

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



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
72	J. Strickland, G. Silver	6/15/20	9:00	G. Silver, B. Maxwell	6/19/20	10:54

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	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
					29.6 °C	29.4 °C	27.9 °C	°C			
	1	3	n/a		29.1		27.4				
	1	2	n/a			28.9		—			
Salinity			3 months	Std Val	Tap water 1/27/20 → 6/15/20 date GS	Salin Std 34.2 ppt	Tap water 1/27/20 → 6/15/20 date GS	Salin Std 34.2 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	3	6/15/20		0.53	34.8	0.54	35.0			
	1	2	6/15/20		0.47	34.9	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	6/15/20		102.8		102.6				
	1	2	6/15/20		101.7		—				
pH		5	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	
	1	5	6/15/20		6.99 7.02 GS	9.99	7.01	9.98			
	1	4	6/15/20		6.99	9.99	—	—			
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 5.45 NTU	BLANK <0.1	LOW 1-10 5.45 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	1	n/a	6/15/20		0.05	5.45	0.08	5.45			
	+	n/a	—		—	—	—	—			

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

Team	Olowalu	Samplers (Last Name, 1st Initial)	Strickland, J. Silver, G.	Meters and Probes ID		
Session	72			HQ40d: 1		2100Q: 1
Date	06/18/2020			pH: 5	DO: 1	Salinity: 3

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
Martin Hale OPM20061816	N	7:06	25.3 36.4	36.4	5.64	84.2	8.0	1.61	1.84	1.64	0	0	0
Camp Olowalu OCO20061816	N	7:29	25.8	36.5	6.25	94.1	8.07	3.97	3.54	3.69	0	0	0
Ukumehame OUB20061816	N	7:48	26.3	36.7	6.59	100.3	8.09	10.8	11.6	12.6	0	0	0
Papalaua Beach OPB20061816	N	8:04	26.4	36.7	6.80	103.6	8.12	4.17	4.01 6.58	4.66	0	0	0
Papulua Pali OPP20061816	N	8:26	26.0	36.4	6.76	102.3	8.13	5.55	4.91	5.50	10	0	0

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

OCO-very fishy odor

DO NOT TAKE NUTRIENT SAMPLES THIS EVENT
(Will Only Be Taken Quarterly)

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	5.45	56.2	591
Pre-sampling	0.06	5.51	56.2	591
Post-sampling	0.08	5.49	56.2	590

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0	N/A	N/A
Nutrients	0	N/A	N/A
Bacteria	0	N/A	N/A

Signature (Team Lead):

Grace Silver

Printed Name:

Grace Silver

Team	Olowalu	Samplers	
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Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
¹⁶ OPM200618-N-1	Martin Hale	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
¹⁶ OCO200618-N-1	Camp Olowalu	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
¹⁶ OUB200618-N-1	Ukumehame	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
¹⁶ OPB200618-N-1	Papalaua Beach	<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
¹⁶ OPP200618-N-1	Papulua Pali	<input type="checkbox"/>	<input type="checkbox"/>		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

Team	Polanui	Samplers (Last Name, 1st Initial)	J. Strickland G. Silver	Meters and Probes ID		
Session	72			HQ40d: 1	2100Q: 1	
Date	6/17/2020			pH: 5	DO: 1	Salinity: 3

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 PFF200617	N	8:12	26.5	36.2	6.35	96.7	8.04	5.85	5.49	5.28	0	2	0
Lindsey Hale PLH200617	N	8:35	26.4	36.2	6.53	99.3	8.05	2.18	2.28	2.37	1	0	0
Lahaina Town PLT200617	N	8:55	26.8	36.0	6.12	93.6	8.03	6.96	6.38 5.71	6.84	1	0	0
Olowalu Pier OSF200617	N	9:27	26.9	36.5	6.82	104.6	8.13	2.77	2.85	3.17	0	0	0

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

OSF - No nutrients

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.45	56.2	591
Pre-sampling	0.09	5.47	56.4	591
Post-sampling	0.08	5.39	56.4	589

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment			
Nutrients	3	NMS	G. Silver
Bacteria			

Signature (Team Lead):

Grace Silver

Printed Name:

Grace Silver

Team	Polanui	Samplers	
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Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF200617-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH200617-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT200617-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OSF200617-N-1	Olowalu Pier	<input type="checkbox"/>	<input type="checkbox"/>		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

Team	R2RS	Samplers (Last Name, 1st Initial)	J. Strickland G. Silver	Meters and Probes ID			
Session	72			HQ40d:	1	2100Q:	1
Date	06/16/2020			pH:	5	DO:	1

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 RNS200616 ¹⁸	N	8:25	26.0	34.7	7.03	105.2	8.12	5.70	5.54	5.37	0	0	0
Pohaku RPO200616 ¹⁸	N	8:52	25.3	34.0	6.84	100.8	8.12	3.10	3.10	2.58	0	0	0
Kaanapali Sh RKS200616 ¹⁸	N	9:16	26.4	36.3	6.65	101.0	8.06	4.12	4.15	4.69	0	0	0
Canoe Beach RCB200616 ¹⁸	N	9:50	26.6	35.4	6.86	104.1	8.16	12.2	12.7	13.1	0	0	0
Wahikuli RWA200616 ¹⁸	N	10:08	26.5	35.5	6.85	103.8	8.16	1.64	1.62	1.65	0	0	0

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

RWA - Fisherman set up

Other: Weather calm, sunny, not
very windy.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.45	56.2	591
Pre-sampling	0.08 0.08	5.44	56.3	591
Post-sampling	0.06	5.39	56.2	590

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Grace Silver

Printed Name:

Grace Silver

Team R2RS

Samplers

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS2006 ¹⁸ 16 -N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO2006 ¹⁸ 16 -N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS2006 ¹⁸ 16 -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	
RCB2006 ¹⁸ 16 -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	
RWA2006 ¹⁸ 16 -N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:08	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

Team	R2RN	Samplers (Last Name, 1st Initial)	G. Silver J. Strickland	Meters and Probes ID		
Session	72			HQ40d: 1	2100Q: 1	
Date	6/19/2020			pH: 5	DO: 1	Salinity: 3

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 RHL200619	N	8:20	25.3	35.3	5.88	87.4	8.08	2.15	1.69	1.86	0	0	0
Oneloa Bay RON200619	N	8:45	25.6	36.5	6.89	103.6	8.15	0.42	0.45	0.43	0	1	0
Kapalua Bay RFS200619	N	9:12	25.8	34.7	6.72	100.4	8.05	1.48	1.72	1.72	0	0	0
Ka'opala Bay RKO200619	✓	9:45	25.9	35.3	6.51	97.5	8.09	6.62	6.22	6.14	0	0	0
Kahana Village RKV200619	N	10:05	26.0	35.5	6.21	93.4	8.09	4.80	5.09	4.78	0	0	0

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

RHL- Decay smell (vegetation)
RON- one dog on beach

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	5.45	56.2	591
Pre-sampling	0.07	5.39	56.3	590
Post-sampling	0.08	5.45	56.2	590

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Grace Silver

Printed Name:

Grace Silver

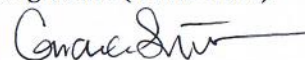
Team R2RS

Samplers

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL200619-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON200619-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS200619-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	
RKO200619-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV200619-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:05	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