



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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
75	C. BURDETTE, T. SIBALIK	01/24/22	9:55	T. SARK, G. BURDETTE	1/27/22	9:30 am

QA/QC Check	Inst #	Probe #	Last Cal Date	Std Val	PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST	n/a	NIST Exp. Date		NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1		10/16/22		24.2 °C	24.0 °C	24.9 °C	— °C			
	1				24.4		25.0	—			
Salinity			3 months	Std Val	Tap water	Salin Std 1/24/22 date	Tap water	Salin Std 1/24/22 date	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	+3	11/15/21		0.13	33.9 ppt	0.12	33.9 ppt			
	1	2	11/15/21		0.13	33.4	0.15	34.0		Used new cal. Std. from trans w/ caling.	
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5%		
	1	1	12/16/21		99.8%		100.1%				
	1	2	12/16/21		99.7%		—				
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	
	1	5360	1/24/22		7.00	10.02	7.01	10.00			
	1	4	1/24/22		7.00	10.02	—	—		pH Probe #5 not to be used any more	
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	1/24/22		0.05	6.57	0.05	6.61		Low Std: 6.57	
	2	n/a	1/24/22		0.06	6.33	—	—		Low Std: 6.32	

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

Lab: NMS

Team	Kamaole	Samplers (Last Name, 1st Initial)		Meters and Probes ID	
Session	75	GALVES, S. HECHT, H. CUR, R. CUL, M.		HQ40d: 1	2100Q: 1
Date	01/25/2022			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 NKN220125	N	07:55	23.4	33.9	6.58	94.0	8.14	4.18	4.00	Ø	Ø	Ø
Waipuilani Park KWP220125	N	08:07	22.5	34.1	6.79	95.5	8.07	22.4	22.2	Ø	Ø	Ø
Kihei South KKS220125	N	08:29	23.3	34.4	6.51	93.0	8.11	16.4	16.4	Ø	3	Ø
Kalama Park KKP220125	N	08:45	23.4	35.3	6.80	97.9	8.12	16.1	16.5	Ø	Ø	Ø

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

WNP201-803: probes in
KWP: 813-8:15 probes
KKS: 8:33-8:35 probes
KKP: 8:49-8:51 probes

Equipment performed well

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	6.57	57.5	565	
Pre-sampling	0.07	6.57	57.4	565	
Post-sampling	0.08	6.60	57.5	565	

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	4	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):	Printed Name:
<i>Diene Star</i>	Tiara Stark

Team	Kamaole	Samplers (Last Name, 1st Initial)	Graves, S. Cy, M.
Session	75		Hecht H.
Date	01/25/2022		Cyr IR.

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN220125-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP220125-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:07	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS220125-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:29	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP220125-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	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:
<i>[Signature]</i>	Tiana Stahl

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)		B. Sousa, J. Dunning		Meters and Probes ID	
Session	75					HQ40d: 1	2100Q: 1
Date	01/26/2022					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
Cove Park KCP220126	✓	8:30	24.1	33.5	86.55	94.3	8.10	2.96	344	2.85	✓	2
S Maluaka Beach MMB220126	✓	9:05	24.3	35.9	6.81	100.1	8.15	0.76	0.84	0.79	1	3
Ahihi Kinau North MAN220126	✓	9:29	24.5	35.9	7.21	105.8	8.16	0.79	0.80	0.77	3	7
Ahihi Kinau South MAS220126	✓	9:56	24.8	35.8	6.19	102.1	8.17	1.76	2.07	2.11	2	7

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

Ahihi Kinau South- large wave, rough surf.

Sites with potential for freshwater flow: Cove Park

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.08	6.57	57.5	565
Pre-sampling	0.05	6.54	57.7	565
Post-sampling	0.08	6.60	57.5	564

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

[Signature] Tara Stark

Team	Wailca-Makena	Samplers (Last Name, 1st Initial)	B. Sousa J. Dunning
Session	75		
Date	01/26/2022		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP220126-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	
MIMB220126-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN220126-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:29	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS220126-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	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:
<i>[Signature]</i>	Tiara Stark

Team	North Kihai	Samplers (Last Name, 1st Initial)		Meters and Probes ID	
Session	75	Burgate, G. Wolf, A.		HQ40d: 1	2100Q: 1
Date	01/27/2022			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
Maalaea Harbor NMH220127	N	0745	23.5	35.5*	6.30	90.6	8.14	0.74	0.89	0	0	0
Maalaea Condos NMC220127	N	0810	23.2*	33.8	6.87	97.5	8.10	3.99 3.20	6.33	1	2	0
Haycraft Park NHP220127	—	0835	23.9	34.7	6.44	92.8	8.11	2.66	2.79	0	5	0
Kealia Pond NKP220127	N	0900	24.1	36.1*	6.82	99.5	8.18	1.25	1.14	0	2	0
Kihai Canoe Club NKC220127	N	0920	24.8	35.2*	6.72	98.9	8.14	*5.25	5.21	0	4	0

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

~~NMC~~ NMH & NKP & NKC SALINITY OUT OF RANGE

NMC - THOUGHT THE TEMP WAS A BIT LOW, SHOWING HAVE
TAKEN ANOTHER READING BUT DIDN'T

NMC - TURBIDITY READINGS VERY INCONSISTENT AND
DON'T KNOW WHY. WE CHECKED THE BLANK FOR
SAMPLING AND FOUND NONE. DID ALL PROCEDURES
CORRECTLY.

NKC - HIGH TURBIDITY READINGS LIKELY DUE TO BROWN
WATER STILL PRESENT FROM RAIN EVENT WEEKS AGO

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

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low (+/- 0.18)	Med (+/- 1.80)	High (+/- 18)
Standard	0.08	6.57	57.5	565
Pre-sampling	0.07	6.62	57.4	565
Post-sampling	0.05	6.61	57.6	565

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

Gene Starke Tiaro Starke

Team	North Kihei	Samplers (Last Name, 1st Initial)	G. Burrette
Session	75		
Date	01/27/2022		A. Wolf

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH220127-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	
NMC220127-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	
NHP220127-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP220127-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC220127-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	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: Tiana Stahle