

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



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
74	G. Silver, J. Strickland	7/27/20	10:00	G. Silver, J. Strickland	7/31/20	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	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1	3	n/a		30.5 °C	°C	27.4 °C	°C			
	+		n/a		30.0		26.9			Outside temp = 28.0w/ NIST	
Salinity			3 months	Std Val	Tap water	Salin Std 1/27/20 date 34.2 ppt	Tap water	Salin Std 1/27/20 date 34.2 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	3	7/27/20		0.60	34.9	0.56	35.1		Read salinity twice, 35.1 both times.	
	+										
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	7/27/20		101.3		101.5				
	+										
pH			3 weeks 7/27/20	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	↓ \$ ↓		7.01 6.99	9.96 9.98	7.03	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	7/27/20		0.08	5.39	0.09	5.40			
		n/a									

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

Outside temp/room on 7/3



Team	R2RS	Samplers (Last Name, 1st Initial)	G. Silver, J. Strickland, J. Kranberg	Meters and Probes ID		
Session	74			HQ40d: 1		2100Q: 1
Date	7/28/2020			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
Napili Bay RNS200728	N	8:05	25.6	35.8	6.58	98.7	8.07	1.39	1.50	1.52	0	1	0
Pohaku RPO200728	N	8:31	26.0	34.6	6.55	98.0	8.15	2.90	2.61	2.60	0	0	0
Kaanapali Sh RKS200728	N	8:51	25.0	35.9	6.53	96.8	8.04	2.42	2.35	2.76	0	0	0
Kahekili Two RKT200728	N	9:19	25.9	36.7	6.54	98.7	8.15	0.7468 0.95	0.74	0.76	0	0	0
Canoe Beach RCB200728	N	9:43	26.4	36.6	6.57	99.9	8.16	0.86	0.78	0.84	0	2	0
Wahikuli RWA200728	N	10:00	26.6	36.4	6.58	100.4	8.17	0.63	0.63	0.67	0	3	0

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

Napili: Temporary stop in mist, calm/no wave action.  
RPO: overcast, calm/no wave action.  
RKS: Raining/sprinkling  
RKT: Sprinkling when sampling, sewage smell  
RCB: sewage smell, 2 people fishing  
RWA: fisherman & misting here

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.45	56.2	591
Pre-sampling	0.08	5.38	55.8	588
Post-sampling	0.08	5.36	55.8	589

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	J. Strickland
Bacteria	-	-	-

Signature (Team Lead):

Grace Silver

Printed Name:

Grace Silver



<b>Team</b>	R2RS	<b>Samplers (Last Name, 1st Initial)</b>	G. Silver, J. Strickland, J. Kranberg
<b>Session</b>	74		
<b>Date</b>	7/28/2020		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
RNS200728-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO200728-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:31	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS200728-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:51	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKT200728-N-1	Kalekili Two	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:19	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RCB200728-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:43	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA200728-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:00	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:

Grace Silver

Team	Polanui	Samplers (Last Name, 1st Initial)	J. Strickland, G. Silver, R., R. Barry	Meters and Probes ID		
Session	74			HQ40d:	2100Q:	
Date	7/29/2020			pH: 5	DO:	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 PFF200729	Y	8:27	27.1	36.2	5.50	84.7	8.02	2.48	2.42	2.76	11	2	0
Lindsey Hale PLH200729	N	8:51	27.1	35.4	6.07	93.1	8.06	9.82	10.7	10.4	0	3	0
Lahaina Town PLT200729	N	9:09	27.7	35.7	5.78	89.8	8.04	4.52	4.80	4.30	0	0	0
Olowalu Pier OSF200729	N	9:40	26.7	36.6	6.34	97.2	8.04	1.60	1.60	1.70	0	0	0

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

OSF - no nutrient sample for this session.

PFF - blank is reading ~~10.10~~ high consistently, scratch on vial

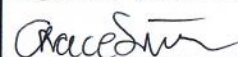
## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.45	56.2	591
Pre-sampling	*0.10	5.42	55.8	588
Post-sampling	0.08	5.39	55.9	587

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment			
Nutrients	3	NMS	J. Strickland
Bacteria			

Signature (Team Lead):



Printed Name:

Grace Silver



<b>Team</b>	Polanui	<b>Samplers (Last Name, 1st Initial)</b>	J. Strickland; G. Silver; R Bayly
<b>Session</b>	74		
<b>Date</b>	7/29/2020		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
PFF200729-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:27	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH200729-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:51	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT200729-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:09	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OSF200729-N-1	Olowalu Pier	<input type="checkbox"/>	<input type="checkbox"/>	9:40	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):

Grace Silver

Printed Name:

Grace Silver

<b>Team</b>	Olowalu	<b>Samplers</b> (Last Name, 1st Initial)	Gund, K SILVER, G Strickland, J	<b>Meters and Probes ID</b>		
<b>Session</b>	74			HQ40d: 1	2100Q: 1	
<b>Date</b>	07/30/2020			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 OPM200730	N	7:12	24.9	36.6	5.62	83.5	8.01	1.54	1.65	1.78	Ø	Ø	Ø
Camp Olowalu OCO200730	N	7:31	25.6	36.7	5.93	89.3	8.06	1.09	1.15	1.28	Ø	Ø	Ø
Ukumehame OUB200730	N	7:48	24.7	36.8	6.44	95.6	8.07	6.37 1.26 <sup>GS</sup>	6.72	6.53	Ø	Ø	Ø
Papalaua Beach OPB200730	N	8:00	25.0	36.7	6.72	100.3	8.12	6.42 <sup>GS</sup> 1.37	6.59	6.91	Ø	Ø	Ø
Papulua Pali OPP200730	N	8:15	25.7	36.4	6.51	98.1	8.11	3.75	3.94	3.74	Ø	Ø	Ø

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

Use the back of the form if needed.

-changing turbidity vial for (Blank) tomorrow 7/31/20,  
the current one is scratched.

**DO NOT TAKE NUTRIENT SAMPLES THIS EVENT**

(Will Only Be Taken Quarterly)

**TURBIDITY VERIFICATION**

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.45	56.2	591
Pre-sampling	0.10	5.35	55.4	591
Post-sampling	0.10 <sup>0.09</sup> <sub>GS</sub>	5.47	55.7	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



<b>Team</b>	Olowalu	<b>Samplers (Last Name, 1st Initial)</b>	Gond, K Silver, G Strickland, J
<b>Session</b>	74		
<b>Date</b>	07/30/2020		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
OPM200730-N-1	Martin Hale	<input type="checkbox"/>	<input type="checkbox"/>	7:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO200730-N-1	Camp Olowalu	<input type="checkbox"/>	<input type="checkbox"/>	7:31	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OUB200730-N-1	Ukumehame	<input type="checkbox"/>	<input type="checkbox"/>	7:48	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPB200730-N-1	Papalaua Beach	<input type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP200730-N-1	Papulua Pali	<input type="checkbox"/>	<input type="checkbox"/>	8:15	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):

Grace Silver

Printed Name:

Grace Silver

Team	R2RN	Samplers (Last Name, 1st Initial)	J. Strickland G. Silver L. Berg L. Hutchings	Meters and Probes ID		
Session	74			HQ40d: 1	2100Q: 1	
Date	7/31/2020			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 RHL200731	N	8:00	25.4	35.7	5.91	88.3	8.10	2.07 <del>0.94</del> GS	1.97	2.43	Ø	Ø	Ø
Oneloa Bay RON200731	N	8:35	25.8	36.5	6.69	101.1	8.16	0.82	0.79	0.82	Ø	Ø	Ø
Kapalua Bay RFS200731	N	8:58	26.2	35.9	6.34	96.1	8.11	1.22	1.33	1.30	Ø	2	Ø
Ka'opala Bay RKO200731	N	9:28	26.2	35.9	6.27	95.2	8.10	9.65	10.8	10.0	Ø	Ø	Ø
Kahana Village RKV200731	N	9:45	26.9	36.0	6.55	100.6 GS <del>106.0</del>	8.09	11.4	11.8 GS <del>10.3</del>	11.9	Ø 1	Ø	Ø

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

\*new turbidity vial used  
RHL - 5<sup>th</sup> turbidity reading = 2.67  
RON - Windy, Clear sky  
RFS - clear sky, high water clarity

**TURBIDITY VERIFICATION**

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	5.45	56.2	591
Pre-sampling	0.10	5.34	55.8	589
Post-sampling	0.09	5.40	55.8	587

**CHAIN OF CUSTODY INFORMATION**

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	J. Strickland
Bacteria	-	-	-

Signature (Team Lead):

Grace Silver

Printed Name:

Grace Silver



Team	R2RS	Samplers (Last Name, 1st Initial)	J. Strickland
Session	74		G. Silver
Date	7/31/2020		L. Berg L. Hutchings

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL200731-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON200731-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS200731-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO200731-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:28	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV200731-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	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 Silver

Printed Name:

Grace Silver