

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
SM104	M. Sharp, Y. St-Louis	10/16/2023	0930	C. Keyhani, M. Sharp	10/19/2023	10:15 AM

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST 2	n/a	NIST Exp. Date	Std Val	NIST 25.4°C	NIST 25.4°C	NIST °C	NIST 24.7°C	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	3	7	28 JUN 2024		25.2						
	3	8	—			25.2		24.6			
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 34.0 ppt 9/16/23 date	Tap water 0.13	Salin Std 34.0 ppt 9/16/23 date	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	3	7	7 AUG 2023		0.19	33.9					
	3	8	7 AUG 2023		0.19	33.8	0.19	33.9			
Dissolved Oxygen			1 year	Std Val	100%	100%			± 5 %		
	4	4	17 JUL 2023		101.2		102.5				
	4	3	17 JUL 2023		99.3						
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	
	4	6	16 OCT 2023		7.00	10.01	7.01	10.03			
	4	5	16 OCT 2023		7.00	10.01					
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	
	2	n/a	7 AUG 2023		0.04	6.31	0.06	6.32	6.31		
	5	n/a	7 AUG 2023		0.05	6.50			Low: 6.54		

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

NMS Lab

Hui O Kapa Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	K. McHugh, H. Hecht, M. Sharpe	Meters and Probes ID		
Session	104			HQ2200: SM4		2100Q: SM4
Date	10/17/2023			pH: SM6	DO: SM4	Salinity: SM8

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) 5.2-7.0 normal	(%) 85-105 normal					water	beach	camp
Kalepolepo North NKN231017	N	7:55	26.4	35.3	6.18	92.7	8.07	7.38	7.85	7.14	0	6	0
Waipuilani Park KWP231017	N	8:20	26.2	35.4	6.61	98.9	8.06	21.2	20.0	20.5	1	0	0
Kihei South KKS231017	N	8:32	26.7	34.3	6.12	91.7	8.04	8.24	8.33	8.90	0	5	0
Kalama Park KKP231017	N	8:52	26.7	35.1	6.74	101.3	8.41	8.41	8.24	7.98	0	1	0

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

NKN - No wind - small surf - No clouds - warm
KWP - No wind - small surf - warm - water looks
muddy - floating debris - shore break
KKS - light wind - small shore break - warm
No clouds - debris on beach high
tide line 4th turbs 8.57
KKP - No clouds - shore Break - 2' -
water looks muddy - Turb - 9.2⁺
strong shore break w/ sand in coll. 8.2⁺

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.04	6.31	56.8	601
Field - Pre-sample	0.09	6.37	56.4	602
Lab - Post sample	0.05	6.46	56.5	603
Probes (+/- 0.2 °C)	Salinity	DO	pH	Notes
Verify Probe Temps	26.4	26.2	26.3	

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	4	NMS	Sharpe

Signature (Team Lead):



Printed Name:

M. Sharpe

Sites with potential for freshwater flow: Check all sites

Team	Kamaole	Samplers (Last Name, 1st Initial)	McHugh, K Hecht, H Sharpe, M
Session	104		
Date	10/17/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN231017-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP231017-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS231017-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:32	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP231017-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	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):

Sharpe

Printed Name:

M. Sharpe

NMS

Hui O'Ka'i Ola - Sample Collection Datasheet

Team	Wailea/Makena	Samplers (Last Name, 1st Initial)	Bentley, D Sousa, 'B Crevier, D	Meters and Probes ID		
Session	104			HQ2200: SM4		2100Q: SM4
Date	10/18/2023			pH: SM6	DO: SM4	Salinity: SM8

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) 5.2-7.0 normal	(%) 85-105 normal					water	beach	camp
Cove Park KCP231018	N	7:50	26.6	35.0	6.67	100.0	8.05	7.30	8.73	7.41	2	0	1
S Maluaka Beach MMB231018	N	8:15	26.4	35.7	6.80	102.4	8.11	3.75	4.33	3.48	2	2	0
Ahihi Kinau North MAN231018	N	8:36	26.2	35.7	6.84	102.3	8.06	1.71	2.02	1.94	0	2	0
Ahihi Kinau South MAS231018	N	8:52	26.2	35.7	6.71	100.6	8.09	2.81	2.95	4.10 3.45	1	3	0

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

Cove Park - medium high tide - rough water
Maluaka - large waves debris in water
Ahihi N - high tide large swells
Ahihi S - rough conditions
- took extra turbidity sample

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.04	6.31	56.8	601
Field - Pre-sample	0.06	6.39	56.4	603
Lab - Post sample	0.06	6.37	56.9	601
Probes (+/- 0.2°C)	Salinity	DO	pH	
Verify Probe Temps	26.6	26.2	26.6	

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	4	NMS	Sharpe

Signature (Team Lead):

Sharpe

Printed Name:

Sharpe

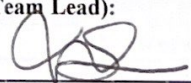
NMS

Sites with potential for freshwater flow: Cove Park

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Souza, B Bentley, D Crevier, D
Session	104		
Date	10/18/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP231018-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	
MMB231018-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN231018-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:36	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS231018-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	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

NMS

Hui O Kāhuna - Sample Collection Datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	Wolf, A.; Keyhani, C.; Baillargeon, H.; Helgeland, A.	Meters and Probes ID		
Session	104			HQ2200: SM4		2100Q: SM4
Date	10/19/2023			pH: SM6	DO: SM4	Salinity: SM8

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) 5.2-7.0 normal	(%) 85-105 normal					water	beach	camp
Maalaea Harbor NMH231019	N	7:50	26.0	35.4	6.38	95	8.08	1.63	1.93	1.58	0	0	0
Maalaea Condos NMC231019	N	8:10	25.9	35.5	6.80	101.5	8.02	5.33	5.49	5.51	0	0	0
Haycraft Park NHP231019	N	8:30	26.1	35.6	6.85	102.7	8.08	11.40	11.20	11.00	0	3	0
Kealia Pond NKP231019	N	8:55	26.3	36.1	6.88	103.8	8.14	1.11	1.12	0.96	1	5	0
Kihei Canoe Club NKC231019	N	9:15	26.7	35.7	6.77	102.6	8.11	7.65	7.60	8.11	0	0	0

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

NMH: Windy, small S swell
NMC: Very high tide, turtle in water
4th Turb 4.48, 5.51
NHP: Breezy small S swell
Light brown water
NKP: Light Breeze, small S swell
Light brown water. OK shore break.
NKC: Brown water, small Swell, breezy

TURBIDITY VERIFICATION & PROBE TEMPERATURES

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Turbidity Standard	0.04	6.31	56.8	601
Field - Pre-sample	0.08	6.18	56.4	605
Lab - Post sample	0.06	6.32	56.6	603
Probes (+/- 0.2°C)	Salinity	DO	pH	Notes
Verify Probe Temps	26	25.5	25.9	

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Nutrients	5	NMS	Sharpe

Signature Team Lead:

Christiane Keyhani

Printed Name:

Christiane Keyhani

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

Last updated April 2023

Team	North Kihei	Samplers (Last Name, 1st Initial)	Woff, A. ; Keyhani, C. ; Baillargeon, H ; Helgeland, A.
Session	104		
Date	10/19/2023		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH231019-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	
NMC231019-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP231019-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	
NKP231019-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC231019-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	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:

Christiane Keyhani Christiane Keyhani