

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
71	T. Stark	10/25/21	11:40	T. Stark	10/28/21	9:58

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	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
					25.5 °C	25.0 °C	28.6 °C	— °C			
	1	3	8/2/21		25.6		28.8			NIST exp: 10/16/22	
	1	2	9/13/21			25.1		—		pre temp: 22.9 °C, post: 21.6 °C	
Salinity			3 months	Std Val	Tap water	Salin Std	Tap water	Salin Std	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
					0.20	8/5/21 date 33.6 ppt	0.20	8/5/21 date 33.6 ppt			
	1	3	8/2/21		0.16	33.8	0.18	33.8			
	1	2	9/13/21		0.15	33.9	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	10/07/21		95.2		97.6				
	1	2	10/07/21		100.7		—				
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	
	3	1	10/25/21		6.98	9.96	—	—			
	1	4	10/25/21		7.02	10.02	7.03	10.03			
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	10/25/21		0.04	6.68	—	—		Low Std: 6.74	
	2	n/a	10/25/21		0.04	6.23	0.04	6.23		Low Std: 6.14 *read Low 2x and same	

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

Lab: NMS



Team	Kamaole	Samplers (Last Name, 1st Initial)	Harry Heck Scott Graves Nick G Morgan	Meters and Probes ID		
Session	71			HQ40d: 1		2100Q: 1
Date	10/26/2021			pH: <del>3.2</del> 4	DO: 1	Salinity: <del>13</del>

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 NKN211026	N	7:52	25.7	35.4	5.62	84.0	8.14	1.10	1.19	1.12	14	2	✓
Waipuilani Park KWP211026	N	8:11	23.9	34.1	5.91	85.2	8.04	12.1	12.4	12.5	0	0	0
Kihei South KKS211026	N	8:26	25.0	34.0	5.40	79.3	8.11	5.88	6.67	6.88	1	4	1
Kalama Park KKP211026	N	8:42	24.7	34.5	6.09	89.3	8.16	4.55	4.77	4.48	0	1	0

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

\* using pH # 4 because # 3 calibration was off.

07:58 probes in water 08:05 read  
08:17 " " " 08:21 "  
08:30 probes in water 08:34 "  
08:45 probes in water 08:49 read

\* Very calm conditions

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	6.74	54.8	587
Pre-sampling	0.07	6.66	54.9	588
Post-sampling	0.04			

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

*[Signature]*


Tiara Stark

Turbidity meter turns off when I press  
READ button during post-sampling. Volunteers said it worked fine in the field.  
It completely stopped working. Tried charging batteries checked for corrosion, etc. - no luck. Last updated July 2021

<b>Team</b> Kamaole	<b>Samplers (Last Name, 1st Initial)</b>	Harry Hecht Scott Graves Rick Cyr Margie Cyr
<b>Session</b> 71		
<b>Date</b> 10/26/2021		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
NKN211026-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP211026-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:11	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS211026-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP211026-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:42	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		

<b>Signature (Team Lead):</b> 	<b>Printed Name:</b> Tiana Stark
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Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Wolf A, Sovsa B, Sharpe M.	Meters and Probes ID		
Session	71			HQ40d: 1	2100Q: 1	2
Date	10/27/2021			pH: 3.4	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 KCP211027	N	8:30	26.3°	34.9	6.01	90.4%	8.15	2.86	2.34	3.01	2 dogs	5	2
S Maluaka Beach MMB211027	N	8:55	26.7°	35.8	6.37	97.0%	8.19	0.68	0.56	0.56	3	16	2
Ahihi Kinau North MAN211027	N	9:20	26.5°	35.8	6.71	102.0	8.17	0.63	0.66	0.71	0	2	0
Ahihi Kinau South MAS211027	N	9:40	26.5°	35.8	6.38	96.9	8.18	0.78	0.55	0.50	9	5	0

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

\*Nanny accidentally signed in my  
"Team Lead" place.

clean & clear water @ all sites

Sites with potential for freshwater flow: Cove Park

#### TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.03	6.14	53.5	579
Pre-sampling	0.03	6.19	53.2	580
Post-sampling	0.03	6.20	53.5	579

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

*[Signature]*

Printed Name:

*N. Sharpe*

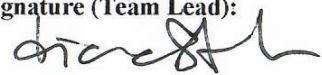
*[Signature]*

*T. Sharpe*

<b>Team</b>	Wailea-Makena	<b>Samplers (Last Name, 1st Initial)</b>  Wolf, A. Sousa, B. Sharpe, M.
<b>Session</b>	71	
<b>Date</b>	10/27/2021	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
KCP211027-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	
MMB211027-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN211027-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS211027-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		

<b>Signature (Team Lead):</b> 	<b>Printed Name:</b> Tiara Stark
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Team	North Kihei	Samplers (Last Name, 1st Initial)	BURNETTE, G. BAHN, F	Meters and Probes ID		
Session	71			HQ40d: 1	2100Q: 2	
Date	10/28/2021			pH: 4	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 NMH211028	N	0745	25.4	35.1	5.95	88.2	8.14	0.97 +0.41	0.88	0.83	0	0	0
Maalaea Condos NMC211028	N	0810	25.4	34.4	6.75	100.1	8.06	1.94	2.01	2.07	0	1	0
Haycraft Park NHP211028	—	0825	26.0	35.7	6.54	98.5	8.16	15.0	14.3	15.3	0	0	0
Kealia Pond NKP211028	N	0850	26.2	36.0	6.52	98.9	8.20	0.68	0.67	0.55	1	0	0
Kihei Canoe Club NKC211028	N	0910	26.5	35.4	6.48	98.3	8.17	2.24	2.27	2.15	0	0	0

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

NHP - WATER CHURNED UP AND BROWN DUE TO  
HIGHER THAN NORMAL SURF

SURE LIKE THOSE NEW NUTRIENT FILTERS (GREEN)  
AND THE NEW FILTER BOX - MUCH EASIER TO  
DRAIN THE SYRINGE.

NKC - WATER ALSO CHURNED UP HERE, BROWN  
MOSTLY DUE TO SAND

**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	0.03	6.14	53.5	579
Pre-sampling	0.03	6.12	53.3	580
Post-sampling	0.04	6.20	53.5	579

#### CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

*Tiara Stark*

Tiara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	Burnette, G. Bahr, F.
Session	71		
Date	10/28/2021		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH211028-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC2110028-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP211028-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP211028-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
<del>NKC2211028-N-1</del> NKC211028-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

X.S.

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:

