

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 95	N. Sampson	10/11/21	9:00	N. Sampson	10/14/21	10:30

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 25.4 °C	NIST 25.3 °C	NIST 26.1 °C	NIST — °C	± 0.6 °C of NIST  Compare to NIST Std value in tap water  Brand NEW NIST
	3 <sup>4</sup>	4	8/17/23		25.3		26.0		
	3 <sup>4</sup>	3	8/17/23		25.1		—		
Salinity			3 months	Std Val	Tap water 6/27/21 date 33.5 ppt	Tap water 6/27/21 date 33.5 ppt		± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle  Using Sal standard made by Cathy
	2	4	10/8/21		0.41	35.1	0.42	35.1	
	2	3	10/8/21		0.41	34.9	—	—	
Dissolved Oxygen			1 year	Std Val	100%	100%		± 5 %	
	2	4	8/12/21		99.7	100.6			
	2	1	9/28/20		—	—			could not find an replacement parts torn protective shroud - can't get cap on
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value  Compare to Manufacturer pH Std value on bottle
	2	6	10/11/21		7.04	9.98	7.04	9.99	
	2	5	10/11/21		7.02	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  Low: 5.56 NTU  Low: 5.41
	NBBF	n/a	10/8/21		0.06	5.54	0.07	5.53	
	1	n/a	10/8/21		0.05	5.45	—	—	

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

Lab: KAL

Team	R2RS	Samplers (Last Name, 1st Initial)	N. Sampson	Changed salinity values to correct for error in salinity probe calibration. 1.5 ppt was subtracted from each measured value. QA				Meters and Probes ID		
Session	95		Charnave gallagher					HQ40d:	2	2100Q:
Date	10/12/2021		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 RNS211012	N	8:03	25.7	36.4 <sup>34.9</sup>	6.58	99.1	8.14	1.68	1.75	1.73	1
Pohaku RPO211012	N	8:40	26.3	36.6 <sup>35.1</sup>	6.32	96.4	8.15	0.68 <sup>8.18</sup>	7.87	7.96	0
Kaanapali Sh RKS211012	N	9:04	26.1	36.8 <sup>35.3</sup>	6.61	100.6	8.16	3.77	4.01	4.74	0
Kahekili Beach Two RKT211012	N	9:28	26.9	36.9 <sup>35.4</sup>	6.49	100.0	8.21	1.05	6.06 <sup>0.94</sup>	1.26	0
Canoe Beach RCB211012	N	9:50	27.3	36.5 <sup>35.0</sup>	6.63	102.6	8.22	8.04	7.96	8.14	0
Wahikuli RWA211012	N	10:17	27.5	37.1 <sup>35.6</sup>	6.51	101.4	8.22	2.53	2.66 <sup>2.65</sup>	2	0

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

RNS - raining 7:55-8:10, windy, sun came out, rough water inshore

RPO - slight breeze, rough break on shore

RKT - not as rough, sand dune broken - may allow stream to flow later if heavy rain continues

RCB - much calmer, still have a shore break, sunny, little breeze, bigger surf further north, rocky on south end

RWA - calm, little break on shore, little to no wind, sunny  
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	0.06	5.56	57.4	612
Pre-sampling	0.07	5.55	57.8	613
Post-sampling	0.07	5.53	57.6	611

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

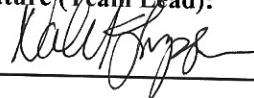
Naki Sampson

## Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	N. Sampson			
Session	95		C. Gallagher			
Date	10/12/2021					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RNS211012-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	
RPO211012-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS211012-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:04	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT211012-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:28	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB211012-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA211012-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:17	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:
	Natei Sampson

Team	Polanui	Samplers (Last Name, 1st Initial)	Mayen, Y Sampson, N	Changed salinity values to correct for error in salinity probe calibration. 1.5 ppt was subtracted from each measured value. QA					Meters and Probes ID		
Session	95								HQ40d: 2	2100Q: NBBF	
Date	10/13/2021			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 PFF211013	Y	8:15	26.9	37.0 <sup>35.5</sup>	6.11	94.0	8.11	4.99	0	3	0
Lindsey Hale PLH211013	N	8:45	27.2	37.0 <sup>35.5</sup>	6.24	96.8	8.11	9.83			
Lahaina Town PLT211013	N	9:00	27.2	36.5 <sup>35.0</sup>	5.71	88.2	8.08	9.13	0	0	0
Camp Olowalu OCO211013	N	9:33	26.1	37.1 <sup>36.6</sup>	6.42	97.4	8.14	78.8 <sup>75.5</sup>	20.2	21.7	0
Papalaua Pali OPP211013	N	9:47	26.6	37.3 <sup>35.8</sup>	6.16	102.2	8.22	3.107	3.79	3.77	2
								3.01	2.87	2.80	0

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

PFF Stream light flow, high tide, 3 people playing on beach.

PLH Very high tide, swell

PLT 19.4 5<sup>th</sup> reading @ PLT (NTU)

OCO 2 water - snorkelers further out.  
↳ strong shore break

OPP → crashing shore waves with 6sec between & very windy

Sites with potential for freshwater flow: 505 Front St.

#### TURBIDITY VERIFICATION

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Standard	0.07	5.56	57.4	612
Pre-sampling	0.10	5.55	57.8	612
Post-sampling	0.06	5.55	57.6	612

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

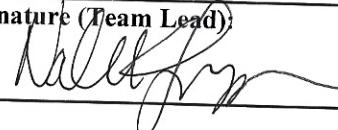
Printed Name:

Natei Sampson

Team	Polanui	Samplers (Last Name, 1st Initial)	Y. Mayon N. Sampson			
Session	95					
Date	10/13/2021					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
PFF211013-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH211013-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT211013-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO211013-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP211013-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:47	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:
	Natei Sampson

Team	R2RN	Samplers (Last Name, 1st Initial)	B. Hutchings, L Sampson, N.						Meters and Probes ID		
Session	95		Changed salinity values to correct for error in salinity probe calibration. 1.5 ppt was subtracted from each measured value. QA						HQ40d: 2	2100Q: NB3BF	
Date	10/14/2021								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 RHL211014	N	7:50	25.5	36.3 34.8	6.02	90.1	8.18	0.69	0.85	0.79	0	4	0
Onealoa Bay RON211014	N	8:25	25.8	37.0 35.5	6.72	101.8	8.22	1.20	1.29	1.17	0	4	0
Kapalua Bay RFS211014	N	8:49	25.8	36.0 34.5	6.52	98.1	8.13	1.94	1.89	2.01	154	45	0
Ka'opala Bay RKO211014	N	9:17	24.0	36.6 35.1	6.28	95.0	8.14	9.04	9.09	9.44	0	0	0
Kahana Village RKV211014	N	9:35	25.4	36.3 34.8	6.88	102.9	8.13	12.0	12.6	11.7	0	2	0

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

RHL - calm, flat, no wind

RON - windy, rough shore break, 1 dog in & out of water

RFS - calmer, little wind

RKO - calm, turbid

RKV - calm, turb id

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

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#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

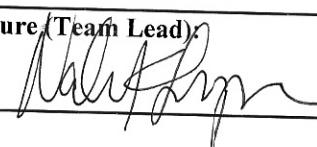
Printed Name:

Natalie Sampson

Team	R2RN	Samplers (Last Name, 1st Initial)	Hutchings, L. Sampson, N.			
Session	95					
Date	10/14/2021					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RHL211014-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON211014-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS211014-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:49	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO211014-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV211014-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	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**