Stage 2A Review
Data Quality Control (QC)

Site: PHSS-SIB PDI	SDG #: Case 22J0171
Laboratory: ARI	Date: 7/22/2023
HydroGeoLogic, Inc. Reviewer: Deanna Valdebenito Peer Reviewer: Ken Rapuano (8.7.23)	Project: DT2002

Client Sample ID	Laboratory Sample ID	Analyses	Matrix
SIB-087-OHW-0-1-10102022	22J0171-01	PCB Aroclors and Total Metals	Solid
SIB-087-TOB-0-1-10102022	22J0171-04	PCB Aroclors and Total Metals	Solid
FD04-10102022	22J0171-07	PCB Aroclors and Total Metals	Solid
FD02-10062022	22J0171-08	PCB Aroclors and Total Metals	Solid
SIB-103-OWH-2-3-10062022	22J0171-09	PCB Aroclors and Total Metals	Solid

The following Stage 2A review was performed on the requested analyses. No results were rejected, and analytical completeness is 100%.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. The initial and continuing calibrations were within method requirements except for Aroclor 1260 which is out of control high in CCV4 on one column. The data was reported from the column in control for SKK0278. All this has been noted but falls outside of a 2A validation.

Qualification: None required.

Sample Delivery and Condition – All samples arrived intact at the laboratory in acceptable condition and temperature and were properly preserved.

Qualification: None required.

Holding Times – All samples were prepared and analyzed within their required holding times. The narrative noted that mercury samples were frozen to extend holding times; this is in accordance with the QAPP archiving protocols.

Qualification: None required.

Method Blanks – All method blanks were free from contamination.

Qualification: None required.

Rinsate Blanks – Equipment rinse blank EB02-10102022 (results reported in SDG 22J0175) is associated with all sample results reported in this SDG. No Aroclors or metals were detected in this EB.

Qualification: None required.

Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) – All LCS/LCSD %Rs and RPDs were within QAPP control limits. A standard reference material was also reported for each PCB, metals, and mercury preparation batch; the SRM %Rs met the control limits.

Qualification: None required.

Surrogates – Sample SIB-087-TOB-0-1-10102022 had a high %R for surrogates Decachlorobiphenyl and

Decachlorobiphenyl [2C]. The detected Aroclor results should be qualified J with reason code SSH and non-detections should not be qualified.

Qualification: The detected Aroclor results for sample SIB-087-TOB-0-1-10102022 are qualified J with reason code SSH.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) – An MS/MSD was performed on sample SIB-087-TOB-0-1-10102022 (metals). The sample returned with had a high %R for arsenic, zinc, and mercury and a high RPD for mercury. All detected arsenic and zinc results should be qualified J-MSH and all detected mercury results should be qualified J-MSH,MSP. Non-detections should not be qualified.

Qualification: Arsenic and zinc are qualified J-MSH for all samples; mercury is qualified J-MSH,MSP for all samples.

Field Duplicate – Samples FD04-10102022 and FD02-10062022 are field duplicates of samples SIB-088-MLW-0-1-10102022 and SIB-102-TOB-0-1-10062022, respectively. Both parent samples are reported in SDG 22J0169. Both duplicate pairs met the acceptance criteria for precision.

Qualification: None required.

Laboratory Duplicate – A laboratory duplicate was performed on sample SIB-087-TOB-0-1-10102022 (metals). The duplicate pairs met the acceptance criteria for precision.

Qualification: None required.

Compound Quantitation – Analyte results were reported with the associated DL, LOD, and LOQ in the DoD format instead of with the associated MDL and RL. Non-detected results were reported on the hardcopy as <#, where # corresponds to the LOD. The HGL reviewer confirmed that the value associated with non-detected results in the EDD is the MDL, in accordance with the project reporting requirements. Analytes detected between the MDL and RL were reported as J-qualified results by the laboratory. These J qualifiers were retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (concentrations in µg/kg [Aroclors] or mg/kg [metals]):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier	Reason Code
SIB-087-OHW-0-1-10102022	Arsenic	2.27	D	2.27	J	MSH
	Zinc	68.1	D	68.1	J	MSH
	Mercury	0.0637	--	0.0637	J	MSH,MSP
SIB-087-TOB-0-1-10102022	Aroclor 1248	20.8	D	20.8	J	SSH
	Aroclor 1254	62.0	D	62.0	J	SSH
	Aroclor 1260	66.9	D	66.9	J	SSH
	Arsenic	2.71	D	2.71	J	MSH
	Zinc	136	D	136	J	MSH
	Mercury	0.118	--	0.118	J	MSH,MSP
FD04-10102022	Arsenic	3.04	D	3.04	J	MSH
	Zinc	62.7	D	62.7	J	MSH
	Mercury	0.0276	J	0.0276	J	MSH,MSP
FD02-10062022	Arsenic	2.67	D	2.67	J	MSH
	Zinc	69.3	D	69.3	J	MSH
	Mercury	0.058	--	0.058	J	MSH,MSP
SIB-103-OWH-2-3-10062022	Arsenic	2.53	D	2.53	J	MSH
	Zinc	48.4	D	48.4	J	MSH
	Mercury	0.0144	J	0.0144	J	MSH,MSP