

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:
94	y.St-Louis, M.Sharpe	03/06/23	1000	y.St-Louis M.Sharpe	03/09/2023	1000

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 24.7 °C	NIST 24.4 °C	NIST 26.2 °C	NIST 26.2 °C	± 0.6 °C of NIST
2	2	2	28/Jun/24		24.5		26.2		Compare to NIST Std value in tap water
2	2	3				24.3		26.2	
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 9/29/24 33.7 ppt	Tap water 0.13	Salin Std 03/06/23 33.7 ppt	± 1 ppt
2	2	2	01/23/23		0.13	32.1	0.14	—	Read it 2x @ 32.1 Read 32.3rd time switched Probe 2 w/ #3 for this session
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %
2	1	1	1/3/23		99.1 %				
2	2	2	1/3/23		98.0 %		99.5		
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value
2	4	4	6 March 2023		7.04	10.02	7.02	10.02	
2	5	5	6 March 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
2	2	2	n/a		0.05	6.79	0.06	6.78	Low: 6.79
2	5	5	n/a		0.05	6.90	—	—	Low: 6.89 Troubleshoot 2x 6.99 3rd x 6.96

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

LAB: NMS

Team	Kamaole	Samplers (Last Name, 1st Initial)	scott, Harry, Krista					Meters and Probes ID		
Session	94							HQ2200:4		
Date	03/07/2023							HQ40d. 2 yrs	2100Q: 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 NKN230307	N	7:55	23.6	32.9	7.97	98	9.07	58.3 yrs	0	3	0
Waipuilani Park KWP230307	N	8:20	23.6	33.2	7.97	94.2	8.11	61.6 58.3 58.5 32.3 yrs	0	6	0
Kihei South KKS230307	N	8:31	24.1	30.4	7.59	90.6	8.09	32.5 39.1 38.5	0	5	0
Kalama Park KKP230307	N	8:50	24.1	34.8	8.18	97.4	8.17	10.6 hrs 40.1 11.0	0	0	0

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

NKN - rough wind, low tide, dirty water, no big surf.
Turb. 4th reading 58.3, RAIN earlier today.
Flowing water earlier.

KWP - storm 5 hours ago, dirty water, small surf,
Light wind, 4th turb. 32.3

KKS - Light wind 5 mph, dirty water, small shore break

KKP - wind up to 12 mph, dirty water
1 to 2 foot surf break, low tide,
Flowing water earlier.
10.6 - 4th turb.

Sites with potential for freshwater flow: All

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.05	6.79	58.7	604
Pre-sampling	0.08	6.81	58.8	604
Post-sampling	0.04	6.76	58.7	604

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Ylenia Mayen St-Louis

Team	Kamaole	Samplers (Last Name, 1st Initial)	S. Graves H. Hecht K. McHugh				
Session	94						
Date	02/14/2023						

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN230307-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP230307-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS230307-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP230307-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>		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)	Sousa, B					Meters and Probes ID			
Session	94		Bently, D					HQ2200	4	8Y	2100Q: 2
Date	03/08/2023		Sharpe, M					pH: 7.3	DO: 7.2	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 KCP230308	Y	8:23	24.2	34.3	8.21	98.0	8.14	9.53	9.62	9.94	0	0	1
S Maluaka Beach MMB230308	N	8:50	24.4	35.2	8.34	100.0	8.18	8.85 ^{MS} 6.11	6.81	6.53 ^{MS} 8.45	0	2	0
Ahihi Kinau North MAN230308	N	9:12	24.5	35.2	8.45	101.4	8.15	8.12	9.54 9.13	10.4 8.81 MS	0	0	0
Ahihi Kinau South MAS230308	N	9:30	24.6	35.1	8.27	99.6	8.11	11.01	11.2	11.4	0	3	0

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

Use the back of the form if needed.

KCP: Rough Sea, white caps, shorebreak, wind SW 23 mph
 3-4'
 High Tide @ 4:30 am * Early Morning Rain, cloud cover

MMB: Rough shore break high on beach, overcast, no wind
 little to
 Runoff debris along walkway from restrooms.
 Sand in collection syringe 4th 6.16 / 5th 6.53

MAN: Waves high on shoreline = white caps
 sky clearing here, light wind
 At 9:13 / 5m 8.81

MAS: Shore break @ collection site, white caps
 clearing sky . breezy . shallow collection
 due to wave action

Sites with potential for freshwater flow: Cove Park

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.04	6.79	58.7	604
Pre-sampling	0.06	6.81	58.6	605
Post-sampling	0.07	6.82	58.9	603

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

M. Sharpe

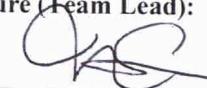
* After field collection today: LAB Reset all meters and probes to Saline correction AUTO mode
 Meter #4 in use today was NOT set on AUTO mode.

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Sousa, B Bentley, D Sharpe, M			
Session	94					
Date	03/08/2023					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP230308-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:23	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB230308-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN230308-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS230308-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	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 Keyhani, C						Meters and Probes ID		
Session	94								HQ2200; 4	2100Q: 2	
Date	03/09/2023								HQ40d: 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 NMH230309	N	7:45	23.5	35.2	6.27	90	8.16	4.05	3.48	3.36	0	0	0
Maalaea Condos NMC230309	N	8:02	23.4	34.2	6.95	99.3	8.12	5.70	5.29	5.81	0	0	0
Haycraft Park NHP230309	N	8:27	23.1	34.2	6.86	97.5	8.10	48.4	46.7	47.2	0	1	0
Kealia Pond NKP230309	N	8:45	23.3	35.0	6.99	100.0	8.16	6.18	5.81	5.45	0	2	0
Kihei Canoe Club NKC230309	N	8:58	23.5	35.1	6.96	100.0	8.17	10.6	10.6	10.4	0	5	0

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

Use the back of the form if needed.

The blank turbidity pre sample test
needed cleaning w/ oil and wipe. Then
was ok.

Kealia Ponds - wave action, southern winds
gusting

Ma'alaea Condos - sewage smell

Haycraft - Brown water

Canoe club - big waves, lots of debris
on beach. Recent rain

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	0.07	6.82	58.9	603
Pre-sampling	0.06	6.78	59.2	604
Post-sampling	0.06	6.78	59.0	603

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Ylenia Mayen St-Louis

Team	North Kihei	Samplers (Last Name, 1st Initial)	A. wolf			
Session	94		D. Crevier			
Date	03/09/2023		C. Keyhani			

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH230309-N-1	Maalaea Harbor	<input type="checkbox"/>	<input type="checkbox"/>	7:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC230309-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP230309-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:27 8:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP230309-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC230309-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	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:



Ylenia Mayer St-Louis