

FIELD EQUIPMENT VERIFICATION (PRE/POST A WEEKLY SAMPLING):



Session No: <b>FR 4</b>	Verifiers (pre-sampling): <b>L. Yannell</b>	Pre Date: <b>9/20/23</b>	Pre Time: <b>11:00 AM</b> <b>1:32 PM</b>	Verifiers (post-sampling): <b>C. Keyhani L. Yannell</b>	Post Date: <b>9/22/23</b>	Post Time: <b>12:00 pm</b>
----------------------------	--	-----------------------------	--	--	------------------------------	-------------------------------

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST	n/a	NIST Exp. Date	Std Val	NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	<b>2</b>	<b>7</b>	<b>6/28/24</b>		<b>27.6 °C</b>	<b>°C</b>	<b>31.3 °C</b>	<b>°C</b>			
					<b>27.5</b>		<b>31.3</b>				
Salinity			3 months	Std Val	Tap water	Salin Std 9/11/23 date	Tap water	Salin Std 9/11/23 date	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	<b>3</b>	<b>7</b>	<b>8/7/23</b>		<b>0.05</b>	<b>33.8</b>	<b>0.18</b>	<b>33.8</b>		Pre Verification = Kula H <sub>2</sub> O Post Verification = Kinei H <sub>2</sub> O	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	<b>3</b>	<b>3</b>	<b>7/17/23</b>		<b>101.3</b>		<b>100.9</b>				
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value	Compare to Manufacturer pH Std value on bottle	
	<b>3</b>	<b>5</b>	<b>9/20/23</b>		<b>6.99</b>	<b>9.98</b>	<b>7.00</b>	<b>10.03</b>		pH 7 Exp 5/2024 pH 10 Exp 5/2024	
Turbidity	Verification on 9/20/23 at 7:06 PM		3 months	Std Val	BLANK <0.1	LOW 1-10	BLANK <0.1	LOW 1-10	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	<b>5</b>	<b>n/a</b>	<b>8/7/23</b>		<b>0.07</b>	<b>6.54</b>	<b>0.05</b>	<b>6.53</b>		Low Std: 6.54 Spare Blank Pre: 0.07	
		<b>n/a</b>					<b>ck</b>				

QA: \* Are pre- and post within one week?  
\* Delay times are ok?  
\* Other equipment issues?

Pre: **LYL lab (Liz Yannell's Kitchen lab)**

Post: **NMS lab**



## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Lahaina Fire Response	Samplers (Last Name, 1st Initial)	Kimmel, J. Yannell, L. Keyhani, C.	Meters and Probes ID		
Session	4			HQ2200: SM 3		2100Q: SM 5
Date	09/21/2023			pH: SM 5	DO: SM 3	Salinity: SM 7

Location Name Sample ID	Fresh water Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			People (within 100 ft)		
					(mg/L) 5.2-7.0 normal	(%) 85-105 normal					water	beach	camp
Mala Tavern LMT230921	N	7:31	26.4	35.4	6.57	98.6	7.98	4.69	1.83	1.64	0	0	0
Mala Ramp LMR230921	Y	8:14	26.6	35.2	6.18	93.2	8.05	3.74	4.10	4.68	0	0	0
Papalaua St LPS230921	N	8:38	26.4	35.7	6.36	95.9	8.02	3.98	4.78	4.09	0	0	0
Lahaina Harbor LLH230921	N	9:05	27.2	35.7	5.73	87.7	8.08	0.68	0.61	0.65	0	0	0
505 Front St PFF230921	N	9:38	26.9	36.0	6.32	96.5	8.12	2.65	2.81	4.29	0	0	0
Lindsey Hale PLH230921	N	10:01	26.7	35.7	6.34	96.3	8.10	17.5	17.2	16.8	0	0	0
Lahaina Town PLT230921	N	10:29	27.2	35.3	6.26	96.2	8.04	25.6	31.2	29.7	0	0	0

\*ENT samples taken at all sites for BWTF

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).  
Use the back of the form if needed.

LMT - Higher/bigger shorebreak; turtles in the water. Cloud cover  
LMR - small stream flow ~3 ft wide  
LPS - wind picking up, then died down again. Some swells coming in.  
PFF - flooding in parking lot looks the same. Maybe some receding. Photo taken (Jody). Water brown at shoreline. Cloud cover.  
LLH - new booms around the harbor perimeter, next to water. USCG excavating debris from harbor water.

## TURBIDITY VERIFICATION &amp; PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.07	6.54	58.4	605
Field - Pre-Sample	0.08	6.55	58.7	605
Lab - Post Sample	0.05	6.55	59.0	604
Probes (+/- 0.2 °C)	D.O	Salinity	pH	Notes
Verify Probe Temps	26.1	26.4	26.3	
CHAIN OF CUSTODY	# of Samples	Relinquish to	Contact	
Nutrients	7	N.M.S	Liz Yannell	
Signature (Team Lead):	Liz Yannell	Print:	Liz Yannell	

Sites with potential for freshwater flow: 505 Front St, Mala Ramp

PLH - wtr very brown; sunny now

PLT - very brown water; Hawaiian Electric Co. doing work/excavation next to mobile lab.

High tide @ 8:33 AM 2.2 ft high

Last updated April 2023



## Hui O Ka Wai Ola - Sample Collection Datasheet

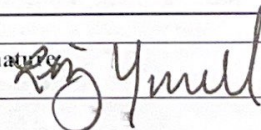
Team	Lahaina Fire Response	Samplers (Last Name, 1st Initial)	Kimmel, J. Yannell, L. Keyhani, C.
Session	4		
Date	09/21/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
LMT230921-N-1	Mala Tavern	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:31	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
LMR230921-N-1	Mala Ramp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:14	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
LPS230921-N-1	Papalaua St.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
LLH230921-N-1	Lahaina Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PFF230921-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH230921-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:01	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT230921-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:29	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

RENT samples at all sites for Surfrider BWTF

Sediments							
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature



Print:

Liz Yannell

Last updated April 2023



Tim O Ka Wai Ola - Sample Collection Datasheet

Team	WM Fire Response	Samplers (Last Name, 1st Initial)	Gond, K', Gond M, Yanil, L. Keyhani, C.	Meters and Probes ID		
Session	4			HQ2200: SM 3		2100Q: SM 5
Date	09/22/2023			pH: SM 5	DO: SM 3	Salinity: SM 7

Location Name Sample ID	Fresh water Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			People (within 100 ft)		
					(mg/L) 5.2-7.0 normal	(%) 85-105 normal					water	beach	camp
Canoe Beach RCB230922	N	8:25am	26.2	35.6	6.75	101.2	8.16	2.45	2.67	2.66 3.07	0	3	0
Wahikuli RWA230922	N	9:00am	26.7	35.8	6.57	99.4	8.16	0.62	0.59	0.67	0	0	0
Camp Olowalu OCO230922	N	9:34am	25.6	35.9	6.56	97.8	8.04	7.49	8.11	7.85	0	0	0
Mile Marker 14 OMM230922	N	9:54am	26.3	36.0	5.95	89.7	8.02	3.07	3.10	2.95	0	1	2

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).  
Use the back of the form if needed.

RCB: Rocky Beach, small rolling rocks came back, calm day, sprinkling rain, breeze

RWA: Rotten egg / sulfur smell within 100ft, light wave action, breezy

OCO: Breezy, seems high tide

OMM: Windy, calm

2nd read: 26.2°C 36.1 ppt 6.00 mg/L 90.2%  
 CK Salinity Salinity Dissolved oxygen  
 Temp

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.07	6.54	58.4	605
Field - Pre-sample	0.07	6.62	58.8	604
Lab - Post sample	0.05	6.53	58.6	604
Probes (+/- 0.2 °C)	D.O	Salinity	pH	Notes
Verify Probe Temps	25.9 °C	26.2 °C	26.1 °C	

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	4	NMS	Christiane

Signature (Team Lead):

Christiane K

Printed Name:

Christiane Keyhani

Sites with potential for freshwater flow: Canoe Beach



## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	WM Fire Response	Samplers (Last Name, 1st Initial)	Gund, K.; Gund, M.; Yannell, L. ; Keyhani, C
Session	4		
Date	09/22/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RCB230922-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25 am	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA230922-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00 am	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO230922-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:34 am	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OMM230922-N-1	Mile Marker 14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:54 am	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

Sediments							
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):	Printed Name:
Christiane K	Christiane Keyhani