

Data Validation Report

Project: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling
 Portland Harbor Superfund Site
 Surface Water – November/December 2018

Laboratory: ALS Environmental, Kelso, WA

Laboratory Group: K1811742

Analyses/Method: Tributyltin, bis(2-Ethylhexyl)phthalate, and Pentachlorophenol (PCP)

Validation Level: Stage 2

AECOM Project

Number: 60566335 Task #2.12

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File Name: K1811742 DVR

SUMMARY

The data quality review of 3 surface water samples collected on November 30 and December 1, 2018, has been completed. The samples were analyzed for tributyltin by Unger et al. and low-level bis(2-ethylhexyl)phthalate and PCP by EPA Method 8270D by ALS Environmental (ALS) located in Kelso, Washington. The analyses were performed in general accordance with the methods specified in EPA's *Test Methods for Evaluating Solid Waste (SW-846)* and Unger, MA et al., *Determination of Butyltins in Natural Waters by Flame Photometric Detection of Hexane Derivatives and Mass Spectrometric Confirmation, Chemosphere, 1886, 16(4):461-470*. The laboratory provided level 2 and level 4 data packages containing sample results and associated quality assurance (QA) and quality control (QC) data, preparation logs, and raw instrument outputs (where applicable). The following samples were associated with laboratory group K1811742:

Sample ID	Laboratory ID
PDI-WS-T02-1811	K1811742-001
PDI-WS-T04-1812	K1811742-002
PDI-WS-T06-1811	K1811742-003

Data validation is based on method performance criteria and QC criteria documented in the *Quality Assurance Project Plan (QAPP)*, dated March 23, 2018, as amended. If data qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA document *USEPA National Functional Guidelines for Organic Superfund Methods Data Review*, January 2017. Data qualifiers assigned to results reported in this sample set are included in Table 1.

SAMPLE RECEIPT

Upon receipt by ALS, the sample jar information was compared to the chain-of-custody (COC) and the cooler temperature was recorded. No discrepancies related to sample identification were noted by ALS. One cooler was received at a temperature below the EPA-recommended limits of greater than 0°C and less than or equal to 6°C at a temperature of -0.1°C. The laboratory did not indicate that any sample containers were broken or that samples were frozen; therefore, no data were qualified based on the low cooler temperature.



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ORGANIC ANALYSES

Samples were analyzed for tributyltin, bis(2-ethylhexyl)phthalate, and PCP by the methods identified in the introduction of this report.

1. Holding Times – Acceptable
2. Blanks – Acceptable

General – One rinsate blank was reported with laboratory group K1811632 and is applicable to the samples collected in this laboratory group. bis(2-Ethylhexyl)phthalate (0.17 ug/L) was detected in the rinsate blank at a concentration between the method detection limit (MDL) and the reporting limit. bis(2-Ethylhexyl)phthalate was not detected in the samples in this laboratory group; therefore, data was not qualified based on this rinsate blank result.

3. Surrogates – Acceptable
4. Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/ LCSD) – Acceptable
5. Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable

Tributyl Tin by Unger et al. – An MS/MSD was performed using PDI-WS-T03-1811 (laboratory group K1811632, discussed under separate cover). Results were acceptable.

bis(2-Ethylhexyl)phthalate and PCP by EPA 8270D – An MS/MSD was not performed in association with this analysis. Precision and accuracy were assessed using the LCS/LCSD recoveries.

6. Reporting Limits – Acceptable

OVERALL ASSESSMENT OF DATA

The data reported in this laboratory group, as reported, is considered usable for meeting project objectives. The completeness for laboratory group K1811742 is 100%.

Table 1
QA/QC Data Summary Review
Portland Harbor
Surface Water - November/December 2018
ALS - Kelso Laboratory Group: K1811742

Sample ID	Laboratory ID	Method	Analyte	Laboratory Result	Units	Final Result	Reason Code
No data qualifiers were assigned to results reported in K1811742 based on this data validation.							