HGL Data Validation Review Report

Project Name/Number	PHSS-SIB PDI / DT2002
Data Validation Stage	2A
Laboratory	ALS Environmental
SDG	K2306349
HGL Reviewer	Ken Rapuano 10/11/23
HGL Peer Review	Justin Hersh 10/11/2023

General issues: The HGL reviewer ensured that all results with an interpreted_qualifiers of U or UJ had the corresponding detect_flag field populated with N and that all rows had Y in the validated_yn field.

The DV report used the higher of the method blank or equipment blank results (on-column) to qualify associated results. Although HGL's internal protocol is to use all applicable reason codes, using the reason code only associated with the highest associated blank is consistent with the NFG and is acceptable for this project.

Although equipment blank results are not validated, the method blanks associated with the equipment blanks were contaminated with several target analytes.

- For EB02-10102022, these analytes included DRO, RRO, BEHP, and the PAHs 2-methylnaphthalene, fluorene, and phenanthrene. In most cases, the concentration in the aqueous method blank was below the corresponding concentration found in the equipment blank and in the judgment of the HGL reviewer, it is appropriate to use the equipment blank to qualify any associated sample results for those analytes. However, the concentration of BEHP was below the concentration detected in the associated aqueous method blank and the RRO result was only slightly greater than the aqueous method blank result; these two analytes are also considered to be laboratory artifacts due to aqueous preparation rather than field cross-contamination artifacts.
- For EB03-10192022, these analytes included DRO, RRO, BEHP, and multiple PAHs. The concentrations of most contaminants found in the aqueous method blank associated with EB03-10192022 were similar to the corresponding concentration found in the equipment blank and in the judgment of the HGL reviewer, it is appropriate to consider the detected results in the equipment blank to be laboratory artifacts due to aqueous preparation rather than field cross-contamination artifacts. This affects bis(2-ethylhexyl)phthalate and all PAHs except 2-methylnaphthalene and naphthalene.

Any change to qualification or reason codes is discussed in the method-specific sections below.

<u>Diesel Range Organics (DRO) and Residual Range Organics (RRO):</u>

One RRO result was qualified U due to contamination in the equipment blank; this results should have the U-qualifier and EBL reason code removed due to the equipment blank result being considered analytical artifacts (see General Issues).

Sample	Analyte	Validated Result	Validated Qualifier	Modified Validated Qualifier	Modified Interpreted Qualifier	Modified Final Reason Code
SIB-072-TOB-2-3-10132022	RRO	27	U	--	J	--

Tributyltin:

No issues noted.

Organochlorine Pesticides:

No issues noted.

bis(2-Ethylhexyl)phthalate; Polycyclic Aromatic Hydrocarbons (PAHs):

One B2EHP result was qualified U due to contamination in the equipment blank; this results should have the U-qualifier and EBL reason code removed due to the equipment blank result being considered analytical artifacts (see General Issues). The soil method blank associated with this sample was free from contamination and no alternate qualification or reason code relating to blanks is required.

Sample	Analyte	Validated Result	Validated Qualifier	Modified Validated Qualifier	Modified Interpreted Qualifier	Modified Final Reason Code
SIB-063-MLW-1-2-10182022	bis(2-Ethylhexyl)phthalate	36	U	--	J	--
SIB-072-OHW-1-2-10132022	bis(2-Ethylhexyl)phthalate	22	U	--	J	--
SIB-077-MLW-1-2-10122022	bis(2-Ethylhexyl)phthalate	27	U	--	J	--
SIB-077-OHW-1-2-10122022	bis(2-Ethylhexyl)phthalate	21	U	--	J	--

Total Organic Carbon (TOC):

No issues noted.