

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
106	L. Yannell, M. Beeson	6/13/22	10:50	M. Beeson, L. Yannell	6/16/22	10:40

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	
					27.4 °C	27.5 °C	24.7 °C	— °C			
	4	3	8/17/23		27.3		24.6				
	4	4	8/17/23			27.4		—			
Salinity			3 months	Std Val	Tap water	Salin Std 1/17/22 date 33.9 ppt	Tap water	Salin Std 1/17/22 date 33.9 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	3	3	5/23/22		0.44	33.6	0.03*	33.7		*Filtered tap water brought from Liz's home	
	3	4	5/23/22		0.45	33.6	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	3	1	2/7/22		99.9 %		100.0 %				
	3	4	8/12/21		99.7 %		—				
pH			3 weeks	Std Val	pH 7.00 Exp: 3/23	pH 10.00 Exp: 3/23	pH 7.00	pH 10.00	± 0.1 pH of pH std value	Compare to Manufacturer pH Std value on bottle	
	3	7	6/14/22		7.02	9.97	7.02	9.98			
	3	6	6/14/22		7.00	9.97	—	—			
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	5/23/22		0.05	5.49	0.07	5.52		*low: 5.55 NTU	
	NBBF	n/a	5/23/22		0.04	5.99	—	—		*low: 5.92 NTU	

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

LAB: KAL-2

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Flood, M Bieser, S Yannell, L. Sharpe, M.	Meters and Probes ID		
Session	106			HO 2200 HO 400: 3		2100Q: 1
Date	06/14/2022			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 RNS220614	N	8:22	24.8°	34.6	8.04	96.3%	8.09	1.07	1.15	1.61	5	4	Ø
Pohaku RPO220614	N	8:54	24.9°	32.8	8.31	99.9%	8.12	1.13	0.73	0.66	2	Ø	Ø
Kaanapali Sh RKS220614	N	9:16	25.4° 25.6° 25.6°	35.4	9.30	113%	8.18	0.80	0.84	1.05	3	9	Ø
Kahekili Beach Two RKT220614	N	9:45	26.4° 26.4° 26.4°	35.4	8.31	102.9%	8.15	0.93	0.87	0.94	12	13	Ø
Canoe Beach RCB220614	N	10:15	26.9	35.2	8.17	102.0%	8.18	4.73	4.86	4.50	5	13	Ø
Wahikuli RWA220614	N	10:32	26.2	33.4	8.11	100.1%	8.18	0.66	0.66	0.68	0	11	Ø

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

RNS - light rain
Found scratch on turbidity vial during pre-sampling
Decided to use spare vial for samples.
RNS - 1.13 4th turbidity reading
RPO - 0.59 4th turbidity reading
RKS - light rain
0.76 4th turbidity reading
*Both turbidity vials are scratched and post-sampling reads are consistently high despite trouble shooting
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	5.55	56.3	590
Pre-sampling	0.98	5.58	57.1	590
Post-sampling	0.54*	5.49	56.1	590

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	Kal-2	Liz Yannell
Bacteria	-	-	-

Signature (Team Lead)

Liz Yannell

Printed Name:

Liz Yannell

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Yannell, L. Floyd, M. Sharpe, M. Bleiser, S.
Session	106		
Date	06/14/22		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS220614-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO220614-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS220614-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:16	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT220614-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB220614-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA220614-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:32	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): Liz Yannell	Printed Name: Liz. Yannell
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Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	GUND, K Beeson, M. Yannell, L. SHARPE, M.	Meters and Probes ID		
Session	106			HQ2200	HQ40d: 3	2100Q: 1
Date	06/15/2022			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
505 Front St PFF220615	Y	8:24	27.4	34.8	6.33	80.3	8.01	1.83	1.63	1.88	0	3	0
Lindsey Hale PLH220615	N	8:55	27.1	34.7	6.17	77.3	8.07	1.19	1.15	1.25	0	2	0
Lahaina Town PLT220615	N	9:20	27.9	32.8	7.40	94.1	8.11	1.62	1.60	1.60	4	0	0
Camp Olowalu OCO220615	N	9:54	26.4	35.4	8.09	100.3	8.13	1.24	1.22	1.12	4	2	0
Papalaua Pali OPP220615	N	10:25	26.7	35.6	9.12	113.8	8.23	2.21	2.48	2.52 ^{KG} 3.00	0	6	0

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

PFF - 4 dogs in + out of water
PFF - CALM, NO WAVES - LOW TIDE
PFF - RE-READ DO % - 80.0 FIRST READING
PLH - PHOTO OF LOW TIDE (MEREDITH)
PLH - METER FOR TURBIDITY WOULDN'T POWER UP. ADJUSTED BATTERIES + IT WORKED.
PLH - LOW D.O. 2ND READ = 77.5
PLT - SAMPLE SITE WAS WALKED THROUGH AND THEN BACKTRACKED BECAUSE OF DEPTH CHANGE (SHALLOWER FARTHER FROM SHORE)
OCO - 4 IN WATER INITIALLY, 2 EXITED TO BEACH BEFORE SAMPLE.
OCO - 4TH TURBIDITY = 1.39. CONFIRMED SALINITY WITH
Sites with potential for freshwater flow: 505 Front St. 2ND READ.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.08	5.55	56.3	590
Pre-sampling	0.05	5.50	56.0	589
Post-sampling	0.05	5.59	56.3	588

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	KALZ	L. Yannell
Bacteria	-	-	-

Signature (Team Lead):

Liz Yannell

Printed Name:

Liz. Yannell

OPP - 4TH TURBIDITY READ = 1.77

5TH "

"

= 2.52 (REPLACED 3RD READ)

2ND READ FOR SALINITY + DO.

35.5

113.7

= CONSISTENT

Last updated July 2021

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	Yannell, L. Gund, K. Sharpe, M. Beeson, M.
Session	106		
Date	06/15/2022		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF220615-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:24	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH220615-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT220615-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO220615-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP220615-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:25	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): <i>Liz Yannell</i>	Printed Name: Liz Yannell
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Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RN	Samplers (Last Name, 1st Initial)	Berg, L Beeson, M. Yannell, L.	Meters and Probes ID H62200 H6400d: 3 2100Q: 1	
Session	106				
Date	06/16/22				
		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		pH 8-8.3 normal	Turbidity (NTU)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Honolua Bay RHL220616	N	8:12	24.9	34.4	7.18	86.5	8.07	19.8	20.1	22.1	6	3	0
Oneloa Bay RON220616	N	8:47	25.6	35.3	8.70	106.4	8.19	0.53	0.49	0.42	0	2	0
Kapalua Bay RFS220616	N	9:12	25.9	35.4	7.85	96.6	8.08	1.04	1.06	1.30 MB 1.89	23	26	0
Ka'opala Bay RKO220616	N	9:39	26.1	34.9	7.56	93.3	8.09	1.45	1.71	1.70	0	6	0
Kahana Village RKV220616	N	9:57	25.9	35.0	8.44	103.9	8.17	1.65	1.69	1.85	0	0	0

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

RHL - calm, lots of fish near sampling
 Ron - Rain in the early morning
 super low tide
 RFS - 3 SUPs further out
 checked ppt a 2nd time - also 35.4 ppt
 RKV - Stream has been blocked due to
 dredging
 King tide this week?
 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	0.04	5.55	56.3	590
Pre-sampling	0.05	5.58	56.6	590
Post-sampling	0.07	5.52	56.6	589

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Liz Yannell

Printed Name:

Liz Yannell

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RN	Samplers (Last Name, 1st Initial)	Beeson, M. Yarnell, L. Berg, L. Shayne, M.
Session	106		
Date	06/16/22		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL220616-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON220616-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS220616-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO220616-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV220616-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:57	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:
<i>M Beeson</i>	Meredith Beeson