

Hui O Ka Wai Ola

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

Session No:	Verifiers (pre-sampling):		Pre Date:	Pre Time:	Verifiers (post-sampling):		Post Date:	Post Time:
111	M. Beeson		9/26/22	10:20am	L. Yannell		9/29/22	11:15 am

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 27.6°C	NIST 27.6°C	NIST 27.4°C	NIST °C	± 0.6 °C of NIST
	4	4	8/17/23		27.5		27.3		
	4	3	8/17/23		27.5		—		
Salinity			3 months	Std Val	Tap water 5/14/24 date 34.0 ppt	Tap water 5/24/24 date 34.0 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	4	4	9/5/22		0.44	34.0*	0.45	34.0	used sink tap water (not Liz's home tap H2O)
	4	3	9/5/22		0.44	34.1	—	—	*1st time reading w/ salinity standard since 9/5 calibration, so 34.0 ppt is the new value
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
	4	4	8/15/22		101.2 %	100.9 %			
	4	1	2/7/22		98.8 %	—			
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value
	4	6	9/26/22		7.00	9.96	7.07	10.04	post sample read twice
	4	7	9/26/22		7.01	9.96	—	—	
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 5.72 NTU	BLANK <0.1	LOW 1-10 5.72 NTU	± 0.18 NTU Low 1-10
	1	n/a	7/14/22		0.17	5.69	0.06	5.73	Trouble w/ the blank. Tried 4 vials + 2 different batches of distilled H2O.
	—	n/a	—		—	—	—	—	post-sample blank used spare cell

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

Lab: KAL-2

Hawaiian Water Quality Sample Collection Data Sheet

Team	R2RS	Samplers (Last Name, 1st Initial)							Meters and Probes ID			
Session	111		FLOYD, M BIESER, S						HQ2200:	4	2100Q:	1
Date	09/27/2022								pH:	6	DO:	4

Location Name Sample ID	Freshwater 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)	(%) 85-105 normal			water	beach	camp
Napili Bay RNS220927	N	8:10	26.3	35.0	6.43	96.5	8.12	2.99	3.12 3.45	3.03	2
Pohaku RPO220927	N	8:40	26.7	34.9	6.27	94.6	8.13	1.57	1.51	1.62	0
Kaanapali Sh RKS220927	N	9:02	26.1	35.3	6.18	92.6	8.09	1.02	0.95 1.13	1.09	3
Kahekili Beach Two RKT220927	N	9:22	27.1	35.6	6.82	104.0	8.18	.92	.90	.92	0
Canoe Beach RCB220927	N	9:43	27.5	35.5	6.58	101.1	8.17	3.67	3.54	3.91	0
Wahikuli RWA220927	N	10:00	27.4	33.8	6.66	101.3	8.18	6.99	7.10	6.50	0
									0	0	0

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

RNS - small swells. High tide. Took 4th Turb.
RKS - Took 4th Turb. reading.

RKT - DO much higher than others

RCB - 1-2' swells.

RWA - 0-1' swells.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	* 0.17	5.72	57.0	598
Pre-sampling	0.16	5.77	56.8	599
Post-sampling	0.06	5.72	56.9	598

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	KAL-Z	M. Beeson
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Meredith Beeson

Sites with potential for freshwater flow: Kaanapali Shores, Canoe Beach

* couldn't get blank below this in lab on 9/26/22.

* bought DI H₂O which helped tremendously as seen in post-sampling blank (0.06 NTU)

Last updated July 2020

Hui O Ka Wai Ola - Sample Collection Data Sheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Floyd, M. Bieser, S.			
Session	111					
Date	09/27/22					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS220927-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO220927-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS220927-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT220927-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB220927-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:43	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA220927-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

		<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):

M.B.

Printed Name:

Meredith Beeson

Team	Polanui	Samplers (Last Name, 1st Initial)	Gonzalez, T Harris, K						Meters and Probes ID					
Session	111								HQ2200:		4	2100Q:		1
Date	09/28/2022								pH:	6	DO:	4	Salinity:	4

Location Name Sample ID	Freshwater 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)	(%) 85-105 normal			water	beach	camp
505 Front St PFF220928	Y	8:09	26.7	35.9	6.33	96.3	8.15	3.52	4.04	3.46	0
Lindsey Hale PLH220928	N	8.35	26.7	35.7	6.40	97.0	8.15	13.8	13.9	14.6	0
Lahaina Town PLT220928	N	8:59	27.1	35.7	6.22	95.2	8.15	9.85	10.5	10.6	2 dogs
Camp Olowalu OCO220928	N	9:29	27.4	35.9	6.51	99.9	8.15	3.40	3.43	3.48	0
Papalaua Pali OPP220928	N	9:54	27.4	35.9	6.79	104.5	8.21	10.8	10.9	10.8	0

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

No comments written by volunteers. I contacted them to check if there was anything they wanted to add.
• PFF - photo taken of stream + emailed

Sites overall: not much wave or water action.
- Several sites seem more turbid
- Wave patterns causing lingering turbidity.

Sites with potential for freshwater flow: 505 Front St.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	5.72	57.0	598
Pre-sampling	0.07	5.60	56.7	598
Post-sampling	0.07	5.70	57.3	599

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL-2	Liz Yannell
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

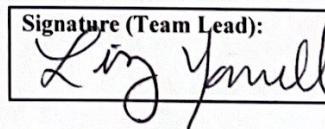
Liz Yannell

Team	Polanui	Samplers (Last Name, 1st Initial)	Gonzalez, T. Harris, K.			
Session	111					
Date	09/28/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF220928-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:09	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH220928-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT220928-N-1	Lahaina Town	<input type="checkbox"/>	<input type="checkbox"/>	8:59	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO220928-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:29	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP220928-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

		<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:

Liz Yannell

Team	R2RN	Samplers (Last Name, 1st Initial)							Meters and Probes ID				
Session	111		Berg, L Butchings, L Yannell, L						HQ2200:	4	2100Q:	1	
Date	09/29/22								pH:	6	DO:	4	Salinity:

Location Name Sample ID	Freshwater 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)	(%) 85-105 normal			water	beach	camp
Honolua Bay RHL220929	N	7:55	25.9	34.8	6.32	94.1	8.21	1.35 1.62 1.53 2.88	2	6	0
Onealoa Bay RON220929	N	8:30	26.1	35.7	6.74	101.5	8.23	1.05 1.28 1.18	0	0	0
Kapalua Bay RFS220929	N	8:55	26.8	35.7	6.48	98.4	8.16	2.93 2.15 2.19	7	15	0
Ka'opala Bay RKO220929	N	9:25	26.8	35.6	6.19	94.0	8.13	5.18 4.89 4.89	0	1	0
Kahana Village RKV220929	N	9:52	26.9	35.1	6.21	94.2	8.13	31.1 28.2 30.7 33.6	0	0	0

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

RHL - Blank standard way off .33, 51 after cleaning switched to
switched to spare.

Raining.

4th turbidity
RON - Raining, windy while sampling, waves

RKV - raining

Lisa checked stream, and sand bags are set up to prevent stream flow

4th turbidity reading
calm water

Sites with potential for freshwater flow: Honolua Bay, Kahana Village

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	5.72	57.0	598
Pre-sampling	0.08	5.76	56.9	598
Post-sampling	0.06	5.73	57.0	600

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL-2	Liz Yannell
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Liz Yannell

Team	R2RN	Samplers (Last Name, 1st Initial)				
Session	111					
Date	09/29/22		<i>Berg, L. Hutchings, L. Yannell, L.</i>			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL220929-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	<i>Raining</i>
RON220929-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS220929-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO220929-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV220929-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	<i>↓</i>

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): *Liz Yannell* Printed Name: *Liz Yannell*