

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:
103	M. Beeson	4/11/22	10:00	N. Sampson	4/14/22	10:53

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value	POST: Verification Value	Acceptable Range	Comments/ Notes	QA?
Temperature	<u>NIST</u>	n/a	NIST Exp. Date	Std Val	<u>NIST</u> 25.9 °C	<u>NIST</u> 25.8 °C	<u>NIST</u> 25.3 °C	<u>NIST</u> — °C	± 0.6 °C of NIST Compare to NIST Std value in tap water
	4	4	8/17/23		25.8		25.1		
	4	3	8/17/23		25.6		—		
Salinity			<u>3 months</u>	Std Val	<u>Tap water</u> <del>6/27/21</del> date 33.5 ppt	<u>Tap water</u> <del>6/27/21</del> date 33.5 ppt		± 1 ppt Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	2	4	2/28/22		0.40	33.9	0.42	34.0	
	2	3	2/28/22		0.39	33.7	—	—	
Dissolved Oxygen			<u>1 year</u>	Std Val	100%	100%	± 5%		
	2	4	8/12/21		99.8	100.2		<i>DO40d stopped working after this reading on 4/11/22. Tried changing batteries, but didn't work.</i>	
	XI <sup>MB</sup>	1	2/7/22		101.5	—			
pH			<u>3 weeks</u>	Std Val	pH 7.00 exp. 3/23	pH 10.00 exp. 3/22	pH 7.00 exp. 3/23	pH 10.00 exp. 3/22	± 0.1 pH of pH std value Compare to Manufacturer pH Std value on bottle
	XI <sup>MB</sup>	4	4/11/22		7.01	10.01	7.03	10.01	<i>pH 10 buffer expired last month</i>
	XI <sup>MB</sup>	7	4/11/22		7.01	10.00	—	—	
Turbidity			<u>3 months</u>	Std Val	<u>BLANK</u> <0.1	<u>LOW 1-10</u> <del>8</del> NTU	<u>BLANK</u> <0.1	<u>LOW 1-10</u> NTU	± 0.18 NTU Low 1-10 Compare to Gel LOW 1-10 Std Calibration value
	NBBF	n/a	2/7/22		0.06	5.72	0.06	5.79	* low: 5.78 NTU
	XI <sup>MB</sup>	n/a	2/28/22		0.07	5.49	—	—	* low: 5.49 NTU

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

Lab: KAL

## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	FIRE, BERG, T FLOYD M BLESER S						Meters and Probes ID		
Session	103					HQ40d: 1			2100Q: NBBF		
Date	04/12/2022					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
Napili Bay RNS220412	N	8:08	25.0	34.9	6.85	101.0	8.10	1.01	1.09	1.14	2	6	0
Pohaku RPO220412	N	8:28	24.9	33.3	6.74	98.3	8.14	3.34	3.31	3.89	1	0	0
Kaanapali Sh RKS220412	N	8:50	25.4	35.7	6.66	99.3	8.09	2.38	2.68	2.40	12	4	0
Kahekili Beach Two RKT220412	N	9:10	25.9	35.9	6.68	100.6	8.14	2.33	3.00	2.65	7	5	0
Canoe Beach RCB220412	N	9:33	26.9	35.1	6.63	99.7	8.16	10.5	10.5	10.5	0	0	0
Wahikuli RWA220412	N	9:50	26.0	35.2	6.70	100.7	8.10	2.64	2.63	2.55	0	3	0

## NOTES AND COMMENTS (trends, equipment problems, errors, concerns).

Use the back of the form if needed.

RNS - BLANK took many tries. Think we need new?

RPO - Syringe broke - did 2nd sample.

BLANK red bucket top

RKS - Paddle boarders,

RKT - Rocks - Sampled 100 yards to right

RCB - lots of large sand particles.

RWA - lots of small sand.

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.04	5.78	57.2	567
Pre-sampling	0.10	5.71	57.6	567
Post-sampling	0.06	5.73	57.6	566

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	KAL	N. Sampson
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Nalei Sampson

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

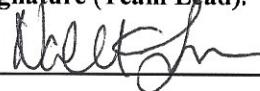
## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Freiberg, T			
Session	103		Floyd, M			
Date	04/12/22		Bieser, S			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RNS220412-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:08	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO220412-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:28	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS220412-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT220412-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB220412-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA220412-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

<b>Sediments</b>							
		<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:

Nalei Sampson

## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	Harris, K Gund, K Gonzalez, T	Corcoran, K	Meters and Probes ID						
Session	103				HQ40d: 1						
Date	04/13/2022				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 PFF220413	Y	8:09	25.5 35	34.8	6.25	92.9	8.04	6.93	6.58	6.80	100	0	0
Lindsey Hale PLH220413	N	8:32	25.6	35.4	6.27	93.5	8.04	1.96	2.07	2.08	1	5	0
Lahaina Town PLT220413	N	8:49	25.8	35.9	6.56	98.7	8.06	1.71	1.55	1.57	1	2	0
Camp Olowalu OCO220413	N	9:19	26.2	35.7	6.37	96.3	8.05	2.43	3.07	2.67	0	0	0
Papalaau Pali OPP220413	N	9:42	26.4	36.0	6.81	103.4	8.11	6.62	6.39	6.30	0	3	0

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

PLT 4th turbidity taken (in case needed)

Perfect day!

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	5.78	57.2	567
Pre-sampling	0.08	5.72	57.3	567
Post-sampling				

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL	M. Beeson
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Meredith Beeson

Sites with potential for freshwater flow: 505 Front St.

Team	Polanui	Samplers (Last Name, 1st Initial)	Harris, K. Gund, K. Gonzales, T.	Corcoran, K.
Session	103			
Date	04/13/2022			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
PFF220413-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	
PLH220413-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:32	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT220413-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:49	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO220413-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:19	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP220413-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

Sediments					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):

MP

Printed Name:

Meredith Beeson

Team	R2RN	Samplers (Last Name, 1st Initial)	<i>Berg, L Hutchings, L</i>							Meters and Probes ID		
Session	103									HQ40d:	1	2100Q: <i>NBBF</i>
Date	04/14/22									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
Honolua Bay RHL220414	N	8:00A	24.1	34.4	6.3	91.9	8.14	2.01	3.15	2.29	0 12 0
Onealoa Bay RON220414	N	8:40	24.4	36.0	6.78	99.8	8.17	0.72	0.71	0.69	1 2 0
Kapalua Bay RFS220414	N	9:00	25.2	35.9	6.18	91.8	8.10	0.87	0.97	1.10	14 46 0
Ka'opala Bay RKO220414	N	9:30	25.2	35.2	6.37	94.2	8.10	3.60	3.68	3.82	3 3 0
Kahana Village RKV220414	N	9:50	25.4	35.1	6.82	101.2	8.15	2.18	1.90	1.96	0 0 0

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

Presample blank second reading 0.10.  
RTL - 4th turbidity 3.21 5th 2.44  
RTL - calm conditions.  
RON - Windy, small waves  
RFS - calm ocean, crowded beach  
RKO - 4th turbidity 0.89

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	5.78	57.2	567
Pre-sampling	0.12	3.79	57.8	566
Post-sampling	0.06	5.75	57.5	569

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KAL	N. Sampson
Bacteria	-	-	-

Signature (Team Lead):

*Natei Sampson*

Printed Name:

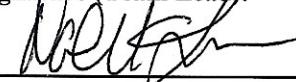
Natei Sampson

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

Team	R2RN	Samplers (Last Name, 1st Initial)	Berg, L Hutchings, L			
Session	103					
Date	04/14/22					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RHL220414-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON220414-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS220414-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO220414-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV220414-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

<b>Sediments</b>							
		<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: Natei Sampson
---	--------------------------------