

King County Environmental Lab Analytical Report

Project: 421874-915
Locator: WHITE LAKE DOCK 2A
Descrip: White Lake Dock 2A
Sample: L83827-1
Matrix: LK FRESH WTR
ColDate: 5/20/24 13:30

WET Weight Basis

Parameters	Value	Qual	MDL	RDL	Units
AQ ABRAXIS ADDA					
Microcystin	0.303	<RDL	0.3	0.6	ug/L
AQ KCEL SOP#466 LCMS					
Anatoxin-a		<MDL	0.01	0.05	ug/L

King County Environmental Laboratory Batch Report

White Lake FWSB, L83827, May 20, 2024

WG194065 Microcystin by ELISA

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L83827-1	421874-915	Muckleshoot Tribe Swimming Beaches	AQADDA-ELISA	FRESH WTR	5/20/2024 13:30	5/21/2024 11:00	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	
L83850-1	423484-850-5	Brightwater Floating Wetlands Project	AQADDA-ELISA	FRESH WTR	5/21/2024 0:00	5/22/2024 10:00	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	
L83850-2	423484-850-5	Brightwater Floating Wetlands Project	AQADDA-ELISA	FRESH WTR	5/21/2024 0:00	5/22/2024 10:00	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	
L83850-3	423484-850-5	Brightwater Floating Wetlands Project	AQADDA-ELISA	FRESH WTR	5/21/2024 0:00	5/22/2024 10:00	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	
L83927-1	421520-300	Ecology Algae Control	AQADDA-ELISA	FRESH WTR	5/17/2024 9:50	5/20/2024 8:50	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	
WG194065-1	MB		AQADDA-ELISA	OTHR WTR		5/22/2024 12:30	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	
WG194065-2	SB		AQADDA-ELISA	OTHR WTR		5/22/2024 12:30	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	WG194065-1
WG194065-3	MS		AQADDA-ELISA	FRESH WTR		5/22/2024 12:30	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	L83827-1
WG194065-4	MSD		AQADDA-ELISA	FRESH WTR		5/22/2024 12:30	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	WG194065-3 L83827-1
WG194065-5	PCE		AQADDA-ELISA	OTHR WTR		5/22/2024 12:30	5/22/2024 12:55	WG194065-1,-2,-3,-4,-5	

WG194151 Anatoxin-a by LCMS

Sample	Project	Project Description	List Type	Matrix	Collect Date	Prep Date	Anal Date	QC Association	Comments
L83827-1	421874-915	Muckleshoot Tribe Swimming Beaches	AQATX-LCMS	FRESH WTR	5/20/2024 13:30	5/21/2024 11:00	5/22/2024 16:00	WG194151-1,-2,-3,-4	
L83927-1	421520-300	Ecology Algae Control	AQATX-LCMS	FRESH WTR	5/17/2024 9:50	5/20/2024 9:00	5/22/2024 16:00	WG194151-1,-2,-3,-4	
WG194151-1	MB		AQATX-LCMS	OTHR WTR		5/20/2024 9:00	5/22/2024 16:00	WG194151-1,-2,-3,-4	
WG194151-2	SBAX		AQATX-LCMS	OTHR WTR		5/20/2024 9:00	5/22/2024 16:00	WG194151-1,-2,-3,-4	WG194151-1
WG194151-3	MSAX		AQATX-LCMS	FRESH WTR		5/20/2024 9:00	5/22/2024 16:00	WG194151-1,-2,-3,-4	L83927-1
WG194151-4	MSAXD		AQATX-LCMS	FRESH WTR		5/20/2024 9:00	5/22/2024 16:00	WG194151-1,-2,-3,-4	WG194151-3 L83927-1

Workgroup: WG194065 Microcystin by ELISA

MB:WG194065-1 Matrix: OTHR WTR Listtype:AQADDA-ELISA Method:ABRAXIS ADDA Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Microcystin	0.3	0.6	ug/L		<MDL

SB:WG194065-2 MB:WG194065-1 Matrix: OTHR WTR Listtype:AQADDA-ELISA Method:ABRAXIS ADDA Project: Pkey:STD
(Spike Blank, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SB Value	% Rec.	Qual	Lab Limit
Microcystin	0.3	0.6	ug/L	<MDL	0.9	0.713	79		60--140

MSD:WG194065-4 MS:WG194065-3 L83827-1 Matrix: FRESH WTR Listtype:AQADDA-ELISA Method:ABRAXIS ADDA Project:421874-915 Pkey:STD
(Matrix Spike Duplicate, Matrix Spike)

Parameter	MDL	RDL	Units	SAMP Value	True Value	MS Value	% Rec.	Qual	Lab Limit	True Value	MSD Value	% Rec.	Qual	RPD	Qual	Lab Limit
Microcystin	0.3	0.6	ug/L	0.303	0.9	0.952	72		50--150	0.9	0.876	64		8		0--45

PCE:WG194065-5 Matrix: OTHR WTR Listtype:AQADDA-ELISA Method:ABRAXIS ADDA Project: Pkey:STD
(Positive Control Elisa)

Parameter	MDL	RDL	Units	True Value	PCE Value	% Rec.	Qual	Lab Limit
Microcystin	0.3	0.6	ug/L	0.75	0.679	91		70--130

Workgroup: WG194151 Anatoxin-a by LCMS

MB:WG194151-1 Matrix: OTHR WTR Listtype:AQATX-LCMS Method:KCEL SOP#466 LCMS Project: Pkey:STD
(Method Blank)

Parameter	MDL	RDL	Units	MB Value	Qual
Anatoxin-a	0.01	0.05	ug/L	<MDL	

SBAX:WG194151-2 MB:WG194151-1 Matrix: OTHR WTR Listtype:AQATX-LCMS Method:KCEL SOP#466 LCMS Project: Pkey:STD
(Spike Blank - Anatoxin, Method Blank)

Parameter	MDL	RDL	Units	MB Value	True Value	SBAX Value	% Rec.	Qual	Lab Limit
Anatoxin-a	0.01	0.05	ug/L	<MDL	0.5	0.557	111		50--150

MSAXD:WG194151-4 MSAX:WG194151-3 L83927-1 Matrix: FRESH WTR Listtype:AQATX-LCMS Method:KCEL SOP#466 LCMS Project:421520-300 Pkey:STD
(Matrix Spike -Anatoxin Duplicate, Matrix Spike - Anatoxin)

Parameter	MDL	RDL	Units							MSAXD						
				SAMP Value	True Value	MSAX Value	% Rec.	Qual	True Value	Value	% Rec.	Qual	Lab Limit	RPD	Qual	Lab Limit
Anatoxin-a	0.01	0.05	ug/L	0.035	0.5	0.57	107		0.5	0.562	105		50--150	1		0--45

CHAIN OF CUSTODY

Relinquished by <i>David Garcia</i>	Date <i>5/21/2024</i>	Time <i>10:00</i>
Received by <i>[Signature]</i>	Date <i>5/21/24</i>	Time <i>10:00</i>
Sample Numbers <i>L83827-1</i>		[All]

Sample Number	P83827-1	P83827-2
QC Link		
Locator	WHITE LAKE DOCK 2A	WHITE LAKE SCUM
Short Loc Desc		
Locator Desc	White Lake Dock 2A	White Lake
Site	KING COUNTY	KING COUNTY
Comments	White Lake	White Lake
Start Date/Time	<i>5/20/24 13:30</i>	<i>N/A</i>
End Date/Time		
Time Span		
Sample Depth	<i>6 in.</i>	
Dept, Matrix, Prod (Cont ID)	4 LK ADDA-ELISA; ATXA- ELISA (43) ATX-A	4 LK ADDA-ELISA; ATXA- ELISA (43)

*Not collected
Deleted 5/21/24
JR*

LIQUID SAMPLE RECEIPT RECORD

Login Number(s): <u>83827-1</u>		Project No.: <u>42874-915</u>		Sub-Contracting: <u>Y/N</u>		List Product(s):	
Collect Date(s): <u>5-20-24</u>		Receive Date: <u>5-20-24</u>		Changes: <u>Y/N</u>		List Parameter(s):	

SAMPLE RECEIPT CONDITIONS				FIELD PRESERVATION CHECKLIST (Circle and/or check applicable selections)					
CONDITION	Acceptable?	Comment ID	CONDITION	Acceptable?	Comment ID	PRODUCT / Preservation	SM Action	Acceptable?	Corrective Action
Labels / Fieldsheets	<u>Y</u> / N		Volumes	<u>Y</u> / N		BNA / pH 6 - 9 w/ H ₂ SO ₄ or NaOH	✓ field sheet for F, pH	<u>Y</u> / N	<input type="checkbox"/> Notify ORG
Container	<u>Y</u> / N	<u>0</u>	Holding Times	<u>Y</u> / N		CN / pH > 12 w/ NaOH within 15 min	<input type="checkbox"/> Check pH	<u>Y</u> / N	<input type="checkbox"/> Deliver to CONV
Temperature (w/ ice)	<u>Y</u> / N / NA		Delivery Location	<u>Y</u> / N		NO23 pH < 2 w/ H ₂ SO ₄	<input type="checkbox"/> Check pH	<u>Y</u> / N / NA	<input type="checkbox"/> Preserve by SM

BOTTLE COUNT (#) AND DESCRIPTION and SAMPLE NUMBERS		ROUTINE SM PRESERVATION CHECKLIST (Circle and/or check applicable selections)	
#	Bottle Description: Sample Numbers	PRODUCT / Preservation	SM Action
40 mL clear vial (VOA):		CR(VI) / TOTCR(VI) / pH 9.3 - 9.7 w/ NaOH w/in 15 min	✓ field sheet for pH
60 mL clear glass (PHYTO):		ICP / HG-CVAA-M / pH < 2 w/ HNO ₃	<input type="checkbox"/> Check pH
60 mL CWM HDPE:		O&G / HEM / PHENOL / pH < 2 w/ H ₂ SO ₄	Check documentation
125 mL AWM HDPE:		PHYTOPLANKTON / Lugols	Visually inspect
125 mL CNM HDPE:		TKN / COD pH < 2 w/ H ₂ SO ₄ within 15 min	<input type="checkbox"/> Check pH
125 mL CWM HDPE:		TOC / pH < 2 w/ HCl (NPDES only)	<input type="checkbox"/> Check pH
125 mL GANM:		TOTSULFIDE / pH > 9 w/ NaOH, ZnAc	Check documentation
125 mL GANM w/HCl		WDO / FIXED	Visually inspect
250 mL AWM HDPE:		Other:	
250 mL CWM HDPE:			
250 mL CWM HDPE (MICRO):			
250 mL GAWM:			
250 mL GAWM w/ H ₂ SO ₄ :			
300 mL WDO (8 hour HT):			
500 mL AWM HDPE:			
500 mL CWM HDPE:			
500 mL CWM PP (MICRO):			
500 mL HDPE (METALS):			
500 mL HDPE, double-bagged (METALS):			
500 mL Teflon (Hg):			
500 mL Teflon, double-bagged (METALS):			
500 mL GANM / GAWM:			
500 mL Polystyrene Filtration Units (METALS):			
1L AWM HDPE:			
1L CWM HDPE:			
1L CWM PP (MICRO):			
1L GANM:			
1L GCWM:			
1L GAWM w/ H ₂ SO ₄ :			
2L CWM HDPE:			
Other:			

INTERFERENCE TEST (Circle and/or check applicable selections)			
Product / Interference (SM Action)	Positive Test?	Treated	Corrective Action
BNA / Chlorine (Check documentation)	<u>Y</u> / N / not tested	<u>Y</u> / N	<input type="checkbox"/> Deliver to ORG
CN / Chlorine (Check documentation)	<u>Y</u> / N / not tested	<u>Y</u> / N	<input type="checkbox"/> Deliver to CONV
CN / Sulfide (Check field sheet for DF)	<u>Y</u> / N / not tested	<u>Y</u> / N	<input type="checkbox"/> Deliver to CONV
VOA / Chlorine (Check documentation)	<u>Y</u> / N / not tested	<u>Y</u> / N	<input type="checkbox"/> Deliver to ORG
Other:			

HEADSPACE CHECK			
PRODUCT (SM Action)	Check For	Acceptable?	Corrective Action
MICRO (Visually inspect)	Headspace (@ 1")	<u>Y</u> / N	<input type="checkbox"/> Notify MICRO
TOTSULFIDE (Visually inspect)	Headspace (< 1")	<u>Y</u> / N	<input type="checkbox"/> Notify CONV
VOA (Visually inspect)	Zero headspace	<u>Y</u> / N	<input type="checkbox"/> Notify ORG
WDO (Visually inspect)	Zero headspace	<u>Y</u> / N	<input type="checkbox"/> Notify CONV
Other:			

FIELD FILTRATION CHECKLIST (Circle and/or check applicable selections)			
Product (SM Action)	Field Filtered	Field Blank	Corrective Action
ORTHOP (Check Field Sheet)	<u>Y</u> (within 15 min y / n) / N	<u>Y</u> / N	<input type="checkbox"/> Deliver to CONV
NO2 / NO3 / NO23 / NH3 / SI (Documentation)	<u>Y</u> (within 1 day y / n) / N	<u>Y</u> / N / NA	<input type="checkbox"/> Deliver to CONV
Dissolved Metals (Check Field Sheet)	<u>Y</u> (within 15 min y / n) / N	<u>Y</u> / N / NA	<input type="checkbox"/> Deliver to METALS
DOC (Deliver / Notify Unit)	<u>Y</u> (within 15 min or 1 day) / N	<u>Y</u> / N / NA	<input type="checkbox"/> Deliver to CONV
DCOD / CR(VI) (Deliver / Notify Unit)	<u>Y</u> (within 15 min y / n) / N	<u>Y</u> / N / NA	<input type="checkbox"/> Deliver to CONV
Other:			

COMMENTS / NOTIFICATIONS	
<u>0 - 2 not collected</u>	

CC: ☐ AQUATOX, ☐ CONV, ☐ METALS, ☐ MICRO, ☐ ORG, ☐

NOTES

1. Deliver dissolved Hg-CVAF samples to METALS for filtration.
2. Deliver double-bagged metals samples to METALS for preservation.
3. Do not test pH for preserved BNA and TOTSULFIDE samples.

4. Deliver pH, WDO, and all MICRO samples ASAP to appropriate section for immediate processing.
5. Enter "Time Span" for composite samples during sample login.
6. Split algae sample into 60 mL clear glass if PHYTOQUAL is requested.

SM Signature: _____

Date / Time Completed: MAY 21 24 10:16