

☐ Temperature of incubator (in)☐ Temperature of incubator (out)**FIELD EQUIPMENT VERIFICATION (PRE/POST A WEEKLY SAMPLING):**

Session No:	Verifiers:	Pre date:	Pre time:	Post Date:	Post time:
12	G. BURKE & L. OTOMO	4/16/18	9:05	4/20/18	11:20

QA/QC Check	Inst #	Probe #	Last Cal Date		PRE: Verification Value		POST: Verification Value		Acceptable Range (Check range)	Comments/ Notes	QA?
Temperature			n/a	Std	(Probe 2)	(Probe 1)	(Probe 2)		± 1°C of NIST	Within 1°C	
					24.2	23.9	27.9				
	2	2	n/a		24.3		27.9				
	2	1	n/a			24.0	—				
Salinity				Std	0.13	Bottle 1/29/18 33.0 ppt	0.13	Bottle 4/19/18 33.0 ppt	± 3%, blank	33.95 – 36.05	
					0.18	33.5	0.16	32.7			
	2	2	3/19/18		0.18	33.5	0.16	32.7			
	2	1	3/19/18		0.19	33.7	—	—			
Dissolved Oxygen				Std	100%		100%		Post-check ± 5 % of pre-check (0-100%)	80 – 120 %	
					98.4		99.7				
	2	2	9/19/17		98.4		99.7				
	2	1	9/19/17		98.7		—	—			
pH				Std	7.00	10.01	7.00	10.01	± 3 % of calibration solution (6-8)	6.79 – 7.21	
					7.03	10.06	7.05	10.07			
	2	2	4/16/18		7.03	10.06	7.05	10.07			
	2	1	4/16/18		7.03	10.05	—	—			

QA:

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

Team	Kamaole	Samplers (Last Name, 1st Initial)	Brown M. Howard D. graves, S. La Selles.	Meters and Probes ID		
Session	12			HQ40d: 2		2100Q: 2
Date	04/17/18			pH: 2	DO: 2	Salinity: 2

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			Waves (0-3)	Wind (0-6)	People (within 100 ft)			TSS	Nutrient duplicate
				(mg/L)	(%)							water	beach	camp		
Waipuilani Park KWP180417	8:02	24.8	33.4	6.38	92.6	8.06	11.8	11.0	11.6	0	0	0	2	4	<input type="checkbox"/>	<input type="checkbox"/>
Kihei South KKS180417	8:18	25.4	32.6	6.15	89.8	8.09	8.10	9.48	9.93	0	0	0	2	0	<input type="checkbox"/>	<input type="checkbox"/>
Kalama Park KKP180417	8:37	25.5	34.7	6.68	98.9	8.17	8.33	10.60	8.51	1	0	1	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Cove Park KCP180417	8:57	25.9	32.3	6.70	98.5	8.15	3.73	4.32	4.47	1	0	10	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole I KKO180417	9:13	25.9	34.2	6.66	98.9	8.18	1.13	1.99	0.98	1	0	3	22	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole III KKT180417	9:33	25.6	34.1	6.70	99.3	8.17	1.29	1.68	1.35	1	1	50	20	0	<input type="checkbox"/>	<input type="checkbox"/>

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS

Most recent tide time (falling or rising)	Low: 10:26 am High: 4:40 am (falling)
Moon day (from new)	2
Cloud cover (0-8)	8
Rain conditions (last 24 hrs)	0
Wind direction (Trades/Kona)	Trades
Streams flowing? (Y/N)	

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

TURBIDITY VERIFICATION

	Blank	Low	Med	High
Standard	0.03	5.91	54.5	577
Pre-sampling	0.04	5.92	54.6	576
Post-sampling	0.06	5.86	54.6	575

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	0		
Nutrients	6	NMS	George Brunette
Bacteria	0		

Signature (Team Lead):

George Brunette
George Brunette

Printed Name:

George Brunette
George Brunette

Team	Kamaole	Samplers (Last Name, 1st Initial)	BROWN, M HOWARD, D GRAVES, S PASELK, S
Session	12		
Date	04/17/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KWP180417-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS180417-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP180417-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:37	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP180417-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	
KKO180417-N-1	Kamaole I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKT180417-N-1	Kamaole III	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):



Printed Name:

George C. Burnett

Team	Makena	Samplers (Last Name, 1st Initial)	Weidbergert, Lowder L, Fries S, Dunning J. Brunette, G	Meters and Probes ID		
Session	12			HQ40d: 2		2100Q: 2
Date	04/18/18			pH: 2	DO: 2	Salinity: 2

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			Waves (0-3)	Wind (0-6)	People (within 100 ft)			TSS	Nutrient duplicate
				(mg/L)	(%)							water	beach	camp		
Makena Landing MML180418	8:00am	25.3	34.6	6.62	97.9	8.16	1.27	1.33	1.31	0	0	0	5	0	<input type="checkbox"/>	<input type="checkbox"/>
S Maluaka Beach MMB180418	8:26	25.6	34.4	6.68	99.2	8.18	0.63	0.66	0.83	0	0	4	1	0	<input type="checkbox"/>	<input type="checkbox"/>
Oneuli MON180418	8:45	25.5	33.7	6.69	98.9	8.10	1.35	1.33	1.32	1	3	2	12	0	<input type="checkbox"/>	<input type="checkbox"/>
Makena Beach MBS180418	9:10	25.5	35.1	6.69	99.8	8.20	0.58	0.61	0.56	0	0	1	10	0	<input type="checkbox"/>	<input type="checkbox"/>
Ahihi Kinau North MAN180418															<input type="checkbox"/>	<input type="checkbox"/>
Ahihi Kinau South MAS180418															<input type="checkbox"/>	<input type="checkbox"/>

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS	
Most recent tide time (falling or rising)	Low: 10:57 pm High: 5:07 am (falling)
Moon day (from new)	3
Cloud cover (0-8)	2
Rain conditions (last 24 hrs)	
Wind direction (Trades/Kona)	Trades — SSW 66N
Streams flowing? (Y/N)	

NOTES AND COMMENTS (trends, equipment problems, errors, concerns). Use the back of the form if needed.
MAN ANY WAS LOCATIONS CLOSED OFF TO SHARKS

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.06	5.91	54.5	577
Pre-sampling	0.05	5.93	54.8	576
Post-sampling	0.06	5.90	54.7	576

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	0		
Nutrients	6	NMS	George Brunette
Bacteria	0		

Signature (Team Lead):	Printed Name:
<i>George C. Brunette</i>	GEORGE C. BRUNETTE

Team	Makena	Samplers (Last Name, 1st Initial)	WILSON, T. LUNDA, L. FRIES, S. DUNNAB, J. BURPETH, G.
Session	12		
Date	04/18/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML180418-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:00	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB180418-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON180418-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:45	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MBS180418-N-1	Makena Beach Shoreline	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN180418-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	BEACH CLOSED
MAS180418-N-1	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	DUE TO SHARKS
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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

George G. Burpeth

Printed Name:

GEORGE G. BURPETH

Team	North Kihei	Samplers (Last Name, 1st Initial)	Thun'olm, Kathy Bahr, Flo Burnette, George Riley, Renee	Meters and Probes ID		
Session	12			HQ40d: 2		2100Q: 2
Date	04/19/18			pH: 2	DO: 2	Salinity: 2

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			Waves (0-3)	Wind (0-6)	People (within 100 ft)			TSS	Nutrient duplicate
				(mg/L)	(%)							water	beach	camp		
Haycraft Park NHP180419	8:10	24.8	34.6	6.76	99.2	8.14	2.26	3.04	2.68	1-5	2	0	1	0	<input type="checkbox"/>	<input type="checkbox"/>
Kealia Pond NKP180419	8:40	24.8	35.0	6.74	98.9	8.18	2.82	3.96	2.77	1	2	0	1	0	<input type="checkbox"/>	<input type="checkbox"/>
Sugar Beach NSB180419	9:05	25.4	34.7	6.65	98.5	8.16	3.62	4.16	3.92	1	2	3	14	0	<input type="checkbox"/>	<input type="checkbox"/>
Kihei Canoe Club NKC180419	9:20	25.8	34.2	6.68	99.3	8.15	2.37	3.30	2.31	1	2	0 ²	8	0	<input type="checkbox"/>	<input type="checkbox"/>
Mai Poina Oe Iau NMP180419	9:40	25.5	33.2	6.60	97.2	8.13	3.27	3.05	3.18	1	3	0	3	0	<input type="checkbox"/>	<input type="checkbox"/>
Kalepolepo North NKN180419	10:00	25.6	30.1	6.84	99.1	8.16	10.2	11.7	11.8	1	3	0	7	0	<input type="checkbox"/>	<input type="checkbox"/>

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS	
Most recent tide time (falling or rising)	Low: 11:31 am High: 5:32 am (falling)
Moon day (from new)	4
Cloud cover (0-8)	7
Rain conditions (last 24 hrs)	Yes
Wind direction (Trades/Kona)	TRADES
Streams flowing? (Y/N)	No

NOTES AND COMMENTS (trends, equipment problems, errors, concerns). Use the back of the form if needed.
NSB - SPILLED SOME OF NUTRIENT SAMPLE

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.06	5.91	54.5	577
Pre-sampling	0.03	5.90	54.6	575
Post-sampling	0.07	5.93	54.5	575


CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	0		
Nutrients	6	NMS	GEORGE BURNETTE
Bacteria	0		

Signature (Team Lead):	Printed Name:
<i>George C. Burnette</i>	GEORGE C. BURNETTE

Team	North Kihei	Samplers (Last Name, 1st Initial) THUNHOLM, K. BARR, F. RILEY, R. BURNETT, G.
Session	12	
Date	04/19/18	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP180419-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP180419-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB180419-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC180419-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	
NMP180419-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKN180419-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:00	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):



Printed Name:

GEORGE G. BURNETT

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Wailea	Samplers (Last Name, 1st Initial)	MECOT, H WOLF, A BLWETTE, G J. JARVIE, J GLO	Meters and Probes ID		
Session	12			HQ40d: 2		2100Q: 2
Date	04/20/18			pH: 2	DO: 2	Salinity: 2

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen		pH	Turbidity (NTU)			Waves (0-3)	Wind (0-6)	People (within 100 ft)			TSS	Nutrient duplicate
				(mg/L)	(%)							water	beach	camp		
Kilohana Dr WKD180420	7:57	25.5	34.7	6.67	98.9	8.17	1.01	0.65	0.71	1	0	0	12	0	<input type="checkbox"/>	<input type="checkbox"/>
Keawakapu Beach WKB180420	8:23	25.7	35.0	6.69	99.6	8.19	0.79	0.98	0.83	1	0	2	8	0	<input type="checkbox"/>	<input type="checkbox"/>
Ulua Beach WUL180420	8:42	25.6	34.8	6.71	99.5	8.15	0.99	1.22	1.30	1	0	12	14	0	<input type="checkbox"/>	<input type="checkbox"/>
Wailea Beach WWA180420	8:55	25.6	34.7	6.71	99.8	8.19	1.02	1.13	1.01	1	0	3	17	0	<input type="checkbox"/>	<input type="checkbox"/>
Palauea WPL180420	9:30	25.7	34.7	6.68	99.6	8.18	1.04	0.95	0.92	1	0	4	4	0	<input type="checkbox"/>	<input type="checkbox"/>
Poolenalena WPO180420	9:48	26.1	34.7	6.72	100.8	8.21	0.54	0.53	0.56	1	0	5	9	0	<input type="checkbox"/>	<input type="checkbox"/>

Waves: 0ft: no waves; 1ft: small waves; 2ft: knee high; 3ft: waist high
Wind: 0: calm; 3: gentle breeze; 6: strong breeze

COASTAL AND ENVIRONMENTAL CONDITIONS	
Most recent tide time (falling or rising)	Low: 12:11 pm High: 5:55 am (falling)
Moon day (from new)	5
Cloud cover (0-8)	8
Rain conditions (last 24 hrs)	No
Wind direction (Trades/Kona)	Trade
Streams flowing? (Y/N)	N

NOTES AND COMMENTS (trends, equipment problems, errors, concerns). Use the back of the form if needed.
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TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.07	5.91	54.5	577
Pre-sampling	0.09	5.93	54.6	576
Post-sampling	0.03	5.90	54.6	575

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	0		
Nutrients	6	NMS	GEORGE BLWETTE
Bacteria	0		

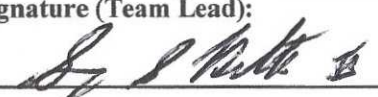
Signature (Team Lead):	Printed Name:
<i>George G. Blwette</i>	George G. Blwette

Team	Wailea	Samplers (Last Name, 1st Initial)	HECHT, A. WOLF, A. BURNETTE, G. JANVER, J.
Session	12		
Date	04/20/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD180420-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	
WKB180420-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	
WUL180420-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WWA180420-N-1	Wailea Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL180420-N-1	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO180420-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:48	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:


 GEORGE G. BURNETTE TB