

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



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
SM30	M. Brown J. Strickland	4/8/19	9:05 am	M. Brown J. Strickland	4/12/19	12:00 pm

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	
					25.3°C	25.1°C	26.1°C	— °C			
	2	2	n/a		25.4		26.2				
	2	1	n/a			25.2		—			
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	
					0.13	33.4 ppt		33.4 ppt			
	2	2	2/25/19		0.11	33.6	0.11	33.6			
	2	1	2/25/19		0.11	33.5	—	—			
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
					100.6		100.9				
	2	2	10/1/18		100.2		—				
	2	1	10/1/18								
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	
					6.99	10.00	7.04	10.03			
	2	2	4/8/19		7.01	10.01	—	—			
	2	1	4/8/19								
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	
					0.04	6.43	—	—			
	1	n/a	2/8/19		0.04	6.13	0.05	6.00			
	2	n/a	2/8/19								

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

Team	Kamaole	Samplers (Last Name, 1st Initial) <i>Harry Hecht</i> <i>Scott Graves</i> <i>James Strickland</i>	Meters and Probes ID		
Session	30		HQ40d: 2	2100Q: 2	
Date	4/9/19		pH: 2	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)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Kalepolepo North NKN190409	N	7:56	24.7	33.9	6.72	97.6	8.13	1.43	1.46	1.60	0	0	0
Waipuilani Park KWP190409	N	8:24	24.2	32.3	6.45	92.2	8.05	12.0	12.3	12.9	0	4	0
Kihei South KKS190409	N	8:40	26.3	32.3	6.23	90.8	8.10	6.76	6.41	6.68	0	0	0
Kalama Park KKP190409	N	9:01	25.3	34.8	6.74	99.5	8.15	7.49	6.97	7.38	0	3	0
Cove Park KCP190409	N	9:20	25.7	31.3	7.09	103.2	8.14	2.86	3.04	3.15	2	0	0

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

none

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.13	55.7	567
Pre-sampling	0.08	6.16	55.6	567
Post-sampling	0.07	6.17	56.0	567

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	5	-	-
Nutrients	5	NMS	J. Strickland
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:


James Strickland James Strickland

Sites with streams/outflows: Kalepolepo North, Kalama Park, Cove Park

Team	Kamaole	Samplers (Last Name, 1st Initial) Harry Hach? Scott Graves James Strickland
Session	30	
Date	4/9/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN190409	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:56	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP190409	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:24	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS190409	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP190409	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:01	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP190409	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:20	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		

Signature (Team Lead): 	Printed Name: James Strickland
--	--

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

TURBIDITY VERIFICATION				
	Blank (must be <0.10)	Low	Med	High
Standard	0.07	6.13	55.7	567
Pre-sampling	0.09	6.17	55.8	568
Post-sampling	0.04	6.15	56.3	567

CHAIN OF CUSTODY INFORMATION			
	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NUS	W. Brown
Bacteria	-	-	-

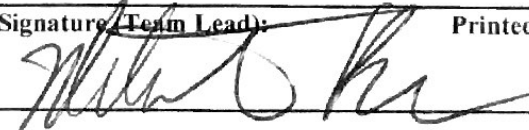
Signature (Team Lead): Mitch Brown Printed Name: Mitch Brown

Direct uncalibrated & uncalibrated 7d/18

Team	Makena	Samplers (Last Name, 1st Initial) <i>P. Sousa</i> <i>J. Danning</i> <i>S. Fries</i>
Session	30	
Date	4/10/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML190410	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB190410	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON190410	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN190410	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS190410	Ahihi-Kinau South	<input checked="" 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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

Signature/Team Lead: 	Printed Name: Mitch Brown
---	------------------------------

Team	North Kihei	Samplers (Last Name, 1st Initial) <i>M. Brown</i> <i>F. Bahn</i>	Meters and Probes ID		
Session	30		HQ40d: 2		2100Q: 2
Date	4/11/19		pH: 2	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)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Haycraft Park NHP190411		8:30	24.4	34.2	6.83	99.2	8.12	2.82	2.72	3.22	0	3	0
Kealia Pond NKP190411		8:52	24.8	35.4	6.91	101.7	8.18	1.06	.95	1.05	0	4	0
Sugar Beach NSB190411		9:18	25.2	34.9	6.88	101.5	8.15	2.52	3.69 5.45	3.93	0	7	0
Kihei Canoe Club NKC190411		9:40	26.1	34.4	6.76	101.2	8.12	1.20	1.32	1.62	1	9	0
Mai Poina Oe Iau NMP190411		9:55	25.9	32.8	6.81	100.8	8.11	2.60	2.52	2.48	0	8	0

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

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.13	55.7	567
Pre-sampling	0.05	6.16	55.8	567
Post-sampling	0.05	6.13	56.3	566

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	M. Brown
Bacteria	-	-	-

Signature (Team Lead):

Printed Name:

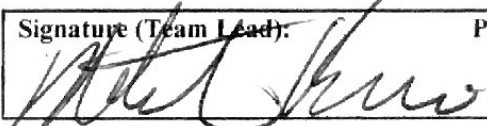
Mitch Brown

Mitch Brown

Team	1 streams/outflows:	Samplers (Last Name, 1st Initial) <i>M. Brown</i> <i>F. Baker</i>
Session	30	
Date	4/11/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NHP190411	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP190411	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:52	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB190411	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC190411	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP190411	Mai Poina Oe Iau	<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		

Signature (Team Lead): 	Printed Name: Mitch Brown
--	-------------------------------------

Team	Wailea	Samplers (Last Name, 1st Initial) <i>M. Brown</i> <i>S. D. Heater</i> <i>A. Wells</i>	J. Strickland	Meters and Probes ID		
Session	30			HQ40d: 2		2100Q: 2
Date	4/12/19			pH: 2	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)			People (within 100 ft)		
					(mg/L)	(%) 85-105 normal					water	beach	camp
Kilohana Dr WKD190412	N	8:03	25.1	35.0	6.75	99.5	8.15	0.54	0.76	0.60	0	12	2 ²
Keawakapu Beach WKB190412	N	8:26	25.3	34.8	6.87	101.3	8.12	0.86	1.29	1.33	3	24	0
Ulua Beach WUL190412	N	8:50	25.4	34.5	6.58	97.3	8.11	1.15	1.31	1.42	14	25	0
Palauea WPL190412	N	9:15	25.9	34.8	6.85	102.4	8.18	0.78	1.04	0.94	0	19	0
Poolenalena WPO190412	N	9:32	25.9	34.9	6.87	102.8	8.19	1.34	1.25	1.20	5	14	0

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

Use the back of the form if needed.

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.13	55.7	567
Pre-sampling	0.05	6.13	55.7	567
Post-sampling	0.05	6.00	56.8	568

CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	McBrown
Bacteria	-	-	-

Signature (Team Lead):

Mitch Brown

Printed Name:

Mitch Brown

Team	Wailea	Samplers (Last Name, 1st Initial) <i>J. DiAlento</i> <i>R. Wolf</i> <i>M. Brown</i> <i>J. Strickland</i>
Session	30	
Date	4/12/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD190412	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:03	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB190412	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:26	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL190412	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL190412	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO190412	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:32	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		

Signature (Team Lead): <i>M. Brown</i>	Printed Name: <i>M. Brown</i>
---	----------------------------------