

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
56	T. Stark ; J. Strickland	12-07-2020	12:15pm	M. Brown	12/10/20	1:15

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	
					26.6°C	26.5°C	— °C	26.1°C			
	1	1	n/a		26.5		—				
	1	2	n/a			26.4		25.8			
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		11/2/20 date 35.0 ppt			
	1	1	11/16/20		0.32	35.2	—	—			
	1	2	11/16/20		0.32	35.0	0.32	35.3			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	11/2/20		101.1		—				
	2	2	11/2/20		100.3		100.3				
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	
	2	3	12/7/20		7.01	9.99	—	—			
	2	4	12/7/20		7.01	9.99	7.01	9.98			
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	6.73	—	—		Low STD: 6.60	
	2	n/a	11/16/20		0.07	6.41	0.07	6.41		Low STD: 6.39	

QA:

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

Team	Kamaole	Samplers (Last Name, 1st Initial)	Cyr, R 97.1 Cyr, M 97.3 HECHT, H. 97.0 GRAVES, S. 96.6	Meters and Probes ID		
Session	56			HQ40d: 2		2100Q: 2
Date	12/8/20			pH: 4	DO: 2	Salinity: 2

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 NKN201208	N	0750	25.5	34.3	5.26	85.9	8.11	1.13	1.16	1.31		0	0	0
Waipuilani Park KWP201208	N	08:15	24.3	32.3	5.95	88.1	8.08	18.4	17.6	18.2		0	2	0
Kihei South KKS201208	N	8:36	25.5	34.4	5.98	88.6	8.10	5.5	5.19	5.84		1	2	0
Kalama Park KKP201208	N	8:54	25.5	34.5	6.30	93.2	8.09	5.47	5.33	5.88		0	0	0
Cove Park KCP201208	N	9:10	26.2	34.5	5.94	89.3	8.12	3.61	3.28	3.18		1	0	0

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

HQ40d meter not operating according to
normal procedures difficult to start/standardize
shuts off on its own. New batteries added

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

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.08	6.51	56.0	562
Pre-sampling	0.09	6.42	55.7	562
Post-sampling	0.06	6.39	55.8	562

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

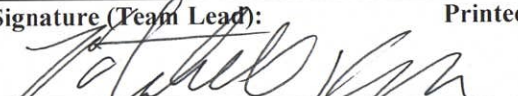
Printed Name:

[Signature] Mitch Brown

Team	Kamaole	Samplers (Last Name, 1st Initial) Cyr R Cyr M Hecht H Graves S.
Session	56	
Date	12/8/20	

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN201208-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP201208-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS201208-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:36	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP201208-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP201208-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	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	

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		

Signature (Team Lead): 	Printed Name: Mitch Brown
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Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	J. Dunning, M. Sharpe, B. Souza	Meters and Probes ID		
Session	56			HQ40d: 2		2100Q: 2
Date	12/9/20			pH: 4	DO: 2	Salinity: 2

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 WKD201209	N	7:57	25.4	35.2	6.72	99.9	8.15	2.12	1.37	0.99	-	2	4	Ø
Keawakapu Beach WKB201209	N	8:20	25.9	35.4	6.62	99.1	8.14	0.55	0.73	0.58	-	2	5	Ø
Ulua Beach WUL201209	N	8:37	25.8	35.3	6.71	99.9	8.12	1.63	1.63	1.11	-	4	8	Ø
S Maluaka Beach MMB201209	N	9:02	25.7	35.2	6.55	97.8	8.15	1.22	0.82	1.02	-	Ø	9	Ø
Ahihi Kinau North MAN201209	N	9:23	25.9	35.2	7.12	106.5	8.14	1.53	1.87	1.71	-	2	Ø	Ø
Ahihi Kinau South MAS201209	N	9:41	26.1	35.2	6.61	99.4	8.14	1.21	1.06	0.94	-	Ø	2	Ø

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

Use the back of the form if needed.

* Retested pre-sample after cleaning vial
note: batteries failed in HD400 - replaced batteries

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low 4.5	Med	High
Standard	0.06	6.40	56.0	562
Pre-sampling	0.158	6.41	55.4	561
Post-sampling	0.09	6.39	55.8	562

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	DHS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):

Tiara Stark

Printed Name:

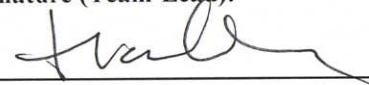
Tiara Stark

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	J. Dunning, M. Sharpe, B. Souza
Session	56		
Date	12/9/20		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD201209-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:57	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB201209-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL201209-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:37	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB201209-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN201209-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:23	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS201209-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:41	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:

Tiara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	BURNETT, G. BAHN, F.	Meters and Probes ID		
Session	56			HQ40d: 2		2100Q: 2
Date	12/10/20			pH: 4	DO: 1	Salinity: 2

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 NMH201210		0800	25.5	35.1	5.93	88.0	8.12	0.97	0.48	0.98		0	0	0
Maalaea Condos NMC201210		0815	25.4	33.8	6.52	96.0	8.03	4.79	4.24	4.38		0	0	0
Haycraft Park NHP201210		0830	25.7	34.4	6.40	95.0	8.11	9.06 8.72	7.78	7.50		0	0	0
Kealia Pond NKP201210	N	0851	25.8	35.4	6.68	99.9	8.16	0.67	0.61	0.55		0	3	0
Kihei Canoe Club NKC201210		0912	26.6	34.8	6.37	96.4	8.12	1.53 1.52	1.50	1.67		1	2	0

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

Use the back of the form if needed.

HQ40d meter worked well today - pushing lightly on the READ button is possibly helpful

Sites with stream outflow: Kealia

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	6.39	56.0	562
Pre-sampling	0.09	6.38	55.3	565
Post-sampling	0.07	6.41	55.9	562

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

[Signature] Mitch Brown

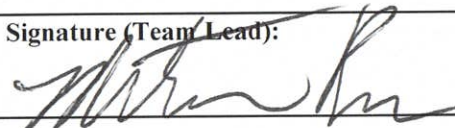
Team	North Kihei	Samplers (Last Name, 1st Initial)	Bouvette G Becker F.
Session	56		
Date	12/10/20		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH201210-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC201210-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP201210-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	
NKP201210-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:51	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC201210-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:12	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