

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
57	T. Stark, J. Stinchard	1/4/21	9:30 am	Mc Brown	1/7/21	4:02 pm

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range	Comments/ Notes	QA?
Temperature	NIST	n/a	ex/ n/a	Std Val	NIST	NIST	NIST	NIST	± 0.6 °C of NIST	Compare to NIST Std value in tap water	
	1	1	n/a		25.0 °C	25.0 °C	26.1 °C	— °C			
	1	2	n/a		24.9	24.9	25.9	—		Temp in lab 26.9°C Post	
Salinity			3 months	Std Val	Tap water	Salin Std 11/2/20 date 35.0 ppt	Tap water	Salin Std 11/2/20 date 35.0 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	1	11/16/20		.34	35.4	.34	35.3			
	1	2	11/16/20		.34	35.1	—	—			
Dissolved Oxygen			1 year	Std Val	100%	100%	100%	100%	± 5 %		
	1	1	11/2/20		99.0	101.0	—	—			
	1	2	11/2/20		100.5	—	—	—			
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value	Compare to Manufacturer pH Std value on bottle	
	1	3	1/4/21		7.02	9.99	7.05	9.99			
	1	4	1/4/21		7.02	10.00	—	—			
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	11/16/20		0.09	6.62	0.06	6.54			
	2	n/a	11/16/20		0.08	6.44	—	—			

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

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>Harry Hecks</i> <i>Cyril MARGIS</i> <i>Cyril R.</i> <i>Scott Grimes</i>	Meters and Probes ID		
Session	57		HQ40d: 1	2100Q: 1	
Date	1/5/21		pH: 3	DO: 2	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)			Enterococcus CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Kalepolepo North NKN210105	N	7:58	25.1	35.1	6.84	82.3	8.08	0.63	0.71	0.81		0	0	0
Waipuilani Park KWP210105	N	8:12	24.1	32.9	6.30	89.7	8.12	12.2	12.7	12.8		0	1	0
Kihei South KKS210105	N	8:30	24.8	34.3	6.22	90.3	8.10	3.20	3.37	3.18		0	7	0
Kalama Park KKP210105	N	8:45	25.0	34.8	6.42	94.0	8.14	6.81	6.94	6.63		0	5	0
Cove Park KCP210105	N	8:57	25.8	34.6	6.01	89.0	8.11	0.94	0.69	0.93		0	2	0

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

1.6g Check on Turb.

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

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	6.60	58.6	593
Pre-sampling	0.10	6.61	58.0	596
Post-sampling	0.08	6.67	58.4	594

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment			
Nutrients	5	2145	M Brown

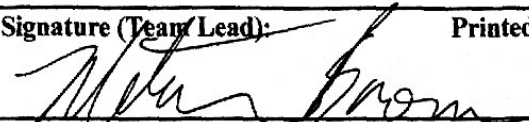
Signature (Team Lead):

Printed Name:

Mitch Brown Mitch Brown

Team	Kamaole	Samplers (Last Name, 1st Initial) Hecht H Cyr R Cyr M Graves S
Session	57	
Date	1/5/21	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN210105-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP210105-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:12	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS210105-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP210105-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	
KCP210105-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:57	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
		<input type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

Signature (Team Lead): 	Printed Name: Mitch Brown
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Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	M. Sharpe, B. Souza, J Dunning	Meters and Probes ID		
Session	57			HQ40d: 1		2100Q: 1
Date	01/06/21			pH: 3	DO: 2	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
Kilohana Dr WKD210106	N	8:03	24.8	35.5	6.70	98.1	8.10	0.81	0.87	0.99	—	3	3	Ø
Keawakapu Beach WKB210106	N	8:23	25.1	35.5	6.64	97.7	8.11	1.49	1.32	1.32	—	Ø	4	Ø
Ulua Beach WUL210106	N	8:39	25.5	35.5	6.69	99.2	8.12	1.08	0.86	0.97	—	2	2	Ø
S Maluaka Beach MMB210106	N	9:05	25.3	35.4	6.80	100.5	8.15	1.42	1.41	1.35	—	1	6	Ø
Ahihi Kinau North MAN210106	N	9:27	25.2	35.4	6.90	101.7	8.05	0.69	0.65	0.72	—	3	Ø	Ø
Ahihi Kinau South MAS210106	N	9:50	25.3	35.6	6.35	94.0	8.09	1.19	1.14	1.09	—	5	12	Ø

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

Use the back of the form if needed.

* second blank pre sample done: 0.31

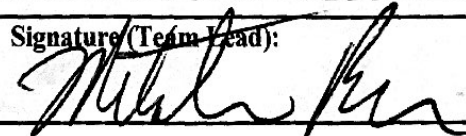
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	660	58.6	593
Pre-sampling	0.37*	6.55	57.6	595
Post-sampling	0.08	6.55	58.3	593

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	dBBS	M. Brown
Bacteria	-	-	-

Signature (Team Lead):



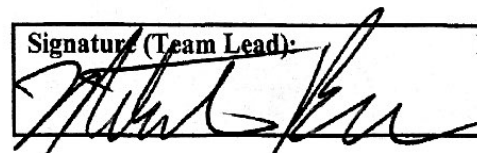
Printed Name:

M. Brown

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	Sharpe M. Souza B. Dunning J.
Session	57		
Date	01/06/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD210106-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB210106-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:23	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL210106-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB210106-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	
MAN210106-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:27	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS210106-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:
	Mark Brown

Team North Kihei	Samplers (Last Name, 1st Initial) <i>BURNETTE, G.</i> <i>BAHN, F.</i>	Meters and Probes ID		
Session 57		HQ40d: 1	2100Q: 1	
Date 01/07/21		pH: 3	DO: 2	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 NMH210107		0755	24.2	34.9	6.19	89.6	8.11	1.27	1.09	1.37		0	3	0
Maalaea Condos NMC210107		0820	24.1	33.6	6.75	96.8	8.03	1.76	1.85	1.88		0	1	0
Haycraft Park NHP210107		0840	24.6	34.6	6.50	94.7	8.11	2.59	2.29	2.46		0	1	0
Kealia Pond NKP210107	N	0905	24.7	35.6	6.80	99.9	8.18	0.47	0.44	0.44 0.44 660		0	0	0
Kihei Canoe Club NKC210107		0920	25.6	34.8	6.66	98.7	8.14	0.64	0.64	0.67		0	6	0

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

HQ40d HI METER CONTINUES TO SHUT OFF
WHEN READ BUTTON PRESSED TOO HARD.
ALWAYS WORKS OKAY ON SECOND TRY.

Sites with stream outflow: Kealia

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	6.60	58.6	593
Pre-sampling	0.09	6.61	58.0	592
Post-sampling	0.06	6.54	58.2	593

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Mitch Brown


Printed Name:

Mitch Brown

Team	North Kihei	Samplers (Last Name, 1st Initial)	Burnette G. Baker F.
Session	57		
Date	01/07/21		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH210107-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC210107-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP210107-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP210107-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC210107-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:
	Mitch Brown