

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
59.	M. Brown T. Stark	2/15/21	3:45	M. Brown	2/18/21	10:15 am

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST	n/a	n/a	Std Val	NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	7/8/21				26.8°C	26.7°C	23.5°C	°C			
	1	1	n/a		26.6		23.3			temp in lab before	26.7
	1	2	n/a			26.6		—		post	25.4
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	
					0.30	11/2/20 date 35.0 ppt	0.30	11/2/20 date 35.0 ppt			
	1	1	2/15/21		0.32	34.9	0.32	35.2			
	1	2	2/15/21		0.32	34.9	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	11/2/20		98.5		99.6				
	1	2	11/2/20		99.0		—				
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	3	2/15/21		7.01	9.99	7.02	10.01			
	1	4	2/15/21		7.01	9.99	—	—			
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	11/16/21		0.06	6.64	6.67	6.67		std 6.60	
	2	n/a	11/16/21		0.06	6.41	0.07	—		" 6.39	

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

Lab: DHS

Team	Kamaole	Samplers (Last Name, 1st Initial)	Cyr, MARGIE 97.7 GRAVES, SCOTT 96.8 Cyr, Rick 97.0 HECHT, Harry 97.1	Meters and Probes ID		
Session	59			HQ40d: 1	2100Q: 1	
Date	2/16/21			pH: 3	DO: 1	Salinity: 1

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			Entero	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					CFU	water	beach	camp
Kalepolepo North NKN210216	N	7:55	24.9	35.2	6.48	95.5	8.09	4.25	4.20	4.68	/	0	0	0
Waipuilani Park KWP210216	N	8:20	25.3	35.4	6.50	96.3	8.09	15.4	16.2	16.9	/	0	1	0
Kihei South KKS210216	N	8:39	25.2	34.9	6.50	96.2	8.09	5.85	5.97	6.17	/	0	0	0
Kalama Park KKP210216	N	9:07	25.3	35.5	6.62	98.4	8.12	11.4	11.3	11.5	/	2	2	0

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

NKN 8:05-8:08 Time
KWP: 8:25-8:28 } Probes in
KKS: 8:43-8:45 } water before
KKP: 9:02-9:05 } reading

High Surf today

*Sites no longer sampled - Mai Poina Oe Ia'u,
Cove Park

6.48

Blank VIAL = KKP

on low standard took 2nd
reading after cleaning 95.6

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	6.60	58.6	593
Pre-sampling	0.07	6.56	58.0	595
Post-sampling	0.06	6.75	57.9	598

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	4	dhs	MB
Nutrients			

Signature (Team Lead):

Printed Name:

Mitch Brown

Mitch Brown

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>M. Cyr</i> <i>S. Graves</i> <i>R. Cyr</i> <i>H. Hecht</i>
Session	59	
Date	2/16/21	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN210216-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	
KWP210216-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS210216-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	
KKP210216-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:07	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

Signature (Team Lead): <i>Mitch Brown</i>	Printed Name: <i>Mitch Brown</i>
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Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	B. Souza, J. Dunning	Meters and Probes ID		
Session	59			HQ40d: 1		2100Q: 1
Date	02/17/21			pH: 3	DO: 1	Salinity: 1

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			Entero	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					CFU	water	beach	camp
Cove Park KCP210217	N	8:41	24.5	34.1	6.78	98.0	8.10	3.98	3.54	4.11		450	20	0
S Maluaka Beach MMB210217	N	9:21	24.9	35.3	6.82	100.2	8.15	2.33	2.05	2.50		2	6	0
Ahihi Kinau North MAN210217	N	9:47	24.9	35.3	6.91	101.2	8.08	1.00	1.01	1.10		3	0	0
Ahihi Kinau South MAS210217	N	10:06	25.0	35.0	6.67	98.0	8.09	2.12	2.88	2.64		3	2	0

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

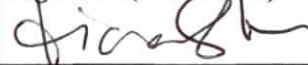
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	6.60	58.6	593
Pre-sampling	0.18	6.64	57.8	594
Post-sampling	0.07	6.64	58.3	593

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



Printed Name:

Tiara Stark

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	B. Souza, J. Dunning
Session	59		
Date	02/17/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KCP210217-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:41	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB210217-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:21	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN210217-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS210217-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:06	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): Tiara Stark	Printed Name: Tiara Stark
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Team North Kihei	Samplers (Last Name, 1st Initial) BURNETTE, G. WOLF, A BAHNS, F. BAHN, F.	Meters and Probes ID		
Session 59		HQ40d: 1	2100Q: 1	
Date 02/18/21		pH: 3	DO: 1	Salinity: 1

Location Name Sample ID	Streams Flowing (Y/N)	Time (of collection)	Temp (°C) variable	Salinity (ppt) 30-35 normal	Dissolved Oxygen		pH 8-8.3 normal	Turbidity (NTU)			Entero	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					CFU	water	beach	camp
Maalaea Harbor NMH210218		0750	24.2	34.9	6.37	92.3	8.13	2.15	2.07	2.08		0	0	0
Maalaea Condos NMC210218		0810	24.4	34.4	6.89	99.9	8.07	4.76	4.94	5.10		0	4	0
Haycraft Park NHP210218		0830	24.6	34.5	6.62	96.4	8.10	5.92	5.89	5.77		0	10	0
Kealia Pond NKP210218	N	0850	24.1	35.5	6.88	100.4	8.16	1.53	1.60	1.51		0	1	0
Kihei Canoe Club NKC210218		0910	25.1	35.0	6.75	99.3	8.15	1.49	1.56	1.56		0	0	0

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

HQ40d meter would NOT operate unless applying
pressure to the battery case with one hand
while pressing read button with the other hand.
Otherwise if just pressing read button, it
would shut off which it did about 10 times.

Sites with stream outflow: Kealia

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.07	6.60	58.6	593
Pre-sampling	0.06	6.68	58.0	595
Post-sampling	0.07	6.67	58.2	598

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	CHS	M Brown
Bacteria	-	-	-

Signature (Team Lead):

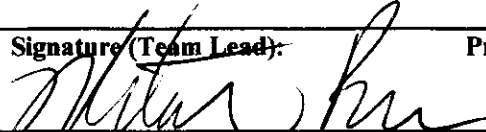
Printed Name:

[Signature] M. Brown

Team	North Kihei	Samplers (Last Name, 1st Initial)	G. Barnette Baker F. Woff A
Session	59		
Date	02/18/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH210218-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC210218-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	
NHP210218-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP210218-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	
NKC210218-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	

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:
	Mitch Brown