

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:
87	J.St-Louis, M.Sharpe	10/3/22	9:45	J.St-Louis, M.sharp	10/6/22	9:45

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 26.1 °C	NIST 25.7 °C	NIST 30.2 °C	NIST °C	± 0.6 °C of NIST
1	3	06/28/22			26.4		30.3		Compare to NIST Std value in tap water
1	2	—			25.5		—		
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 1/17/22 date 33.9 ppt	Tap water 0.13	Salin Std 9/29/22 date 33.7 ppt	± 1 ppt
1	3	5/31/22			0.19	33.5	.20	33.3	
1	2	5/31/22			0.19	33.3	—	—	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %
1	1	12/16/22			96.5		97.9		
1	2	12/16/22			96.5		—		
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value
1	4	10/3/2022			7.00	10.01	7.04	—	pH 7 exp 03/23
1	5	10/3/2022			7.00	10.02	7.04	9.99	pH 10 exp 03/23
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
1	n/a	8/01/22			0.06	6.18	0.07	6.36	Low: 6.38 First Read 6.30 2nd 6.37
2	n/a	8/01/22			0.04	6.37	—	—	Low: 6.06

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

Team	Kamaole	Samplers (Last Name, 1st Initial)	Y. St-Louis H. Hecht K. McHugh							Meters and Probes ID				
Session	87									HQ40d: 1		2100Q: 1		
Date	10/04/2022									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 NKN221004	N	0753	25.3	31.4	6.67	97.3	8.11	11.1 13.0	10.8	11.0	0	0	0
Waipuilani Park KWP221004	N	0815	24.9	32.4	6.44	93.4	8.11	19.7	19.6	20.1	0	0	0
Kihei South KKS221004	N	0830	25.6	33.5	6.16	91.0	8.07	12.8	15.2	15.4	0	0	0
Kalama Park KKP221004	N	0848	25.7	34.2	6.50	97.1	8.12	7.65 6.34	8.07	7.79	0	0	0

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

Use the back of the form if needed.

NKN: Brown water. Recent Rain, Tide is rising, some swell. Sunny and light wind. Particles in sample. 4th: 12.8 5th: 11.1

KWP: Water looks green/muddy, suspended particles in NTU sample: 4th- 20.0

KKS: Water is brownish/green. Small white caps beyond the shoreline 4th- 16.5 5th: 16.2 Particles in sample.

KCP: Waves 1-2ft. Water brown/green. There was one paddle boarder getting out as we were going in 4th: 7.65

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	6.38	57.4	631
Pre-sampling	0.07	6.38	57.5	630
Post-sampling	0.05	6.32	57.4	629

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

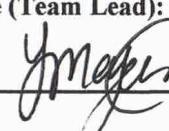
Printed Name:

Ylenia M St-Louis

Team	Kamaole	Samplers (Last Name, 1st Initial)	Y. St-Louis H. Hecht K. McHugh.			
Session	87					
Date	10/04/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN221004-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0753	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP221004-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0815	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS221004-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0830	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP221004-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0848	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

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	<i>MARTella, M. Sousa, B. BENTLEY, D.</i>						Meters and Probes ID		
Session	87		HQ40d: 1		2100Q: 1						
Date	10/05/2022		pH: 1	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 KCP221005	N	8:05A	26.0	32.1	6.24	92.1	8.05	9.56	9.89	9.84	6	5	3
S Maluaka Beach MMB221005	N	8:45A	26.8	35.2	6.31	96.3	8.11	1.65	1.31	1.51	Ø	19	Ø
Ahihi Kinau North MAN221005	N	9:05	26.8	35.3	7.02	107	8.10	1.61	1.40	1.74	3	8	Ø
Ahihi Kinau South MAS221005	N	9:25	26.7	35.4	6.30	96.1	8.07	1.54	1.49	1.64	13	20	Ø

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

Use the back of the form if needed.

*KCP: low tide incoming**MAN221005: mild shore break, High tide**MAN221005: All good**MAS221005: Tourists entering @ wrong spot to snorkle**MAN: syringe & filter system too difficult in field.**MMB: (put into cooler and taken to lab
to press into nutrient bottle @ lab)***Sites with potential for freshwater flow:** Cove Park** Post sampling of turb: used lab make distilled H₂O
Blank, no store bought DI available*

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	6.38	57.4	631
Pre-sampling	0.06	6.32	57.3	630
Post-sampling *	0.08	6.38	57.4	629

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

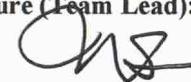
M. Sharpe

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	<i>Martella, M Souse, B Bentley, D</i>			
Session	87					
Date	10/05/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP221005-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB221005-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN221005-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS221005-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	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:

M Sharpe

Team	North Kihei	Samplers (Last Name, 1st Initial)	Wolf A, Bahr F, Helgeland, A						Meters and Probes ID			
Session	87								HQ40d: 1		2100Q: 1	
Date	10/06/2022								pH: 3	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 NMH221006	N	7:50	25.5	35.0	6.11	91.1	8.15	2.85	2.18	2.03	0	0	0
Maalaea Condos NMC221006	N	8:40	26.4	34.5	6.94	104.9	8.17	1.56	1.78	1.60	0	4	0
Haycraft Park NHP221006	N	8:50	26.3	35.1	6.73	102.1	8.16	5.48	5.56	5.68 6.11	10	4	10
Kealia Pond NKP221006	N	9:10	26.6	35.7	6.49	99.2	8.19	0.69	0.80	0.73	1	1	2
Kihei Canoe Club NKC221006	N	9:23	27.0	35.1	6.41	98.4	8.15	11.0	11.2	10.6	0	2	0

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

Use the back of the form if needed.

NMH: No clear bottles for turbidity sample
used water from bucket. swirled and
rinsed sample vile.

NMC: Clear bottles delivered.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.08	6.38	57.4	631
Pre-sampling	0.19	6.49	57.3	629
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CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Ylenia St-Louis

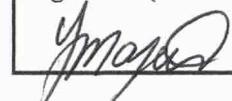
Sites with potential for freshwater flow: Maalaea Harbor, Maalaea
Condos, Kealia Pond, Kihei Canoe Club

Team	North Kihei	Samplers (Last Name, 1st Initial)	Wolf, A			
Session	87		Bahr, F			
Date	10/06/2022		Helgeland, A			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH221006-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	
NMC221006-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP221006-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP221006-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC221006-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:23	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:

Ylenia M. St-Louis