

FIELD EQUIPMENT VERIFICATION (PRE/POST A WEEKLY SAMPLING)

Session No:	Verifiers:	Pre date:	Pre time:	Post Date:	Post time:
9	G. Burnett & Orono	3/5/18	9:15	3/6/18	11:00



Hui O Ka Wai Ola, 09/07/2017

QA/QC Check	Inst #	Probe #	Last Cal Date	PRE: Verification Value	POST: Verification Value	Acceptable Range (Check range)	Comments/ Notes	QA?
Temperature						± 1°C of NIST	Within 1°C	
	1	1	n/a	(Probe 1) (Probe 2) 21.2 21.3	24.4			
	1	1	n/a	21.5	24.6			
	1	2	n/a	21.5	—			
Salinity						± 3‰, blank	33.95 – 36.05	
				Sid 0.13	Probe 1/2/3/18 33.0	0.13	33.0	
	1	1		0.14	33.9	0.18	33.7	
	1	2		0.14	34.0	—	—	
Dissolved Oxygen						Post-check ± 5 % of pre-check (0-100%)	80 – 120 %	
				Sid 100%	100%			
	1	1		98.3%	98.6			
	2*	2		99.0%	—			
pH						± 3 % of calibration solution (6-8)	6.79 – 7.21	
				Sid 7.00	10.01			
	1	1	3/5/18	7.03	10.04	7.04	10.07	
	1	2	3/5/18	7.03	10.05	—	—	

QA:

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

* SWANED OUT METEN 1 AND USED METEN #2 BECAUSE METEN #1 WOULD SHUT ITSELF OFF WHEN PRESSURE RISE. AT 080 THIS 4 ON 5 TANKS AND WERE DIFFERENT PROBES.

Team	Kamaole	Samplers (Last Name, 1st Initial)	Brown, M PASSELK, S Hovano, D		Meters and Probes ID		
Session	9		BARNETT, G		HQ400d	665-2	2100Q: 1
Date	03/06/18				pH: 1	DO: 1	Salinity: 1

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		
Waipulani Park KWP180306	7:56	21.4	31.9	6.83	93.3	8.09	24.7	26.3	26.2	2	0	0	1	6	<input type="checkbox"/>	<input type="checkbox"/>
Kihel South KKS180306	8:15	23.4	32.9	4.22	87.9	8.13	7.60	7.60	7.27	1	1	1	2	0	<input type="checkbox"/>	<input type="checkbox"/>
Kalama Park KKP180306	8:33	23.5	34.6	4.79	97.2	8.16	9.08	10.2	10.5	3	1	4	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Cove Park KCP180306	8:51	24.4	33.3	6.50	93.8	8.14	2.65	3.22	3.94	1	0	20	0	1	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole I KKO180306	9:10	24.8	35.0	4.77	99.2	8.19	7.8	1.87	1.08	1	0	2	12	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole III KKI180306	9:30	24.7	34.9	6.76	99.1	8.18	1.05	1.42	1.77	0	1	10	30	6	<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: 12:34 pm High: 6:34 am (falling)
Moon day (from new)	20
Cloud cover (0-8)	1
Rain conditions (last 24 hrs)	100%
Wind direction (T Trades/Kona)	Kona, 0-6 T Trades
Streams flowing? (Y/N)	N

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

US60 HQ400d #2 due to problems with meter #1
Barnett, G. VASILEVICH

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.07	5.45	56.6	590
Pre-sampling	0.05	6.01	56.8	591
Post-sampling	0.05	5.98	56.9	591

CHAIN OF CUSTODY INFORMATION		
# of samples	Relinquished to	Contact
Sediment	0	
Nutrients	6	PM5
Bacteria	0	

Signature (Team Lead)	Printed Name:
	George G. Barnette

Team	Kamaole	Samplers (Last Name, 1st Initial)	Brown, M. Pasella, S. Holm, D. Buckner, G.
Session	9		
Date	03/06/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KW/P180306-N-1	Waipuli Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:56	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS180306-N-1	Kilhei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP180306-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP180306-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:51	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKO180306-N-1	Kamaole I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKT180306-N-1	Kamaole III	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	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 of Team Lead

Printed Name:

Coke C. Buckner TB

Team	Makena	Samplers (Last Name, 1st Initial)	Meters and Probes ID			
Session	9		HQ40d: 1	2100Q: 1		
Date	03/07/18		pH: 1	DO: 1	Salinity: 1	

Sharpe, M
~~Wetzel, J~~
 Dunning, J
 Fries, J
 Attkisson, J
 Lowder, L
 Burnett, G.

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 MML180307	8:13	23.7	35.1	6.71	96.7	8.16	1.51	2.07	1.89	1	0	0	0	0	0	0
S Maluaka Beach MMB180307	8:30	23.8	34.7	6.84	98.6	8.18	0.79	1.06	0.89	1	0	3	5	0	0	0
Oneuli MON180307	8:58	23.9	35.6	6.81	98.7	8.14	2.12	2.15	2.06	1	0	5	5	0	0	0
Makena Beach MBS180307	9:19	24.3	35.7	6.80	99.5	8.20	0.37	0.36	0.35	1	0	0	30	0	0	0
Ahiki Kinau North MAN180307	9:50	24.6	35.4	7.55	110.8	8.16	0.74	0.72	0.73	0	1	6	10	0	0	0
Ahiki Kinau South MAS180307	9:55	23.9	34.8	6.78	98.5	8.08	0.94	0.80	0.84	1	0	10	20	0	0	0

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: 1:05 pm High: 6:45 am (falling)
Moon day (from new)	21
Cloud cover (0-8)	4
Rain conditions (last 24 hrs)	0
Wind direction (Trades/Kona)	SW Trades
Streams flowing? (Y/N)	0

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

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.05	5.95	36.6	590
Pre-sampling	0.04	5.97	56.8	591
Post-sampling	0.03	5.98	56.8	591

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

Signature (Team Lead):  Printed Name: George B. Burnett

Team	Makana	Samplers (Last Name, 1st Initial)
Session	9	
Date	03/07/18	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML180307-N-1	Makana Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB180307-N-1	South Mahuaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON180307-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MBS180307-N-1	Makana Beach Shoreline	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:14	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN180307-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS180307-N-1	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:55	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):



Printed Name:

George C. Brubaker

Team	North Kihel	Samplers (Last Name, 1st Initial)	Renee Kenny Gill	Note.	Meters and Probes ID	HQ404d ID 114	21000Q: 1
Session	9				pH: 1	DO: 1	Salinity: 1
Date	03/08/18						

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 NHP180308	8:00	22.9	34.5	6.79	96.1	8.14	5.56	5.47	5.61	0	2	0	0	0
Kaula Pond NKP180308	8:30	23	35.7	6.92	98.5	8.19	0.93	1.37	1.01	1	0	0	0	0
Sugar Beach NSB180308	8:50	23.6	35.3	6.88	98.0	8.17	1.62	1.89	1.73	0	0	2	0	0
Kihel Canoe Club NKC180308	9:10	23.9	35.1	6.72	96.9	8.15	1.57	2.80	1.90	0	1	0	3	0
Mai Pointe Oe Lau NMP180308	9:22	23.3	34.0	6.71	95.8	8.13	3.60	4.21	3.75	0	1	0	2	0
Kalepepe North NKN180308	9:42	23.3	32.1	6.96	97.7	8.16	4.45	5.17	5.85	0	2	0	0	1

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: 1:45 pm High: 6:34 am (F)
Moon day (from new)	21
Cloud cover (0-8)	7
Rain conditions (last 24 hrs)	drizzle
Wind direction (Trades/Kona)	Trades
Streams flowing? (Y/N)	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	5.95	56.6	590
Pre-sampling	0.04	6.05	56.6	590
Post-sampling	0.03	6.08	56.7	591

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	Sofia
Bacteria	-	-	-

Signature (Team Lead): <i>Janae</i>	Printed Name: Janae de la Riva
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Hui O Ka Wai Oia - Sample Collection Datasheet

Team	North Kihai	Samplers (Last Name, 1st Initial)	Green, N Lively, L Thunvulm, K Chau, B
Session	9		
Date	03/08/18		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP180308-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:06	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP180308-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB180308-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC180308-N-1	Kihai Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP180308-N-1	Mai Pointa Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKN180308-N-1	Kalepopepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:47	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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Printed Name:

fduu6r

Sofia de la Cruz

Team	Wailea	Samplers (Last Name, 1st Initial)	Jarvis, J. du la Sotia, S		Meters and Probes ID
Session	9				HQ40d: 1 2100Q: 1
Date	03/09/18				pH: 1 DO: 1 Salinity: 1

Location Name Sample ID	Time	Temp (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	(%)	pH	Turbidity (NTU)	Waves (0-3)	Wind (0-6)	People (within 100 ft)				TSS	Nutrient duplicate
Kilohana Dr WKD180309	7:57	22.1	35.3	7.00	98.0	8.18	0.60	0.63	0.59	1	2	8	3	0	□
Keawakapu Beach WKB180309	8:20	22.3	34.8	6.94	97.2	8.17	0.98	1.57	1.01	1	2	8	12	0	□
Ulua Beach WUL180309	8:37	22.7	34.6	6.93	97.6	8.15	1.00	1.41	1.15	1	0	4	12	0	□
Wailea Beach WWA180309	9:13	22.8	35.3	6.93	98.3	8.18	1.07	0.98	0.81	2	4	2	17	0	□
Palaua WPL180309	9:36	22.7	35.4	6.88	97.6	8.17	1.12	1.10	1.08	2	3	0	10	0	□
Poolenalea WPO180309	10:00	23.6	35.2	6.91	99.4	8.20	0.31	0.33	0.37	3	4	1	1	0	□

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: 2:57pm High: 11:14pm, 03/08/18 (F)
Moon day (from new)	22
Cloud cover (0-8)	8
Rain conditions (last 24 hrs)	N
Wind direction (Trades/Kona)	T
Streams flowing? (Y/N)	N

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.07	5.95	56.6	590
Pre-sampling	0.05	6.00	56.8	591
Post-sampling	0.03	6.06	56.7	591

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	Sofia
Bacteria	-	-	-

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

Signature (Team Lead):	Printed Name:
Palaua	Sotia de la Sotia

Team	Wailea	Samplers (Last Name, 1st Initial) <i>David J du la fm hia</i>
Session	8	
Date	02/23/18	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD180309-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	
WKB180309-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	
WUL180309-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	
WWA180309-N-1	Wailea Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:13	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL180309-N-1	Palanea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:36	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO180309-N-1	Poolanalea	<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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature (Team Lead):

Julia Lee

Printed Name:

Sofia du la fota