

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
104	M. Beeson	5/2/22	3:00 pm	N. Sampson	5/5/22	10:27 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 25.3 °C	NIST 25.5 °C	NIST 24.5 °C	NIST — °C	± 0.6 °C of NIST Compare to NIST Std value in tap water
	4	3	8/17/23		25.0		26.2		
	4	4	8/17/23			25.3	—		
Salinity			3 months	Std Val	Tap water <u>6/27/21</u> date 33.5 ppt	Salin Std <u>6/27/21</u> date 33.5 ppt	Tap water <u>6/27/21</u> date 33.5 ppt	Salin Std <u>6/27/21</u> date 33.5 ppt	± 1 ppt Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	1	3	2/28/22		0.44	33.9	0.43	34.1	
	1	4	2/28/22		0.44	34.0	—	—	
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
	1	1	2/7/22		99.8	99.4			
	1	4	8/12/21		99.3	—			
pH			3 weeks	Std Val	pH 7.00 exp. 3/23	pH 10.00 exp. 3/22	pH 7.00	pH 10.00	± 0.1 pH of pH std value Compare to Manufacturer pH Std value on bottle
	1	7	5/2/22		7.02	9.99	7.01	10.00	pH 10 buffer expired; new one on the way
	1	6	5/2/22		7.01	9.98	—	—	
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
	1	n/a	2/28/22		0.05	5.47	0.06	5.40	★ low: 5.49 NTU
	NBBF	n/a	2/7/22		0.05	5.70	—	—	★ low: 5.78 NTU; low kept reading very low (~5.65 NTU) pre-sampling 5/2

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

Lab: KAL

Team	R2RS	Samplers (Last Name, 1st Initial)	S. Bieser, M. Floyd, J. Kranberg					Meters and Probes ID			
Session	104		Freiberg, T					HQ40d:	1	2100Q:	1
Date	05/03/2022		pH:	7	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 RNS220503	N	8:07	24.1	35.2	6.90	99.8	8.15	2.39	2.61	2.63	1	1	N/A
Pohaku RPO220503	N	8:30	24.0	34.1	6.97	100.1	8.14	7.70	8.51	7.99	1	3	N/A
Kaanapali Sh RKS220503	Y	8:50	24.0	34.8	6.86	99.1	8.15	1.81	1.83	1.77	2	2	N/A
Kahekili Beach Two RKT220503	N	9:11	23.9	35.3	6.89	99.6	8.15	3.24	4.81	5.39	Ø	6	N/A
Canoe Beach RCB220503	N	9:33	24.7	34.6	6.87	100.1	8.15	14.5	14.1	14.7	Ø	6	N
Wahikuli RWA220503	N	9:48	24.7	34.4	6.91	100.7	8.17	4.47	4.16	4.53	Ø	Ø	N

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

Use the back of the form if needed.

RNS - Larger swells, light drizzle

RPO - slight drizzle, ~2ft surf, Slight Trades, Cloudy

RKS - Light drizzle. Refer to photo of stream.

RKT - outgoing tide, Wind chop, shorebreak 1-2'

RCB - Brown water, large waves

RWA - Couple raindrops, Surging shorebreak, light sideshore  
Wind NW

Low tide

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

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	5.49	55.7	586
Pre-sampling	0.09	5.38	55.5	585
Post-sampling	0.07	5.50	55.9	582

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	0	KAL	N. Sampson
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Nalei Sampson

Team	R2RS	Samplers (Last Name, 1st Initial)	<i>Brieser, S.; Floyd, M; kranberg, J.; Freiburg, T.</i>			
Session	104					
Date	05/03/22					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RNS220503-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:07	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO220503-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS220503-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	
RKT220503-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	
RCB220503-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	
RWA220503-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	

		<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

Team	Polanui	Samplers (Last Name, 1st Initial)	GUND, K						Meters and Probes ID			
Session	104		HARRIS, K						HQ40d:	1	2100Q: 1	
Date	05/04/2022		CORCORAN, K						pH:	7	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 PFF220504	Y	8:16	24.7	35.3	6.67	97.8	8.10	9.28	8.66	9.13	Ø
Lindsey Hale PLH220504	N	8:41	24.9	35.2	6.52	95.7	8.10	3.78	3.99 kg	3.94	Ø
Lahaina Town PLT220504	N	9:01	25.0	35.1	6.47	95.2	8.10	2.57	2.37	2.55	1
Camp Olowalu OCO220504	N	9:31	24.2	35.2	6.83	99.3	8.05	13.4	14.1	13.3	Ø
Papalaua Pali OPP220504	N	9:54	25.7	35.6	6.99	104.2	8.17	5.31	5.65 kg	6.60	1

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

Use the back of the form if needed.

PFF:  
MONK SEAL SWAM BY JUST PRIOR TO SAMPLING!  
-PHOTO OF STREAMFLOW TAKEN.  
-PT TURBIDITY HAS NO IMPACT KG - NO IMPACT

PLH - 4TH TURBIDITY READ TAKEN

PLT - 5 SURFERS WALKED OUT ALONG OUR SAMPLE AREA 2-3 MINUTES PRIOR TO SAMPLING

OCO - SYRINGE FILTER WAS BLOCKED. SWAPPED FILTER OUT AND FINISHED PLUNGING.

OPP - ACID WASH BOTTLE TIPPED OVER IN SAND  
PRIOR TO SAMPLE PLUNGING IN.

(BOTTLE WAS EMPTY), WIPE OUTSIDE  
SYRINGE FILTERS BLOCKED SAMPLE.

Sites with potential for freshwater flow: 505 Front St.

MUSCLED THE FILTER FOR A LONG TIME  
TO SUCCESS

\* PLEASE CONTINUE TO INCLUDE 1 OR 2 EXTRA SYRINGE FILTERS.  
4TH REND TURBIDITY @ OPP

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	5.49	55.7	586
Pre-sampling	0.07	5.67	55.8	590
Post-sampling	0.06	5.49	55.6	583

## CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

MBeeson

Printed Name:

Meredith Beeson

Team	Polanui	Samplers (Last Name, 1st Initial)	Gund, K. Harris, K. Corcoran, K. Gonzalez, T.			
Session	104					
Date	05/04/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
PFF220504-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:16	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH220504-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:41	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT220504-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:01	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO220504-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:31	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP220504-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):

MBeeson

Printed Name:

Meredith Beeson

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RN	Samplers (Last Name, 1st Initial)	Berg, C Sampson, N Aheheman, C						Meters and Probes ID				
Session	104								HQ40d:	1	2100Q: 1		
Date	05/05/22								pH:	7	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 (mg/L)	(%) 85-105 normal	pH 8-8.3 normal	Turbidity (NTU)	People (within 100 ft)				
									water	beach	camp		
Honolua Bay RHL220505	Y	8:01	23.5	30.9	6.85	92.1	8.06	167	149	170	0	0	0
Oneloa Bay RON220505	N	8:36	24.2	35.5	6.92	100.88, 15	0.88	0.93	0.94	0	0	0	
Kapalua Bay RFS220505	N	9:02	24.3	34.1	6.93	100.2	8.12	5.13	4.37	6.24	4.71	10	12
Ka'opala Bay RKO220505	N	9:26	24.5	34.1	6.99	101.3	8.12	17.3	16.6	15.9	0	0	0
Kahana Village RKV220505	N	9:43	25.0	34.4	7.18	109.6	8.18	6.55	6.28	6.16	0	4	0

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

RHL - Stream running, rain  
RFS - 4th turbidity 4.37  
RKV - 2 back waves taking out  
the napauka. Dune restorative  
will be planting pohia hia  
& akiaki grass. Waves  
contracting.  
- A tenant said strong river runoff few  
days prior - lots of debris

Rained at all sites except RKV while sampling

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	0.06	5.49	55.7	586
Pre-sampling	0.06	5.47	55.1	584
Post-sampling	0.06	5.47	55.2	582

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

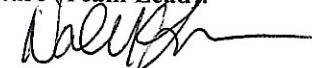
Nalei Sampson

Team	R2RN	Samplers (Last Name, 1st Initial)	Berg, L
Session	104		Sampson, N
Date	05/05/22		Hetherman, C

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RHL220505-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:01	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON220505-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:36	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS220505-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO220505-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV220505-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:43	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:

Nalei Sampson