

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
95	M. Sharpe Y St-Louis	27 March 2023	9:38	M. Sharpe, Y. St-Louis	30/3/23	10:30

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	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
					26.1 °C	25.8 °C	— °C	29.1 °C			
		2	06/28/24		26.2		—				
		3	—			25.6		29.1			
Salinity			3 months	Std Val	Tap water	Salin Std date	Tap water	Salin Std date	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
					0.13	33.7 ppt	0.13	33.7 ppt			
		2	1/23/23		0.11	32.3	—	—			
		3	1/23/23		0.13	33.7	0.12	33.5			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
		2	1/3/2024		99.6		—				
		1	1/3/2024		101.2		100.3				
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	
	Meter 4	4	3/27/2023		7.07	10.05	—	—		pH 7 Exp 03/2023 (Dumped) pH 4 Exp 12/2023	
		5	3/27/2023		7.02	10.01	7.02	9.99		pH 10 Exp 3/2023 (Dumped After week)	
Turbidity			3 months	Std Val	BLANK <0.1	LOW 1-10 NTU	BLANK <0.1	LOW 1-10 NTU	± 0.18 NTU Low 1-10	Compare to Gel LOW 1-10 Std Calibration value	
	Meter 4	WM	n/a	2/13/2023	0.07	6.44	0.07	6.47		RWM meter used in field Low: 6.44	
	Meter 2	SM	n/a	2/13/2023	0.05	6.75	—	—			

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

LAB: NMS

Hawaii Ocean Observing System - Sample Collection Data Sheet

Team	Kamaole	Samplers (Last Name, 1st Initial) Kristina Kerry Scott	Meters and Probes ID		
Session	95		WM meter		
Date	03/28/2023		HQ2200: 3	2100Q: 4	
			pH: 5	DO: 1	Salinity: 3

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 NKN230328	N	7:56	25.2	33.3	6.50	95.1	8.10	22.4	22.7	23.3	0	3	0
Waipuilani Park KWP230328	N	8:16	25.7	32.7	5.96	87.7	8.08	18.3	18.4	19.3	0	5	0
Kihei South KKS230328	N	8:31	26.4	33.3	6.15	91.8	8.12	7.84	9.11	8.23	4	6	0
Kalama Park KKP230328	N	9:01	26.2	34.6	6.59	96.7	8.13	9.96	8.45	9.32	3	2	1

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

NKN - Cloudy, low tide, ~~no~~ 64.6 - Extra Med - No wind - small surf, wind 4 mph.

KWP - Cloudy, wind 6 mph, low tide, people walking beach
4th turb. 19.7 5th 18.2

KKS - Cloudy, wind 5 mph, small surf,
4th turb. 11.7 5th 9.89 1 big particle.

KKP Cloudy, wind 2 mph, small surf,
4th turb. 13 8.69

med Turbidity verification 2nd read 64.7
3rd 64.7

Sites with potential for freshwater flow: All

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.44	63.8	596
Pre-sampling	0.08	6.44	65.1	600
Post-sampling	0.07	6.43	64.9	600

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	YMS
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

YMS

Vlenia M St-Celis

Team	Kamaole	Samplers (Last Name, 1st Initial)	Mchugh. K Graves. S Harry. H
Session	95		
Date	03/28/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN230328-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	756	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP230328-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	816	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS230328-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	831	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP230328-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	901	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 M St-Louis

Hawaii Oke - Sample Collection Datasheet

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	B. Sousa, D. Bentley, J Dunning	Meters and Probes ID		
Session	95			HQ2200: 3		2100Q: 4
Date	03/29/2023			pH: 5	DO: 1	Salinity: 3

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 KCP230329	Y	7:50	25.6	32.4	6.63	97.1	8.05	5.29	4.91	4.98	0	0	2
S Maluaka Beach MMB230329	N	8:25	25.4	34.5	6.60	97.5	8.11	1.89	2.40	2.20	1	2	0
Ahihi Kinau North MAN230329	N	8:42	24.7	35.1	6.93	101.4	8.10	1.25	1.38	1.39	3	7	0
Ahihi Kinau South MAS230329	N	9:05	24.8	34.8	6.64	97.1	8.10	1.09	1.28	1.12	823	6	0

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

med pre
Test 64.9, 65.2, 65.1, cleaned bottle several times
Cove park - light rain, cloud cover
Maluaka - high tide, 2 dogs on beach
Ahihi N - high tide, low wave action
Ahihi S - receding tide

Sites with potential for freshwater flow: Cove Park

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.44	63.8	596
Pre-sampling	0.08	6.41	64.9	600
Post-sampling	0.06	6.40	64.6	602

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	Sharpe
Bacteria	-	-	-

Signature (Team Lead):

[Signature]

Printed Name:

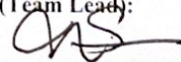
Sharpe

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	B. Sousa D. Bentley J. Dunning
Session	95		
Date	03/29/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP230329-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB230329-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN230329-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS230329-N-1	Ahihi Kinau South	<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):



Printed Name:

Sharpe

Ula - Sample Collection Datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	Keyhani, C. St-Louis, Y Yannell, L.	Meters and Probes ID		
Session	95			HQ2200: 3	2100Q: 4 <i>WM meter</i>	
Date	03/30/2023			pH: 5	DO: 1	Salinity: 3

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 NMH230330	N	0750	25.0	34.9	6.44	99.4	8.10	2.61	2.11	<i>2.36</i> 1.92 1.78	<i>0</i>	<i>0</i>	<i>0</i>
Maalaea Condos NMC230330	N	0845	25.1	34.1	7.26 <i>7.28</i>	106.2 <i>106.3</i>	8.14	10.6	10.5	10.3 <i>11.5</i>	<i>0</i>	<i>0</i>	<i>0</i>
Haycraft Park NHP230330	N	0825	25.0	34.9	6.88	101.0	8.12	16.7	17.0	16.1	<i>0</i>	2	<i>0</i>
Kealia Pond NKP230330	N	09:15	25.5	35.6	6.87	101.9	8.14	4.07 <i>2.74</i>	3.06	3.13	<i>0</i>	10	<i>0</i>
Kihei Canoe Club NKC230330	N	9:38	26.2	34.7	6.78	101.5	8.09	32.0 <i>29.5</i>	28.9	28.8	<i>0</i>	<i>0</i>	<i>0</i>

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

NMH - Did 5 reading on turbidity two lows one
2.14, 1.94, calm water, light wind

NMC - Normal Path Blocked due to construction, possibly
irrigation

NHP - Fishing Pole, one dog on beach, Brown water

Some swell 17.8 → 4th reading 15.1 → 5th

NMC - came back to sample; walked around to a

lots of algae on rocks → different entrance to avoid construction

Took a second DO reading and 4th turbidity

NKP - lots of wave action at shore break; lots

of sand in samples → took a second sample

4th turbidity taken 5m = 3.72 NTU

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

NKC - sand/beach replenishment happened last week
brown water

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.08-07	6.44	64.8	602
Pre-sampling	0.06	6.43	64.6	601
Post-sampling	0.07	6.46	64.8	598

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	ymj
Bacteria	-	-	-

Signature (Team Lead):

Liz Yannell

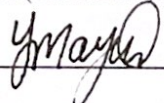
Printed Name:

Liz Yannell

Team	North Kihei	Samplers (Last Name, 1st Initial)	Keyhani, C
Session	95		St-Louis, Y
Date	03/30/2023		Yannell, L

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH230330-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0750	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC230330-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0845	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP230330-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0825	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP230330-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0915	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC230330-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0938	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 Mayen St-Louis
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