

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
82	Y.st-Louis, M.Sharpe	6/21/22	9:00	M.Sharpe, T.Stark	6/24/22	9:45 am

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 30.9 °C	NIST 30.1 °C	NIST — °C	NIST 28.2 °C	± 0.6 °C of NIST Compare to NIST Std value in tap water
	2	3	10/16/22		31.8 °C 30.9 °C		—		
	2	2			30.0		28.4		
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 5/31/22 date 33.5 ppt	Tap water 0.13	Salin Std 5/31/22 date 33.5 ppt	± 1 ppt Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	2	2	5/31/22		8.18 °C 8.19 °C	34.1	0.18	33.8	
	2	3	5/31/22		0.19	34.1	—	—	
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
	2	1	12/16/21		97.6	—			
	2	2	12/16/21		97.0	97			
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
	2	4	6/21/22		7.01	9.98	7.02	10.01	pH 10-3/2023 pH 7-3/2023 pH 4 12/2023
	2	5	6/21/22		7.02	10.01	7.02	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
	1	n/a	4/21/22		0.07	6.34	—	6.21	Low: 6.34
	2	n/a	4/21/22		0.08	6.20	0.08	6.11	Low: 6.19

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

Lab: NMS

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	J. Dunnings, B. Sousa, M. Sharpe						Meters and Probes ID			
Session	82								HQ40d: 2		2100Q: 2	
Date	06/22/2022								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 KCP220622	N	8:38	26.6	32.9	6.36	95 26.4 80	8.12	9.23 6.72	10.1	8.22	∅
S Maluaka Beach MMB220622	N	9:20	26.7	35.2	6.39	96.9	8.16	3.67	3.73	4.13	7
Ahihi Kinau North MAN220622	N	9:38	26.1	35.5	6.90	103.9	8.17	1.53	1.65	1.79	∅
Ahihi Kinau South MAS220622	N	9:58	26.6	35.6	6.62	100.6	8.18	1.48	1.38	1.41	4
									8		∅

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

4th Turbidity Reading - KCP - 10.5 KCP  
5th " 9.23

MNB shore break, south swell

MAN > shore break, <sup>south</sup> swell  
MAS

Sites with potential for freshwater flow: Cove Park

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.12	6.19	54.0	602
Pre-sampling	0.12	6.24	54.3	602
Post-sampling	0.09	6.29	54.4	603

## CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

N. Sharpe

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	J. Dunning, B. Sousa, M. Sharpe			
Session	82					
Date	06/22/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
KCP220622-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB220622-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN220622-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS220622-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

		<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:

N. SHARPE

Team	North Kihei	Samplers (Last Name, 1st Initial)	WSI P A, HELGELAND, A. Bahr, F						Meters and Probes ID		
Session	82								HQ40d: 2		2100Q: 2
Date	06/23/2022					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 NMH220623	No	7:55	25.0	35.0	6.13	90.4	8.17	2.31 0.09	2.45	2.18	0	0	0
Maalaea Condos NMC220623	No	8:25	25.0	33.4	6.81	99.7	8.19	3.22	3.26	3.12	0	0	0
Haycraft Park NHP220623	No	8:39	25.6	35.2	6.58	98.1	8.19	14.6	14.5	14.4	6	0	1
Kealia Pond NKP220623	No	8:58	25.4	35.7	6.46	96.4	8.20	2.41	2.08	2.23	0	0	0
Kihei Canoe Club NKC220623	No	9:13	26.0	35.1	6.49	97.7	8.16	63.2	69.6	71.9	0	0	0

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

Use the back of the form if needed.

LOTS OF TOUR BOATS, WINDY

ROUGH &amp; WINDY, HIGHER SURF THAN USUAL

NMC - Brown water past shoreline

DIVER FLAG NEAR SAMPLE SITE, SANDY SHOREBREAK

NKC - Water looks brown, Canoe club meeting, Partical in sample (turbidity)

Standard Reading: Blank had incorrect read/written down**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 (N <sub>2</sub> )	0.82	6.19	54.0	602
Pre-sampling	0.09	6.06	54.1	603
Post-sampling	0.07	6.20	54.2	601

## CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

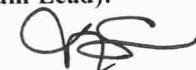
N. SHARPE

Team	North Kihei	Samplers (Last Name, 1st Initial)	Wolf, A, Helgeland, A, Bahr, F			
Session	82					
Date	06/23/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
NMH220623-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC220623-N-1	Maalaea Condos	<input type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP220623-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP220623-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC220623-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:13	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:

N. SHARPE

Team	Kamaole	Samplers (Last Name, 1st Initial)	Sharpe, M., Stark, T.						Meters and Probes ID		
Session	82								HQ40d: 2	2100Q: 2	
Date	06/24/2022								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 NKN220624	N	8:00	25.5	33.5	5.75	84.8	8.14	3.21	3.25	3.70	3	7	∅
Waipuilani Park KWP2200624	N	8:20	24.4	32.4	5.17	74.4 <sup>2.5</sup> <del>24.4</del>	8.03	3.08	2.47	2.71	∅	8	∅
Kihei South KKS220624	N	8:40	25.9	33.5	5.82	86.4	8.13	4.55	4.61	4.39	∅	4	∅
Kalama Park KKP220624	N	8:57	26.0	34.6	6.58	98.7	8.15	8.71	8.42	8.88	2	13	∅

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

Use the back of the form if needed.

\* calm & low tide everywhere <sup>explain?</sup>  
NKN: Canoes near sample site onshore, low tide

KWP: calm, water looks clearer than usual;  
2 fishing poles (4th reading 3.16). Double  
checked Oxygen and was same.

KKP: Lots of surfers in water beyond 100ft.  
2 paddle boards coming to shore ~20ft away;  
small waves. Dog present.

\* check meter for temp @ KWP

Sites with potential for freshwater flow: All

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## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
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Nutrients	4	NMS	NS
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

N. SHARPE

Team	Kamaole	Samplers (Last Name, 1st Initial)	SHARPE, N , STARK, T			
Session	82					
Date	06/24/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
NKN220624-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP220624-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	
KKS220624-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP220624-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:57	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

		<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:

N. SHARPE