

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



Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
37 <del>38</del>	M. Brown J. Strickland	9/2/19	9:05	M. Brown T. Storck	9/6/19	10:15

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	
					24.7°C	24.4 °C	24.9°C	°C			
	1	1	n/a		24.8		29.5				
	1	JS 22	n/a			24.4		—			
Salinity			3 months	Std Val	Tap water	Salin Std 6/10/19 date 33.1 ppt	Tap water	Salin Std 3/19 date 35.0 ppt	± 1 ppt	Tap water - compare pre & post values Salinity Std - compare to value on Salinity Std bottle	
	1	1	6/10/19		0.15	33.3	0.16	34.8		pre temp 22.2°C post " 24.6	9/2/19
	1	2	6/10/19		0.15	33.2	—	—		pre temp 24.0 post 25.1	9/6/19
Dissolved Oxygen			1 year	Std Val	100%		100%		± 5 %		
	1	1	10/1/19		98.1		98.9				
	1	2	10/1/19		100.9		—				
pH			3 weeks JS	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	
	1	X3	9/2/19		7.02	10.03	7.03	10.03			
	1	24 JS	9/2/19		7.04	10.00	—	—			
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	
	1	1	9/2/19		0.04	6.57	0.03	6.62			
	2	2	9/2/19		0.06	6.40	—	—			

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



Team	Kamaole	Samplers (Last Name, 1st Initial)	Scott Graves Harry Hecht Margaret Cyl Rick Cyl	Meters and Probes ID		
Session	37			HQ40d: 1	2100Q: 1	
Date	9/3/19			pH: 3	DO: 1	Salinity: 1

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 NKN190903	N	8:07	28.3	26.1	5.63	83.6	8.12	1.29	1.47	1.36	0	1	0
Waipuilani Park KWP190903	N	8:28	26.3	32.4	5.65	84.3	8.05	12.6	13.8	13.5	0	0	0
Kihei South KKS190903	N	8:50	27.8	33.0	6.05	92.6	8.11	4.65	4.94	4.85	1	5	0
Kalama Park KKP190903	N	9:10	28.0	33.6	5.71	88.0	8.11	10.3	11.1	10.9	1	2	0
Cove Park KCP190903	N	9:30	28.8	33.4	6.16	95.9	8.13	2.51	3.22	3.50	0	0	0
Mai Poina Oe Iau NMP190903	N	10:04	29.2	34.0	6.10	96.2	8.11	3.90	3.62	4.33	0	3	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	6.59	59.1	593
Pre-sampling	0.06	6.65	59.3	600
Post-sampling	0.04	6.60	59.4	599

# CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

Printed Name:

*[Signature]* Mch Brown



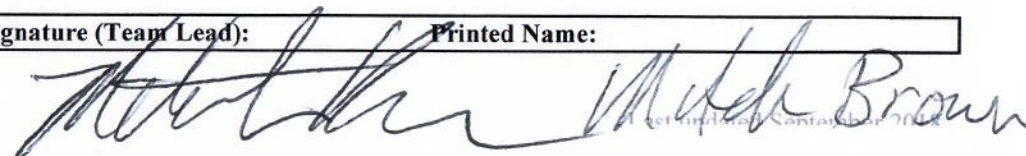
Team	Kamaole	Samplers (Last Name, 1st Initial)	S. Graves H. Hecht <del>th, Kalama Park, Cove Park</del> M. Cyr R. Cyr		
Session	37				
Date	streams/outflows: 9/3/19				

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN190903-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:02	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP190903-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:28	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS190903-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP190903-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP190903-N-1	Cove Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMP190903-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:04	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	Makena	Samplers (Last Name, 1st Initial)	SOUSA, B STRICKLAND, J SHORPE, M	Meters and Probes ID		
Session	37			HQ40d: 1		2100Q: 1
Date	9/4/19			pH: 7	DO: 1	Salinity: 1

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
Makena Landing MML190904	N	7:50	28.4	26.5	6.49	96.8	8.14	1.57	1.65	1.58	—	7	—
S Maluaka Beach MMB190904	N	8:00	28.8	35.3	6.22	98.2	8.16	0.51	0.47	0.48	—	2	—
Oneuli MON190904	N	8:39	28.7	35.3	5.59	87.8	8.06	1.47	1.71	1.60	JS 6-	—	—
Ahihi Kinau North MAN190904	N	8:59	28.5	35.0	6.59	103.0	8.12	0.68	0.92	0.71	6	—	—
Ahihi Kinau South MAS190904	N	9:16	28.7	35.2	6.55	103.0	8.19	0.69	0.88	1.02	8	5	—

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

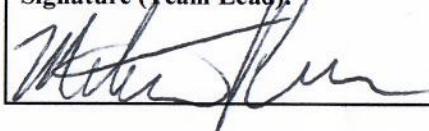
## TURBIDITY VERIFICATION

	Blank (must be <0.10)	6.57 Low	59.2 Med	600 High
Standard	0.04	<del>6.57</del>	<del>59.2</del>	<del>600</del>
Pre-sampling	0.06	6.62	59.3	599
Post-sampling	0.05	6.63	59.4	600

## CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



Printed Name:

Mitch Brown

 Sites with streams/outflows: **Makena Landing**



Team	Makena	Samplers (Last Name, 1st Initial) <i>B. Sousa</i> <i>J. Strickland</i> <i>M. Sharpe</i>
Session	37	
Date	9/4/19	

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
MML190904-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB190904-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON190904-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:39	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN190904-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:59	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS190904-N-1	Ahihi-Kinau South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:16	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

<b>Sediments</b>							
		<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:
<i>Mitch Brown</i>	Mitch Brown



Team	North Kihei	Samplers (Last Name, 1st Initial)	Riley, R Bahr, J	Strickland, J.	Meters and Probes ID		
Session	37				HQ40d: 1	2100Q: 1	
Date	9/5/19				pH: 3	DO: 1	Salinity: 1

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
Maalaea Harbor NMH190905	N	7:42	27.5	25.6	6.32	92.5	8.12	2.69	2.45	2.47	0	0	0
Maalaea Condos NMC190905	N	8:09	27.6	34.3	6.55	100.5	8.08	2.29	2.49	2.47	0	0	0
Haycraft Park NHP190905	N	8:25	27.9	35.0	6.50	100.7	8.15	3.24	3.72	3.73	4	2	0
Kealia Pond NKP190905	N	8:55	28.1	35.3	6.46	100.6	8.18	2.38	2.20	2.89	2	1	0
Sugar Beach NSB190905	N	9:15	28.7	35.2	6.39	100.5	8.14	2.58	2.64	2.72	7	4	0
Kihei Canoe Club NKC190905	N	9:30	29.0	35.1	6.36	100.4	8.17	1.66	1.79	1.57	0	5	0

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

Use the back of the form if needed.

NMH - ocean H<sub>2</sub>O splashing over sea wall (windy)  
NKC - 2 vans off - home area parking

# TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.57	59.2	600
Pre-sampling	0.06	6.62	59.3	599
Post-sampling	0.06	6.61	59.4	599

# CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	6	NMS	T. Stark
Bacteria	-	-	-

diaragor

Tiara Stark



↓ formatting issue - should have been on field datasheet

Team	North Kihei	Samplers (Last Name, 1st Initial)	Riley, R. Strickland, J. Baher, F.	Signature (Team Lead):	Printed Name:
Session	37				
Date	1 streams/outflows: 9/5/19				

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
<b>Nutrients</b>							
NMH190905-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:42	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC190905-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:09	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP190905-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:25	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP190905-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	
NSB190905-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC190905-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

<b>Sediments</b>							
		<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:
<i>[Signature]</i>	Tiara Stark



Team	Wailea	Samplers (Last Name, 1st Initial)	Allison, A Strickland, J Wolf, A	Meters and Probes ID		
Session	37			HQ40d: 1		2100Q: 1
Date	9/6/19			pH: 3	DO: 1	Salinity: 1

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 WKD190906	N	7:59	28.3	26.5	7.85	100.7	8.14	2.6	2.40	2.34	1	5	0
Keawakapu Beach WKB190906	N	8:22	28.7	35.2	6.44	101.2	8.15	1.77	1.86	2.08	2	9	0
Ulua Beach WUL190906	N	8:43	28.7	35.2	6.44	101.1	8.18	1.91	2.28	2.46	10	14	0
Palauca WPL190906	N	9:07	28.7	35.1	6.55	102.5	8.18	2.67	2.81	2.98	1	2	0
Poolenalena WPO190906	N	9:27	28.9	35.1	6.45	101.5	8.19	1.07	1.27	1.21	4	5	0

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

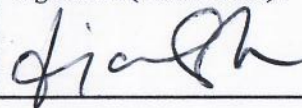
## TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.06	6.57	59.2	600
Pre-sampling	0.05	6.59	59.2	599
Post-sampling	0.03	6.62	59.3	599

## CHAIN OF CUSTODY INFORMATION

	# of samples	Relinquished to	Contact
Sediment	-	-	-
Nutrients	5	NMS	T. Stark
Bacteria	-	-	-

Signature (Team Lead):



Printed Name:

Tiara Stark

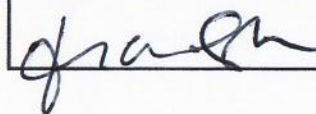


Team	Wailea	Samplers (Last Name, 1st Initial)	Allison, A. Strickland, J. Wolf, A.
Session	37		
Date	9/6/19		

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD190906-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:59	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB190906-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:22	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL190906-N-1	Ulua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:43	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL190906-N-1	Palauea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:07	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO190906-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:27	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:

Tiara Stark