

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
85	Y. St-Louis, M. Sharpe	8/22/22	0940	Y. St-Louis, M. Sharpe	08/25/22	0930

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 25.7 °C	NIST 25.8 °C	NIST — °C	NIST 29.9 °C	± 0.6 °C of NIST Compare to NIST Std value in tap water
	1	2	10/16/22		25.7		—		
	1	3	—		25.8		—	29.9	
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 5/24/22 date 33.9 ppt	Tap water 0.13	Salin Std 5/24/22 date 33.9 ppt	± 1 ppt Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle
	1	2	5/31/22		0.18	33.9	0.18	—	8/25 two Readings 8/25/22
	1	3	5/31/22		0.19	33.6	30.0	33.7	8/22 Did three readings all same
Dissolved Oxygen			1 year	Std Val	100%	100%	± 5 %		
	1	1	12/16/21		97.6	97.0			
	1	2	12/16/21		97.0	—			
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
	1	4	8/22/22		7.03	10.03	—	10.00	
	1	5	8/22/22		7.02	9.99	7.02	10.00	
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	8/11/22		0.07	6.37	0.06	6.39	Low: 6.38
	2	n/a	8/11/22		0.07	6.17	—	—	Low: 6.18

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

NMS

Team	Kamaole	Samplers (Last Name, 1st Initial)							Meters and Probes ID			
Session	85								HQ40d: 1		2100Q: 1	
Date	08/23/2022								pH: 5	DO: 1	Salinity: 35.2	+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 NKN220823	N	752	26.3	33.0	6.29	94.1	8.11	12.9	12.9	13.8	0
Waipuilani Park KWP220823	N	814	26.7	33.7	6.09	91.9	8.03	9.85 9.68	9.22	9.52	1
Kihei South KKS220823	N	832	26.9	33.5	6.03	91.3	8.06	10.8 11.2 12.3	11.0	0	0
Kalama Park KKP220823	N	851	26.9	35.2	6.37	97.6	8.11	9.19	9.26	8.55	0
											1
											0

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

Use the back of the form if needed.

NKN: Cloudy, Rained this morning Low tide was at 0713 and is rising, calm water, very small waves.

4th reading = 14.3, 5th 14.0

KWP: Paddle boarder in water. Water looks greenish. Small waves. Two dogs on beach

4th turbidity 9.68 - Hot + sunny HQ40d turned off during PHT reading. 2x when press "read"

KKS: water a little more calmer than site before. 4th 11.2 5th 12.5, Particles in sample (turbidity)

KKP: Person on Beach went into water during Sites with potential for freshwater flow: All Sample.

lots of people around area but not within 100ft of Sample site. 3-4ft waves off on the distance

4th: 9.94 5th: 8.59 Did second Salinity Reading 35.2

* Took 4-5 readings on low standards. * Took 3 reading on high all 627

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.37	57.4	631
Pre-sampling	0.09	6.37	57.4	630
Post-sampling	0.06	6.30	57.0	627

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Ylenia M St-Louis

Team	Kamaole	Samplers (Last Name, 1st Initial)	Y. St-Louis K. McHugh			
Session	85					
Date	08/23/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN220823-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0752	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP220823-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0814	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS220823-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0832	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP220823-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0851	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)	Martella, M Bentley, D. Sharpe, M.							Meters and Probes ID		
Session	85									HQ40d: 1	2100Q: 1	
Date	08/24/2022									pH: 5	DO: 1	Salinity: 33

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 KCP220824	N	8:26A	26.9	33.1	6.35	95.8	8.10	4.18 7.56	4.37 6.25	4.48 8.19 mm	n.m.
S Maluaka Beach MMB220824	N	9:00A	27.8	39.3	6.33	97.9	8.12	2.16	1.83	1.98	20
Ahihi Kinau North MAN220824	N	9:30A	27.6	35.5	7.18	111.1	8.17	1.17	2.08	1.56	4
Ahihi Kinau South MAS220824	N	9:55A	27.3	35.3	6.33	97.6	8.10	6.45	1.67	1.89	12
											10
											2

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

Use the back of the form if needed.

Cove Park: Low tide, @ Fish "Camp." no people
KCP But one dog in water.
*4.18, 4.37, 4.48 → secondary turbidity
Note: TAKEN at COVE PARK
SHOWER RUN-OFF flows toward beach
BUT NOT INTO WATER.

MAN: 2 snorkeling by shore. 2 outside waves
mid tide

MAS: Mid tide, lots of snorkelers

*KCP: secondary turb series after oil cloth wipe sample cell

Sites with potential for freshwater flow: Cove Park

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.06	6.30	57.0	627
Pre-sampling	0.06	6.30	57.3	630
Post-sampling	0.08	6.28	57.3	629

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

M.Sharpe

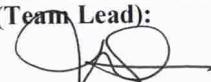
Printed Name:

Sharpe

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Martella, M. Bentley, D. Sharpe, M.			
Session	85					
Date	08/24/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP220824-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB220824-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN220824-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS220824-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:55	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

Team	North Kihei	Samplers (Last Name, 1st Initial)	<i>Bahr, Flo, WOLFA, Angela Helgeland</i>								Meters and Probes ID		
Session	85										HQ40d: 1	2100Q: 1	
Date	08/25/2022										pH: 5	DO: 1	Salinity: 33

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 NMH220825	N	7:47	26.3	35.1	6.00	90.8	8.12	1.41	1.22	1.02	0	0	0
Maalaea Condos NMC220825	N	8:05	26.7	34.3	6.80	103.0	8.14	1.25	1.10	1.19	0	0	0
Haycraft Park NHP220825	N	8:25	26.6	34.7	6.51	98.8	8.11	12.0	11.9	11.4	0	3	0
Kealia Pond NKP220825	N	8:45	26.8	35.5	6.50	99.2	8.17	1.58	1.69	1.83 ^{AT} 2.02	0	2	0
Kihei Canoe Club NKC220825	N	9:04	27.8	34.8	6.42	99.5	8.12	7.76	7.40	7.60	0	0	0

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

Use the back of the form if needed.

nice day ☺

Haycraft slightly brown

Standards were not written on sheet
 the day before. Wrote standards down after
 sample.

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 ?	0.08	6.28	57.3	629
Pre-sampling	0.17	6.35	57.4	629
Post-sampling	0.06	6.39	57.3	629

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	MNMS	ym
Bacteria	-	-	-

Signature (Team Lead):

Angela

Printed Name:

Ylenia St-Louis

Team	North Kihei	Samplers (Last Name, 1st Initial)	<i>Bahr. Flo, Wolf, A, Helgeland. A</i>			
Session	85					
Date	08/25/2022					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH220825-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	747	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC220825-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	805	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP220825-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	825	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP220825-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	845	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC220825-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	904	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