

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

Hui U na Wai Ola

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
83	M. Beeson, G. Silver	7:55 02/03/21	7:55	M. Beeson, G. Silver	02/04/21	10:45

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value	POST: Verification Value	Acceptable Range	Comments/ Notes	QA?
Temperature	NIST	n/a	n/a	Std Val	NIST 24.6°C	NIST 24.6°C	NIST ± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	2	1	n/a		24.5	—	—	Exp. July 8, 2021	
	2	2	n/a		24.5	22.8		Exp. July 8, 2021	
Salinity			3 months	Std Val	Tap water Salin Std 9-25 date 35.0 ppt	Tap water Salin Std 9-25 date 35.0 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	2	1	11/16/20		0.33	34.9	—		
	2	2	11/16/20		0.33	35.0	0.32	34.8	
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
	2	1	11/2/20		99.8	—			
	2	2	11/2/20		99.8	99			
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
	2	3	2/3/21		7.6.97	9.93	—	—	
	2	4	2/3/21		7.01	10.00	7.03	10.01	
Turbidity			3 months	Std Val	BLANK <0.1 NTU	LOW 1-10 <0.1 NTU	BLANK <0.1 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value
	2	n/a	11/16/20		0.07	0.30	0.07	0.45	Low - 0.39 Med - 56.0 High - 562
	1	n/a	11/16/20		0.05	0.64	—	—	Low - 0.60 Med - 58.6 High - 593

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

LAB - DHS

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RN	Samplers (Last Name, 1st Initial)	M. Beeson G. Silver					Meters and Probes ID			
Session	83							HQ40d: 2		2100Q: 2	
Date	02/03/2021			pH:	4	DO:	2	Salinity:	2		

Location Name Sample ID	Streams 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 RHL2102_03	N	10:39	23.6	33.4	6.64	95.3	8.17	2.50	2.89 GS 4.62	3.05	Ø	3	Ø
Onealoa Bay RON2102_03	N	11:19	24.6	35.2	6.74	99.5	8.17	0.44	0.40	0.45	Ø	2	Ø
Kapalua Bay RFS2102_03	N	11:42	24.2	34.9	6.68	97.9	8.15	1.75 GS 1.49	1.72	1.83	Ø	Ø	Ø
Ka'opala Bay RKO2102_03	N	12:26	24.4	34.0	6.80	99.2	8.20	7.11	7.71	6.81 GS 6.50	Ø	1	Ø
Kahana Village RKV2102_03	N	12:43	24.3	34.0	6.83	99.5	8.19	13.4 MB 14.0	12.5	12.3	Ø	Ø	Ø

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

Use the back of the form if needed.

RHL - Stream not flowing into ocean, but more inland. Debris (leafs) near the ocean from old flow. Raining. 5th turb = 3.57 (floating particulates)

RON - Not raining, 2nd salinity = 35.0

RFS - Not raining, 1.5 waves, rained earlier today

RKO - Cloudy, not raining, pH 3rd & 2nd reading = 8.20

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.07	6.39	56.0	562
Pre-sampling	0.05	6.44	55.7	564
Post-sampling	0.08	6.42	55.4	562

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	DHS	G. Silver
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Grace Silver

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	M. Beeson G. Silver			
Session	83					
Date	02/03/2021					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL210203-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON210203-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11:19	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS210203-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	11:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO210203-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV210203-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12:43	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):

Grace S.

Printed Name:

Grace Silver

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	M. Beeson G. Silver					Meters and Probes ID			
Session	83							HQ40d: 2		2100Q: 2	
Date	02/03/2021				pH: 4	DO: 2		Salinity: 2			

Location Name Sample ID	Streams 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 RNS2102_03	N	12:04	24.5	34.2	7.11	104.1	8.24	0.58	0.58	0.45	∅
Pohaku RPO2102_03	N	1:03	24.3	30.4	6.96	99.5	8.22	5.25 GS 5.80	4.90	4.95	∅
Kaanapali Shores RKS2102_03	N	1:20	24.8	34.7	6.72	99.2	8.20	2.66	2.84	2.65	∅
Kahekili Beach Two RKT2102_03	N	1:39	24.4	34.6	6.73	98.6	8.19	2.26	2.30	2.25	∅
Canoe Beach RCB2102_03	N	2:05	24.3	33.4	6.76	98.0	8.16	5.13	5.71	5.62	∅
Wahikuli RWA2102_03	N	2:25	24.5	33.4	6.78	98.7	8.18	4.86 GS 6.19	4.38	4.43	∅

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

Use the back of the form if needed.

RNS - 1 hour
green leaves on shoreline 2nd pH = 8.24, wave action
RPO - signs of bank erosion/downcutting
- fallen branch - sign of storms (rained last night)

RKS - cloudy, no rain

RKT - cloudy & very windy

RCB - Raining !!

RWA - Raining, waves @ shore

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.07	6.39	56.0	562
Pre-sampling	0.05	6.44	55.7	564
Post-sampling	0.08	6.42	55.4	562

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	G. DHS	G. Silver
Bacteria	-	-	-

Signature (Team Lead):

Grace Silver

Printed Name:

Grace Silver

M

Last updated September 2018

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	R2RS	Samplers (Last Name, 1st Initial)	G. Silver
Session	83		M. Beeson
Date	02/03/2021		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS210203-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12:04	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO210203-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS210203-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT210203-N-1	Kahekili Beach Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB210203-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA210203-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2:25	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):

Printed Name:

Grace Silver

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	Silver, G. Beeson, M.						Meters and Probes ID			
Session	83								HQ40d:	2	2100Q:	2
Date	02/04/2021								pH:	4	DO:	2

Location Name Sample ID	Streams 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 PFF2102_04	Y	8:19	23.2	34.8	6.75	96.5	8.10	4.29	4.26	4.39	∅
Lindsey Hale PLH2102_04	Y	8:44	23.4	34.4	6.78	97.3	8.10	20.2	19.2	19.9	∅
Lahaina Town PLT2102_04	N	9:03	22.7	33.9	6.79	95.9	8.10	17.9 16.7	18.6	17.7	∅
Camp Oluwalu OCO2102_04	N	9:35	23.6	34.6	6.43	92.6	8.05	2.23	2.43	2.31	∅
Papalaua Pali OPP2102_04	N	10:01	23.9	34.9	6.78	98.1	8.10	18.1 ^{MB} 18.6	17.8	17.2 ^{MB} 16.6	∅

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

PFF - Sunny, rained last night, puddles in parking lot

PLT - very eroded sand area from culvert to beach. 2-3 ft deep. Picture taken.
4m turbidity: 20.9 NTU

OCO - Cloudy, no waves/small waves

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	0.39	54.0	562
Pre-sampling	0.08	6.38	54.9	560
Post-sampling	0.07	6.45	55.4	561

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	—	—	—
Nutrients	5	DHS	M. Beeson
Bacteria	—	—	—

Signature (Team Lead):

Printed Name:

Lab: DHS

Last updated September 2018

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Polanui	Samplers (Last Name, 1st Initial)	M. Beeson
Session	83		G. Silver
Date	02/04/2021		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF210204-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:19	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH210204-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:44	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT210204-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO210204-N-1	Camp Oluwalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP210204-N-1	Papalaau Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:00 10:01	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:

Grace Silver