

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



Session No:	Verifiers:	Pre date:	Pre time:	Post Date:	Post time:
13	L. Stomo	4/30/18	0845	05/04/18	11:30

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	22.3	21.9	19.3		± 1°C of NIST	Within 1°C	
	1	S-1	n/a		22.6		18.6				
	1	S-2	n/a		22.0						
Salinity				Std	0.13	33.0	0.13	33.0	± 3%, blank	33.95 - 36.05	
	1	1	3/19/18		0.14	33.5	0.12	33.6			
	1	2	3/19/18		0.14	33.1					
Dissolved Oxygen				Std	100%		100%		Post-check ± 5 % of pre-check (0-100%)	80 - 120 %	
	1	1	9/19/17		99.4%		98.0%				
	1	2	9/19/17		99.9%						
pH	1			Std	7.00	10.01	7.00	10.01	± 3 % of calibration solution (6-8)	6.79 - 7.21	
	1	1	4/30/18		7.03	10.07	7.06	10.10			
	1	2	4/30/18		7.03	10.07					

QA:

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

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>Quinn, A. Paele, K. S.</i> <i>Brown, M. Graves, S.</i>	Meters and Probes ID		
Session	13		HQ40d: 1		2100Q: 1
Date	05/01/2018		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		
Waipuilani Park KWP180501	7:57	23.4	32.3	6.25	88	8.07	7.23	6.72	6.83	1	1	3	8	7	<input type="checkbox"/>	<input type="checkbox"/>
Kihel South KKS180501	8:20	24.7	33.7	5.94	86.4	8.13	8.83	11.10	9.50	1	1	0	4	1	<input type="checkbox"/>	<input type="checkbox"/>
Kalama Park KKP180501	8:28	24.8	34.8	6.80	99.6	8.19	3.32	3.22	3.29	1	2	22	4	7	<input type="checkbox"/>	<input type="checkbox"/>
Cove Park KCP180501	8:54	25.1	32.9	6.82	99.4	8.17	2.52	2.41	2.05	1	0	27	2	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole I KKO180501	9:09	25.3	34.0	6.74	99.1	8.28	0.72	2.98	1.64	1	1	4	12	0	<input type="checkbox"/>	<input type="checkbox"/>
Kamaole III KKT180501	9:28	25.0	34.1	6.76	99.0	8.18	0.67	0.70	0.93	2	0	4	24	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: 10:09am High: 4:24am (F)
Moon day (from new)	16
Cloud cover (0-8)	1
Rain conditions (last 24 hrs)	0
Wind direction (Trades/Kona)	K?
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	0.04	6.06	56.6	588
Pre-sampling	0.06	6.19	56.7	589
Post-sampling	0.07	6.08	57.1	588

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	Sofia
Bacteria	-	-	-

Signature (Team Lead):

Schubert

Printed Name:

Sofia de la Sota

Team	Kamaole	Samplers (Last Name, 1st Initial)	Quinn A Brown M	Pauk S Gamer S
Session	13			
Date	05/01/2018			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
KWP180501-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:57	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS180501-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP180501-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP180501-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:54	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKO180501-N-1	Kamaole I	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:09	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKT180501-N-1	Kamaole III	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:28	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):

J. M. A. b. h.

Printed Name:

Sofia de la Sota

Team	Makena	Samplers (Last Name, 1st Initial) <i>Sharpe M Dunning, J Wilberg, T</i>	Meters and Probes ID		
Session	13		HQ40d: 1		2100Q: 1
Date	05/02/2018		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		
Makena Landing MML180502	8:15	25.1	34.8	6.64	97.8	8.18	0.97	1.03	1.20	0	0	0	4	0	<input type="checkbox"/>	<input type="checkbox"/>
S Maluaka Beach MMB180502	8:40	25.3	34.1	6.63	97.5	8.15	1.02	1.06	1.22	0	0	0	6	0	<input type="checkbox"/>	<input type="checkbox"/>
Oneuli MON180502	8:50	25.3	34.1	6.67	98.1	8.10	1.16	1.56	1.50	1	1	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Makena Beach MBS180502	9:15	25.4	35.5	6.73	100	8.19	0.69	0.92	0.71	2	1	0	2	0	<input type="checkbox"/>	<input type="checkbox"/>
Ahihi Kinau North MAN180502	9:33	26.0	35.0	7.28	109.1	8.14	1.72	1.98	1.41	1	1	0	0	0	<input type="checkbox"/>	<input type="checkbox"/>
Ahihi Kinau South MAS180502	9:40	25.8	34.4	6.50	96.7	8.08	1.63	1.55	1.78	0	1	0	8	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: 10:34am High: 4:47am (F)
Moon day (from new)	17
Cloud cover (0-8)	8
Rain conditions (last 24 hrs)	yes
Wind direction (Trades/Kona)	T, light on shore
Streams flowing? (Y/N)	N/A

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

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.07	6.06	56.6	588
Pre-sampling	0.04	6.09	57.0	587
Post-sampling	0.03	6.01	57.2	588

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

Signature (Team Lead): <i>Savaler</i>	Printed Name: <i>Sofia de la Rosa</i>
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Team	Makena	Samplers (Last Name, 1st Initial)	Sharpe, M Punning, J Widberger, T
Session	13		
Date	05/02/2018		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML180502-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB180502-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON180502-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MBS180502-N-1	Makena Beach Shoreline	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN180502-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS180502-N-1	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	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):

Paula Lee

Printed Name:

Sophia de la Sota

Team	North Kihei	Samplers (Last Name, 1st Initial) <i>Thunholm, K. Bhar, P. Riley, R. Splean, S.</i>	Meters and Probes ID		
Session	13		HQ40d: 1	2100Q: 1	
Date	05/03/2018		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		
Haycraft Park NHP180503	8:20	25.8	34.4	6.78	100.6	8.14	7.79	7.93	7.47	1	1	3	3	0	<input type="checkbox"/>	<input type="checkbox"/>
Kealia Pond NKP180503	8:55	25.6	35.6	6.69	99.6	8.18	1.08	1.15	1.41	1	3	0	2	0	<input type="checkbox"/>	<input type="checkbox"/>
Sugar Beach NSB180503	9:20	25.8	35.0	6.67	99.5	8.16	4.42	4.48	4.28	1	1	3	3	0	<input type="checkbox"/>	<input type="checkbox"/>
Kihei Canoe Club NKC180503	9:33	25.9	34.3	6.67	99.2	8.15	1.36	2.16	1.91	2	1	5	3	0	<input type="checkbox"/>	<input type="checkbox"/>
Mai Poina Oe Iau NMP180503	9:55	26.2	32.3	6.72	99.3	8.11	5.48	6.65	5.87	2	2	0	1	0	<input type="checkbox"/>	<input type="checkbox"/>
Kalepolepo North NKN180503	10:15	26.6	29.9	6.74	99.3	8.18	3.35	3.44	3.43	1	3	0	2	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: 10:34 am High: 5:07 am (F)
Moon day (from new)	18
Cloud cover (0-8)	6
Rain conditions (last 24 hrs)	0
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.

MCH1 #1 (HQ40D) turned off by itself
twice during sampling - look better?

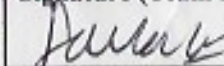
TURBIDITY VERIFICATION

	Blank	Low	Med	High
Standard	0.03	6.06	56.6	588
Pre-sampling	0.06	6.17	56.8	588
Post-sampling	0.06	5.99	57.1	587

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	Sofia
Bacteria	-	-	-

Signature (Team Lead):



Printed Name:

Sofia de la Cruz

Team	North Kihei	Samplers (Last Name, 1st Initial)	Thunholm, K Bahr, F Riley, R
Session	13		
Date	05/03/2018		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP180503-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	
NKP180503-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB180503-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC180503-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:33	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP180503-N-1	Mai Poina Oe lau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKN180503-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:15	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):

Jalla G

Printed Name:

Sofia de la G

Team	Wailea	Samplers (Last Name, 1st Initial)	Howard Wolf Jarvis	Meters and Probes ID		
Session	13			HQ40d: 1		2100Q: 1
Date	05/04/18			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		
Kilohana Dr WKD180504	8:10	25.4	35.2	6.59	97.9	8.18	0.65	0.51	0.56	0	0	0	8	0	<input type="checkbox"/>	<input type="checkbox"/>
Keawakapu Beach WKB180504	8:30	25.7	35.3	6.68	99.6	8.18	0.62	0.58	0.58	1	0	9	15	0	<input type="checkbox"/>	<input type="checkbox"/>
Ulua Beach WUL180504	8:36	25.4	34.8	6.47	96.7	8.15	1.59	2.09	1.20	1	0	5	15	0	<input type="checkbox"/>	<input type="checkbox"/>
Wailea Beach WWA180504	9:05	26.1	35.1	6.64	99.7	8.19	0.78	0.74	0.92	1	1	4	15	0	<input type="checkbox"/>	<input type="checkbox"/>
Palauea WPL180504	9:30	26.0	35.0	6.68	100.1	8.20	0.77	1.16	0.93	2	0	13	12	0	<input type="checkbox"/>	<input type="checkbox"/>
Poolenalena WPO180504	9:45	26.0	35.1	6.67	99.9	8.21	0.40	0.40	0.36	2	1	1	20	2	<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: 11:26 am High: 5:21 am (F)
Moon day (from new)	19
Cloud cover (0-8)	1
Rain conditions (last 24 hrs)	0 yes
Wind direction (Trades/Kona)	
Streams flowing? (Y/N)	No

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

TURBIDITY VERIFICATION				
	Blank	Low	Med	High
Standard	0.06	6.06	56.6	588
Pre-sampling	0.09	6.14	57.2	588
Post-sampling	0.04	6.03	57.2	587

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

Signature (Team Lead): Saulalea	Printed Name: Sofia de la Cruz
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Team	Wailea	Samplers (Last Name, 1st Initial)	Howard D Wolf A Janic J
Session	13		
Date	05/04/2018		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD180504-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB180504-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL180504-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WWA180504-N-1	Wailea Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:05	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL180504-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	
WPO180504-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:45	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):

Jana Lee

Printed Name:

Sofia de la Cruz