

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
79	Y. St-Louis	4/18/22	9:30-10:30	Y. St-Louis	4/21/22	10:35

QA/QC Check	Inst #	Probe #	Last Cal Date	Std Val	PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/Notes	QA?
	NIST		NIST Exp. Date		NIST	NIST	NIST	NIST			
Temperature		n/a			23.8 °C	23.6 °C	29.3 °C	— °C	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1	3	10/16/22		24.0		30.4				
	1	2				23.8					
Salinity			3 months	Std Val	Tap water	Salin Std 11/24 date	Tap water	Salin Std 1/24 date	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
					0.13	33.9 ppt	0.13	33.9 ppt			
	1	3	2/14/22		0.19	34.0	0.19	33.9			
	1	2	2/14/22		0.18	33.8					
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	12/16/21		98.2		97.4				
	1	2	12/16/21		97.3						
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	
	1	4	4/18/22		7.01	10.05				PH 10.01 exp 3/22 PH 7.00 exp 3/23	
	1	5	4/18/22		7.01	10.05	7.03	10.02		PH 4.00 exp 12/23	
Turbidity			3 months	Std Val	BLANK <0.1 NTU	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	1/24/22		0.07	6.59	0.06	6.62		Low STD: 6.57	
	2	n/a	1/24/22		0.08	6.31				Low STD: 6.32	

QA: \* Are pre- and post within one week? Lab: NMS

\* Delay times are ok?

\* Other equipment issues?



Team	Kamaole	Samplers (Last Name, 1st Initial)	Scott Granger Karyn Hecht			Meters and Probes ID		
Session	79					HQ40d:	1	2100Q: 1
Date	04/19/2022					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 NKN220419	N	7:53	23.9	33.6	6.29	90.1	8.13	2.91	2.45	0	2	0
Waipuiani Park KWP220419	N	8:21	23.0	32.7	6.22	87.3	8.06	9.81	8.98	0	0	0
Kihei South KKS220419	N	8:39	24.4	32.8	6.10	87.9	8.09	10.90	11.10	1	7	0
Kalama Park KKP220419	N	9:00	24.7	35.1	6.72	98.4	8.15	8.81	7.73	0	17	0

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

Changed batteries NKN -  
At KKS - Turbidity Meter broke down - could  
Not start w/ charge battery - vital kept.

## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.57	57.5	565
Pre-sampling	0.08	6.64	57.3	564
Post-sampling	0.07	6.63	57.6	564

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	T. Spaulde
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

*Scott Granger* Tiara Spaulde

Sites with potential for freshwater flow: All

<b>Team</b>	Kamaole	<b>Samplers</b> (Last Name, 1st Initial)	S. Graves
<b>Session</b>	79		
<b>Date</b>	4/19/2022		H. Hecht

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
NKN220419-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:53	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP220419-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:21	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS220419-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP220419-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	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:



Tiara Stark



<b>Team</b>	Wailea-Makena	<b>Samplers</b> (Last Name, 1st Initial)	Sousa, B and Sharpe, M.		
<b>Session</b>	79				
<b>Date</b>	04/20/2022				
			<b>Meters and Probes ID</b>		
			HQ40d: 1	2100Q: 1	
			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
Cove Park KCP220420	N	8:30	24.8	32.2	6.51	93.8	8.09	13.8	17.6	4	3	1
S Maluaka Beach MMB220420	N	9:14	15.2	35.3	6.57	97.2	8.15	1.28 1.23	1.38	12	14	0
Ahihi Kinau North MAN220420	N	9:30	14.7	35.7	6.95	102.3	8.12	1.39	1.94	4	4	0
Ahihi Kinau South MAS220420	N	9:40	24.9	35.1	6.47	95.2	8.08	1.95	2.00	7	14	0

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

Read 0.19 empty of turb bottle (1st pre reading)  
Water

#### TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.57	57.5	565
Pre-sampling	6.06	6.55	57.1	565
Post-sampling	0.07	6.57	57.5	565

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

*Maagah* Tiara Stark

Sites with potential for freshwater flow: Cove Park

<b>Team</b>	Wailea-Makena	<b>Samplers</b> (Last Name, 1st Initial)	Sousa, B.
<b>Session</b>	79		Sharpe, M.
<b>Date</b>	04/20/2022		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
KCP220420-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MIMB220420-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:14	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN220420-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	
MAS220420-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	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:



Tiana Stark



Team	North Kihei	Samplers (Last Name, 1st Initial)		A. Wolf T. Stark	
Session	79				
Date	04/21/2022				
		Meters and Probes ID			
		HQ40d: 1	2100Q: 1		
		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
Maalaea Harbor NMH220421	N	8:00	24.0	35.3	6.32	91.7	8.14	1.96	2.03	1.88	0	0
Maalaea Condos NMC220421	N	8:15	23.9	33.0	7.45	105.6	8.09	5.77	7.51	7.37	0	1
Haycraft Park NHP220421	N	8:30	24.2	35.6	6.85	99.9	8.17	3.72	3.50	3.49	0	5
Kealia Pond NKP220421	N	8:50	24.6	36.1	6.71	88.8	8.19	0.96	0.94	0.94	0	3
Kihei Canoe Club NKC220421	N	9:10	25.0	35.3	6.64	97.9	8.15	20.4 <del>20.4</del>	20.1	21.7	6	6

y.s.

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

NMH: windup  
sample is  
NMH: net (likely from irrigation) - not from  
rain or runoff. 4th reading: 9.58 -  
can see debris floating around in sample. Flat.  
NHP: water looks more clear than usual. Flat.  
NKP: Dive flag near sampling site  
NKC: Water looks brown (very)

#### TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.07	6.57	57.5	565
Pre-sampling	0.06	6.62	57.5	566
Post-sampling	0.06	6.61	57.4	565

#### CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):

*[Signature]*

Printed Name:

Ylenia St-Louis

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

*[Signature]*

Team	North Kihei	Samplers (Last Name, 1st Initial)	A. wolf T. stark
Session	79		
Date	04/21/2022		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH220421-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC220421-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP220421-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP2203421-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC220421-N-1	Kihei Canoe Club	<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 St-Louis