

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



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
53	M. Brown T. Stark	10/12/20	10:20	M. Brown T. Stark	10/15/20	10:15

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	
	1	1	n/a		28.6°C	28.6°C	— °C	26.7°C			
	1	2	n/a		28.4						
	1	2	n/a			28.4		26.6			
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	
	1	1	8/10/20		.30	11/13/20 date 35.0 ppt	.30	11/13/20 date 35.0 ppt			
	1	2	8/10/20		.34	35.1	35.1	35.2		used Hach Std	
	1	2	8/10/20		.34	35.2	0.34 dr. 5	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	10/14/19		98.8		—				
	1	2	10/18/19		103.8		104.0				
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	10/12/20		6.99	9.99	7.00	9.98			
	1	4	10/12/20		7.01	9.97	—	—			
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	8/31/20		0.07	6.58	0.08	6.55		#1 low std: 6.60	
	2	n/a	8/10/20		0.08	6.39	—	—		#2 low std: 6.31	

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

Team	Kamaole	Samplers (Last Name, 1st Initial)	GRAVES, S. 97.0 Cyr, R. 97.7 Cyr, M. 97.7	Meters and Probes ID		
Session	53			HQ40d: 1		2100Q: 1
Date	10/13/20			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 CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Kalepolepo North NKN201013	N	0750	27.2	33.4	5.82	88.5	8.10	2.36	2.69	3.01		0	14	0
Waipuilani Park KWP201013	N	0807	25.9	31.9	6.18	91.2	8.05	14.4	15.7	15.7		0	0	0
Kihei South KKS201013	N	0825	27.2	34.0	5.33	81.3	8.07	4.43	4.51	5.10		0	0	0
Kalama Park KKP201013	N	0845	26.9	34.1	6.29	95.5	8.10	7.13	7.43	8.14		0	0	0
Cove Park KCP201013	N	0902	27.8	32.0	6.18	94.0	8.08	4.38	5.59	5.98		0	0	0

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

KCP - DOG IN WATER

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

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.07	6.60	58.3	576
Pre-sampling	0.08	6.70	58.1	574
Post-sampling	0.09	6.50	58.1	574

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-		
Nutrients	7	AMS	M Brown

Signature (Team Lead):


Printed Name:

[Signature] Mike Brown

Team	Kamaole	Samplers (Last Name, 1st Initial)	Graves S. Cyr R. Cyr M.
Session	53		
Date	10/13/20		

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN201013-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	
KWP201013-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	
KKS201013-N-1	Kihei South	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP201013-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	
KCP201013-N-1	Cove Park	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	9:02	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

Team Wailea-Makena	Samplers (Last Name, 1st Initial)	N. Sharpe	J. Dunning	Meters and Probes ID		
Session 53		A. Wolf		HQ40d: 1	2100Q: 1	
Date 10/14/20				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
Kilohana Dr WKD201014	N	8:00	27	35.0	6.65	10.8	8.12	1.41	1.47	1.42		1	2	0
Keawakapu Beach WKB201014	PN	8:21	27.5	35.2	6.68	103.0	8.13	0.52	0.82	0.54		3	2	0
Ulua Beach WUL201014	PN	8:37	27.4	34.4	6.55	100.5	8.09	1.54	1.92	1.65		3	2	0
S Maluaka Beach MMB201014	N	8:59	27.6	34.3	6.49	99.7	8.11	0.78	0.84	0.90		0	0	0
Ahihi Kinau North MAN201014	N	9:18	27.6	34.8	7.58	116.9	8.14	1.07	1.06	1.18		0	0	0
Ahihi Kinau South MAS201014	N	9:38	27.6	34.6	6.81	105.4	8.11	1.26	1.28	1.29		0	0	0

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

WKD second ready
MAN second ready

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	6.60	58.3	576
Pre-sampling	0.06	6.52	57.7	575
Post-sampling	0.09	6.57	57.9	575

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Handwritten Signature

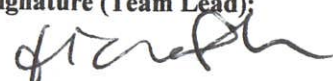
Printed Name:

Tiara Stark

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	N. Sharpe A. Wolf J. Dunning
Session	53		
Date	10/14/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD201014-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB201014-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:21	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL201014-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	
MMB201014-N-1	S Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:59	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN201014-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS201014-N-1	Ahihi Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:38	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 Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	BURNETTE G WILDBERGER, I Bah, Flo	Meters and Probes ID		
Session	53			HQ40d: 1		2100Q: 1
Date	10/15/20			pH: 3	DO: ± 2 663	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 NMH201015	N	7:50	26.9	34.4	6.30	95.9	8.11	1.82	1.80	1.88		0	0	0
Maalaea Condos NMC201015		8:10	27.7	33.2	7.00	100.1	8.05	1.63	1.78	1.52		0	0	0
Haycraft Park NHP201015		8:28	27.0	34.4	6.85	104.7	8.10	4.31	4.31	4.20		0	2	0
② Kealia Pond NKP201015 ②	N	8:52	27.5	34.9	6.74	104.0	8.14	1.35	1.10	1.22		2	1	0
Kihei Canoe Club NKC201015		9:12	28.0	34.4	6.54	101.3	8.09	2.06	3.08	2.60		0	1	0

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).
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Tested blank 4 times; wiped w/ cloth ~ 0.12 lowest reading
NMC - low tide - rocky entry - consider safer entry 30' left
NKC - 3.08 2nd reading 'discarded'

Weather: sunny, dry, calm, surf 1'
Sites with stream outflow: Kealia

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	6.60	58.3	576
Pre-sampling	0.12	6.59	57.9	576
Post-sampling	0.08	6.56	58.0	575

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

George Burnette

6' SD IDGAS: Add ~~distilling~~ ^{distilling} ~~water~~ ^{rinse bottles}
wipes

DO / SALINITY set up on passenger side of veh.

Team	North Kihei	Samplers (Last Name, 1st Initial)	Burrette, G. Bahr, F. Wildberger, T.
Session	53		
Date	10/15/20		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH201015-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	
NMC201015-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	
NHP201015-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP201015-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	Duplicate N sample
NSB201015-N-1	Sugar Beach	<input type="checkbox"/>	<input type="checkbox"/>	—	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	No longer sample
NKC201015-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:
<i>Tiara Stark</i>	Tiara Stark