

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

Hui U na Wai Ola

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
50	M. Brown T. Stark	8/10/20	10:15	T. Stark M. Brown	8/13/20	10:00 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 29.0 °C	NIST 29.0 °C	NIST — °C	NIST 27.7 °C	± 0.6 °C of NIST
	2 1	n/a			28.7		—		NIST expiration: July 2021
	2 2	n/a			28.8		—	27.5	
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 11/10/20 date 35.0 ppt	Tap water 0.13	Salin Std 11/13/20 date 35.0 ppt	± 1 ppt
	2 1	8/10/20			0.33	34.8	—	—	Tapwater from Mitch warehouse
	2 2	8/10/20			0.33	34.8	0.33	34.9	(Temporary lab) DHC
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %
	2 1	10/18/19			97.1		—		
	2 2	10/18/19			101.7		102.1		
pH			3 weeks	Std Val	pH 7.00	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value
	2 3	8/10/20			6.99	9.99	7.01	—	
	2 4	8/10/20			7.01	9.98	9.99	9.99	
Turbidity			3 months	Std Val	BLANK <0.1 NTU	LOW 1-10 NTU	BLANK <0.1 NTU	LOW 1-10 NTU	± 0.18 NTU Low 1-10
	1	n/a	5/4/20		0.06	6.77	—	—	Std #1 - 6.68
	2	n/a	8/10/20		0.04	6.31	0.05	6.33	Std #2 - 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. Cyr R Cyr M						Meters and Probes ID				
Session	50								HQ40d: 2		2100Q: 2		
Date	8/11/20								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
Kalepolepo North NKN200811	N	8:04	26.5	33.3	5.65	84.6	8.10	1.55	1.82	2.03	X	0	0	0
X Waipuilani Park KWP200811	NA	8:27	25.7	32.1	6.40	94.0	8.04	17.9	17.7	17.2	X	154	0	0
X Kihei South KKS200811	NA	8:47	26.7	32.6	6.26	93.7	8.10	10.10	9.58	9.29	X	0	0	0
Kalama Park KKP200811	N	9:07	27.2	34.1	6.15	93.9	8.10	3.68	4.08	4.43	X	0	0	0
X Cove Park KCP200811	N	9:23	27.7	33.0	6.34	96.9	8.10	5.49	4.94	6.44	X	0	3	0

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

Use the back of the form if needed.

KCP lots of fishing rods / 1 person

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

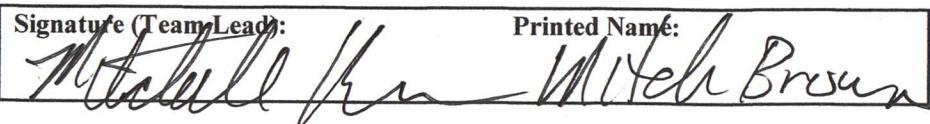
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	6.31	55.6	564
Pre-sampling	0.06	6.35	55.4	563
Post-sampling	0.09	6.29	55.9	563

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-		
Nutrients	8	d HS	M Brown

Signature (Team Lead):



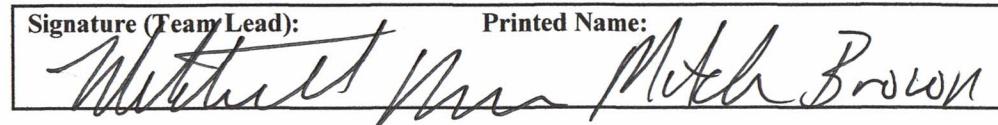
Printed Name:

Mitchell Brown

Team	Kamaole	Samplers (Last Name, 1st Initial)	Graves S Cyr R Cyr M			
Session	50					
Date	8/11/20					

Sample ID	Location Name	Sample taken?	Duplicate sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN200811-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:04	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP200811-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	8:27	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS200811-N-1	Kihei South	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	8:47	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP200811-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:17	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP200811-N-1	Cove Park	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9:23	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	

		<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)	J. Dunning, B. Sousa, A. Wolf						Meters and Probes ID			
Session	50								HQ40d: 2		2100Q: 2	
Date	8/12/20				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)			Enteric CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal						water	beach	camp
Kilohana Dr WKD200812	N	8:05	27.0	34.9	6.48	99.1	8.13	0.45	0.62	0.49	-	1	8	Ø
Keawakapu Beach WKB200812	N	8:18	27.1	35.0	6.57	100.5	8.13	0.42	0.40	0.39	-	Ø	6	Ø
Ulua Beach WUL200812	N	8:35	27.0	34.7	6.59	100.6	8.11	1.35	1.47	1.29	-	6	6	Ø
S Maluaka Beach MMB200812	N	9:01	27.4	34.9	6.50	100.3	8.15	0.50	0.52	0.53	-	5	6	Ø
Ahihi Kinau North MAN200812	N	9:21	26.7	34.5	6.82	103.5	8.08	0.53	0.77	0.73	-	Ø	Ø	Ø
Ahihi Kinau South MAS200812	N	9:37	26.4	34.9	6.34	96.4	8.09	0.55	0.68	0.66	-	Ø	2	Ø

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

Use the back of the form if needed.

Turbidity second reading redone

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	6.31	55.6	564
Pre-sampling	0.10	6.30	55.5	563
Post-sampling	0.09	6.30	55.8	563

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



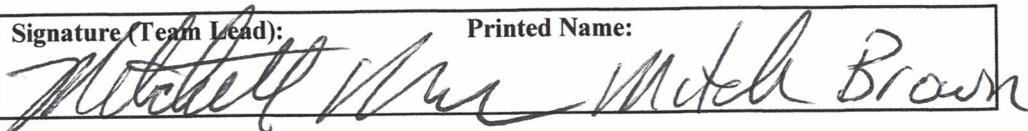
Printed Name:

Mitch Brown

Team	Wailea-Makena	Samplers (Last Name, 1st Initial)	<i>Dunning J</i> <i>Sousa B</i> <i>Wolt A</i>			
Session	50					
Date	8/12/20					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD200812-N-1	Kilohana DR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB200812-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL200812-N-1	Ulua Beach	<input type="checkbox"/>	<input type="checkbox"/>	8:35	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB200812-N-1	S Maluaka Beach	<input type="checkbox"/>	<input type="checkbox"/>	9:01	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN200812-N-1	Ahihi Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:21	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS200812-N-1	Ahihi Kinau South	<input type="checkbox"/>	<input type="checkbox"/>	9:37	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: Mitchell Brown

Team	North Kihei	Samplers (Last Name, 1st Initial)	Flo B. Tiara S. George Burnette						Meters and Probes ID			
Session	50								HQ40d: 2		2100Q: 2	
Date	8/13/20								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 CFU	People (within 100 ft)		
					(mg/L)	(%) 85-105 normal				water	beach	camp
Maalaea Harbor NMH200813	N	7:55	25.8	33.7	6.38	99.7	8.13	1.04	0.90	1.05	0	0
Maalaea Condos NMC200813 *	N	8:05	26.4	33.1	6.53	98.0	8.02	4.08	4.87	4.86	0	0
Haycraft Park NHP200813	N	8:30	26.4	31.3	6.70	101.1	8.11	12.7	13.3	13.4	1	0
Kealia Pond NKP200813 *	N	8:50	26.0	35.0	6.81	102.4	8.17	0.87	1.16	0.98	0	2
Kihei Canoe Club NKC200813	N	9:10	27.2	34.6	6.67	102.0	8.13	1.25	2.24	4.95	2.00	0
											9	0

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).
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NMH: DI water high NTU (6/c minerals?);

NMC: high tide? windy

NHP: 1 bag after surf w/ dog in water;
muddy/brown water

NKC: 7/9 canoe paddlers; water
looks brown

* Need tape & rope in bag & magnet

Sites with stream outflow: Kealia

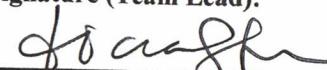
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.09	6.31	55.6	564
Pre-sampling	0.10	6.34	55.3	564
Post-sampling	0.05	6.33	55.7	563

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	7	DHS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):



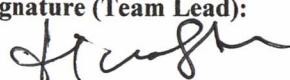
Printed Name:

Tiara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	F. Bahr	T. Stark
Session	50		G. Burnette	
Date	8/13/20			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH200813-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	
NMC200813-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	2 nutrient for split sampling
NHP200813-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	
NKP200813-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	2 nutrient for split sampling
NSB200813-N-1	Sugar Beach	<input type="checkbox"/>	<input type="checkbox"/>	9	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC200813-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:
	Tiara Stark