

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
59	STRICKLAND, S., BITTNER, B.	07/15/2019	09:30	STRICKLAND, S., BITTNER, B.	07/19/19	10:50

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value	POST: Verification Value	Acceptable Range	Comments/ Notes	QA?
Temperature	NIST 2	n/a	n/a	Std Val	NIST 23.7 °C	NIST 23.5 °C	NIST 25.2 °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water
	2 2	n/a			23.76		24.9		
	2 3	n/a			23.8				
Salinity			3 months	Std Val	Tap water Salin Std 6/13/19 date 34.3 ppt	Tap water Salin Std 6/13/19 date 34.3 ppt	Tap water Salin Std 6/13/19 date 34.3 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	2 2	6-24-19			0.03 34.5	0.05 34.4			TAP H2O RECHECK - 0.04
	2 3	6-24-19			0.03 34.5				
Dissolved Oxygen			1 year	Std Val	100%	100%	100%	± 5 %	
	2 2	8-6-18			100.7	100.9			
	2 1	5-13-19			103.6				
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value
	2 6	7-15-19			7.03 10.04	7.02 10.05			
	2 5	7-15-19			7.02 10.03				
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 5.76 NTU	BLANK <0.1	LOW 1-10 5.76 NTU	± 0.18 NTU Low 1-10
	NBBF	n/a	07-15-19		0.05	5.76	0.05	5.78	Compare to Gel LOW 1-10 Std Calibration value
		n/a							

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

LAB TEMP PRE 22.9 °C
 POST 22.6 °C

Team	R2RS	Samplers (Last Name, 1st Initial)	FIZZIBERG, T Brenda J James S						Meters and Probes ID			
Session	59								HQ40d:	2	2100Q:	NBBF
Date	7/16/19		pH:	6	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 RNS190716	NA	8:18	26.9	34.1	6.77	102.7	8.17	79.5	84.3	80.6	0	0	NA
Pohaku RPO190716	NO	8:45	26.7	33.6	6.84	103.0	8.20	5.73	6.33	6.36	0	1	NA
Kaanapali Sh RKS190716	NA	9:04	27.4	36.0	6.52	100.7	8.17	3.66	3.72	3.76	12	6	NA
Canoe Beach RCB190716	~	9:22	27.9	35.6	6.55	101.6	8.21	5.97	6.47	6.03	0	0	NA
Wahikuli RWA190716	NA	9:38	27.5	34.9	6.63	101.9	8.23	6.15	6.08	5.81	0	0	NA

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

Use the back of the form if needed.

1) North Napili Bay - 3' shore break - brownish hue to bay, sunny & clear, 1 SUP, 2 on beach
15.8 / 14.8 / 13.9
Napili Kai tent

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	5.76	58.9	609
Pre-sampling	.10	5.77	59.3	608
Post-sampling	0.04	5.769 ^{JS}	59.6	608

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



Printed Name:

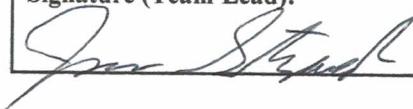
James Strickland

Team	R2RS	Samplers (Last Name, 1st Initial)	Freiberg, T Stickland, J			
Session	59		Jermakoni, B			
Date	7/16/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RNS190716-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RPO190716-N-1	Pohaku	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKS190716-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	
RCB190716-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:28	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RWA190716-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:38	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:

James Strickland

Team	Polanui	Samplers (Last Name, 1st Initial)	Maxwell, J Bayly, R Harris, R							Meters and Probes ID			
Session	59									HQ40d:	2	2100Q: NBF	
Date	07/17/2019									pH:	6	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 PFF190717	Y	8:09	27.8	35.8	6.19	96.3	8.09	3.14	4.01	3.04	3	14	Ø
Lindsey Hale PLH190717	N	8:38	27.9	35.3	5.78	89.7	8.10	2.34	2.31	2.35	0	6	Ø
Lahaina Town PLT190717	—	8:58	28.1	36.1	6.09	95.3	8.09	1.02	1.47	1.43	8	3	Ø
Olowalu Pier OSF190717	—	9:32	28.4	36.2	6.32	99.4	8.11	3.26	3.18	3.43	Ø	Ø	Ø

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

Use the back of the form if needed.

Blank presampling was .15, .09, .12
 Joyce Block a visiting biology
 teacher observed today

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	5.76	58.9	609
Pre-sampling	0.09	5.77	59.5	608
Post-sampling	0.04	5.77	59.6	607

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	—	—	—
Nutrients	4	LLHS	BH BAKER
Bacteria	—	—	—

Signature (Team Lead):

Printed Name:

Team	Polanui	Samplers (Last Name, 1st Initial)	MAXWELL, J BAYLY, R HARRIS, K			
Session	59					
Date	07/17/2019					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
PFF190717-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:09	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLH190717-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
PLT190717-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OSF190717-N-1	Olowalu Pier	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:32	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:



Team	Olowalu	Samplers (Last Name, 1st Initial)	TARA; BRUCE; Lindsey; Kristy; GUND MILLER; Bunker; Ranieri;						Meters and Probes ID			
Session	59						HQ40d: 2				2100Q: NBPF	
Date	07/18/2019						pH:	6	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
Martin Hale OPM190718	NA	7:25AM	26.4	36.2	5.81	88.3	8.07	1.45	1.57	1.67	Ø	Ø	Ø
Camp Olowalu OCO190718	NA	7:50AM	26.8	36.3	6.15	94.1	8.13	2.80	2.79	2.85	Ø	5	Ø
Ukumehame OUB190718	NA	8:21 AM	25.7	36.4	6.71	100.9	8.15	5.96	6.19	6.24	Ø	Ø	Ø
Papalaua Beach OPB190718	NA	8:30 AM	25.9	36.3	6.90 7.13 _{LR}	104.1	8.20	7.43	7.14	7.58	Ø	Ø	Ø
Papulua Pali OPP190718	NA	8:40AM	26.3	35.7	6.82	103.2	8.16	2.23	2.37	2.39	Ø	Ø	Ø

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

Use the back of the form if needed.

HACH HQ40d POWER ISSUES. POSSIBLE CONNECTED ISSUE IN BATTERY COMPARTMENT.

• OUB - super windy; white caps; stinging sand.

PRE SAMPLING BLANK TURBIDITY READING
0.10, 0.17 POST SAMPLING 0.04
0.10

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	5.76	58.9	609
Pre-sampling	0.10	5.78	59.5	608
Post-sampling	0.04	5.77	59.6	608

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0	N/A	N/A
Nutrients	5	LLHS	B.BANKER
Bacteria	0	N/A	N/A

Signature (Team Lead):

Printed Name:

Team	Olowalu	Samplers (Last Name, 1st Initial)	MILLER, T RAMIER, L GULD, K			
Session	59					
Date	07/18/2019					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
OPM190718-N-1	Martin Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	07:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OCO190718-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	07:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OUN190718-N-1	Ukumehame	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08:21	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPB190718-N-1	Papalaua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
OPP190718-N-1	Papulua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08:40	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):

BH-B

Printed Name:

Bruce H. Barker

Team	R2RN	Samplers (Last Name, 1st Initial)	Berg, L Strickland, J Hutchings, L						Meters and Probes ID			
Session	59					HQ40d: 2		2100Q: NBF				
Date	7/19/19					pH: 6	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 RHL190719	N	7:53	26.7	35.2	6.09	92.5	8.16	2.35	2.05	1.67	12
Oneloa Bay RON190719	/	8:35	27.1	36.1	6.56	101	8.18	1.75	1.60	1.56	0 5 8
Kapalua Bay RFS190719	/	9:02	27.7	34.9	6.27	96.9	8.12	1.00	0.86	0.94	15 25 0
Ka'opala Bay RKO190719	N	9:25	27.4	35.5	6.13	94.5	8.13	3.36	3.31	3.15	0 3 0
Kahana Village RKV190719	/	9:45	27.2	35.7	5.91	91.0	8.16	5.46	5.16	4.60	0 8 0

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

Use the back of the form if needed.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	5.76	58.9	609
Pre-sampling	0.100	5.79	59.3	608
Post-sampling	0.05	5.78	59.6	608

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	LLHS	J. STRICKLAND
Bacteria	-	-	-

Signature (Team Lead):

MH.Bur

Printed Name:

BROOKE H. BURKE

Team	R2RN	Samplers (Last Name, 1st Initial)	BERG, L STRICKLAND, J HUTCHINES, L			
Session	59					
Date	7/19/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
RHL190719-N-1	Honolua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	07:53	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RON190719-N-1	Oneloa Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RFS190719-N-1	Kapalua Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	09:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKO190719-N-1	Ka'opala Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	09:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
RKV190719-N-1	Kahana Village	<input checked="" type="checkbox"/>	<input type="checkbox"/>	09:45	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):



Printed Name:

