

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:
80	Y. St-Louis	5/9/22	0949	Y. St-Louis	5/12/22	1000

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 22.5 °C	NIST 22.2 °C	NIST 30.4 °C 28.8 °C	NIST °C	± 0.6 °C of NIST Compare to NIST Std value in tap water
	2 2	2	10/16/22		23.0		30.6		Thermometer exp 10/16/22
	2 3	3	—		22.7		—		Temp was off by 1.8 retook temp.
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 2/14/22 date 35.0 ppt	Tap water 0.13	Salin Std 2/14/22 date 35.0 ppt	± 1 ppt Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	2 2	2	5/14/22		0.18	35.2	0.17	35.0	USED Primary standard for salinity verification Exp Nov/26
	2 3	3	5/14/22		0.19	35.2	—	—	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %
	2 2	2	12/16/22		97.5		96.9		
	2 1	1	12/16/22		98.1		—		
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
	42 4	4	7/21/22		7.01	10.01	7.02	10.02	pH 10.01 Exp 3/22 pH 7.00 Exp 3/23
	2 5	5			7.04	10.04	—	—	pH 4.01 Exp 12/23
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 6.34 NTU	BLANK <0.1	LOW 1-10 NTU	± 0.18 NTU Low 1-10 Compare to Gel LOW 1-10 Std Calibration value
	1	n/a	7/21/22		0.04	6.33	0.04	6.33	STD 6.34 Switch to this meter since other kept turning off.
	2	n/a	7/21/22		0.05	6.25	—	—	Turbidity meter wouldn't turn on (again) changed batteries but the battery indicator went from full to low within secs.

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

NMS Lab

batteries but the battery indicator went from full to low within secs.

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	(Handwritten names: Amy Hecht, Sean Graves, Kristinna)						Meters and Probes ID			
Session	80								HQ40d: 2		2100Q: 21	
Date	05/10/2022								pH: 4	DO: 2	Salinity: 2	

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	
Kalepolepo North NNK220510	N	7:58	25.0	31.6	6.31	91.0	8.15	15.1*	9.57	16.3	14.8	0	8	0
Waipuilani Park KWP220510	N	8:18	25.1	31.0	6.15	88.8	8.11	6.34	1.02	6.82	0	0	0	0
Kihei South KKS220510	N	8:35	26.0	32.1	5.81	85.7	8.13	10.2	9.89	10.3*	12.8	0	3	0
Kalama Park KKP220510	N	8:53	26.0	34.5	6.46	96.5	8.16	10.3	11.4	10.4	0	6	0	0

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

- ① NKN: Canoes on beach water entrance, people walking by shoreline, ~~mild wind~~ NKN: 11.1 NTU 4th read 15.1 5th read.
- ② KWP: A couple people walking, quiet, mild wind
- ③ KKS: Paddle boarder in distance, calm breeze, people sitting on beach, 4th turbidity = 10.3 HD40d meter turning off, turbidity not turning off.
- ④ KKP: calm, ~~small waves~~, mild wind

Sites with potential for freshwater flow: All

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.04	6.34	56.8	628
Pre-sampling	0.05	6.31	57.1	629
Post-sampling	0.04	6.32	57.3	628

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	Y. St-Louis
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Ylenia St-Louis

Team	Kamaole	Samplers (Last Name, 1st Initial)	H. Hecht S. Graves K. McHugh			
Session	80					
Date	05/10/22					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN220510-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP220510N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS220510-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP220510-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:53	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:
<i>Ylenia</i>	<i>Ylenia St-Louis</i>

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	<i>B. Sousa, J. Dunning, M. Martella</i>						Meters and Probes ID		
Session	80								HQ40d: 2	2100Q: <i>71</i>	
Date	05/11/2022								pH: 4	DO: 2	Salinity: 2

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
Cove Park KCP220511	N	8:11	25.3	31.3	6.28	91.1	8.08	3.35	3.67	3.76	Ø	8	2
S Maluaka Beach MMB220511	N	8:53	25.8	34.4	6.43	95.8	8.14	0.83	0.78	0.79	3	3	Ø
Ahihi Kinau North MAN220511	N	9:26	25.0	34.6	7.34	107.8	8.10	0.89	1.14	1.47	Ø	Ø	Ø
Ahihi Kinau South MAS220511	N	9:51	25.7	35.2	6.47	96.8	8.11	1.01	1.10	1.12	8	7	Ø

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

Use the back of the form if needed.

Cove park - 1 dog in water

Ahihi Kinau N - 2nd reading - 107.8
~~turbidity 107.8~~ % oxygen

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.04	6.34	56.8	628
Pre-sampling	0.04	6.34	57.3	629
Post-sampling	0.05	6.34	51.3	628

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	V. St-Louis
Bacteria	-	-	-

Signature (Team Lead):

J. Mayen

Printed Name:

V. St-Louis

Sites with potential for freshwater flow: Cove Park

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	B. Sousa			
Session	80		J. Dunning			
Date	05/11/2022		M. Martella			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP220511-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:11	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB220511-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:53	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN220511-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS220511-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:51	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:
	Ylenia St-Louis

Team	North Kihei	Samplers (Last Name, 1st Initial)	Wohlt Bahr, f. St-Louis, y						Meters and Probes ID		
Session	80								HQ40d: 2	2100Q: 1	
Date	05/12/2022								pH: 4	DO: 2	Salinity: 2

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
Maalaea Harbor NMH220512	N	7:50	24.0	35.0	6.24	90.5	8.14	1.44	1.43	1.43	0	0	0
Maalaea Condos NMC220512	N	8:12	24.2	32.1	7.68	110	8.14	8.54	8.86	9.15	0	0	0
Haycraft Park NHP220512	N	8:30	24.6	34.5	6.79	99.2	8.13	7.73	7.61	7.99	0	1	0
Kealia Pond NKP220512	N	8:49	24.9	35.8	6.67	98.7	8.17	0.76	0.67	1.08	4	2	0
Kihei Canoe Club NKC220512	N	9:05	25.8	34.7	6.53	97.5	8.13	12.8	18.6	17.9	0	0	0

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

Use the back of the form if needed.

NMH - Windy, harbor calm, lots of activity on boats. People loading on boats

NMC - light wind, water calm, rocky entry clear sunny sky.

DO high reading 109.9 (did second reading)

NKP - 2 people running/walking by

Small waves / clam tight winds

NKC - Water looks brown, one person walking

b4. Calm conditions. ^{4th} 12.3. ^{5th} 14.9

Sites with potential for freshwater flow: Maalaea Harbor, Maalaea Condos, Kealia Pond, Kihei Canoe Club

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	6.34	56.8	628
Pre-sampling	0.05	6.37	56.9	628
Post-sampling	0.04	6.33	57.3	628

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	Y. St-Louis
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

Ylenia St-Louis

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	<i>Wolf. A Bahr. F St-Louis. Y</i>			
Session	80					
Date	05/12/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH220512-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC220512-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP220512-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP220512-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:49	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC220512-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	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):

ymayer

Printed Name:

Ylenia St-Louis