

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:
107	M. Beeson, L. Yannell	7/4/22	9:15			

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 26.3 °C	NIST 26.5 °C	NIST 26.3 °C	— °C	± 0.6 °C of NIST
	4	4	8/17/23		26.4		26.4		
	4	3	8/17/23		26.6		—		
Salinity			3 months	Std Val	Tap water 1/17/22 date 33.9 ppt	Salin Std 1/17/22 date 33.9 ppt	Tap water 1/17/22 date 33.9 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	4	4	5/23/22		0.03	33.8	0.03	*34.2	*2nd reading: 34.1 ppt
	4	3	5/23/22		0.03	33.7	—	—	
Dissolved Oxygen			1 year	Std Val	100%	100%	100%	± 5 %	
	4	4	8/12/21		99.1	99.4			
	4	1	2/7/22		n/a	—			probe 1 has broken shroud and is soaking
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	7/4/22		7.00	9.97	6.98	9.95	
	4	7	7/4/22		7.01	9.96	—	—	
Turbidity			3 months	Std Val	BLANK <0.1 NTU	LOW 1-10 <0.1 NTU	BLANK <0.1 NTU	LOW 1-10 Low 1-10 NTU	± 0.18 NTU Low 1-10 Std Calibration value
	NBBF	n/a	7/4/22		0.06	6.14	0.04	6.13	
	1	n/a	7/4/22		0.06	5.72	—	—	* low: 5.72 NTU

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

Lab: KAL-2

Hui O Kauai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	M Floyd						Meters and Probes ID			
Session	107		S Bleser						HQ2200: 4		2100Q: NBBF	
Date	07/05/2022		T Freiberg						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 RNS220705	N	8:36	25.9	34.9	8.32	101.8	8.16	1.55	1.57	1.77	4	10	Ø
Pohaku RPO220705	N	9:03	25.8	33.1	8.17	99.7	8.2	2.10	2.77	2.76	12	1	Ø
Kaanapali Sh RKS220705	N	9:20	25.7	35.2	7.77	94.8	8.08	1.63	1.86	1.88	1	5	Ø
Kahekili Beach Two RKT220705	N	9:40	26.7	35.4	8.79	109.3	8.23	1.40	1.49	1.60	0	2	Ø
Canoe Beach RCB220705	N	10:11	27.3	34.4	7.96	99.8	8.19	2.32	1.91	1.91	2	2	Ø
Wahikuli RWA220705	N	10:23	27.3	33.9	8.05	108.8	8.19	1.62	1.64	1.63	2	6	Ø

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

Use the back of the form if needed.

RN S - High TIDE; took a second DO reading: 8.31 mg/L
 RPO - breezy, calm water, lots of people
 RKS - photo taken of stream flow - almost reaching ocean (liz)

RKT - calm swell, ~1 ft. - lots of algae near sample

RWA - Sea Turtle Research team on the beach + going into water. 6" swells. 0% DO is 100.8%

Volunteers said it rained the night before

DO METAL OUT OF BOUNDS (6.36 vs 7-8.4)

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

1st post-sampling low turbidity reading: 591 NTU
 - wiped it & then got 6.21 NTU 3X, wiped again. 6.05, + again 6.11 NTU

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	6.16	59.8	576
Pre-sampling	0.10	6.34	61.1	591
Post-sampling	0.07	6.11	60.5	579

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Liz Yannell

Printed Name:

E Sot Yannell

1st high post-samp. reading: 588 NTU

Last updated July 2021

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	Floyd, M.	Yannelli, L.
Session	106 107		Bleier, S.	
Date	06/14/22 07/05/22		Freiburg, T.	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS220705-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:34	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO220705-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS220705-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT220705-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB220705-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:11	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA220705-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:23	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):

M. Beeson

Printed Name:

Meredith Beeson

Hui O Kauai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	Yannell, L. Grund, K. GONZALEZ, T						Meters and Probes ID		
Session	107								HQ2200:	4	2100Q: NBBF
Date	07/06/2022								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 PFF220706	Y	8:20	26.7	35.1	5.74	86.7	8.05	1.92	2.04	4	2 Ø
Lindsey Hale PLH220706	N	8:55	27.1	34.9	4.58	69.7	8.01	5.30	4.92	5.64	canoe Ø Ø Ø
Lahaina Town PLT220706	N	9:14 8:14 yesterday	26.9	34.8	5.28	79.9	8.05	7.05 5.25 2.8	6.30	6.97	4 see note 4 Ø Ø
Camp Olowalu OCO220706	N	9:48	26.5	35.7	6.12	92.5	8.10	1.39	1.25	1.32	Ø Ø Ø 1
Papalaau Pali OPP220706	N	10:12	26.0	35.4	6.77	101.4	8.17	11.7	11.0	11.3	Ø Ø Ø

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

PFF - calm, sunny, clear skies; canoe setting up
to go out as sample taken
- photo taken of freshwater; resembles
last session (Kristie)
- took a 4th turbidity reading

PLH - canoe just paddled past sample site minutes before
+ stirred up; but most of the shore looks murky
- took a 4th turbidity reading
- 2nd DO = 4.65 mg/L; 70.7% (temp + salinity consistent)

PLT - 4 kayaks floated by before sample; less
murky than PLH; very shallow; 4th turbidity read = 7.05
5th turbidity read = 7.10

OCO - calm, sunny, more clear than last 2 sites; 4th turbidity
reading

OPP - small shore break; strong drop off + undertow

Sites with potential for freshwater flow: 505 Front St. murky

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.16	59.8	576
Pre-sampling	0.07	6.25	61.0	588
Post-sampling	0.09	6.26	60.5	586

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Blank Post sample turbidity: 1st read = 0.58 (clean + 8 led); 2nd read = 0.34 (repeat) 3rd = 0.76; 4th = 0.41; 5th 0.34
Replaced blank with spare cell

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Hui O Kauai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	Yannell, L. Grund, K. Gonzalez, T.			
Session	107					
Date	07/06/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF220706-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH220706-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	
PLT220706-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:14	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO220706-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:48	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP220706-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:12	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

Hui O Kauai Ola - Sample Collection Datasheet

Team	R2RN	Samplers (Last Name, 1st Initial)	C. Heheman L. Yannell L. Hutchings						Meters and Probes ID		
Session	107								HQ2200:	4	2100Q: NBBF
Date	07/07/22								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 RHL220707	N	8:15	25.7	34.5	5.70	84.6 84.7 84.7	8.08	1.18 2.39 2.29 2.11 2.14	Ø	8	Ø
Oneoia Bay RON220707	N	9:05	26.5	35.7	6.62	100.6	8.17	1.12 1.30 1.18	Ø	Ø	Ø
Kapalua Bay RFS220707	N	9:35	27.0	34.5	6.48	98.4	8.07	1.81 1.75 2.06 2.27	11 Ø 35	Ø	Ø
Ka'opala Bay RKO220707	N	10:05	27.0	35.3	6.08	92.7	8.07	5.61 6.36 6.19	Ø	Ø	Ø
Kahana Village RKV220707	N	10:35	26.9	35.2	6.43	98.0	8.06	9.75 12.7 13.6	10.5	1	Ø

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

Use the back of the form if needed.

RHL - calm, looked clear ~~4pm turbidity is 2.11~~ ^{1st}
~~3 DO % readings consistent = 84.7~~
 RON - small swell, sunny, light wind; nutrient sample
^{a little small/low from}
 RFS - calm, clear, sunny
 RKO - calm
 RKV - light wind

Stone showers in the area earlier this week
 Sites with potential for freshwater flow: Honolua Bay, Kahana Village

*Did multiple pre-sample verification reads with turbidimeter and both the sample cell and spare
 read high despite trouble shooting

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.09	54.6.16	59.8	576
Pre-sampling	0.11	5.99	60.6	576
Post-sampling	0.04	6.13	60.760.2	578

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

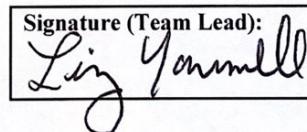
Last updated July 2021

Hui O Kai I Ola - Sample Collection Datasheet

Team	R2RN	Samplers (Last Name, 1st Initial)	L. Yannell C. Hehemann L. Hutchings			
Session	107					
Date	07/07/22					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL220707-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON220707-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	sample may be a little short, some water spilled (minimal)
RFS220707-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO220707-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV220707-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:35	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: 