

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

Hui O Ka Wai Ola

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
94	Beeson, M., Sampson, N.	9/20/21	9:40	Sampson, N.	9/28/21	10:20

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	26.4 °C	26.1 °C	26.7 °C	± 0.6 °C of NIST Compare to NIST Std value in tap water	
	1	3	7/8/21		25.9	26.2		Did not have current NIST	
	1	4	7/8/21		25.7	26.2		Second Meter set was used tuesday 9/21 for outreach	
Salinity			3 months	Std Val	Tap water <u>01/25 date</u> <u>35.0 ppt</u>	Tap water <u>09/25 date</u> <u>35.0 ppt</u>	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	3	6/28/21		0.39	35.5	0.39	35.0	
	1	4	6/28/21		0.40	35.9	0.40	35.3	
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
	1	1	9/28/20		97.2	96.9			
	1	4	8/12/21		100.6	99.9			
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	± 0.1 pH of pH std value Compare to Manufacturer pH Std value on bottle	
	1	6	9/20/21		7.03	9.99	7.05	10.01	
	1	5	9/20/21		7.02	9.98	7.04	10.00	faulty probe. Using #6 this wk
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 NTU	BLANK <0.1	LOW 1-10 NTU	± 0.18 NTU Low 1-10 Compare to Gel LOW 1-10 Std Calibration value
	↓ NBBF	n/a	6/28/21		0.08	4.06	0.07	6.04	↓ Low: 6.05
	↓ 1	n/a	6/28/21		0.08	5.66	0.06	5.74	↓ Low: 5.71 #1 in field

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

LAB: KAL

Team	R2RS	Samplers (Last Name, 1st Initial)	Beezon, M.					Meters and Probes ID		
Session	94		Mayen, Y.					HQ40d:	1	2100Q: 1
Date	9/21/2021		Gallagher, C.					pH:	6	DO: 1 Salinity: 3

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 RNS210921	N	8:03	25.0	34.7 MB	6.49	95.6	8.13	2.77	2.73	2.45	∅	3	∅	
Pohaku RPO210921	N	8:32	25.0	33.6	6.38	92.9	8.16 8.13	2.34 2.16	2.62	2.30	∅	1	∅	
Kaanapali Sh RKS210921	N	8:50	25.1	35.2	6.47	95.5	8.14 MB 8.09	3.18	3.46	2.90	∅	6	∅	
Kahekili Beach Two RKT210921	N	9:11	25.6	35.4	6.59	98.3	8.20	1.57	1.45	1.60	∅	1	∅	
Canoe Beach RCB210921	N	9:35	26.4	33.8	6.81	102.2	8.24	4.23	4.61	5.00	4.36	∅	4	∅
Wahikuli RWA210921	N	9:48	26.6	34.4	6.96	97.6	8.21	2.07	2.25	2.16	∅	4	∅	

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

PNS - started pouring on way back to car  
RPO - low tide, read pH 3x last 2x read 8.16

RKS - water in stream, but not flowing into ocean - blocked by sand dune  
- pH - same thing as RPO - 8.09, 8.14, 8.14  
- 4th turbidity: 2.80

RKT - walked to the right ~80 yd bc of rocks (low tide)  
- pH: got 8.20 3x

RCB - pH: got 8.24 3x

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

RWA - pH: got 8.20 2x & then 8.21 (on 3rd try)

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.08	5.71	59.1	632
Pre-sampling	0.09	5.69	59.0	635
Post-sampling	0.08	5.77	59.1	

## CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Meredith Beezon

## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Beeson, M.			
Session	94		Mayen, Y.			
Date	9/21/2021		Gallagher, C.			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RNS210921-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO210921-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:32	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS210921-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT210921-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:11	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB210921-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA210921-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:48	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:

Meredith Beeson

Team	Polanui	Samplers (Last Name, 1st Initial)	Beeson, M. Gund, K.						Meters and Probes ID			
Session	94								HQ40d:	1	2100Q: 1	
Date	9/22/2021								pH:	6	DO:	1

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 PFF210922	Y	8:10	25.6	35.1	6.08	90.4	8.11	13.7	13.1	13.7	2	3	∅
Lindsey Hale PLH210922	N	8:32	25.9	34.7	5.99	89.7	8.12	14.3	14.5	15.6	∅	1 <sup>+2</sup> dogs	∅
Lahaina Town PLT210922	N	8:52	26.2	34.9	6.23	93.9	8.11	5.90	5.19	5.05	∅	1 <sup>+2</sup> dogs	∅
Camp Olowalu OCO210922	N	9:21	25.0	35.6	6.25	92.5	8.11	2.51	2.93	2.53	∅	∅	∅
Papalaau Pali OPP210922	N	9:41	25.6	35.5	6.62	99.0	8.21	4.70	4.44	4.61	∅	2	∅

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

Had to use spare turbidity vial.

PFF: murky; stream trickling  
2nd PH = 8.10

PLH: 4th TURBIDITY = 16.7  
2nd PH = 8.12

PLT: 2nd PH = 8.11

OCO: 2nd PH = 8.11

OPP: dad + son fishing

SLOW FLOATING MATTER IN TURBIDITY SAMPLE

2nd PH = 8.21

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	0.08	5.71	59.1	632
Pre-sampling	0.07	5.68	58.7	635
Post-sampling	0.06	5.70	59.0	628

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Meredith Beeson

Team	Polanui	Samplers (Last Name, 1st Initial)	Beezon, M. Gund, K.			
Session	94					
Date	09/22/21					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
PFF210922-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH210922-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	
PLT210922-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO210922-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:21	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP210922-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:41	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:
	Meredith Beezon

Team	R2RN	Samplers (Last Name, 1st Initial)	Hutchings, L Hehemann, C						Meters and Probes ID		
Session	94								HQ40d:	1	2100Q: \
Date	9/23/2021								pH:	6	DO: \ Salinity: 3

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 RHL210923	N	7:55A	24.8	34.8	6.21	91.3	8.17	7.18	8.60	7.07	4 9 0
Onealoa Bay RON210923	N	8:35A	25.4	35.0	6.55	97.7	8.21	1.28	1.08	0.99	0 2 0
Kapalua Bay RFS210923	N	9:00A	25.6	35.1	6.38	95.2	8.14	2.53	2.43	2.30	6 8 0
Ka'opala Bay RKO210923	N	9:27A	25.5	34.6	6.22	92.6	8.11	8.10	7.63	8.23	0 0 0
Kahana Village RKV210923	N	9:45A	25.8	34.6	6.07	90.7	8.09	11.64	15.8	16.0	1 0 0

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

RHL - Tour catamaran in bay, light drizzle, ground wet  
OVERCAST

RON - breezy, wave action, 1 surfer further out in  
wave break

RFS - light breeze, clearer sky, no waves, slight influx  
of water

RKO - clear sky, light breeze, pretty calm, small waves  
rolling in, slightly bigger break further out

RKV - 2 ppl further down beach, 1 snorkeler, low tide, calm  
Sites with potential for freshwater flow: Honolua Bay, Kahana Village

Small wave break  
on reef

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Pre-sampling	0.06	5.72	59.0	632
Post-sampling	0.07	5.77	59.0	632

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Nate Sampson

Team	R2RN	Samplers (Last Name, 1st Initial)	Hutchings, L	Sampson, N
Session	94		Mehemann, C	
Date	9/23/2021			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RHL210923-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55A	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON210923-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35A	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS210923-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00A	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO210923-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:27A	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV210923-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45A	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