Stage 2A Review
Data Quality Control (QC)

Site: PHSS-SIB PDI	SDG #: Case 22J0286
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-075-MLW-0-1-10132022	22J0286-01	PCB Aroclors and Total Metals	Solid
SIB-075-OHW-0-1-1013202	22J0286-02	PCB Aroclors and Total Metals	Solid
SIB-075-TOB-0-1-10132022	22J0286-04	PCB Aroclors and Total Metals	Solid
SIB-074-MLW-0-1-10132022	22J0286-06	PCB Aroclors and Total Metals	Solid
SIB-074-OHW-0-1-1013202	22J0286-07	PCB Aroclors and Total Metals	Solid
SIB-074-TOB-0-1-10132022	22J0286-09	PCB Aroclors and Total Metals	Solid
SIB-073-MLW-0-1-10132022	22J0286-11	PCB Aroclors and Total Metals	Solid
SIB-073-OHW-0-1-1013202	22J0286-12	PCB Aroclors and Total Metals	Solid
SIB-073-TOB-0-1-10132022	22J0286-14	PCB Aroclors and Total Metals	Solid
FD07-10132022	22J0286-16	PCB Aroclors and Total Metals	Solid
SIB-072-MLW-0-1-10132022	22J0286-17	PCB Aroclors and Total Metals	Solid
SIB-072-OHW-0-1-1013202	22J0286-19	PCB Aroclors and Total Metals	Solid
SIB-072-TOB-0-1-10132022	22J0286-21	PCB Aroclors and Total Metals	Solid
SIB-071-MLW-0-1-10132022	22J0286-24	PCB Aroclors and Total Metals	Solid
SIB-071-OHW-0-1-1013202	22J0286-25	PCB Aroclors and Total Metals	Solid
SIB-071-TOB-0-1-10132022	22J0286-26	PCB Aroclors and Total Metals	Solid
SIB-070-MLW-0-1-10132022	22J0286-27	PCB Aroclors and Total Metals	Solid
SIB-070-OHW-0-1-1013202	22J0286-28	PCB Aroclors and Total Metals	Solid
SIB-069-MLW-0-1-10132022	22J0286-29	PCB Aroclors and Total Metals	Solid
SIB-069-OHW-0-1-1013202	22J0286-30	PCB Aroclors and Total Metals	Solid
SIB-069-TOB-0-1-10132022	22J0286-31	PCB Aroclors and Total Metals	Solid
SIB-068-TOB-0-1-10132022	22J0286-32	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 CCV4 and CCV6 which recovered high on one column. The data was reported from the column in control in SKK0335. The Internal standard areas were within limits except for internal standard HBBP which is outside of the control limits for sample 22J0286-11and 16 on one column. The data was reported from the column in control. 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 except for method blank associated with batch BLA0693, which had Lead contamination at 0.08 mg/kg. All samples prepared in this batch had lead concentrations above the qualification limit of 0.40 mg/kg.

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 – The surrogate %R discrepancies for samples SIB-072-OHW-0-1-1013202 and SIB-071-OHW-0-1-1013202 were a single discrepancy out of the four reported %Rs and were above the upper control limit by less than 20%. In accordance with the HGL consistency memorandum, no qualification is required.

Qualification: None required.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) – An MS/MSD was performed on sample SIB-069-OHW-0-1-1013202 (Aroclors) and SIB-075-OHW-0-1-1013202 (metals). The MS/MSD for metals had an extremely low %R (<30%) for Zinc. All zinc results reported for samples prepared in batch BLA0600 are detections and should be qualified J, reason code MSLX.

Qualification: The zinc results for samples FD07-10132022, SIB-069-MLW-0-1-10132022, SIB-069-OHW-0-1-1013202, SIB-070-MLW-0-1-10132022, SIB-070-OHW-0-1-1013202, SIB-071-MLW-0-1-10132022, SIB-071-OHW-0-1-1013202, SIB-071-TOB-0-1-10132022, SIB-072-MLW-0-1-10132022, SIB-072-OHW-0-1-1013202, SIB-072-TOB-0-1-10132022, SIB-073-MLW-0-1-10132022, SIB-073-OHW-0-1-1013202, SIB-073-TOB-0-1-10132022, SIB-074-MLW-0-1-10132022, SIB-074-OHW-0-1-1013202, SIB-074-TOB-0-1-10132022, SIB-075-MLW-0-1-10132022, SIB-075-OHW-0-1-1013202 and SIB-075-TOB-0-1-10132022 are qualified J-MSLX.

Field Duplicate – Sample FD07-10132022 is a field duplicate of sample SIB-073-MLW-0-1-10132022. The duplicate pair did not meet the absolute difference acceptance criteria for mercury. The mercury results in the duplicate pair should be qualified J-FDPA.

Qualification: The mercury results for samples SIB-073-MLW-0-1-10132022 and FD07-10132022 are qualified J-FDPA.

Laboratory Duplicate – A laboratory duplicate was performed on samples SIB-072-TOB-0-1-10132022 (Method 8082A) and SIB-075-OHW-0-1-1013202 (metals). The RPDs of the duplicate pairs met the

acceptance criteria except for Zinc for method 6020B UCT-KED.

Qualification: The zinc results for samples FD07-10132022, SIB-069-MLW-0-1-10132022, SIB-069-OHW-0-1-1013202, SIB-070-MLW-0-1-10132022, SIB-070-OHW-0-1-1013202, SIB-071-MLW-0-1-10132022, SIB-071-OHW-0-1-1013202, SIB-071-TOB-0-1-10132022, SIB-072-MLW-0-1-10132022, SIB-072-OHW-0-1-1013202, SIB-072-TOB-0-1-10132022, SIB-073-MLW-0-1-10132022, SIB-073-OHW-0-1-1013202, SIB-073-TOB-0-1-10132022, SIB-074-MLW-0-1-10132022, SIB-074-OHW-0-1-1013202, SIB-074-TOB-0-1-10132022, SIB-075-MLW-0-1-10132022, SIB-075-OHW-0-1-1013202 and SIB-075-TOB-0-1-10132022 are qualified J-LDPR.

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):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier	Reason Code
SIB-075-MLW-0-1-10132022	Zinc	78.8	-	78.8	J	LDPR,MSLX
SIB-075-OHW-0-1-1013202	Zinc	191	-	191	J	LDPR,MSLX
SIB-075-TOB-0-1-10132022	Zinc	104	-	104	J	LDPR,MSLX
SIB-074-MLW-0-1-10132022	Zinc	71.1	-	71.1	J	LDPR,MSLX
SIB-074-OHW-0-1-1013202	Zinc	103	-	103	J	LDPR,MSLX
SIB-074-TOB-0-1-10132022	Zinc	118	-	118	J	LDPR,MSLX
SIB-073-MLW-0-1-10132022	Mercury	0.0452		0.0452	J	FDPA
	Zinc	79.7	-	79.7	J	LDPR,MSLX
SIB-073-OHW-0-1-1013202	Zinc	116	-	116	J	LDPR,MSLX
SIB-073-TOB-0-1-10132022	Zinc	94.5	-	94.5	J	LDPR,MSLX
FD07-10132022	Mercury	0.121		0.121	J	FDPA
	Zinc	81	-	81	J	LDPR,MSLX
SIB-072-MLW-0-1-10132022	Zinc	83.3	-	83.3	J	LDPR,MSLX
SIB-072-OHW-0-1-1013202	Zinc	111	-	111	J	LDPR,MSLX
SIB-072-TOB-0-1-10132022	Zinc	236	-	236	J	LDPR,MSLX
SIB-071-MLW-0-1-10132022	Zinc	121	-	121	J	LDPR,MSLX
SIB-071-OHW-0-1-1013202	Zinc	135	-	135	J	LDPR,MSLX
SIB-071-TOB-0-1-10132022	Zinc	78.9	-	78.9	J	LDPR,MSLX
SIB-070-MLW-0-1-10132022	Zinc	97.2	-	97.2	J	LDPR,MSLX
SIB-070-OHW-0-1-1013202	Zinc	88.3	-	88.3	J	LDPR,MSLX
SIB-069-MLW-0-1-10132022	Zinc	73.4	-	73.4	J	LDPR,MSLX
SIB-069-OHW-0-1-1013202	Zinc	55.8	-	55.8	J	LDPR,MSLX
SIB-069-TOB-0-1-10132022	No qualification required					
SIB-068-TOB-0-1-10132022	No qualification required					