098	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.00077	0.00077	0.0098	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.00087	0.00087	0.0098	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.00081	0.00081	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.00073	0.00073	0.029	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.00093	0.00093	0.0098	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.00142	0.00072	0.029	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.00074	0.00074	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.00089	0.00089	0.0098	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.00065	0.00065	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.00071	0.00071	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00027	0.00027	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.00073	0.00073	0.0098	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00065	0.00065	0.0098	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00055	0.00055	0.029	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.00067	0.00067	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00171	0.00066	0.039	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00063	0.00063	0.0098	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.00060	0.00060	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00089	0.00062	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00060	0.00060	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00059	0.00059	0.0098	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495945

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8534							
Sampling Date		2013/11/28 11:42							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1118-03R\FR18-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	<0.00051	0.00051	0.0098	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00074	0.00074	0.0098	N/A	0.000100	0.0000000740	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00069	0.00069	0.0098	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.00058	0.00058	0.0098	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00060	0.00060	0.0098	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.00076	0.00076	0.0098	N/A	0.000300	0.000000228	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.00086	0.00086	0.029	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00086	0.00086	0.059	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.00096	0.00096	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.00085	0.00085	0.029	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0010	0.0010	0.039	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	<0.00091	0.00091	0.0098	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00011	0.00011	0.0098	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.00089	0.00089	0.0098	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00014	0.00014	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0010	0.0010	0.0098	N/A	0.0000300	0.0000000300	N/A	3495945
233'45-PentaCB-(106)	ng/g	<0.00091	0.00091	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.00095	0.00095	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00091	0.00091	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	<0.00079	0.00079	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
233'56-PentaCB-(112)	ng/g	<0.00077	0.00077	0.0098	N/A	N/A	N/A	N/A	3495945
2344'5-PentaCB-(114)	ng/g	<0.0010	0.0010	0.0098	N/A	0.0000300	0.0000000300	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8534							
Sampling Date		2013/11/28 11:42							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1118-03R\FR18-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5'-PentaCB-(118)	ng/g	<0.0010	0.0010	0.0098	N/A	0.0000300	0.0000000300	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0011	0.0011	0.0098	N/A	0.0000300	0.0000000330	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.0010	0.0010	0.0098	N/A	0.100	0.000100	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.00093	0.00093	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.00077	0.00077	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.00085	0.00085	0.029	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.00098	0.00098	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.00094	0.00094	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.00089	0.00089	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00029	0.00029	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.00089	0.00089	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.00082	0.00082	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.00091	0.00091	0.0098	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.00096	0.00096	0.0098	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00030	0.00030	0.0098	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.00080	0.00080	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.00085	0.00085	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00028	0.00028	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00021	0.00021	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.00067	0.00067	0.020	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00026	0.00026	0.0098	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8534							
Sampling Date		2013/11/28 11:42							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1118-03R\FR18-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00043	0.00043	0.020	N/A	0.0000300	0.0000000129	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.00064	0.00064	0.0098	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.00072	0.00072	0.0098	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.00067	0.00067	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00043	0.00043	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.00070	0.00070	0.0098	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.00045	0.00045	0.0098	N/A	0.0000300	0.0000000135	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00046	0.00046	0.0098	N/A	0.0300	0.0000138	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0017	0.0017	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00048	0.00048	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00036	0.00036	0.0098	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00049	0.00049	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00034	0.00034	0.0098	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'566'-HeptaCB-(188)	ng/g	<0.00057	0.00057	0.0098	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8534							
Sampling Date		2013/11/28 11:42							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1118-03R\FR18-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	<0.00077	0.00077	0.0098	N/A	0.0000300	0.0000000231	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
233'455'6'-HeptaCB-(192)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'66'-OctaCB-(197)	ng/g	<0.00028	0.00028	0.0098	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00044	0.00044	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00045	0.00045	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	0.00097	0.00055	0.0098	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.00803	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000114	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	132	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8534							
Sampling Date		2013/11/28 11:42							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1118-03R\FR18-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'34'566'-HeptaCB-(188)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	124	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	61	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	68	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8535							
Sampling Date		2013/11/28 11:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1137-03R\FR19-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.00051	0.00051	0.0098	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.00048	0.00048	0.0098	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0067	0.0067	0.0098	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0084	0.0084	0.0098	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0077	0.0077	0.0098	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0077	0.0077	0.0098	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0074	0.0074	0.0098	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0079	0.0079	0.0098	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0044	0.0044	0.0098	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0082	0.0082	0.0098	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0082	0.0082	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0079	0.0079	0.0098	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.013	0.013	0.0098	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.00077	0.00077	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.00061	0.00061	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.00078	0.00078	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.00119	0.00046	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.00051	0.00051	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.00054	0.00054	0.0098	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.00049	0.00049	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.00106	0.00045	0.0098	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.00048	0.00048	0.0098	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.00048	0.00048	0.0098	N/A	N/A	N/A	N/A	3495945

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EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8535							
Sampling Date		2013/11/28 11:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1137-03R\FR19-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.00047	0.00047	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.00056	0.00056	0.029	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.00078	0.00078	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	<0.00055	0.00055	0.029	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.00056	0.00056	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.00068	0.00068	0.0098	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.00054	0.00054	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.00050	0.00050	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.00054	0.00054	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.00094 (1)	0.00094	0.0098	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.00073	0.00073	0.0098	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00065	0.00065	0.0098	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00042	0.00042	0.029	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.00067	0.00067	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00138	0.00066	0.039	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00063	0.00063	0.0098	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.00046	0.00046	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	<0.00073 (1)	0.00073	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00060	0.00060	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00059	0.00059	0.0098	N/A	N/A	N/A	N/A	3495945

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8535							
Sampling Date		2013/11/28 11:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1137-03R\FR19-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495945
23'5'6'-TetraCB-(73)	ng/g	<0.00039	0.00039	0.0098	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00074	0.00074	0.0098	N/A	0.000100	0.0000000740	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00069	0.00069	0.0098	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.00058	0.00058	0.0098	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00060	0.00060	0.0098	N/A	N/A	N/A	N/A	3495945
344'5'-TetraCB-(81)	ng/g	<0.00076	0.00076	0.0098	N/A	0.000300	0.000000228	N/A	3495945
22'33'4'-PentaCB-(82)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6'-PentaCB-(84)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.00096	0.00096	0.029	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.00095	0.00095	0.059	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.00095	0.00095	0.029	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0011	0.0011	0.039	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
22'35'6'-PentaCB-(95)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00011	0.00011	0.0098	N/A	N/A	N/A	N/A	3495945
22'45'6'-PentaCB-(103)	ng/g	<0.00099	0.00099	0.0098	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00014	0.00014	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0011	0.0011	0.0098	N/A	0.0000300	0.0000000330	N/A	3495945
233'45'-PentaCB-(106)	ng/g	<0.00093	0.00093	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(107)	ng/g	<0.00098	0.00098	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00094	0.00094	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	<0.00088	0.00088	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00079	0.00079	0.0098	N/A	N/A	N/A	N/A	3495945
233'56'-PentaCB-(112)	ng/g	<0.00086	0.00086	0.0098	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8535							
Sampling Date		2013/11/28 11:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1137-03R\FR19-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.0011	0.0011	0.0098	N/A	0.0000300	0.0000000330	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	<0.0011	0.0011	0.0098	N/A	0.0000300	0.0000000330	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00080	0.00080	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00079	0.00079	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0012	0.0012	0.0098	N/A	0.0000300	0.0000000360	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.0010	0.0010	0.0098	N/A	0.100	0.000100	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.00095	0.00095	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.00078	0.00078	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.00087	0.00087	0.029	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.00096	0.00096	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.00091	0.00091	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00029	0.00029	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.00090	0.00090	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.00083	0.00083	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.00093	0.00093	0.0098	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.00098	0.00098	0.0098	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00030	0.00030	0.0098	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00022	0.00022	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.00081	0.00081	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.00086	0.00086	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00028	0.00028	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00021	0.00021	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.00068	0.00068	0.020	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8535							
Sampling Date		2013/11/28 11:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1137-03R\FR19-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00026	0.00026	0.0098	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00038	0.00038	0.020	N/A	0.0000300	0.0000000114	N/A	3495945
233'44'6-HexaCB-(158)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00039	0.00039	0.0098	N/A	N/A	N/A	N/A	3495945
233'456-HexaCB-(160)	ng/g	<0.00073	0.00073	0.0098	N/A	N/A	N/A	N/A	3495945
233'45'6-HexaCB-(161)	ng/g	<0.00068	0.00068	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00038	0.00038	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'6-HexaCB-(164)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
233'55'6-HexaCB-(165)	ng/g	<0.00072	0.00072	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.00040	0.00040	0.0098	N/A	0.0000300	0.0000000120	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00041	0.00041	0.0098	N/A	0.0300	0.0000123	N/A	3495945
22'33'44'5-HeptaCB-(170)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'6-HeptaCB-(175)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00055	0.00055	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'6-HeptaCB-(178)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00053	0.00053	0.0098	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56-HeptaCB-(181)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'5'6-HeptaCB-(183)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00051	0.00051	0.0098	N/A	N/A	N/A	N/A	3495945
22'3455'6-HeptaCB-(185)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00056	0.00056	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'55'6-HeptaCB-(187)	ng/g	<0.00066	0.00066	0.0098	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8535							
Sampling Date		2013/11/28 11:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1137-03R\FR19-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.00085	0.00085	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.00054	0.00054	0.0098	N/A	0.0000300	0.0000000162	N/A	3495945
233'44'56-HeptaCB-(190)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'5'6-HeptaCB-(191)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
233'455'6-HeptaCB-(192)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.00029	0.00029	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'56-OctaCB-(195)	ng/g	<0.00032	0.00032	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'66'OctaCB-(197)	ng/g	<0.00020	0.00020	0.0098	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00032	0.00032	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00026	0.00026	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00033	0.00033	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'55'6-OctaCB-(203)	ng/g	<0.00030	0.00030	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'55'6-OctaCB-(205)	ng/g	<0.00023	0.00023	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6-NonaCB-(206)	ng/g	<0.00072	0.00072	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00057	0.00057	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.00065	0.00065	0.0098	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.00364	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000113	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6-NonaCB-(206)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5-HeptaCB-(170)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	131	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6-HeptaCB-(178)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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QC Batch = Quality Control Batch

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8535							
Sampling Date		2013/11/28 11:47							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1137-03R\FR19-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	126	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8536							
Sampling Date		2013/11/28 11:52							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1138-03R\FR20-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.014	0.014	0.0099	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.011	0.011	0.0099	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.010	0.010	0.0099	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.010	0.010	0.0099	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.010	0.010	0.0099	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.011	0.011	0.0099	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.0090	0.0090	0.0099	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.011	0.011	0.0099	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.011	0.011	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.011	0.011	0.0099	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.018	0.018	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0026	0.0026	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0020	0.0020	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0020	0.0020	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0019	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0016	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8536							
Sampling Date		2013/11/28 11:52							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1138-03R\FR20-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.00056	0.00056	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.00070	0.00070	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.00078	0.00078	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	<0.00054	0.00054	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.00056	0.00056	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.00067	0.00067	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.00050	0.00050	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.00054	0.00054	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	0.00160	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00027	0.00027	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.00066	0.00066	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.00059	0.00059	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.00059	0.00059	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00041	0.00041	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.00061	0.00061	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00191	0.00060	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.00057	0.00057	0.0099	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.00045	0.00045	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.00111	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.00053	0.00053	0.0099	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.00055	0.00055	0.0099	N/A	N/A	N/A	N/A	3495945

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8536							
Sampling Date		2013/11/28 11:52							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1138-03R\FR20-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	<0.00039	0.00039	0.0099	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.00067	0.00067	0.0099	N/A	0.000100	0.0000000670	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.00062	0.00062	0.0099	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.00069	0.00069	0.0099	N/A	0.000300	0.000000207	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.00064	0.00064	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.00056	0.00056	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.00065	0.00065	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.00048	0.00048	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00141	0.00048	0.059	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.00053	0.00053	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.00059	0.00059	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.0014 (1)	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.00056	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.00057	0.00057	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.00058	0.00058	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	0.00110	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00013	0.00013	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00017	0.00017	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.00060	0.00060	0.0099	N/A	0.0000300	0.0000000180	N/A	3495945
233'45-PentaCB-(106)	ng/g	<0.00053	0.00053	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.00056	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.00053	0.00053	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.00211	0.00044	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00040	0.00040	0.0099	N/A	N/A	N/A	N/A	3495945
233'56-PentaCB-(112)	ng/g	<0.00043	0.00043	0.0099	N/A	N/A	N/A	N/A	3495945

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8536							
Sampling Date		2013/11/28 11:52							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1138-03R\FR20-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.00060	0.00060	0.0099	N/A	0.0000300	0.0000000180	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	0.00192	0.00060	0.0099	N/A	0.0000300	0.0000000576	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00040	0.00040	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00040	0.00040	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.00059	0.00059	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.00066	0.00066	0.0099	N/A	0.0000300	0.0000000198	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.00059	0.00059	0.0099	N/A	0.100	0.0000590	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.00073	0.00073	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	0.00170	0.00081	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.00093	0.00093	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.00089	0.00089	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.00085	0.00085	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.00097	0.00097	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00057	0.00057	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00042	0.00042	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.00084	0.00084	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.00077	0.00077	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.00087	0.00087	0.0099	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.00091	0.00091	0.0099	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00058	0.00058	0.0099	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00043	0.00043	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.00076	0.00076	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	0.00098	0.00080	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00055	0.00055	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00039	0.00039	0.0099	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00041	0.00041	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.0010 (1)	0.0010	0.020	N/A	N/A	N/A	N/A	3495945

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8536							
Sampling Date		2013/11/28 11:52							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1138-03R\FR20-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00077	0.00077	0.020	N/A	0.0000300	0.0000000231	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.00061	0.00061	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00079	0.00079	0.0099	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.00068	0.00068	0.0099	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.00063	0.00063	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00077	0.00077	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.00066	0.00066	0.0099	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.00067	0.00067	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.00081	0.00081	0.0099	N/A	0.0000300	0.0000000243	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00083	0.00083	0.0099	N/A	0.0300	0.0000249	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.00095	0.00095	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00057	0.00057	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00044	0.00044	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00043	0.00043	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.00094	0.00094	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.00095	0.00095	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00041	0.00041	0.0099	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00045	0.00045	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00053	0.00053	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8536							
Sampling Date		2013/11/28 11:52							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1138-03R\FR20-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.00069	0.00069	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.0013	0.0013	0.0099	N/A	0.0000300	0.0000000390	N/A	3495945
233'44'56-HeptaCB-(190)	ng/g	<0.00096	0.00096	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'5'6-HeptaCB-(191)	ng/g	<0.00089	0.00089	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'6-HeptaCB-(192)	ng/g	<0.00095	0.00095	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.00087	0.00087	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56-OctaCB-(195)	ng/g	<0.00095	0.00095	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00037	0.00037	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'66'OctaCB-(197)	ng/g	<0.00023	0.00023	0.0099	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00036	0.00036	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00029	0.00029	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00026	0.00026	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00037	0.00037	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'55'6-OctaCB-(203)	ng/g	<0.00034	0.00034	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00026	0.00026	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'6-OctaCB-(205)	ng/g	<0.00067	0.00067	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6-NonaCB-(206)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0173	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.0000844	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	76	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6-NonaCB-(206)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5-HeptaCB-(170)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6-HeptaCB-(178)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8536							
Sampling Date		2013/11/28 11:52							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1138-03R\FR20-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'344'55'-HeptaCB-(180)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	80	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	69	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	71	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	49	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	39	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	46	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8537							
Sampling Date		2013/11/28 11:57							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1139-03R\FR21-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.00092	0.00092	0.010	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.00089	0.00089	0.010	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.00086	0.00086	0.010	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	0.00342	0.00099	0.010	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.00059	0.00059	0.010	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0015 (1)	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	0.0021	0.0020	0.010	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	0.0017	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	0.0021	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	0.0039	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0057	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	0.0027	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	0.0019	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0063	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	0.00145	0.00091	0.010	N/A	N/A	N/A	N/A	3495945

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 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
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 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8537							
Sampling Date		2013/11/28 11:57							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1139-03R1FR21-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
33'4'-TriCB-(35)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	0.0037	0.0022	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0026	0.0026	0.010	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0026	0.0026	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.0064	0.0021	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0022	0.0022	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0026	0.0026	0.010	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0022	0.0022	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	0.0040	0.0020	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0021	0.0021	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	0.0067	0.0020	0.010	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00056	0.00056	0.010	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	0.0022	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.0017	0.0017	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0090	0.0017	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	0.0031	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.0047	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8537							
Sampling Date		2013/11/28 11:57							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1139-03R\FR21-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
23'56'-TetraCB-(73)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.0017	0.0017	0.010	N/A	0.000100	0.000000170	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB-(79)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
344'5'-TetraCB-(81)	ng/g	<0.0017	0.0017	0.010	N/A	0.000300	0.000000510	N/A	3495945
22'33'4'-PentaCB-(82)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	0.0024	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6'-PentaCB-(84)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.0014	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.0031	0.0014	0.060	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	0.0063	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0016	0.0016	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(95)	ng/g	0.0055	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00054	0.00054	0.010	N/A	N/A	N/A	N/A	3495945
22'45'6'-PentaCB-(103)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00082	0.00082	0.010	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0018	0.0018	0.010	N/A	0.0000300	0.0000000540	N/A	3495945
233'45'-PentaCB-(106)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(107)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.0062	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
233'56'-PentaCB-(112)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945

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Maxxam ID		UQ8537							
Sampling Date		2013/11/28 11:57							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1139-03R\FR21-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2344'5-PentaCB-(114)	ng/g	<0.0018	0.0018	0.010	N/A	0.0000300	0.0000000540	N/A	3495945
23'44'5-PentaCB-(118)	ng/g	0.0035	0.0018	0.010	N/A	0.0000300	0.000000105	N/A	3495945
23'455'-PentaCB-(120)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
23'45'6-PentaCB-(121)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.0020	0.0020	0.010	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0020	0.0020	0.010	N/A	0.0000300	0.0000000600	N/A	3495945
33'44'5-PentaCB-(126)	ng/g	<0.0018	0.0018	0.010	N/A	0.100	0.000180	N/A	3495945
33'455'-PentaCB-(127)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	0.0056	0.0015	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	0.0019	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	0.00241	0.00098	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	0.00119	0.00070	0.010	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00097	0.00097	0.010	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00071	0.00071	0.010	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	0.0045	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00093	0.00093	0.010	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00068	0.00068	0.010	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00069	0.00069	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	0.0038	0.0012	0.020	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8537							
Sampling Date		2013/11/28 11:57							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1139-03R\FR21-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00086	0.00086	0.010	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.0012	0.0012	0.020	N/A	0.0000300	0.0000000360	N/A	3495945
233'44'6-HexaCB-(158)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
233'456-HexaCB-(160)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
233'45'6-HexaCB-(161)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'6-HexaCB-(164)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
233'55'6-HexaCB-(165)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.0013	0.0013	0.010	N/A	0.0000300	0.0000000390	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.0013	0.0013	0.010	N/A	0.0300	0.0000390	N/A	3495945
22'33'44'5-HeptaCB-(170)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0023	0.0023	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0024	0.0024	0.010	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0022	0.0022	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'6-HeptaCB-(175)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00098	0.00098	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0023	0.0023	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'6-HeptaCB-(178)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00093	0.00093	0.010	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0018	0.0018	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56-HeptaCB-(181)	ng/g	<0.0021	0.0021	0.010	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'344'5'6-HeptaCB-(183)	ng/g	<0.0020	0.0020	0.010	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00088	0.00088	0.010	N/A	N/A	N/A	N/A	3495945
22'3455'6-HeptaCB-(185)	ng/g	<0.0021	0.0021	0.010	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'34'55'6-HeptaCB-(187)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8537							
Sampling Date		2013/11/28 11:57							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1139-03R\FR21-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.0013	0.0013	0.010	N/A	0.0000300	0.0000000390	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
233'455'6'-HeptaCB-(192)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'66'OctaCB-(197)	ng/g	<0.00072	0.00072	0.010	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00081	0.00081	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00076	0.00076	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00075	0.00075	0.010	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00084	0.00084	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00066	0.00066	0.010	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.00077	0.00077	0.010	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000220	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	122	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
N/A = Not Applicable RDL = Reportable Detection Limit EDL = Estimated Detection Limit QC Batch = Quality Control Batch TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds									

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8537							
Sampling Date		2013/11/28 11:57							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1139-03R\FR21-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'344'55'-HeptaCB-(180)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	132	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	89	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8538							
Sampling Date		2013/11/28 12:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1140-03R\FR22-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.00097	0.00097	0.0099	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.00094	0.00094	0.0099	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0021	0.0021	0.0099	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0019	0.0019	0.0099	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.00070	0.00070	0.0099	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0020	0.0020	0.0099	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0019	0.0019	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0019	0.0019	0.0099	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.0024 (1)	0.0024	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0034	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0026	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.00093	0.00093	0.0099	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8538							
Sampling Date		2013/11/28 12:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1140-03R\FR22-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
33'4'-TriCB-(35)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0018	0.0018	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0022	0.0022	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0022	0.0022	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	<0.0018	0.0018	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0018	0.0018	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0022	0.0022	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00053	0.00053	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.0014	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0038	0.0017	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	0.0018	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8538							
Sampling Date		2013/11/28 12:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1140-03R\FR22-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
23'5'6'-TetraCB-(73)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.0016	0.0016	0.0099	N/A	0.000100	0.000000160	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB-(79)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
344'5'-TetraCB-(81)	ng/g	<0.0017	0.0017	0.0099	N/A	0.000300	0.000000510	N/A	3495945
22'33'4'-PentaCB-(82)	ng/g	<0.0019	0.0019	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6'-PentaCB-(84)	ng/g	<0.0020	0.0020	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.0014	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0014	0.0014	0.059	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	0.0015	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0017	0.0017	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'6'-PentaCB-(95)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00022	0.00022	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'6'-PentaCB-(103)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00033	0.00033	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0015	0.0015	0.0099	N/A	0.0000300	0.0000000450	N/A	3495945
233'45'-PentaCB-(106)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(107)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.0022	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'56'-PentaCB-(112)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8538							
Sampling Date		2013/11/28 12:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1140-03R\FR22-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.0015	0.0015	0.0099	N/A	0.0000300	0.0000000450	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	<0.0015	0.0015	0.0099	N/A	0.0000300	0.0000000450	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0016	0.0016	0.0099	N/A	0.0000300	0.0000000480	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.0014	0.0014	0.0099	N/A	0.100	0.000140	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0013	0.0013	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00052	0.00052	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00037	0.00037	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00038	0.00038	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00036	0.00036	0.0099	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00037	0.00037	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.00099	0.00099	0.020	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8538							
Sampling Date		2013/11/28 12:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1140-03R\FR22-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.0012	0.0012	0.020	N/A	0.0000300	0.0000000360	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.00099	0.00099	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.00096	0.00096	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.00097	0.00097	0.0099	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.0013	0.0013	0.0099	N/A	0.0000300	0.0000000390	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.0013	0.0013	0.0099	N/A	0.0300	0.0000390	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00070	0.00070	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00053	0.00053	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00076	0.00076	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00051	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00073	0.00073	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00048	0.00048	0.0099	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00056	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00067	0.00067	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8538							
Sampling Date		2013/11/28 12:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1140-03R\FR22-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.00083	0.00083	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.0010	0.0010	0.0099	N/A	0.0000300	0.0000000300	N/A	3495945
233'44'56-HeptaCB-(190)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'56-HeptaCB-(191)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'6-HeptaCB-(192)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56-OctaCB-(195)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00085	0.00085	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'66'OctaCB-(197)	ng/g	<0.00055	0.00055	0.0099	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00084	0.00084	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00062	0.00062	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00058	0.00058	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00082	0.00082	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'55'6-OctaCB-(203)	ng/g	<0.00079	0.00079	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00058	0.00058	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'6-OctaCB-(205)	ng/g	<0.00079	0.00079	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6-NonaCB-(206)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00097	0.00097	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.00094	0.00094	0.0099	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0153	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000180	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6-NonaCB-(206)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5-HeptaCB-(170)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6-HeptaCB-(178)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8538							
Sampling Date		2013/11/28 12:05							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1140-03R\FR22-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'344'55'-HeptaCB-(180)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	112	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	88	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8539							
Sampling Date		2013/11/28 12:08							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1141-03R\FR23-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.00098	0.00098	0.0098	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0017	0.0017	0.0098	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.0021 (1)	0.0021	0.0098	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0021	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.00092	0.00092	0.0098	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0016	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.00084	0.00084	0.0098	N/A	N/A	N/A	N/A	3495945

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8539							
Sampling Date		2013/11/28 12:08							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1141-03R\FR23-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
33'4'-TriCB-(35)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0016	0.0016	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0019	0.0019	0.0098	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0019	0.0019	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	<0.0015	0.0015	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0019	0.0019	0.0098	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00065	0.00065	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.0017	0.0017	0.0098	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.0012	0.0012	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0021	0.0016	0.039	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8539							
Sampling Date		2013/11/28 12:08							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1141-03R\FR23-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
23'5'6'-TetraCB-(73)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.0016	0.0016	0.0098	N/A	0.000100	0.000000160	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB-(79)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
344'5'-TetraCB-(81)	ng/g	<0.0016	0.0016	0.0098	N/A	0.000300	0.000000480	N/A	3495945
22'33'4'-PentaCB-(82)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6'-PentaCB-(84)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.0010	0.0010	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0010	0.0010	0.059	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.0010	0.0010	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0012	0.0012	0.039	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
22'35'6'-PentaCB-(95)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00021	0.00021	0.0098	N/A	N/A	N/A	N/A	3495945
22'45'6'-PentaCB-(103)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0014	0.0014	0.0098	N/A	0.0000300	0.0000000420	N/A	3495945
233'45'-PentaCB-(106)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(107)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00087	0.00087	0.0098	N/A	N/A	N/A	N/A	3495945
233'56'-PentaCB-(112)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8539							
Sampling Date		2013/11/28 12:08							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1141-03R\FR23-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5'-PentaCB-(114)	ng/g	<0.0014	0.0014	0.0098	N/A	0.0000300	0.0000000420	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	<0.0014	0.0014	0.0098	N/A	0.0000300	0.0000000420	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.00089	0.00089	0.0098	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00085	0.00085	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0015	0.0015	0.0098	N/A	0.0000300	0.0000000450	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.0014	0.0014	0.0098	N/A	0.100	0.000140	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0014	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0016	0.0016	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0014	0.0014	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00044	0.00044	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00032	0.00032	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0015	0.0015	0.0098	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00044	0.00044	0.0098	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00032	0.00032	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00043	0.00043	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00031	0.00031	0.0098	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00032	0.00032	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.0010	0.0010	0.020	N/A	N/A	N/A	N/A	3495945

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8539							
Sampling Date		2013/11/28 12:08							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1141-03R\FR23-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'56'-HexaCB-(154)	ng/g	<0.00039	0.00039	0.0098	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00051	0.00051	0.0098	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.0011	0.0011	0.020	N/A	0.0000300	0.0000000330	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.0013	0.0013	0.0098	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.0010	0.0010	0.0098	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.0012	0.0012	0.0098	N/A	0.0000300	0.0000000360	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.0012	0.0012	0.0098	N/A	0.0300	0.0000360	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.00064	0.00064	0.0098	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.00082	0.00082	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.00084	0.00084	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.00079	0.00079	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00052	0.00052	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00039	0.00039	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.00081	0.00081	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00056	0.00056	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00037	0.00037	0.0098	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.00064	0.00064	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.00075	0.00075	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00054	0.00054	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.00071	0.00071	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00035	0.00035	0.0098	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.00074	0.00074	0.0098	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00041	0.00041	0.0098	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00050	0.00050	0.0098	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8539							
Sampling Date		2013/11/28 12:08							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1141-03R\FR23-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	<0.00061	0.00061	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.00089	0.00089	0.0098	N/A	0.0000300	0.0000000267	N/A	3495945
233'44'56-HeptaCB-(190)	ng/g	<0.00069	0.00069	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'5'6-HeptaCB-(191)	ng/g	<0.00063	0.00063	0.0098	N/A	N/A	N/A	N/A	3495945
233'455'6-HeptaCB-(192)	ng/g	<0.00067	0.00067	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.00088	0.00088	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'56-OctaCB-(195)	ng/g	<0.00095	0.00095	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00085	0.00085	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'66'OctaCB-(197)	ng/g	<0.00055	0.00055	0.0098	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00084	0.00084	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00062	0.00062	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00058	0.00058	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00082	0.00082	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'55'6-OctaCB-(203)	ng/g	<0.00079	0.00079	0.0098	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00057	0.00057	0.0098	N/A	N/A	N/A	N/A	3495945
233'44'55'6-OctaCB-(205)	ng/g	<0.00064	0.00064	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6-NonaCB-(206)	ng/g	<0.0012	0.0012	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00097	0.00097	0.0098	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0011	0.0011	0.0098	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.00097	0.00097	0.0098	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.00572	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000177	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6-NonaCB-(206)	%	123	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5-HeptaCB-(170)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6-HeptaCB-(178)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8539							
Sampling Date		2013/11/28 12:08							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1141-03R\FR23-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'344'55'-HeptaCB-(180)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	92	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	120	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	81	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8540							
Sampling Date		2013/11/28 12:16							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1142-03R\FR24-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.00075	0.00075	0.010	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.0020	0.0020	0.010	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0022	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0019	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
2,3',5'-TriCB-(34)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

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QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8540							
Sampling Date		2013/11/28 12:16							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1142-03R\FR24-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4'-TriCB-(35)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0016	0.0016	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	<0.0015	0.0015	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00075	0.00075	0.010	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.0012	0.0012	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0026	0.0017	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945

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 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8540							
Sampling Date		2013/11/28 12:16							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1142-03R\FR24-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'56-TetraCB-(73)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
33'44-TetraCB-(77)	ng/g	<0.0016	0.0016	0.010	N/A	0.000100	0.000000160	N/A	3495945
33'45-TetraCB-(78)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
33'45-TetraCB-(79)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
33'55-TetraCB-(80)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.0017	0.0017	0.010	N/A	0.000300	0.000000510	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.0012	0.0012	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0012	0.0012	0.061	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'346-PentaCB-(89)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.0012	0.0012	0.030	N/A	N/A	N/A	N/A	3495945
22'355-PentaCB-(92)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0014	0.0014	0.040	N/A	N/A	N/A	N/A	3495945
22'356-PentaCB-(94)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'366-PentaCB-(96)	ng/g	<0.00024	0.00024	0.010	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
22'466-PentaCB-(104)	ng/g	<0.00036	0.00036	0.010	N/A	N/A	N/A	N/A	3495945
233'44-PentaCB-(105)	ng/g	<0.0016	0.0016	0.010	N/A	0.0000300	0.0000000480	N/A	3495945
233'45-PentaCB-(106)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.0016	0.0016	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	0.0016	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
233'55-PentaCB-(111)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
233'56-PentaCB-(112)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
2344'5-PentaCB-(114)	ng/g	<0.0016	0.0016	0.010	N/A	0.0000300	0.0000000480	N/A	3495945

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 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8540							
Sampling Date		2013/11/28 12:16							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1142-03R\FR24-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5'-PentaCB-(118)	ng/g	0.0021	0.0016	0.010	N/A	0.0000300	0.0000000630	N/A	3495945
23'45'5'-PentaCB-(120)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00099	0.00099	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0018	0.0018	0.010	N/A	0.0000300	0.0000000540	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.0016	0.0016	0.010	N/A	0.100	0.000160	N/A	3495945
33'45'5'-PentaCB-(127)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0017	0.0017	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0020	0.0020	0.010	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0017	0.0017	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0019	0.0019	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00050	0.00050	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00036	0.00036	0.010	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0019	0.0019	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0018	0.0018	0.010	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00050	0.00050	0.010	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00036	0.00036	0.010	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0016	0.0016	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00048	0.00048	0.010	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00035	0.00035	0.010	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00035	0.00035	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00044	0.00044	0.010	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8540							
Sampling Date		2013/11/28 12:16							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1142-03R\FR24-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'44'66'-HexaCB-(155)	ng/g	<0.00057	0.00057	0.010	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.0013	0.0013	0.020	N/A	0.0000300	0.000000390	N/A	3495945
233'44'6-HexaCB-(158)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
233'45'6-HexaCB-(161)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
233'4'5'6-HexaCB-(164)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
233'55'6-HexaCB-(165)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.0014	0.0014	0.010	N/A	0.0000300	0.000000420	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.0014	0.0014	0.010	N/A	0.0300	0.0000420	N/A	3495945
22'33'44'5-HeptaCB-(170)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0014	0.0014	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'6-HeptaCB-(175)	ng/g	<0.00087	0.00087	0.010	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00066	0.00066	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0015	0.0015	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'6-HeptaCB-(178)	ng/g	<0.00093	0.00093	0.010	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00063	0.00063	0.010	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56-HeptaCB-(181)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00091	0.00091	0.010	N/A	N/A	N/A	N/A	3495945
22'344'5'6-HeptaCB-(183)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00059	0.00059	0.010	N/A	N/A	N/A	N/A	3495945
22'3455'6-HeptaCB-(185)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00069	0.00069	0.010	N/A	N/A	N/A	N/A	3495945
22'34'55'6-HeptaCB-(187)	ng/g	<0.00083	0.00083	0.010	N/A	N/A	N/A	N/A	3495945
22'34'566'-HeptaCB-(188)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8540							
Sampling Date		2013/11/28 12:16							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1142-03R\FR24-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'44'55'-HeptaCB-(189)	ng/g	<0.00094	0.00094	0.010	N/A	0.0000300	0.0000000282	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
233'45'5'6'-HeptaCB-(192)	ng/g	<0.0012	0.0012	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00092	0.00092	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'66'-OctaCB-(197)	ng/g	<0.00059	0.00059	0.010	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00091	0.00091	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00067	0.00067	0.010	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00063	0.00063	0.010	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00089	0.00089	0.010	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.00086	0.00086	0.010	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00062	0.00062	0.010	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.00077	0.00077	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.0011	0.0011	0.010	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00090	0.00090	0.010	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0010	0.0010	0.010	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0013	0.0013	0.010	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.0104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000203	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	70	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6'-NonaCB-(206)	%	121	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	127	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8540							
Sampling Date		2013/11/28 12:16							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1142-03R\FR24-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'34'566'-HeptaCB-(188)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	93	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	96	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	75	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	90	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	65	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	94	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	43	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	72	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	51	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	107	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	<0.00058	0.00058	0.0099	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.00056	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.00064	0.00064	0.0099	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.00059	0.00059	0.0099	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.00051	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.00045 (1)	0.00045	0.0099	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.00038	0.00038	0.0099	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.00056 (1)	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.00054	0.00054	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.00075 (1)	0.00075	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',3-TriCB-(16)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
2,2',4-TriCB-(17)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
2,2',6-TriCB-(19)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0020	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
2,3',4-TriCB-(25)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
2,3',6-TriCB-(27)	ng/g	<0.00097	0.00097	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',5-TriCB-(31)	ng/g	0.0017	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
2,4',6-TriCB-(32)	ng/g	<0.00088	0.00088	0.0099	N/A	N/A	N/A	N/A	3495945

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
33'4'-TriCB-(35)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
33'5'-TriCB-(36)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
345'-TriCB-(38)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
34'5'-TriCB-(39)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0013	0.0013	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'-TetraCB-(43)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	0.0013	0.0012	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'-TetraCB-(48)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00068	0.00068	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-TetraCB-(55)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(57)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.00097	0.00097	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	<0.0022 (1)	0.0022	0.040	N/A	N/A	N/A	N/A	3495945
234'5'-TetraCB-(63)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
234'6'-TetraCB-(64)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(67)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945

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 (1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
23'5'6-TetraCB-(73)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.0016	0.0016	0.0099	N/A	0.000100	0.000000160	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
344'5-TetraCB-(81)	ng/g	<0.0017	0.0017	0.0099	N/A	0.000300	0.000000510	N/A	3495945
22'33'4-PentaCB-(82)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6-PentaCB-(84)	ng/g	<0.0019	0.0019	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.0013	0.0013	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0013	0.0013	0.060	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.0013	0.0013	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0016	0.0016	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'6-PentaCB-(95)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00026	0.00026	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'6-PentaCB-(103)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00039	0.00039	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0015	0.0015	0.0099	N/A	0.0000300	0.0000000450	N/A	3495945
233'45-PentaCB-(106)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5-PentaCB-(107)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
PentaCB-(110)+(115)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56'-PentaCB-(112)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
2344'5'-PentaCB-(114)	ng/g	<0.0015	0.0015	0.0099	N/A	0.0000300	0.0000000450	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	<0.0015	0.0015	0.0099	N/A	0.0000300	0.0000000450	N/A	3495945
23'455'-PentaCB-(120)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0016	0.0016	0.0099	N/A	0.0000300	0.0000000480	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.0015	0.0015	0.0099	N/A	0.100	0.000150	N/A	3495945
33'455'-PentaCB-(127)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0015	0.0015	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00069	0.00069	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00049	0.00049	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00069	0.00069	0.0099	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00050	0.00050	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'34'56'-HexaCB-(148)	ng/g	<0.00066	0.00066	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00048	0.00048	0.0099	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00049	0.00049	0.0099	N/A	N/A	N/A	N/A	3495945

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 Report Date: 2014/02/10

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00061	0.00061	0.0099	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00079	0.00079	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.00082	0.00082	0.020	N/A	0.0000300	0.000000246	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.00094	0.00094	0.0099	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.00091	0.00091	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.00087	0.00087	0.0099	N/A	0.0000300	0.000000261	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.00089	0.00089	0.0099	N/A	0.0300	0.0000267	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.00093	0.00093	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00064	0.00064	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00048	0.00048	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00069	0.00069	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.00092	0.00092	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00067	0.00067	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00044	0.00044	0.0099	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00051	0.00051	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/g	<0.00061	0.00061	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'56'6-HeptaCB-(188)	ng/g	<0.00076	0.00076	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.0010	0.0010	0.0099	N/A	0.0000300	0.0000000300	N/A	3495945
233'44'56-HeptaCB-(190)	ng/g	<0.00099	0.00099	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'5'6-HeptaCB-(191)	ng/g	<0.00091	0.00091	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'6-HeptaCB-(192)	ng/g	<0.00097	0.00097	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.00082	0.00082	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56-OctaCB-(195)	ng/g	<0.00088	0.00088	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00071	0.00071	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'66'OctaCB-(197)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00071	0.00071	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00052	0.00052	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00049	0.00049	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00069	0.00069	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'55'6-OctaCB-(203)	ng/g	<0.00066	0.00066	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00048	0.00048	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'6-OctaCB-(205)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6-NonaCB-(206)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00096	0.00096	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.00493	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000178	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	79	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'55'6-NonaCB-(206)	%	119	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5-HeptaCB-(170)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'455'66'-NonaCB-(208)	%	134	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'66'-OctaCB-(202)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'33'55'6-HeptaCB-(178)	%	113	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'566'-HeptaCB-(188)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	97	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	137	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	115	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6-OctaCB-(205)	%	106	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	95	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5-PentaCB-(114)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5-PentaCB-(118)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5-PentaCB-(123)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	86	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5-PentaCB-(126)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5-TetraCB-(81)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	83	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	91	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-DecaCB-(209)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

2-MonoCB-(1)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
3-MonoCB-(2)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
4-MonoCB-(3)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
2,2'-DiCB-(4)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
2,3-DiCB-(5)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
2,3'-DiCB-(6)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,4-DiCB-(7)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,4'-DiCB-(8)	ng/g	<0.0026 (1)	0.0026	0.0099	N/A	N/A	N/A	N/A	3495945
2,5-DiCB-(9)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,6-DiCB-(10)	ng/g	<0.00087	0.00087	0.0099	N/A	N/A	N/A	N/A	3495945
3,3'-DiCB-(11)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
DiCB-(12)+(13)	ng/g	<0.0015	0.0015	0.020	N/A	N/A	N/A	N/A	3495945
3,5-DiCB-(14)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
4,4'-DiCB-(15)	ng/g	<0.0026 (1)	0.0026	0.0099	N/A	N/A	N/A	N/A	3495945
2,2,3-TriCB-(16)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
2,2,4-TriCB-(17)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(18)+(30)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,2,6-TriCB-(19)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(20) + (28)	ng/g	0.0024	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
TriCB-(21)+(33)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,3,4'-TriCB-(22)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,5-TriCB-(23)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(24)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
2,3,4-TriCB-(25)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
TriCB-(26)+(29)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
2,3,6-TriCB-(27)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
2,4,5-TriCB-(31)	ng/g	0.0021	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B412082
 Report Date: 2014/02/10

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SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

24'6-TriCB-(32)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
23'5'-TriCB-(34)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
33'4-TriCB-(35)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
33'5-TriCB-(36)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
344'-TriCB-(37)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
345-TriCB-(38)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
34'5-TriCB-(39)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(40)+(41)+(71)	ng/g	<0.0014	0.0014	0.030	N/A	N/A	N/A	N/A	3495945
22'34'-TetraCB-(42)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'35-TetraCB-(43)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(44)+(47)+(65)	ng/g	<0.0013	0.0013	0.030	N/A	N/A	N/A	N/A	3495945
TetraCB-(45)+(51)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'36'-TetraCB-(46)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'45-TetraCB-(48)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(49)+TetraCB-(69)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
TetraCB-(50)+(53)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'55'-TetraCB-(52)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'66'-TetraCB-(54)	ng/g	<0.00066	0.00066	0.0099	N/A	N/A	N/A	N/A	3495945
233'4-TetraCB-(55)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'-Tetra CB(56)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
233'5-TetraCB-(57)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
233'5'-TetraCB-(58)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(59)+(62)+(75)	ng/g	<0.0010	0.0010	0.030	N/A	N/A	N/A	N/A	3495945
2344'-TetraCB -(60)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0020	0.0014	0.040	N/A	N/A	N/A	N/A	3495945
234'5-TetraCB-(63)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
234'6-TetraCB-(64)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'-TetraCB-(66)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
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 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

23'45'-TetraCB-(67)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'-TetraCB-(68)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
23'55'-TetraCB-(72)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
23'5'6'-TetraCB-(73)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
33'44'-TetraCB-(77)	ng/g	<0.0014	0.0014	0.0099	N/A	0.000100	0.000000140	N/A	3495945
33'45'-TetraCB-(78)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
33'45'-TetraCB(79)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
33'55'-TetraCB-(80)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
344'5'-TetraCB-(81)	ng/g	<0.0014	0.0014	0.0099	N/A	0.000300	0.000000420	N/A	3495945
22'33'4'-PentaCB-(82)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(83)+(99)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'33'6'-PentaCB-(84)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(85)+(116)+(117)	ng/g	<0.0012	0.0012	0.030	N/A	N/A	N/A	N/A	3495945
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	<0.0012	0.0012	0.060	N/A	N/A	N/A	N/A	3495945
PentaCB-(88)+(91)	ng/g	<0.0013	0.0013	0.020	N/A	N/A	N/A	N/A	3495945
22'346'-PentaCB-(89)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(90)+(101)+(113)	ng/g	<0.0012	0.0012	0.030	N/A	N/A	N/A	N/A	3495945
22'355'-PentaCB-(92)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(93)+(98)+(100)+(102)	ng/g	<0.0014	0.0014	0.040	N/A	N/A	N/A	N/A	3495945
22'356'-PentaCB-(94)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'35'6'-PentaCB-(95)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'366'-PentaCB-(96)	ng/g	<0.00026	0.00026	0.0099	N/A	N/A	N/A	N/A	3495945
22'45'6'-PentaCB-(103)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'466'-PentaCB-(104)	ng/g	<0.00039	0.00039	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'-PentaCB-(105)	ng/g	<0.0012	0.0012	0.0099	N/A	0.0000300	0.0000000360	N/A	3495945
233'45'-PentaCB-(106)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(107)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
PentaCB-(108)+(124)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945

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 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

PentaCB-(110)+(115)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
233'55'-PentaCB-(111)	ng/g	<0.00098	0.00098	0.0099	N/A	N/A	N/A	N/A	3495945
233'56'-PentaCB-(112)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
2344'5'-PentaCB-(114)	ng/g	<0.0012	0.0012	0.0099	N/A	0.0000300	0.0000000360	N/A	3495945
23'44'5'-PentaCB-(118)	ng/g	<0.0012	0.0012	0.0099	N/A	0.0000300	0.0000000360	N/A	3495945
23'455'-PentaCB-(120)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
23'45'6'-PentaCB-(121)	ng/g	<0.00095	0.00095	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'-PentaCB-(122)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'5'-PentaCB-(123)	ng/g	<0.0013	0.0013	0.0099	N/A	0.0000300	0.0000000390	N/A	3495945
33'44'5'-PentaCB-(126)	ng/g	<0.0012	0.0012	0.0099	N/A	0.100	0.000120	N/A	3495945
33'455'-PentaCB-(127)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(128)+(166)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(129)+(138)+(163)	ng/g	<0.0015	0.0015	0.030	N/A	N/A	N/A	N/A	3495945
22'33'45'-HexaCB-(130)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(131)	ng/g	<0.0018	0.0018	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'46'-HexaCB-(132)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'-HexaCB-(133)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(134)+(143)	ng/g	<0.0017	0.0017	0.020	N/A	N/A	N/A	N/A	3495945
HexaCB-(135)+(151)	ng/g	<0.00064	0.00064	0.020	N/A	N/A	N/A	N/A	3495945
22'33'66'-HexaCB-(136)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'5'-HexaCB-(137)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(139)+(140)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'3455'-HexaCB-(141)	ng/g	<0.0016	0.0016	0.0099	N/A	N/A	N/A	N/A	3495945
22'3456'-HexaCB-(142)	ng/g	<0.0017	0.0017	0.0099	N/A	N/A	N/A	N/A	3495945
22'345'6'-HexaCB-(144)	ng/g	<0.00063	0.00063	0.0099	N/A	N/A	N/A	N/A	3495945
22'3466'-HexaCB-(145)	ng/g	<0.00046	0.00046	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'-HexaCB-(146)	ng/g	<0.0015	0.0015	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(147)+(149)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

22'34'56'-HexaCB-(148)	ng/g	<0.00061	0.00061	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'66'-HexaCB-(150)	ng/g	<0.00044	0.00044	0.0099	N/A	N/A	N/A	N/A	3495945
22'3566'-HexaCB-(152)	ng/g	<0.00045	0.00045	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(153)+(168)	ng/g	<0.0012	0.0012	0.020	N/A	N/A	N/A	N/A	3495945
22'44'56'-HexaCB-(154)	ng/g	<0.00056	0.00056	0.0099	N/A	N/A	N/A	N/A	3495945
22'44'66'-HexaCB-(155)	ng/g	<0.00073	0.00073	0.0099	N/A	N/A	N/A	N/A	3495945
HexaCB-(156)+(157)	ng/g	<0.0011	0.0011	0.020	N/A	0.0000300	0.0000000330	N/A	3495945
233'44'6'-HexaCB-(158)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'-HexaCB-(159)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
233'456'-HexaCB-(160)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
233'45'6'-HexaCB-(161)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'55'-HexaCB-(162)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
233'4'5'6'-HexaCB-(164)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'55'6'-HexaCB-(165)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
23'44'55'-HexaCB-(167)	ng/g	<0.0012	0.0012	0.0099	N/A	0.0000300	0.0000000360	N/A	3495945
33'44'55'-HexaCB-(169)	ng/g	<0.0012	0.0012	0.0099	N/A	0.0300	0.0000360	N/A	3495945
22'33'44'5'-HeptaCB-(170)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(171)+(173)	ng/g	<0.0014	0.0014	0.020	N/A	N/A	N/A	N/A	3495945
22'33'455'-HeptaCB-(172)	ng/g	<0.0014	0.0014	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'456'-HeptaCB-(174)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(175)	ng/g	<0.00079	0.00079	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'466'-HeptaCB-(176)	ng/g	<0.00060	0.00060	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'6'-HeptaCB-(177)	ng/g	<0.0013	0.0013	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'6'-HeptaCB-(178)	ng/g	<0.00085	0.00085	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'566'-HeptaCB-(179)	ng/g	<0.00057	0.00057	0.0099	N/A	N/A	N/A	N/A	3495945
HeptaCB-(180)+(193)	ng/g	<0.0011	0.0011	0.020	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(181)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'56'-HeptaCB-(182)	ng/g	<0.00083	0.00083	0.0099	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'5'6'-HeptaCB-(183)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'66'-HeptaCB-(184)	ng/g	<0.00054	0.00054	0.0099	N/A	N/A	N/A	N/A	3495945
22'3455'6'-HeptaCB-(185)	ng/g	<0.0012	0.0012	0.0099	N/A	N/A	N/A	N/A	3495945
22'34566'-HeptaCB-(186)	ng/g	<0.00063	0.00063	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'55'6'-HeptaCB-(187)	ng/g	<0.00076	0.00076	0.0099	N/A	N/A	N/A	N/A	3495945
22'34'566'-HeptaCB-(188)	ng/g	<0.00094	0.00094	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'-HeptaCB-(189)	ng/g	<0.0012	0.0012	0.0099	N/A	0.0000300	0.0000000360	N/A	3495945
233'44'56'-HeptaCB-(190)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'5'6'-HeptaCB-(191)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
233'455'6'-HeptaCB-(192)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'-OctaCB-(194)	ng/g	<0.0010	0.0010	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(195)	ng/g	<0.0011	0.0011	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'56'-OctaCB-(196)	ng/g	<0.00095	0.00095	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'66'-OctaCB-(197)	ng/g	<0.00061	0.00061	0.0099	N/A	N/A	N/A	N/A	3495945
OctaCB-(198)+(199)	ng/g	<0.00094	0.00094	0.020	N/A	N/A	N/A	N/A	3495945
22'33'4566'-OctaCB-(200)	ng/g	<0.00069	0.00069	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'45'66'-OctaCB-(201)	ng/g	<0.00065	0.00065	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'55'66'-OctaCB-(202)	ng/g	<0.00092	0.00092	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'55'6'-OctaCB-(203)	ng/g	<0.00088	0.00088	0.0099	N/A	N/A	N/A	N/A	3495945
22'344'566'-OctaCB-(204)	ng/g	<0.00064	0.00064	0.0099	N/A	N/A	N/A	N/A	3495945
233'44'55'6'-OctaCB-(205)	ng/g	<0.00076	0.00076	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'55'6'-NonaCB-(206)	ng/g	<0.00098	0.00098	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'44'566'-NonaCB-(207)	ng/g	<0.00077	0.00077	0.0099	N/A	N/A	N/A	N/A	3495945
22'33'455'66'-NonaCB-(208)	ng/g	<0.00089	0.00089	0.0099	N/A	N/A	N/A	N/A	3495945
DecaCB-(209)	ng/g	<0.00084	0.00084	0.0099	N/A	N/A	N/A	N/A	3495945
Total PCB	ng/g	0.00654	N/A	N/A	N/A	N/A	N/A	N/A	3495945
TOTAL TOXIC EQUIVALENCY	ng/g	N/A	N/A	N/A	N/A	N/A	0.000157	N/A	N/A
Surrogate Recovery (%)									
C13-2,44'-TriCB-(28)	%	82	N/A	N/A	N/A	N/A	N/A	N/A	3495945

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Maxxam Job #: B412082
 Report Date: 2014/02/10

 Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-22'33'44'55'6'-NonaCB-(206)	%	131	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'44'5'-HeptaCB-(170)	%	104	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'45'5'6'-NonaCB-(208)	%	129	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'6'-OctaCB-(202)	%	117	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'33'55'6'-HeptaCB-(178)	%	118	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'344'55'-HeptaCB-(180)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'34'56'6'-HeptaCB-(188)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'44'66'-HexaCB-(155)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'466'-PentaCB-(104)	%	108	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'66'-TetraCB-(54)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'6-TriCB-(19)	%	125	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-22'-DiCB-(4)	%	105	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'6'-OctaCB-(205)	%	109	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'55'-HeptaCB-(189)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'44'-PentaCB-(105)	%	101	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-233'55'-PentaCB-(111)	%	110	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'55'-HexaCB-(167)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2344'5'-PentaCB-(114)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-23'44'5'-PentaCB-(118)	%	99	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2'344'5'-PentaCB-(123)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-2-MonoCB-(1)	%	78	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'55'-HexaCB-(169)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'5'-PentaCB-(126)	%	100	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-33'44'-TetraCB-(77)	%	98	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'5'-TetraCB-(81)	%	103	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-344'-TriCB-(37)	%	85	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-44'-DiCB-(15)	%	111	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-4-MonoCB-(3)	%	84	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable

RDL = Reportable Detection Limit

EDL = Estimated Detection Limit

QC Batch = Quality Control Batch

TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,

The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.

WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
 Report Date: 2014/02/10

Maxxam Analytics
 Client Project #: B3B0652

SEMI-VOLATILE ORGANICS BY HRMS (SEDIMENT)

Maxxam ID		UQ8541							
Sampling Date		2013/11/28 12:23							
COC Number		NA				TOXIC EQUIVALENCY		# of	
	Units	IF1143-03R\FR25-1 Lab-Dup	EDL	RDL	MDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch

C13-DecaCB-(209)	%	116	N/A	N/A	N/A	N/A	N/A	N/A	3495945
C13-HexaCB-(156)+(157)	%	102	N/A	N/A	N/A	N/A	N/A	N/A	3495945

N/A = Not Applicable
 RDL = Reportable Detection Limit
 EDL = Estimated Detection Limit
 QC Batch = Quality Control Batch
 TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
 The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
 WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B412082
Report Date: 2014/02/10

Maxxam Analytics
Client Project #: B3B0652

Test Summary

Maxxam ID UQ8512
Sample ID IF1068-03R\FR30-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/28	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8512 Dup
Sample ID IF1068-03R\FR30-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/28	Cathy Xu

Maxxam ID UQ8513
Sample ID IF1069-03R\FR29-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/28	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8514
Sample ID IF1070-03R\FR28-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/28	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8515
Sample ID IF1071-03R\FR27-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/28	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8515 Dup
Sample ID IF1071-03R\FR27-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

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Report Date: 2014/02/10

Maxxam Analytics
Client Project #: B3B0652

Test Summary

Maxxam ID UQ8516
Sample ID IF1072-03R/FR26-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/28	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8517
Sample ID IF1073-03R/FR1-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/28	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8518
Sample ID IF1074-03R/FR2-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/28	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8519
Sample ID IF1075-03R/FR3-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/29	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8520
Sample ID IF1076-03R/FR4-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/29	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8521
Sample ID IF1077-03R/FR5-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/29	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam Job #: B412082
Report Date: 2014/02/10

Maxxam Analytics
Client Project #: B3B0652

Test Summary

Maxxam ID UQ8522
Sample ID IF1078-03R\FR6-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/29	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8523
Sample ID IF1079-03R\FR7-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/29	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8523 Dup
Sample ID IF1079-03R\FR7-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec

Maxxam ID UQ8524
Sample ID IF1107-03R\FR8-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/29	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8525
Sample ID IF1108-03R\FR9-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/29	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8526
Sample ID IF1109-03R\FR10-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495556	2014/01/26	2014/01/29	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam Job #: B412082
Report Date: 2014/02/10

Maxxam Analytics
Client Project #: B3B0652

Test Summary

Maxxam ID UQ8527
Sample ID IF1110-03R\FR11-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3500644	N/A	2014/02/04	Godwin Okereke

Maxxam ID UQ8528
Sample ID IF1111-03R\FR12-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8528 Dup
Sample ID IF1111-03R\FR12-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8529
Sample ID IF1112-03R\FR13-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8530
Sample ID IF1113-03R\FR14-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8531
Sample ID IF1114-03R\FR15-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492879	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam Job #: B412082
Report Date: 2014/02/10

Maxxam Analytics
Client Project #: B3B0652

Test Summary

Maxxam ID UQ8532
Sample ID IF1116-03R/FR16-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8533
Sample ID IF1117-03R/FR17-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8534
Sample ID IF1118-03R/FR18-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8535
Sample ID IF1137-03R/FR19-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8536
Sample ID IF1138-03R/FR20-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/30	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8537
Sample ID IF1139-03R/FR21-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/31	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam Job #: B412082
Report Date: 2014/02/10

Maxxam Analytics
Client Project #: B3B0652

Test Summary

Maxxam ID UQ8538
Sample ID IF1140-03R/FR22-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/31	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8539
Sample ID IF1141-03R/FR23-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/31	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8540
Sample ID IF1142-03R/FR24-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/31	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8541
Sample ID IF1143-03R/FR25-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/31	Cathy Xu
Total Organic Carbon in Soil	LECO	3503688	N/A	2014/02/07	Godwin Okereke

Maxxam ID UQ8541 Dup
Sample ID IF1143-03R/FR25-1
Matrix SEDIMENT

Collected 2013/11/28
Shipped
Received 2014/01/24

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	3492890	N/A	2014/01/24	Justin Lipiec
PCB Congeners in Soil (1668A)	HRMS/MS	3495945	2014/01/26	2014/01/31	Cathy Xu

Maxxam Job #: B412082
Report Date: 2014/02/10

Maxxam Analytics
Client Project #: B3B0652

Package 1	1.7°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Analytics
 Attention: Amandeep Nagra
 Client Project #: B3B0652
 P.O. #:
 Site Location:

Quality Assurance Report

Maxxam Job Number: GB412082

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3492879 BOP	RPD - Sample/Sample Dup	Moisture	2014/01/24	2.0		%	20
3492890 BOP	RPD - Sample/Sample Dup	Moisture	2014/01/24	3.7		%	20
3495556 CXU	Spiked Blank	C13-2,44'-TriCB-(28)	2014/01/28		81	%	30 - 135
		C13-22'33'44'55'6'-NonaCB-(206)	2014/01/28		119	%	25 - 150
		C13-22'33'44'5'-HeptaCB-(170)	2014/01/28		107	%	25 - 150
		C13-22'33'45'66'-NonaCB-(208)	2014/01/28		124	%	25 - 150
		C13-22'33'55'66'-OctaCB-(202)	2014/01/28		116	%	25 - 150
		C13-22'33'55'6'-HeptaCB-(178)	2014/01/28		113	%	30 - 135
		C13-22'344'55'-HeptaCB-(180)	2014/01/28		112	%	30 - 135
		C13-22'34'566'-HeptaCB-(188)	2014/01/28		102	%	25 - 150
		C13-22'44'66'-HexaCB-(155)	2014/01/28		89	%	25 - 150
		C13-22'466'-PentaCB-(104)	2014/01/28		90	%	25 - 150
		C13-22'66'-TetraCB-(54)	2014/01/28		78	%	25 - 150
		C13-22'6'-TriCB-(19)	2014/01/28		75	%	25 - 150
		C13-22'-DiCB-(4)	2014/01/28		53	%	25 - 150
		C13-233'44'55'6'-OctaCB-(205)	2014/01/28		109	%	25 - 150
		C13-233'44'55'-HeptaCB-(189)	2014/01/28		103	%	25 - 150
		C13-233'44'-PentaCB-(105)	2014/01/28		124	%	25 - 150
		C13-233'55'-PentaCB-(111)	2014/01/28		109	%	30 - 135
		C13-23'44'55'-HexaCB-(167)	2014/01/28		106	%	25 - 150
		C13-2344'5'-PentaCB-(114)	2014/01/28		118	%	25 - 150
		C13-23'44'5'-PentaCB-(118)	2014/01/28		118	%	25 - 150
		C13-2'344'5'-PentaCB-(123)	2014/01/28		117	%	25 - 150
		C13-2-MonoCB-(1)	2014/01/28		46	%	15 - 150
		C13-33'44'55'-HexaCB-(169)	2014/01/28		106	%	25 - 150
		C13-33'44'5'-PentaCB-(126)	2014/01/28		128	%	25 - 150
		C13-33'44'-TetraCB-(77)	2014/01/28		104	%	25 - 150
		C13-344'5'-TetraCB-(81)	2014/01/28		100	%	25 - 150
		C13-344'-TriCB-(37)	2014/01/28		85	%	25 - 150
		C13-44'-DiCB-(15)	2014/01/28		84	%	25 - 150
		C13-4-MonoCB-(3)	2014/01/28		48	%	15 - 150
		C13-DecaCB-(209)	2014/01/28		111	%	25 - 150
		C13-HexaCB-(156)+(157)	2014/01/28		106	%	25 - 150
		2-MonoCB-(1)	2014/01/28		102	%	50 - 150
		4-MonoCB-(3)	2014/01/28		98	%	50 - 150
		22'-DiCB-(4)	2014/01/28		99	%	50 - 150
		4,4'-DiCB-(15)	2014/01/28		103	%	50 - 150
		22'6'-TriCB-(19)	2014/01/28		92	%	50 - 150
		235'-TriCB-(23)	2014/01/28		85	%	50 - 150
		23'5'-TriCB-(34)	2014/01/28		85	%	50 - 150
		344'-TriCB-(37)	2014/01/28		96	%	50 - 150
		22'66'-TetraCB-(54)	2014/01/28		97	%	50 - 150
		33'44'-TetraCB-(77)	2014/01/28		96	%	50 - 150
		344'5'-TetraCB-(81)	2014/01/28		97	%	50 - 150
		22'466'-PentaCB-(104)	2014/01/28		102	%	50 - 150
		233'44'-PentaCB-(105)	2014/01/28		92	%	50 - 150
		2344'5'-PentaCB-(114)	2014/01/28		92	%	50 - 150
		23'44'5'-PentaCB-(118)	2014/01/28		93	%	50 - 150
		23'44'5'-PentaCB-(123)	2014/01/28		96	%	50 - 150
		33'44'5'-PentaCB-(126)	2014/01/28		90	%	50 - 150
		22'44'66'-HexaCB-(155)	2014/01/28		86	%	50 - 150

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3495556 CXU	Spiked Blank	HexaCB-(156)+(157)	2014/01/28		94	%	50 - 150
		23'44'55'-HexaCB-(167)	2014/01/28		95	%	50 - 150
		33'44'55'-HexaCB-(169)	2014/01/28		94	%	50 - 150
		22'33'44'5-HeptaCB-(170)	2014/01/28		92	%	50 - 150
		HeptaCB-(180)+(193)	2014/01/28		81	%	50 - 150
		22'344'56'-HeptaCB-(182)	2014/01/28		87	%	50 - 150
		22'34'55'6-HeptaCB-(187)	2014/01/28		83	%	50 - 150
		22'34'566'-HeptaCB-(188)	2014/01/28		94	%	50 - 150
		233'44'55'-HeptaCB-(189)	2014/01/28		90	%	50 - 150
		22'33'55'66'-OctaCB-(202)	2014/01/28		87	%	50 - 150
		233'44'55'6-OctaCB-(205)	2014/01/28		92	%	50 - 150
		22'33'44'55'6-NonaCB-(206)	2014/01/28		92	%	50 - 150
		22'33'455'66'-NonaCB-(208)	2014/01/28		91	%	50 - 150
		DecaCB-(209)	2014/01/28		84	%	50 - 150
	Method Blank	C13-2,44'-TriCB-(28)	2014/01/28		86	%	30 - 135
		C13-22'33'44'55'6-NonaCB-(206)	2014/01/28		118	%	25 - 150
		C13-22'33'44'5-HeptaCB-(170)	2014/01/28		105	%	25 - 150
		C13-22'33'455'66'-NonaCB-(208)	2014/01/28		123	%	25 - 150
		C13-22'33'55'66'-OctaCB-(202)	2014/01/28		110	%	25 - 150
		C13-22'33'55'6-HeptaCB-(178)	2014/01/28		107	%	30 - 135
		C13-22'344'55'-HeptaCB-(180)	2014/01/28		106	%	30 - 135
		C13-22'34'566'-HeptaCB-(188)	2014/01/28		93	%	25 - 150
		C13-22'44'66'-HexaCB-(155)	2014/01/28		83	%	25 - 150
		C13-22'466'-PentaCB-(104)	2014/01/28		91	%	25 - 150
		C13-22'66'-TetraCB-(54)	2014/01/28		78	%	25 - 150
		C13-22'6-TriCB-(19)	2014/01/28		71	%	25 - 150
		C13-22'-DiCB-(4)	2014/01/28		48	%	25 - 150
		C13-233'44'55'6-OctaCB-(205)	2014/01/28		104	%	25 - 150
		C13-233'44'55'-HeptaCB-(189)	2014/01/28		97	%	25 - 150
		C13-233'44'-PentaCB-(105)	2014/01/28		127	%	25 - 150
		C13-233'55'-PentaCB-(111)	2014/01/28		111	%	30 - 135
		C13-23'44'55'-HexaCB-(167)	2014/01/28		101	%	25 - 150
		C13-2344'5-PentaCB-(114)	2014/01/28		118	%	25 - 150
		C13-23'44'5-PentaCB-(118)	2014/01/28		122	%	25 - 150
		C13-2'344'5-PentaCB-(123)	2014/01/28		121	%	25 - 150
		C13-2-MonoCB-(1)	2014/01/28		42	%	15 - 150
		C13-33'44'55'-HexaCB-(169)	2014/01/28		98	%	25 - 150
		C13-33'44'5-PentaCB-(126)	2014/01/28		130	%	25 - 150
		C13-33'44'-TetraCB-(77)	2014/01/28		117	%	25 - 150
		C13-344'5-TetraCB-(81)	2014/01/28		111	%	25 - 150
		C13-344'-TriCB-(37)	2014/01/28		90	%	25 - 150
		C13-44'-DiCB-(15)	2014/01/28		82	%	25 - 150
		C13-4-MonoCB-(3)	2014/01/28		45	%	15 - 150
		C13-DecaCB-(209)	2014/01/28		104	%	25 - 150
		C13-HexaCB-(156)+(157)	2014/01/28		101	%	25 - 150
		2-MonoCB-(1)	2014/01/28	0.00055, EDL=0.00018		ng/g	
		3-MonoCB-(2)	2014/01/28	<0.00015, EDL=0.00015		ng/g	
		4-MonoCB-(3)	2014/01/28	<0.00050, EDL=0.00050 (1)		ng/g	
		22'-DiCB-(4)	2014/01/28	<0.0020, EDL=0.0020		ng/g	
		2,3-DiCB-(5)	2014/01/28	<0.0030, EDL=0.0030		ng/g	
		2,3'-DiCB-(6)	2014/01/28	<0.0025, EDL=0.0025		ng/g	
		2,4-DiCB-(7)	2014/01/28	<0.0026, EDL=0.0026		ng/g	
		2,4'-DiCB-(8)	2014/01/28	<0.0022, EDL=0.0022		ng/g	
		2,5-DiCB-(9)	2014/01/28	<0.0025, EDL=0.0025		ng/g	
		2,6-DiCB-(10)	2014/01/28	<0.0014, EDL=0.0014		ng/g	

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3495556 CXU	Method Blank	3,3'-DiCB-(11)	2014/01/28	<0.0032, EDL=0.0032 (1)		ng/g	
		DiCB-(12)+(13)	2014/01/28	<0.0027, EDL=0.0027		ng/g	
		3,5-DiCB-(14)	2014/01/28	<0.0025, EDL=0.0025		ng/g	
		4,4'-DiCB-(15)	2014/01/28	<0.0045, EDL=0.0045		ng/g	
		22'3'-TriCB-(16)	2014/01/28	<0.00073, EDL=0.00073		ng/g	
		22'4'-TriCB-(17)	2014/01/28	<0.00070, EDL=0.00070		ng/g	
		TriCB-(18)+(30)	2014/01/28	<0.00055, EDL=0.00055		ng/g	
		22'6'-TriCB-(19)	2014/01/28	<0.00071, EDL=0.00071		ng/g	
		TriCB-(20) + (28)	2014/01/28	<0.00082, EDL=0.00082 (1)		ng/g	
		TriCB-(21)+(33)	2014/01/28	0.00042, EDL=0.00030		ng/g	
		234'-TriCB-(22)	2014/01/28	<0.00033, EDL=0.00033 (1)		ng/g	
		235'-TriCB-(23)	2014/01/28	<0.00030, EDL=0.00030		ng/g	
		236'-TriCB-(24)	2014/01/28	<0.00055, EDL=0.00055		ng/g	
		23'4'-TriCB-(25)	2014/01/28	<0.00029, EDL=0.00029		ng/g	
		TriCB-(26)+(29)	2014/01/28	<0.00028, EDL=0.00028		ng/g	
		23'6'-TriCB-(27)	2014/01/28	<0.00049, EDL=0.00049		ng/g	
		24'5'-TriCB-(31)	2014/01/28	<0.00047, EDL=0.00047 (1)		ng/g	
		24'6'-TriCB-(32)	2014/01/28	<0.00045, EDL=0.00045		ng/g	
		23'5'-TriCB-(34)	2014/01/28	<0.00029, EDL=0.00029		ng/g	
		33'4'-TriCB-(35)	2014/01/28	<0.00030, EDL=0.00030		ng/g	
		33'5'-TriCB-(36)	2014/01/28	<0.00026, EDL=0.00026		ng/g	
		344'-TriCB-(37)	2014/01/28	<0.00036, EDL=0.00036		ng/g	
		345'-TriCB-(38)	2014/01/28	<0.00030, EDL=0.00030		ng/g	
		34'5'-TriCB-(39)	2014/01/28	<0.00028, EDL=0.00028		ng/g	
		TetraCB-(40)+(41)+(71)	2014/01/28	<0.00024, EDL=0.00024 (1)		ng/g	
		22'34'-TetraCB-(42)	2014/01/28	<0.00020, EDL=0.00020		ng/g	
		22'35'-TetraCB-(43)	2014/01/28	<0.00021, EDL=0.00021		ng/g	
		TetraCB-(44)+(47)+(65)	2014/01/28	0.00123, EDL=0.00017		ng/g	
		TetraCB-(45)+(51)	2014/01/28	<0.00018, EDL=0.00018		ng/g	
		22'36'-TetraCB-(46)	2014/01/28	<0.00021, EDL=0.00021		ng/g	
		22'45'-TetraCB-(48)	2014/01/28	<0.00017, EDL=0.00017		ng/g	
		TetraCB-(49)+TetraCB-(69)	2014/01/28	<0.00026, EDL=0.00026 (1)		ng/g	
		TetraCB-(50)+(53)	2014/01/28	<0.00017, EDL=0.00017		ng/g	
		22'55'-TetraCB-(52)	2014/01/28	<0.00043, EDL=0.00043 (1)		ng/g	
		22'66'-TetraCB-(54)	2014/01/28	<0.00038, EDL=0.00038		ng/g	
		233'4'-TetraCB-(55)	2014/01/28	<0.00030, EDL=0.00030		ng/g	
		233'4'-Tetra CB(56)	2014/01/28	<0.00033, EDL=0.00033		ng/g	
		233'5'-TetraCB-(57)	2014/01/28	<0.00029, EDL=0.00029		ng/g	
		233'5'-TetraCB-(58)	2014/01/28	<0.00028, EDL=0.00028		ng/g	
		TetraCB-(59)+(62)+(75)	2014/01/28	<0.00013, EDL=0.00013		ng/g	
		2344'-TetraCB -(60)	2014/01/28	<0.00031, EDL=0.00031		ng/g	
		TetraCB-(61)+(70)+(74)+(76)	2014/01/28	<0.00049, EDL=0.00049 (1)		ng/g	
		234'5'-TetraCB-(63)	2014/01/28	<0.00028, EDL=0.00028		ng/g	
		234'6'-TetraCB-(64)	2014/01/28	<0.00026, EDL=0.00026 (1)		ng/g	
		23'44'-TetraCB-(66)	2014/01/28	<0.00028, EDL=0.00028		ng/g	
		23'45'-TetraCB-(67)	2014/01/28	<0.00029, EDL=0.00029		ng/g	
		23'45'-TetraCB-(68)	2014/01/28	<0.00026, EDL=0.00026		ng/g	
		23'55'-TetraCB-(72)	2014/01/28	<0.00027, EDL=0.00027		ng/g	
		23'5'6'-TetraCB-(73)	2014/01/28	<0.00014, EDL=0.00014		ng/g	
		33'44'-TetraCB-(77)	2014/01/28	<0.00033, EDL=0.00033		ng/g	
		33'45'-TetraCB-(78)	2014/01/28	<0.00031, EDL=0.00031		ng/g	
		33'45'-TetraCB(79)	2014/01/28	<0.00028, EDL=0.00028		ng/g	
		33'55'-TetraCB-(80)	2014/01/28	<0.00027, EDL=0.00027		ng/g	
		344'5'-TetraCB-(81)	2014/01/28	<0.00034, EDL=0.00034		ng/g	
		22'33'4'-PentaCB-(82)	2014/01/28	<0.00026, EDL=0.00026		ng/g	

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3495556 CXU	Method Blank	PentaCB-(83)+(99)	2014/01/28	<0.00023, EDL=0.00023		ng/g	
		22'33'6-PentaCB-(84)	2014/01/28	<0.00030, EDL=0.00030 (1)		ng/g	
		PentaCB-(85)+(116)+(117)	2014/01/28	<0.00019, EDL=0.00019		ng/g	
		PentaCB-(86)(87)(97)(109)(119)(125)	2014/01/28	<0.00051, EDL=0.00051 (1)		ng/g	
		PentaCB-(88)+(91)	2014/01/28	<0.00022, EDL=0.00022		ng/g	
		22'346'-PentaCB-(89)	2014/01/28	<0.00024, EDL=0.00024		ng/g	
		PentaCB-(90)+(101)+(113)	2014/01/28	0.00036, EDL=0.00019		ng/g	
		22'355'-PentaCB-(92)	2014/01/28	<0.00022, EDL=0.00022		ng/g	
		PentaCB-(93)+(98)+(100)+(102)	2014/01/28	<0.00023, EDL=0.00023		ng/g	
		22'356'-PentaCB-(94)	2014/01/28	<0.00023, EDL=0.00023		ng/g	
		22'35'6-PentaCB-(95)	2014/01/28	<0.00034, EDL=0.00034 (1)		ng/g	
		22'366'-PentaCB-(96)	2014/01/28	<0.00018, EDL=0.00018		ng/g	
		22'45'6-PentaCB-(103)	2014/01/28	<0.00019, EDL=0.00019		ng/g	
		22'466'-PentaCB-(104)	2014/01/28	<0.00024, EDL=0.00024		ng/g	
		233'44'-PentaCB-(105)	2014/01/28	<0.00025, EDL=0.00025		ng/g	
		233'45-PentaCB-(106)	2014/01/28	<0.00024, EDL=0.00024		ng/g	
		233'4'5-PentaCB-(107)	2014/01/28	<0.00021, EDL=0.00021		ng/g	
		PentaCB-(108)+(124)	2014/01/28	<0.00022, EDL=0.00022		ng/g	
		PentaCB-(110)+(115)	2014/01/28	0.00083, EDL=0.00019		ng/g	
		233'55'-PentaCB-(111)	2014/01/28	<0.00016, EDL=0.00016		ng/g	
		233'56-PentaCB-(112)	2014/01/28	<0.00018, EDL=0.00018		ng/g	
		2344'5-PentaCB-(114)	2014/01/28	<0.00025, EDL=0.00025		ng/g	
		23'44'5-PentaCB-(118)	2014/01/28	<0.00041, EDL=0.00041 (1)		ng/g	
		23'455'-PentaCB-(120)	2014/01/28	<0.00016, EDL=0.00016		ng/g	
		23'45'6-PentaCB-(121)	2014/01/28	<0.00016, EDL=0.00016		ng/g	
		233'4'5-PentaCB-(122)	2014/01/28	<0.00025, EDL=0.00025		ng/g	
		23'44'5'-PentaCB-(123)	2014/01/28	<0.00028, EDL=0.00028		ng/g	
		33'44'5-PentaCB-(126)	2014/01/28	<0.00025, EDL=0.00025		ng/g	
		33'455'-PentaCB-(127)	2014/01/28	<0.00023, EDL=0.00023		ng/g	
		HexaCB-(128)+(166)	2014/01/28	<0.00056, EDL=0.00056		ng/g	
		HexaCB-(129)+(138)+(163)	2014/01/28	<0.00061, EDL=0.00061		ng/g	
		22'33'45'-HexaCB-(130)	2014/01/28	<0.00070, EDL=0.00070		ng/g	
		22'33'46'-HexaCB-(131)	2014/01/28	<0.00076, EDL=0.00076		ng/g	
		22'33'46'-HexaCB-(132)	2014/01/28	<0.00066, EDL=0.00066		ng/g	
		22'33'55'-HexaCB-(133)	2014/01/28	<0.00062, EDL=0.00062		ng/g	
		HexaCB-(134)+(143)	2014/01/28	<0.00070, EDL=0.00070		ng/g	
		HexaCB-(135)+(151)	2014/01/28	<0.00032, EDL=0.00032		ng/g	
		22'33'66'-HexaCB-(136)	2014/01/28	<0.00022, EDL=0.00022		ng/g	
		22'344'5-HexaCB-(137)	2014/01/28	<0.00067, EDL=0.00067		ng/g	
		HexaCB-(139)+(140)	2014/01/28	<0.00057, EDL=0.00057		ng/g	
		22'3455'-HexaCB-(141)	2014/01/28	<0.00064, EDL=0.00064		ng/g	
		22'3456-HexaCB-(142)	2014/01/28	<0.00067, EDL=0.00067		ng/g	
		22'345'6-HexaCB-(144)	2014/01/28	<0.00031, EDL=0.00031		ng/g	
		22'3466'-HexaCB-(145)	2014/01/28	<0.00024, EDL=0.00024		ng/g	
		22'34'55'-HexaCB-(146)	2014/01/28	<0.00058, EDL=0.00058		ng/g	
		HexaCB-(147)+(149)	2014/01/28	<0.00056, EDL=0.00056		ng/g	
		22'34'56'-HexaCB-(148)	2014/01/28	<0.00030, EDL=0.00030		ng/g	
		22'34'66'-HexaCB-(150)	2014/01/28	<0.00023, EDL=0.00023		ng/g	
		22'3566'-HexaCB-(152)	2014/01/28	<0.00021, EDL=0.00021		ng/g	
		HexaCB-(153)+(168)	2014/01/28	<0.00048, EDL=0.00048		ng/g	
		22'44'56'-HexaCB-(154)	2014/01/28	<0.00027, EDL=0.00027		ng/g	
		22'44'66'-HexaCB-(155)	2014/01/28	<0.00033, EDL=0.00033		ng/g	
		HexaCB-(156)+(157)	2014/01/28	<0.00028, EDL=0.00028		ng/g	
		233'44'6-HexaCB-(158)	2014/01/28	<0.00047, EDL=0.00047		ng/g	
		233'455'-HexaCB-(159)	2014/01/28	<0.00030, EDL=0.00030		ng/g	

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3495556 CXU	Method Blank	233'456-HexaCB-(160)	2014/01/28	<0.00051, EDL=0.00051		ng/g	
		233'45'6-HexaCB-(161)	2014/01/28	<0.00047, EDL=0.00047		ng/g	
		233'4'55'-HexaCB-(162)	2014/01/28	<0.00029, EDL=0.00029		ng/g	
		233'4'5'6-HexaCB-(164)	2014/01/28	<0.00047, EDL=0.00047		ng/g	
		233'55'6-HexaCB-(165)	2014/01/28	<0.00050, EDL=0.00050		ng/g	
		23'44'55'-HexaCB-(167)	2014/01/28	<0.00030, EDL=0.00030		ng/g	
		33'44'55'-HexaCB-(169)	2014/01/28	<0.00030, EDL=0.00030		ng/g	
		22'33'44'5-HeptaCB-(170)	2014/01/28	<0.00045, EDL=0.00045		ng/g	
		HeptaCB-(171)+(173)	2014/01/28	<0.00057, EDL=0.00057		ng/g	
		22'33'455'-HeptaCB-(172)	2014/01/28	<0.00059, EDL=0.00059		ng/g	
		22'33'456'-HeptaCB-(174)	2014/01/28	<0.00054, EDL=0.00054		ng/g	
		22'33'45'6-HeptaCB-(175)	2014/01/28	<0.00016, EDL=0.00016		ng/g	
		22'33'466'-HeptaCB-(176)	2014/01/28	<0.00012, EDL=0.00012		ng/g	
		22'33'45'6'-HeptaCB-(177)	2014/01/28	<0.00057, EDL=0.00057		ng/g	
		22'33'55'6-HeptaCB-(178)	2014/01/28	<0.00018, EDL=0.00018		ng/g	
		22'33'566'-HeptaCB-(179)	2014/01/28	<0.00012, EDL=0.00012		ng/g	
		HeptaCB-(180)+(193)	2014/01/28	<0.00045, EDL=0.00045		ng/g	
		22'344'56-HeptaCB-(181)	2014/01/28	<0.00052, EDL=0.00052		ng/g	
		22'344'56'-HeptaCB-(182)	2014/01/28	<0.00017, EDL=0.00017		ng/g	
		22'344'5'6-HeptaCB-(183)	2014/01/28	<0.00049, EDL=0.00049		ng/g	
		22'344'66'-HeptaCB-(184)	2014/01/28	<0.00011, EDL=0.00011		ng/g	
		22'3455'6-HeptaCB-(185)	2014/01/28	<0.00050, EDL=0.00050		ng/g	
		22'34566'-HeptaCB-(186)	2014/01/28	<0.00013, EDL=0.00013		ng/g	
		22'34'55'6-HeptaCB-(187)	2014/01/28	<0.00015, EDL=0.00015		ng/g	
		22'34'566'-HeptaCB-(188)	2014/01/28	<0.00019, EDL=0.00019		ng/g	
		233'44'55'-HeptaCB-(189)	2014/01/28	<0.00059, EDL=0.00059		ng/g	
		233'44'56-HeptaCB-(190)	2014/01/28	<0.00046, EDL=0.00046		ng/g	
		233'44'5'6-HeptaCB-(191)	2014/01/28	<0.00044, EDL=0.00044		ng/g	
		233'455'6-HeptaCB-(192)	2014/01/28	<0.00046, EDL=0.00046		ng/g	
		22'33'44'55'-OctaCB-(194)	2014/01/28	<0.00044, EDL=0.00044		ng/g	
		22'33'44'56-OctaCB-(195)	2014/01/28	<0.00047, EDL=0.00047		ng/g	
		22'33'44'56'-OctaCB-(196)	2014/01/28	<0.00031, EDL=0.00031		ng/g	
		22'33'44'66'OctaCB-(197)	2014/01/28	<0.00020, EDL=0.00020		ng/g	
		OctaCB-(198)+(199)	2014/01/28	<0.00031, EDL=0.00031		ng/g	
		22'33'4566'-OctaCB-(200)	2014/01/28	<0.00023, EDL=0.00023		ng/g	
		22'33'45'66'-OctaCB-(201)	2014/01/28	<0.00022, EDL=0.00022		ng/g	
		22'33'55'66'-OctaCB-(202)	2014/01/28	<0.00029, EDL=0.00029		ng/g	
		22'344'55'6-OctaCB-(203)	2014/01/28	<0.00029, EDL=0.00029		ng/g	
		22'344'566'-OctaCB-(204)	2014/01/28	<0.00022, EDL=0.00022		ng/g	
		233'44'55'6-OctaCB-(205)	2014/01/28	<0.00032, EDL=0.00032		ng/g	
		22'33'44'55'6-NonaCB-(206)	2014/01/28	<0.00059, EDL=0.00059		ng/g	
		22'33'44'566'-NonaCB-(207)	2014/01/28	<0.00047, EDL=0.00047		ng/g	
		22'33'455'66'-NonaCB-(208)	2014/01/28	<0.00054, EDL=0.00054		ng/g	
		DecaCB-(209)	2014/01/28	<0.00040, EDL=0.00040		ng/g	
		Total PCB	2014/01/28	0.00340, EDL=N/A		ng/g	
	RPD - Sample/Sample Dup	2-MonoCB-(1)	2014/01/28	NC (1)		%	30
		3-MonoCB-(2)	2014/01/28	NC		%	30
		4-MonoCB-(3)	2014/01/28	NC		%	30
		22'-DiCB-(4)	2014/01/28	NC		%	30
		2,3-DiCB-(5)	2014/01/28	NC		%	30
		2,3'-DiCB-(6)	2014/01/28	NC		%	30
		2,4-DiCB-(7)	2014/01/28	NC		%	30
		2,4'-DiCB-(8)	2014/01/28	NC		%	30

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3495556 CXU	RPD - Sample/Sample Dup	2,5-DiCB-(9)	2014/01/28	NC		%	30
		2,6-DiCB-(10)	2014/01/28	NC		%	30
		3,3'-DiCB-(11)	2014/01/28	NC		%	30
		DiCB-(12)+(13)	2014/01/28	NC		%	30
		3,5-DiCB-(14)	2014/01/28	NC		%	30
		4,4'-DiCB-(15)	2014/01/28	NC		%	30
		22'3'-TriCB-(16)	2014/01/28	NC		%	30
		22'4'-TriCB-(17)	2014/01/28	NC		%	30
		TriCB-(18)+(30)	2014/01/28	NC		%	30
		22'6'-TriCB-(19)	2014/01/28	NC		%	30
		TriCB-(20) + (28)	2014/01/28	NC (1)		%	30
		TriCB-(21)+(33)	2014/01/28	NC		%	30
		234'-TriCB-(22)	2014/01/28	NC		%	30
		235'-TriCB-(23)	2014/01/28	NC		%	30
		236'-TriCB-(24)	2014/01/28	NC		%	30
		23'4'-TriCB-(25)	2014/01/28	NC		%	30
		TriCB-(26)+(29)	2014/01/28	NC (1)		%	30
		23'6'-TriCB-(27)	2014/01/28	NC		%	30
		24'5'-TriCB-(31)	2014/01/28	NC (1)		%	30
		24'6'-TriCB-(32)	2014/01/28	NC		%	30
		23'5'-TriCB-(34)	2014/01/28	NC		%	30
		33'4'-TriCB-(35)	2014/01/28	NC		%	30
		33'5'-TriCB-(36)	2014/01/28	NC		%	30
		344'-TriCB-(37)	2014/01/28	NC		%	30
		345'-TriCB-(38)	2014/01/28	NC		%	30
		34'5'-TriCB-(39)	2014/01/28	NC		%	30
		TetraCB-(40)+(41)+(71)	2014/01/28	NC		%	30
		22'34'-TetraCB-(42)	2014/01/28	NC		%	30
		22'35'-TetraCB-(43)	2014/01/28	NC		%	30
		TetraCB-(44)+(47)+(65)	2014/01/28	NC (1)		%	30
		TetraCB-(45)+(51)	2014/01/28	NC		%	30
		22'36'-TetraCB-(46)	2014/01/28	NC		%	30
		22'45'-TetraCB-(48)	2014/01/28	NC		%	30
		TetraCB-(49)+TetraCB-(69)	2014/01/28	NC (1)		%	30
		TetraCB-(50)+(53)	2014/01/28	NC		%	30
		22'55'-TetraCB-(52)	2014/01/28	NC		%	30
		22'66'-TetraCB-(54)	2014/01/28	NC		%	30
		233'4'-TetraCB-(55)	2014/01/28	NC		%	30
		233'4'-Tetra CB(56)	2014/01/28	NC (1)		%	30
		233'5'-TetraCB-(57)	2014/01/28	NC		%	30
		233'5'-TetraCB-(58)	2014/01/28	NC		%	30
		TetraCB-(59)+(62)+(75)	2014/01/28	NC		%	30
		2344'-TetraCB -(60)	2014/01/28	NC		%	30
		TetraCB-(61)+(70)+(74)+(76)	2014/01/28	NC		%	30
		234'5'-TetraCB-(63)	2014/01/28	NC		%	30
		234'6'-TetraCB-(64)	2014/01/28	NC		%	30
		23'44'-TetraCB-(66)	2014/01/28	NC		%	30
		23'45'-TetraCB-(67)	2014/01/28	NC		%	30
		23'45'-TetraCB-(68)	2014/01/28	NC		%	30
		23'55'-TetraCB-(72)	2014/01/28	NC		%	30
		23'5'6'-TetraCB-(73)	2014/01/28	NC		%	30
		33'44'-TetraCB-(77)	2014/01/28	NC		%	30
		33'45'-TetraCB-(78)	2014/01/28	NC		%	30

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3495556 CXU	RPD - Sample/Sample Dup	33'45'-TetraCB(79)	2014/01/28	NC		%	30
		33'55'-TetraCB-(80)	2014/01/28	NC		%	30
		344'5'-TetraCB-(81)	2014/01/28	NC		%	30
		22'33'4'-PentaCB-(82)	2014/01/28	NC		%	30
		PentaCB-(83)+(99)	2014/01/28	NC		%	30
		22'33'6'-PentaCB-(84)	2014/01/28	NC		%	30
		PentaCB-(85)+(116)+(117)	2014/01/28	NC		%	30
		PentaCB-(86)(87)(97)(109)(119)(125)	2014/01/28	NC (1)		%	30
		PentaCB-(88)+(91)	2014/01/28	NC		%	30
		22'346'-PentaCB-(89)	2014/01/28	NC		%	30
		PentaCB-(90)+(101)+(113)	2014/01/28	NC		%	30
		22'355'-PentaCB-(92)	2014/01/28	NC		%	30
		PentaCB-(93)+(98)+(100)+(102)	2014/01/28	NC		%	30
		22'356'-PentaCB-(94)	2014/01/28	NC		%	30
		22'35'6'-PentaCB-(95)	2014/01/28	NC		%	30
		22'366'-PentaCB-(96)	2014/01/28	NC		%	30
		22'45'6'-PentaCB-(103)	2014/01/28	NC		%	30
		22'466'-PentaCB-(104)	2014/01/28	NC		%	30
		233'44'-PentaCB-(105)	2014/01/28	NC (1)		%	30
		233'45'-PentaCB-(106)	2014/01/28	NC		%	30
		233'4'5'-PentaCB-(107)	2014/01/28	NC		%	30
		PentaCB-(108)+(124)	2014/01/28	NC		%	30
		PentaCB-(110)+(115)	2014/01/28	NC		%	30
		233'55'-PentaCB-(111)	2014/01/28	NC		%	30
		233'56'-PentaCB-(112)	2014/01/28	NC		%	30
		2344'5'-PentaCB-(114)	2014/01/28	NC		%	30
		23'44'5'-PentaCB-(118)	2014/01/28	NC		%	30
		23'455'-PentaCB-(120)	2014/01/28	NC		%	30
		23'45'6'-PentaCB-(121)	2014/01/28	NC		%	30
		233'4'5'-PentaCB-(122)	2014/01/28	NC		%	30
		23'44'5'-PentaCB-(123)	2014/01/28	NC		%	30
		33'44'5'-PentaCB-(126)	2014/01/28	NC		%	30
		33'455'-PentaCB-(127)	2014/01/28	NC		%	30
		HexaCB-(128)+(166)	2014/01/28	NC		%	30
		HexaCB-(129)+(138)+(163)	2014/01/28	NC		%	30
		22'33'45'-HexaCB-(130)	2014/01/28	NC		%	30
		22'33'46'-HexaCB-(131)	2014/01/28	NC		%	30
		22'33'46'-HexaCB-(132)	2014/01/28	NC		%	30
		22'33'55'-HexaCB-(133)	2014/01/28	NC		%	30
		HexaCB-(134)+(143)	2014/01/28	NC		%	30
		HexaCB-(135)+(151)	2014/01/28	NC		%	30
		22'33'66'-HexaCB-(136)	2014/01/28	NC		%	30
		22'344'5'-HexaCB-(137)	2014/01/28	NC		%	30
		HexaCB-(139)+(140)	2014/01/28	NC		%	30
		22'3455'-HexaCB-(141)	2014/01/28	NC		%	30
		22'3456'-HexaCB-(142)	2014/01/28	NC		%	30
		22'345'6'-HexaCB-(144)	2014/01/28	NC		%	30
		22'3466'-HexaCB-(145)	2014/01/28	NC		%	30
		22'34'55'-HexaCB-(146)	2014/01/28	NC		%	30
		HexaCB-(147)+(149)	2014/01/28	NC		%	30
		22'34'56'-HexaCB-(148)	2014/01/28	NC		%	30
		22'34'66'-HexaCB-(150)	2014/01/28	NC		%	30
		22'3566'-HexaCB-(152)	2014/01/28	NC		%	30

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3495556 CXU	RPD - Sample/Sample Dup	HexaCB-(153)+(168)	2014/01/28	NC		%	30
		22'44'56'-HexaCB-(154)	2014/01/28	NC		%	30
		22'44'66'-HexaCB-(155)	2014/01/28	NC		%	30
		HexaCB-(156)+(157)	2014/01/28	NC		%	30
		233'44'6-HexaCB-(158)	2014/01/28	NC		%	30
		233'455'-HexaCB-(159)	2014/01/28	NC		%	30
		233'456-HexaCB-(160)	2014/01/28	NC		%	30
		233'45'6-HexaCB-(161)	2014/01/28	NC		%	30
		233'4'55'-HexaCB-(162)	2014/01/28	NC		%	30
		233'4'5'6-HexaCB-(164)	2014/01/28	NC		%	30
		233'55'6-HexaCB-(165)	2014/01/28	NC		%	30
		23'44'55'-HexaCB-(167)	2014/01/28	NC		%	30
		33'44'55'-HexaCB-(169)	2014/01/28	NC		%	30
		22'33'44'5-HeptaCB-(170)	2014/01/28	NC		%	30
		HeptaCB-(171)+(173)	2014/01/28	NC		%	30
		22'33'455'-HeptaCB-(172)	2014/01/28	NC		%	30
		22'33'456'-HeptaCB-(174)	2014/01/28	NC		%	30
		22'33'45'6-HeptaCB-(175)	2014/01/28	NC		%	30
		22'33'466'-HeptaCB-(176)	2014/01/28	NC		%	30
		22'33'45'6'-HeptaCB-(177)	2014/01/28	NC		%	30
		22'33'55'6-HeptaCB-(178)	2014/01/28	NC		%	30
		22'33'566'-HeptaCB-(179)	2014/01/28	NC		%	30
		HeptaCB-(180)+(193)	2014/01/28	NC		%	30
		22'344'56-HeptaCB-(181)	2014/01/28	NC		%	30
		22'344'56'-HeptaCB-(182)	2014/01/28	NC		%	30
		22'344'5'6-HeptaCB-(183)	2014/01/28	NC		%	30
		22'344'66'-HeptaCB-(184)	2014/01/28	NC		%	30
		22'3455'6-HeptaCB-(185)	2014/01/28	NC		%	30
		22'34566'-HeptaCB-(186)	2014/01/28	NC		%	30
		22'34'55'6-HeptaCB-(187)	2014/01/28	NC		%	30
		22'34'566'-HeptaCB-(188)	2014/01/28	NC		%	30
		233'44'55'-HeptaCB-(189)	2014/01/28	NC		%	30
		233'44'56-HeptaCB-(190)	2014/01/28	NC		%	30
		233'44'5'6-HeptaCB-(191)	2014/01/28	NC		%	30
		233'455'6-HeptaCB-(192)	2014/01/28	NC		%	30
		22'33'44'55'-OctaCB-(194)	2014/01/28	NC		%	30
		22'33'44'56-OctaCB-(195)	2014/01/28	NC		%	30
		22'33'44'56'-OctaCB-(196)	2014/01/28	NC		%	30
		22'33'44'66-OctaCB-(197)	2014/01/28	NC		%	30
		OctaCB-(198)+(199)	2014/01/28	NC		%	30
		22'33'4566'-OctaCB-(200)	2014/01/28	NC		%	30
		22'33'45'66'-OctaCB-(201)	2014/01/28	NC		%	30
		22'33'55'66'-OctaCB-(202)	2014/01/28	NC		%	30
		22'344'55'6-OctaCB-(203)	2014/01/28	NC		%	30
		22'344'566'-OctaCB-(204)	2014/01/28	NC		%	30
		233'44'55'6-OctaCB-(205)	2014/01/28	NC		%	30
		22'33'44'55'6-NonaCB-(206)	2014/01/28	NC		%	30
		22'33'44'566'-NonaCB-(207)	2014/01/28	NC		%	30
		22'33'455'66'-NonaCB-(208)	2014/01/28	NC		%	30
		DecaCB-(209)	2014/01/28	NC		%	30
		Total PCB	2014/01/28	18.2		%	N/A
3495945 CXU	Spiked Blank	C13-2,44'-TriCB-(28)	2014/01/29		78	%	30 - 135
		C13-22'33'44'55'6-NonaCB-(206)	2014/01/29		120	%	25 - 150

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3495945 CXU	Spiked Blank	C13-22'33'44'5-HeptaCB-(170)	2014/01/29		103	%	25 - 150
		C13-22'33'45'56'6'-NonaCB-(208)	2014/01/29		132	%	25 - 150
		C13-22'33'55'66'-OctaCB-(202)	2014/01/29		116	%	25 - 150
		C13-22'33'55'6-HeptaCB-(178)	2014/01/29		119	%	30 - 135
		C13-22'344'55'-HeptaCB-(180)	2014/01/29		105	%	30 - 135
		C13-22'34'566'-HeptaCB-(188)	2014/01/29		104	%	25 - 150
		C13-22'44'66'-HexaCB-(155)	2014/01/29		90	%	25 - 150
		C13-22'466'-PentaCB-(104)	2014/01/29		92	%	25 - 150
		C13-22'66'-TetraCB-(54)	2014/01/29		67	%	25 - 150
		C13-22'6-TriCB-(19)	2014/01/29		55	%	25 - 150
		C13-22'-DiCB-(4)	2014/01/29		33	%	25 - 150
		C13-233'44'55'6-OctaCB-(205)	2014/01/29		103	%	25 - 150
		C13-233'44'55'-HeptaCB-(189)	2014/01/29		96	%	25 - 150
		C13-233'44'-PentaCB-(105)	2014/01/29		120	%	25 - 150
		C13-233'55'-PentaCB-(111)	2014/01/29		111	%	30 - 135
		C13-23'44'55'-HexaCB-(167)	2014/01/29		99	%	25 - 150
		C13-2344'5-PentaCB-(114)	2014/01/29		116	%	25 - 150
		C13-23'44'5-PentaCB-(118)	2014/01/29		115	%	25 - 150
		C13-2'344'5-PentaCB-(123)	2014/01/29		115	%	25 - 150
		C13-2-MonoCB-(1)	2014/01/29		23	%	15 - 150
		C13-33'44'55'-HexaCB-(169)	2014/01/29		97	%	25 - 150
		C13-33'44'5-PentaCB-(126)	2014/01/29		118	%	25 - 150
		C13-33'44'-TetraCB-(77)	2014/01/29		107	%	25 - 150
		C13-344'5-TetraCB-(81)	2014/01/29		104	%	25 - 150
		C13-344'-TriCB-(37)	2014/01/29		82	%	25 - 150
		C13-44'-DiCB-(15)	2014/01/29		74	%	25 - 150
		C13-4-MonoCB-(3)	2014/01/29		29	%	15 - 150
		C13-DecaCB-(209)	2014/01/29		106	%	25 - 150
		C13-HexaCB-(156)+(157)	2014/01/29		100	%	25 - 150
		2-MonoCB-(1)	2014/01/29		104	%	50 - 150
		4-MonoCB-(3)	2014/01/29		97	%	50 - 150
		22'-DiCB-(4)	2014/01/29		92	%	50 - 150
		4,4'-DiCB-(15)	2014/01/29		103	%	50 - 150
		22'6-TriCB-(19)	2014/01/29		95	%	50 - 150
		235-TriCB-(23)	2014/01/29		93	%	50 - 150
		23'5'-TriCB-(34)	2014/01/29		89	%	50 - 150
		344'-TriCB-(37)	2014/01/29		99	%	50 - 150
		22'66'-TetraCB-(54)	2014/01/29		100	%	50 - 150
		33'44'-TetraCB-(77)	2014/01/29		95	%	50 - 150
		344'5-TetraCB-(81)	2014/01/29		96	%	50 - 150
		22'466'-PentaCB-(104)	2014/01/29		95	%	50 - 150
		233'44'-PentaCB-(105)	2014/01/29		91	%	50 - 150
		2344'5-PentaCB-(114)	2014/01/29		94	%	50 - 150
		23'44'5-PentaCB-(118)	2014/01/29		94	%	50 - 150
		23'44'5'-PentaCB-(123)	2014/01/29		94	%	50 - 150
		33'44'5-PentaCB-(126)	2014/01/29		92	%	50 - 150
		22'44'66'-HexaCB-(155)	2014/01/29		89	%	50 - 150
		HexaCB-(156)+(157)	2014/01/29		95	%	50 - 150
		23'44'55'-HexaCB-(167)	2014/01/29		93	%	50 - 150
		33'44'55'-HexaCB-(169)	2014/01/29		92	%	50 - 150
		22'33'44'5-HeptaCB-(170)	2014/01/29		90	%	50 - 150
		HeptaCB-(180)+(193)	2014/01/29		80	%	50 - 150
		22'344'56'-HeptaCB-(182)	2014/01/29		91	%	50 - 150
		22'34'55'6-HeptaCB-(187)	2014/01/29		84	%	50 - 150
		22'34'566'-HeptaCB-(188)	2014/01/29		91	%	50 - 150

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3495945 CXU	Spiked Blank	233'44'55'-HeptaCB-(189)	2014/01/29		93	%	50 - 150	
		22'33'55'66'-OctaCB-(202)	2014/01/29		90	%	50 - 150	
233'44'55'6'-OctaCB-(205)		2014/01/29		89	%	50 - 150		
22'33'44'55'6'-NonaCB-(206)		2014/01/29		85	%	50 - 150		
22'33'45'66'-NonaCB-(208)		2014/01/29		85	%	50 - 150		
Method Blank		DecaCB-(209)	2014/01/29		83	%	50 - 150	
		C13-2,44'-TriCB-(28)	2014/01/29		86	%	30 - 135	
		C13-22'33'44'55'6'-NonaCB-(206)	2014/01/29		122	%	25 - 150	
		C13-22'33'44'5'-HeptaCB-(170)	2014/01/29		104	%	25 - 150	
		C13-22'33'45'66'-NonaCB-(208)	2014/01/29		130	%	25 - 150	
		C13-22'33'55'66'-OctaCB-(202)	2014/01/29		109	%	25 - 150	
		C13-22'33'55'6'-HeptaCB-(178)	2014/01/29		119	%	30 - 135	
		C13-22'344'55'-HeptaCB-(180)	2014/01/29		107	%	30 - 135	
		C13-22'34'566'-HeptaCB-(188)	2014/01/29		109	%	25 - 150	
		C13-22'44'66'-HexaCB-(155)	2014/01/29		99	%	25 - 150	
		C13-22'466'-PentaCB-(104)	2014/01/29		108	%	25 - 150	
		C13-22'66'-TetraCB-(54)	2014/01/29		79	%	25 - 150	
		C13-22'6'-TriCB-(19)	2014/01/29		74	%	25 - 150	
		C13-22'-DiCB-(4)	2014/01/29		54	%	25 - 150	
		C13-233'44'55'6'-OctaCB-(205)	2014/01/29		103	%	25 - 150	
		C13-233'44'55'-HeptaCB-(189)	2014/01/29		99	%	25 - 150	
		C13-233'44'-PentaCB-(105)	2014/01/29		121	%	25 - 150	
		C13-233'55'-PentaCB-(111)	2014/01/29		109	%	30 - 135	
		C13-23'44'55'-HexaCB-(167)	2014/01/29		104	%	25 - 150	
		C13-2344'5'-PentaCB-(114)	2014/01/29		115	%	25 - 150	
		C13-23'44'5'-PentaCB-(118)	2014/01/29		117	%	25 - 150	
		C13-2'344'5'-PentaCB-(123)	2014/01/29		116	%	25 - 150	
		C13-2-MonoCB-(1)	2014/01/29		44	%	15 - 150	
		C13-33'44'55'-HexaCB-(169)	2014/01/29		108	%	25 - 150	
		C13-33'44'5'-PentaCB-(126)	2014/01/29		120	%	25 - 150	
		C13-33'44'-TetraCB-(77)	2014/01/29		103	%	25 - 150	
		C13-344'5'-TetraCB-(81)	2014/01/29		102	%	25 - 150	
		C13-344'-TriCB-(37)	2014/01/29		88	%	25 - 150	
		C13-44'-DiCB-(15)	2014/01/29		87	%	25 - 150	
		C13-4-MonoCB-(3)	2014/01/29		49	%	15 - 150	
		C13-DecaCB-(209)	2014/01/29		109	%	25 - 150	
		C13-HexaCB-(156)+(157)	2014/01/29		108	%	25 - 150	
		2-MonoCB-(1)	2014/01/29		<0.0017, EDL=0.0017		ng/g	
		3-MonoCB-(2)	2014/01/29		<0.0014, EDL=0.0014		ng/g	
		4-MonoCB-(3)	2014/01/29		<0.0016, EDL=0.0016		ng/g	
		22'-DiCB-(4)	2014/01/29		<0.015, EDL=0.015		ng/g	
		2,3-DiCB-(5)	2014/01/29		<0.011, EDL=0.011		ng/g	
		2,3'-DiCB-(6)	2014/01/29		<0.0090, EDL=0.0090		ng/g	
		2,4-DiCB-(7)	2014/01/29		<0.0091, EDL=0.0091		ng/g	
		2,4'-DiCB-(8)	2014/01/29		<0.0074, EDL=0.0074		ng/g	
		2,5-DiCB-(9)	2014/01/29		<0.0089, EDL=0.0089		ng/g	
		2,6-DiCB-(10)	2014/01/29		<0.0099, EDL=0.0099		ng/g	
		3,3'-DiCB-(11)	2014/01/29		<0.0096, EDL=0.0096		ng/g	
		DiCB-(12)+(13)	2014/01/29		<0.0095, EDL=0.0095		ng/g	
		3,5-DiCB-(14)	2014/01/29		<0.0092, EDL=0.0092		ng/g	
4,4'-DiCB-(15)	2014/01/29		<0.016, EDL=0.016		ng/g			
22'3'-TriCB-(16)	2014/01/29		<0.0028, EDL=0.0028		ng/g			
22'4'-TriCB-(17)	2014/01/29		<0.0018, EDL=0.0018		ng/g			
TriCB-(18)+(30)	2014/01/29		<0.0014, EDL=0.0014		ng/g			
22'6'-TriCB-(19)	2014/01/29		<0.0018, EDL=0.0018		ng/g			

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3495945 CXU	Method Blank	TriCB-(20) + (28)	2014/01/29	<0.00085, EDL=0.00085		ng/g	
		TriCB-(21)+(33)	2014/01/29	<0.00083, EDL=0.00083		ng/g	
		234'-TriCB-(22)	2014/01/29	<0.00089, EDL=0.00089		ng/g	
		235-TriCB-(23)	2014/01/29	<0.00085, EDL=0.00085		ng/g	
		236-TriCB-(24)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		23'4-TriCB-(25)	2014/01/29	<0.00085, EDL=0.00085		ng/g	
		TriCB-(26)+(29)	2014/01/29	<0.00085, EDL=0.00085		ng/g	
		23'6-TriCB-(27)	2014/01/29	<0.0012, EDL=0.0012		ng/g	
		24'5-TriCB-(31)	2014/01/29	<0.00078, EDL=0.00078		ng/g	
		24'6-TriCB-(32)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		23'5'-TriCB-(34)	2014/01/29	<0.00088, EDL=0.00088		ng/g	
		33'4-TriCB-(35)	2014/01/29	<0.00089, EDL=0.00089		ng/g	
		33'5-TriCB-(36)	2014/01/29	<0.00077, EDL=0.00077		ng/g	
		344'-TriCB-(37)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		345-TriCB-(38)	2014/01/29	<0.00086, EDL=0.00086		ng/g	
		34'5-TriCB-(39)	2014/01/29	<0.00082, EDL=0.00082		ng/g	
		TetraCB-(40)+(41)+(71)	2014/01/29	<0.00086, EDL=0.00086		ng/g	
		22'34'-TetraCB-(42)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		22'35-TetraCB-(43)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		TetraCB-(44)+(47)+(65)	2014/01/29	<0.00085, EDL=0.00085		ng/g	
		TetraCB-(45)+(51)	2014/01/29	<0.00087, EDL=0.00087		ng/g	
		22'36'-TetraCB-(46)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		22'45-TetraCB-(48)	2014/01/29	<0.00084, EDL=0.00084		ng/g	
		TetraCB-(49)+TetraCB-(69)	2014/01/29	<0.00078, EDL=0.00078		ng/g	
		TetraCB-(50)+(53)	2014/01/29	<0.00084, EDL=0.00084		ng/g	
		22'55'-TetraCB-(52)	2014/01/29	<0.00086, EDL=0.00086		ng/g	
		22'66'-TetraCB-(54)	2014/01/29	<0.00075, EDL=0.00075		ng/g	
		233'4-TetraCB-(55)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		233'4'-Tetra CB(56)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		233'5-TetraCB-(57)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		233'5'-TetraCB-(58)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		TetraCB-(59)+(62)+(75)	2014/01/29	<0.00064, EDL=0.00064		ng/g	
		2344'-TetraCB -(60)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		TetraCB-(61)+(70)+(74)+(76)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		234'5-TetraCB-(63)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		234'6-TetraCB-(64)	2014/01/29	<0.00072, EDL=0.00072		ng/g	
		23'44'-TetraCB-(66)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		23'45-TetraCB-(67)	2014/01/29	<0.0010, EDL=0.0010		ng/g	
		23'45'-TetraCB-(68)	2014/01/29	<0.0010, EDL=0.0010		ng/g	
		23'55'-TetraCB-(72)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		23'5'6-TetraCB-(73)	2014/01/29	<0.00059, EDL=0.00059		ng/g	
		33'44'-TetraCB-(77)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		33'45-TetraCB-(78)	2014/01/29	<0.0012, EDL=0.0012		ng/g	
		33'45'-TetraCB(79)	2014/01/29	<0.0010, EDL=0.0010		ng/g	
		33'55'-TetraCB-(80)	2014/01/29	<0.0010, EDL=0.0010		ng/g	
		344'5-TetraCB-(81)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'33'4-PentaCB-(82)	2014/01/29	<0.0010, EDL=0.0010		ng/g	
		PentaCB-(83)+(99)	2014/01/29	<0.00093, EDL=0.00093		ng/g	
		22'33'6-PentaCB-(84)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		PentaCB-(85)+(116)+(117)	2014/01/29	<0.00079, EDL=0.00079		ng/g	
		PentaCB-(86)(87)(97)(109)(119)(125)	2014/01/29	<0.00080, EDL=0.00080		ng/g	
		PentaCB-(88)+(91)	2014/01/29	<0.00089, EDL=0.00089		ng/g	
		22'346'-PentaCB-(89)	2014/01/29	<0.00098, EDL=0.00098		ng/g	
		PentaCB-(90)+(101)+(113)	2014/01/29	<0.00079, EDL=0.00079		ng/g	
		22'355'-PentaCB-(92)	2014/01/29	<0.00093, EDL=0.00093		ng/g	

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3495945 CXU	Method Blank	PentaCB-(93)+(98)+(100)+(102)	2014/01/29	<0.00094, EDL=0.00094		ng/g	
		22'356'-PentaCB-(94)	2014/01/29	<0.00095, EDL=0.00095		ng/g	
		22'35'6'-PentaCB-(95)	2014/01/29	<0.00086, EDL=0.00086		ng/g	
		22'366'-PentaCB-(96)	2014/01/29	<0.00036, EDL=0.00036		ng/g	
		22'45'6'-PentaCB-(103)	2014/01/29	<0.00082, EDL=0.00082		ng/g	
		22'466'-PentaCB-(104)	2014/01/29	<0.00047, EDL=0.00047		ng/g	
		233'44'-PentaCB-(105)	2014/01/29	<0.00052, EDL=0.00052		ng/g	
		233'45'-PentaCB-(106)	2014/01/29	<0.00048, EDL=0.00048		ng/g	
		233'4'5'-PentaCB-(107)	2014/01/29	<0.00049, EDL=0.00049		ng/g	
		PentaCB-(108)+(124)	2014/01/29	<0.00047, EDL=0.00047		ng/g	
		PentaCB-(110)+(115)	2014/01/29	<0.00075, EDL=0.00075		ng/g	
		233'55'-PentaCB-(111)	2014/01/29	<0.00068, EDL=0.00068		ng/g	
		233'56'-PentaCB-(112)	2014/01/29	<0.00073, EDL=0.00073		ng/g	
		2344'5'-PentaCB-(114)	2014/01/29	<0.00052, EDL=0.00052		ng/g	
		23'44'5'-PentaCB-(118)	2014/01/29	<0.00052, EDL=0.00052		ng/g	
		23'455'-PentaCB-(120)	2014/01/29	<0.00067, EDL=0.00067		ng/g	
		23'45'6'-PentaCB-(121)	2014/01/29	<0.00066, EDL=0.00066		ng/g	
		233'4'5'-PentaCB-(122)	2014/01/29	<0.00052, EDL=0.00052		ng/g	
		23'44'5'-PentaCB-(123)	2014/01/29	<0.00057, EDL=0.00057		ng/g	
		33'44'5'-PentaCB-(126)	2014/01/29	<0.00051, EDL=0.00051		ng/g	
		33'455'-PentaCB-(127)	2014/01/29	<0.00048, EDL=0.00048		ng/g	
		HexaCB-(128)+(166)	2014/01/29	<0.0012, EDL=0.0012		ng/g	
		HexaCB-(129)+(138)+(163)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'33'45'-HexaCB-(130)	2014/01/29	<0.0015, EDL=0.0015		ng/g	
		22'33'46'-HexaCB-(131)	2014/01/29	<0.0017, EDL=0.0017		ng/g	
		22'33'46'-HexaCB-(132)	2014/01/29	<0.0015, EDL=0.0015		ng/g	
		22'33'55'-HexaCB-(133)	2014/01/29	<0.0014, EDL=0.0014		ng/g	
		HexaCB-(134)+(143)	2014/01/29	<0.0015, EDL=0.0015		ng/g	
		HexaCB-(135)+(151)	2014/01/29	<0.00058, EDL=0.00058		ng/g	
		22'33'66'-HexaCB-(136)	2014/01/29	<0.00042, EDL=0.00042		ng/g	
		22'344'5'-HexaCB-(137)	2014/01/29	<0.0014, EDL=0.0014		ng/g	
		HexaCB-(139)+(140)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'3455'-HexaCB-(141)	2014/01/29	<0.0015, EDL=0.0015		ng/g	
		22'3456'-HexaCB-(142)	2014/01/29	<0.0015, EDL=0.0015		ng/g	
		22'345'6'-HexaCB-(144)	2014/01/29	<0.00057, EDL=0.00057		ng/g	
		22'3466'-HexaCB-(145)	2014/01/29	<0.00043, EDL=0.00043		ng/g	
		22'34'55'-HexaCB-(146)	2014/01/29	<0.0012, EDL=0.0012		ng/g	
		HexaCB-(147)+(149)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'34'56'-HexaCB-(148)	2014/01/29	<0.00056, EDL=0.00056		ng/g	
		22'34'66'-HexaCB-(150)	2014/01/29	<0.00039, EDL=0.00039		ng/g	
		22'3566'-HexaCB-(152)	2014/01/29	<0.00042, EDL=0.00042		ng/g	
		HexaCB-(153)+(168)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		22'44'56'-HexaCB-(154)	2014/01/29	<0.00052, EDL=0.00052		ng/g	
		22'44'66'-HexaCB-(155)	2014/01/29	<0.00060, EDL=0.00060		ng/g	
		HexaCB-(156)+(157)	2014/01/29	<0.00093, EDL=0.00093		ng/g	
		233'44'6'-HexaCB-(158)	2014/01/29	<0.0010, EDL=0.0010		ng/g	
		233'455'-HexaCB-(159)	2014/01/29	<0.00099, EDL=0.00099		ng/g	
		233'456'-HexaCB-(160)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		233'45'6'-HexaCB-(161)	2014/01/29	<0.0010, EDL=0.0010		ng/g	
		233'4'55'-HexaCB-(162)	2014/01/29	<0.00097, EDL=0.00097		ng/g	
		233'4'5'6'-HexaCB-(164)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		233'55'6'-HexaCB-(165)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		23'44'55'-HexaCB-(167)	2014/01/29	<0.00098, EDL=0.00098		ng/g	
		33'44'55'-HexaCB-(169)	2014/01/29	<0.0010, EDL=0.0010		ng/g	
		22'33'44'5'-HeptaCB-(170)	2014/01/29	<0.0013, EDL=0.0013		ng/g	

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3495945 CXU	Method Blank	HeptaCB-(171)+(173)	2014/01/29	<0.0016, EDL=0.0016		ng/g	
		22'33'455'-HeptaCB-(172)	2014/01/29	<0.0017, EDL=0.0017		ng/g	
		22'33'456'-HeptaCB-(174)	2014/01/29	<0.0016, EDL=0.0016		ng/g	
		22'33'45'6-HeptaCB-(175)	2014/01/29	<0.00068, EDL=0.00068		ng/g	
		22'33'466'-HeptaCB-(176)	2014/01/29	<0.00051, EDL=0.00051		ng/g	
		22'33'45'6'-HeptaCB-(177)	2014/01/29	<0.0017, EDL=0.0017		ng/g	
		22'33'55'6-HeptaCB-(178)	2014/01/29	<0.00070, EDL=0.00070		ng/g	
		22'33'566'-HeptaCB-(179)	2014/01/29	<0.00049, EDL=0.00049		ng/g	
		HeptaCB-(180)+(193)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'344'56-HeptaCB-(181)	2014/01/29	<0.0015, EDL=0.0015		ng/g	
		22'344'56'-HeptaCB-(182)	2014/01/29	<0.00070, EDL=0.00070		ng/g	
		22'344'5'6-HeptaCB-(183)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'344'66'-HeptaCB-(184)	2014/01/29	<0.00047, EDL=0.00047		ng/g	
		22'3455'6-HeptaCB-(185)	2014/01/29	<0.0015, EDL=0.0015		ng/g	
		22'34566'-HeptaCB-(186)	2014/01/29	<0.00052, EDL=0.00052		ng/g	
		22'34'55'6-HeptaCB-(187)	2014/01/29	<0.00062, EDL=0.00062		ng/g	
		22'34'566'-HeptaCB-(188)	2014/01/29	<0.00078, EDL=0.00078		ng/g	
		233'44'55'-HeptaCB-(189)	2014/01/29	<0.0016, EDL=0.0016		ng/g	
		233'44'56-HeptaCB-(190)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		233'44'5'6-HeptaCB-(191)	2014/01/29	<0.0012, EDL=0.0012		ng/g	
		233'455'6-HeptaCB-(192)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'33'44'55'-OctaCB-(194)	2014/01/29	<0.0012, EDL=0.0012		ng/g	
		22'33'44'56-OctaCB-(195)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'33'44'56'-OctaCB-(196)	2014/01/29	<0.00090, EDL=0.00090		ng/g	
		22'33'44'66'OctaCB-(197)	2014/01/29	<0.00067, EDL=0.00067		ng/g	
		OctaCB-(198)+(199)	2014/01/29	<0.00089, EDL=0.00089		ng/g	
		22'33'4566'-OctaCB-(200)	2014/01/29	<0.00058, EDL=0.00058		ng/g	
		22'33'45'66'-OctaCB-(201)	2014/01/29	<0.00062, EDL=0.00062		ng/g	
		22'33'55'66'-OctaCB-(202)	2014/01/29	<0.00088, EDL=0.00088		ng/g	
		22'344'55'6-OctaCB-(203)	2014/01/29	<0.00082, EDL=0.00082		ng/g	
		22'344'566'-OctaCB-(204)	2014/01/29	<0.00065, EDL=0.00065		ng/g	
		233'44'55'6-OctaCB-(205)	2014/01/29	<0.00093, EDL=0.00093		ng/g	
		22'33'44'55'6-NonaCB-(206)	2014/01/29	<0.0013, EDL=0.0013		ng/g	
		22'33'44'566'-NonaCB-(207)	2014/01/29	<0.0011, EDL=0.0011		ng/g	
		22'33'455'66'-NonaCB-(208)	2014/01/29	<0.0012, EDL=0.0012		ng/g	
		DecaCB-(209)	2014/01/29	<0.0017, EDL=0.0017		ng/g	
		Total PCB	2014/01/29	0, EDL=N/A		ng/g	
	RPD - Sample/Sample Dup	2-MonoCB-(1)	2014/01/31	NC		%	30
		3-MonoCB-(2)	2014/01/31	NC		%	30
		4-MonoCB-(3)	2014/01/31	NC		%	30
		22'-DiCB-(4)	2014/01/31	NC		%	30
		2,3-DiCB-(5)	2014/01/31	NC		%	30
		2,3'-DiCB-(6)	2014/01/31	NC		%	30
		2,4-DiCB-(7)	2014/01/31	NC		%	30
		2,4'-DiCB-(8)	2014/01/31	NC (1)		%	30
		2,5-DiCB-(9)	2014/01/31	NC		%	30
		2,6-DiCB-(10)	2014/01/31	NC		%	30
		3,3'-DiCB-(11)	2014/01/31	NC		%	30
		DiCB-(12)+(13)	2014/01/31	NC		%	30
		3,5-DiCB-(14)	2014/01/31	NC		%	30
		4,4'-DiCB-(15)	2014/01/31	NC (1)		%	30
		22'3-TriCB-(16)	2014/01/31	NC		%	30
		22'4-TriCB-(17)	2014/01/31	NC		%	30

Maxxam Analytics
 Attention: Amandeep Nagra
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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3495945 CXU	RPD - Sample/Sample Dup	TriCB-(18)+(30)	2014/01/31	NC		%	30
		22'6-TriCB-(19)	2014/01/31	NC		%	30
		TriCB-(20) + (28)	2014/01/31	NC		%	30
		TriCB-(21)+(33)	2014/01/31	NC		%	30
		234'-TriCB-(22)	2014/01/31	NC		%	30
		235-TriCB-(23)	2014/01/31	NC		%	30
		236-TriCB-(24)	2014/01/31	NC		%	30
		23'4-TriCB-(25)	2014/01/31	NC		%	30
		TriCB-(26)+(29)	2014/01/31	NC		%	30
		23'6-TriCB-(27)	2014/01/31	NC		%	30
		24'5-TriCB-(31)	2014/01/31	NC		%	30
		24'6-TriCB-(32)	2014/01/31	NC		%	30
		23'5'-TriCB-(34)	2014/01/31	NC		%	30
		33'4-TriCB-(35)	2014/01/31	NC		%	30
		33'5-TriCB-(36)	2014/01/31	NC		%	30
		344'-TriCB-(37)	2014/01/31	NC		%	30
		345-TriCB-(38)	2014/01/31	NC		%	30
		34'5-TriCB-(39)	2014/01/31	NC		%	30
		TetraCB-(40)+(41)+(71)	2014/01/31	NC		%	30
		22'34'-TetraCB-(42)	2014/01/31	NC		%	30
		22'35-TetraCB-(43)	2014/01/31	NC		%	30
		TetraCB-(44)+(47)+(65)	2014/01/31	NC		%	30
		TetraCB-(45)+(51)	2014/01/31	NC		%	30
		22'36'-TetraCB-(46)	2014/01/31	NC		%	30
		22'45-TetraCB-(48)	2014/01/31	NC		%	30
		TetraCB-(49)+TetraCB-(69)	2014/01/31	NC		%	30
		TetraCB-(50)+(53)	2014/01/31	NC		%	30
		22'55'-TetraCB-(52)	2014/01/31	NC		%	30
		22'66'-TetraCB-(54)	2014/01/31	NC		%	30
		233'4-TetraCB-(55)	2014/01/31	NC		%	30
		233'4'-Tetra CB(56)	2014/01/31	NC		%	30
		233'5-TetraCB-(57)	2014/01/31	NC		%	30
		233'5'-TetraCB-(58)	2014/01/31	NC		%	30
		TetraCB-(59)+(62)+(75)	2014/01/31	NC		%	30
		2344'-TetraCB -(60)	2014/01/31	NC		%	30
		TetraCB-(61)+(70)+(74)+(76)	2014/01/31	NC		%	30
		234'5-TetraCB-(63)	2014/01/31	NC		%	30
		234'6-TetraCB-(64)	2014/01/31	NC		%	30
		23'44'-TetraCB-(66)	2014/01/31	NC		%	30
		23'45-TetraCB-(67)	2014/01/31	NC		%	30
		23'45'-TetraCB-(68)	2014/01/31	NC		%	30
		23'55'-TetraCB-(72)	2014/01/31	NC		%	30
		23'5'6-TetraCB-(73)	2014/01/31	NC		%	30
		33'44'-TetraCB-(77)	2014/01/31	NC		%	30
		33'45-TetraCB-(78)	2014/01/31	NC		%	30
		33'45'-TetraCB(79)	2014/01/31	NC		%	30
		33'55'-TetraCB-(80)	2014/01/31	NC		%	30
		344'5-TetraCB-(81)	2014/01/31	NC		%	30
		22'33'4-PentaCB-(82)	2014/01/31	NC		%	30
		PentaCB-(83)+(99)	2014/01/31	NC		%	30
		22'33'6-PentaCB-(84)	2014/01/31	NC		%	30
		PentaCB-(85)+(116)+(117)	2014/01/31	NC		%	30
		PentaCB-(86)(87)(97)(109)(119)(125)	2014/01/31	NC		%	30

Maxxam Analytics
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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3495945 CXU	RPD - Sample/Sample Dup	PentaCB-(88)+(91)	2014/01/31	NC		%	30
		22'346'-PentaCB-(89)	2014/01/31	NC		%	30
		PentaCB-(90)+(101)+(113)	2014/01/31	NC		%	30
		22'355'-PentaCB-(92)	2014/01/31	NC		%	30
		PentaCB-(93)+(98)+(100)+(102)	2014/01/31	NC		%	30
		22'356'-PentaCB-(94)	2014/01/31	NC		%	30
		22'35'6'-PentaCB-(95)	2014/01/31	NC		%	30
		22'366'-PentaCB-(96)	2014/01/31	NC		%	30
		22'45'6'-PentaCB-(103)	2014/01/31	NC		%	30
		22'466'-PentaCB-(104)	2014/01/31	NC		%	30
		233'44'-PentaCB-(105)	2014/01/31	NC		%	30
		233'45'-PentaCB-(106)	2014/01/31	NC		%	30
		233'4'5'-PentaCB-(107)	2014/01/31	NC		%	30
		PentaCB-(108)+(124)	2014/01/31	NC		%	30
		PentaCB-(110)+(115)	2014/01/31	NC		%	30
		233'55'-PentaCB-(111)	2014/01/31	NC		%	30
		233'56'-PentaCB-(112)	2014/01/31	NC		%	30
		2344'5'-PentaCB-(114)	2014/01/31	NC		%	30
		23'44'5'-PentaCB-(118)	2014/01/31	NC		%	30
		23'455'-PentaCB-(120)	2014/01/31	NC		%	30
		23'45'6'-PentaCB-(121)	2014/01/31	NC		%	30
		233'4'5'-PentaCB-(122)	2014/01/31	NC		%	30
		23'44'5'-PentaCB-(123)	2014/01/31	NC		%	30
		33'44'5'-PentaCB-(126)	2014/01/31	NC		%	30
		33'455'-PentaCB-(127)	2014/01/31	NC		%	30
		HexaCB-(128)+(166)	2014/01/31	NC		%	30
		HexaCB-(129)+(138)+(163)	2014/01/31	NC		%	30
		22'33'45'-HexaCB-(130)	2014/01/31	NC		%	30
		22'33'46'-HexaCB-(131)	2014/01/31	NC		%	30
		22'33'46'-HexaCB-(132)	2014/01/31	NC		%	30
		22'33'55'-HexaCB-(133)	2014/01/31	NC		%	30
		HexaCB-(134)+(143)	2014/01/31	NC		%	30
		HexaCB-(135)+(151)	2014/01/31	NC		%	30
		22'33'66'-HexaCB-(136)	2014/01/31	NC		%	30
		22'344'5'-HexaCB-(137)	2014/01/31	NC		%	30
		HexaCB-(139)+(140)	2014/01/31	NC		%	30
		22'3455'-HexaCB-(141)	2014/01/31	NC		%	30
		22'3456'-HexaCB-(142)	2014/01/31	NC		%	30
		22'345'6'-HexaCB-(144)	2014/01/31	NC		%	30
		22'3466'-HexaCB-(145)	2014/01/31	NC		%	30
		22'34'55'-HexaCB-(146)	2014/01/31	NC		%	30
		HexaCB-(147)+(149)	2014/01/31	NC		%	30
		22'34'56'-HexaCB-(148)	2014/01/31	NC		%	30
		22'34'66'-HexaCB-(150)	2014/01/31	NC		%	30
		22'3566'-HexaCB-(152)	2014/01/31	NC		%	30
		HexaCB-(153)+(168)	2014/01/31	NC		%	30
		22'44'56'-HexaCB-(154)	2014/01/31	NC		%	30
		22'44'66'-HexaCB-(155)	2014/01/31	NC		%	30
		HexaCB-(156)+(157)	2014/01/31	NC		%	30
		233'44'6'-HexaCB-(158)	2014/01/31	NC		%	30
		233'455'-HexaCB-(159)	2014/01/31	NC		%	30
		233'456'-HexaCB-(160)	2014/01/31	NC		%	30
		233'45'6'-HexaCB-(161)	2014/01/31	NC		%	30

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QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3495945 CXU	RPD - Sample/Sample Dup	233'4'55'-HexaCB-(162)	2014/01/31	NC		%	30
		233'4'5'6'-HexaCB-(164)	2014/01/31	NC		%	30
		233'5'5'6'-HexaCB-(165)	2014/01/31	NC		%	30
		23'44'55'-HexaCB-(167)	2014/01/31	NC		%	30
		33'44'55'-HexaCB-(169)	2014/01/31	NC		%	30
		22'33'44'5'-HeptaCB-(170)	2014/01/31	NC		%	30
		HeptaCB-(171)+(173)	2014/01/31	NC		%	30
		22'33'45'5'-HeptaCB-(172)	2014/01/31	NC		%	30
		22'33'45'6'-HeptaCB-(174)	2014/01/31	NC		%	30
		22'33'45'6'-HeptaCB-(175)	2014/01/31	NC		%	30
		22'33'46'6'-HeptaCB-(176)	2014/01/31	NC		%	30
		22'33'45'6'-HeptaCB-(177)	2014/01/31	NC		%	30
		22'33'55'6'-HeptaCB-(178)	2014/01/31	NC		%	30
		22'33'56'6'-HeptaCB-(179)	2014/01/31	NC		%	30
		HeptaCB-(180)+(193)	2014/01/31	NC		%	30
		22'344'5'6'-HeptaCB-(181)	2014/01/31	NC		%	30
		22'344'5'6'-HeptaCB-(182)	2014/01/31	NC		%	30
		22'344'5'6'-HeptaCB-(183)	2014/01/31	NC		%	30
		22'344'6'6'-HeptaCB-(184)	2014/01/31	NC		%	30
		22'345'5'6'-HeptaCB-(185)	2014/01/31	NC		%	30
		22'345'6'6'-HeptaCB-(186)	2014/01/31	NC		%	30
		22'34'55'6'-HeptaCB-(187)	2014/01/31	NC		%	30
		22'34'56'6'-HeptaCB-(188)	2014/01/31	NC		%	30
		233'44'55'-HeptaCB-(189)	2014/01/31	NC		%	30
		233'44'5'6'-HeptaCB-(190)	2014/01/31	NC		%	30
		233'44'5'6'-HeptaCB-(191)	2014/01/31	NC		%	30
		233'45'5'6'-HeptaCB-(192)	2014/01/31	NC		%	30
		22'33'44'55'-OctaCB-(194)	2014/01/31	NC		%	30
		22'33'44'56'-OctaCB-(195)	2014/01/31	NC		%	30
		22'33'44'56'-OctaCB-(196)	2014/01/31	NC		%	30
		22'33'44'66'-OctaCB-(197)	2014/01/31	NC		%	30
		OctaCB-(198)+(199)	2014/01/31	NC		%	30
		22'33'45'66'-OctaCB-(200)	2014/01/31	NC		%	30
		22'33'45'66'-OctaCB-(201)	2014/01/31	NC		%	30
		22'33'55'66'-OctaCB-(202)	2014/01/31	NC		%	30
		22'344'55'6'-OctaCB-(203)	2014/01/31	NC		%	30
		22'344'56'6'-OctaCB-(204)	2014/01/31	NC		%	30
		233'44'55'6'-OctaCB-(205)	2014/01/31	NC		%	30
		22'33'44'55'6'-NonaCB-(206)	2014/01/31	NC		%	30
		22'33'44'56'6'-NonaCB-(207)	2014/01/31	NC		%	30
		22'33'45'56'6'-NonaCB-(208)	2014/01/31	NC		%	30
		DecaCB-(209)	2014/01/31	NC		%	30
		Total PCB	2014/01/31	28.0		%	N/A
3500644 OK	QC Standard	Total Organic Carbon	2014/02/04		97	%	75 - 125
	Method Blank	Total Organic Carbon	2014/02/04	<500		mg/kg	
	RPD - Sample/Sample Dup	Total Organic Carbon	2014/02/04	1.5		%	35
3503688 OK	QC Standard	Total Organic Carbon	2014/02/07		97	%	75 - 125
	Method Blank	Total Organic Carbon	2014/02/07	<500		mg/kg	
	RPD - Sample/Sample Dup	Total Organic Carbon	2014/02/07	NC		%	35

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N/A = Not Applicable

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

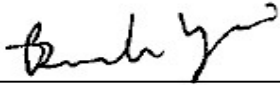
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Validation Signature Page

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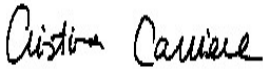
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Branko Vrzic, A.S.C.T., Senior Analyst, HRMS Services



Cathy Xu



Cristina Carriere, Scientific Services

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

APPENDIX C
Precision Identification Memorandum



Memo

To: Anne Rutherford
From: Cynthia Durance
CC:
Date: 2015.03.05
Re: Sediment suitability for eelgrass (*Zostera marina*)

I have reviewed the information that you sent and believe that the sediment described would be suitable for supporting eelgrass.

The VITR BCTC eelgrass transplant project adjacent to the Tsawwassen Ferry Causeway used Fraser River sand to raise the seabed to an elevation suitable for eelgrass. The eelgrass flourished and achieved densities comparable to naturally established eelgrass sites within three years.

The Fraser River sand was selected because it was 'clean, generally free of silt and clay, and makes up the dominant sediments throughout the Fraser River delta¹.' The sand was obtained from 'an existing stockpiled source generated by the Fraser River Port's maintenance dredging program¹.'

The sediment may be low in organic matter, however eelgrass shoots are capable of acquiring the nutrients and elements that are required for their growth from the water column, therefore the lack of organic matter in the sediment shouldn't pose a problem. The transplanted eelgrass will trap organic matter that will become incorporated into the sediment over time.

¹ Jacques Whitford. 2007. Fish Habitat Compensation Plan. Vancouver Island Transmission Reinforcement Project. Revision 2. British Columbia Transmission Corporation.