

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

Session No:	Verifiers:	Pre date:	Pre time:	Post Date:	Post time:
22	Dana Reed / Cathy Maxwell	5/26/17	10:15 am	6/1/17	10:00 a.m.

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	25.7		26.1		± 1°C of NIST	Within 1°C	
	2	5-2	n/a		25.9		26.3				
			n/a								
Salinity				Std	0.04	33.3	0.04	33.3	± 3%, blank	33.95 – 36.05	
	2	2	5/8/17		0.03	33.5	0.04	33.5			
Dissolved Oxygen				Std	100%		100%		Post-check ± 5 % of pre-check (0-100%)	80 – 120 %	
	2	1	3/28/17		100.7		102.5%				
pH				Std	7.0	10.01	7.0	10.01	± 3 % of calibration solution (6-8)	6.79 – 7.21	
	2	3	5/26/17		7.00	10.00	7.01	10.00			
	2										

Notes: Are pre- and post- within one week?

- * Delay times are ok?
- * Other equipment issues?

Calibrated only 1 probe of each type this week.
Verified

Team/ Session:	Samplers (Initials):	Instrument #	Probe #s	pH	DO	Salinity	Date:	1 st Sample Time	End Sample Time:
R2R	Lead: TYF Terry S.	40d: 2	40d:	3	1	2	5/30/17	7:40	9:35
22	Notetaker: Ty	2100q: 1							

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Sat (%)	pH	Turbidity (NTU)			Waves	Wind	People			TSS ?
												Swim	Beach	Camp	
Napili Bay RNS RNS170530	7:40	25.7 ✓ 25.7 25.6	33.9	6.92	102.2	8.09	1.12	0.93	1.17	0	1	1	2	-	<input type="checkbox"/>
Pohaku RPO RPO170530	8:06	26.1 ✓ 25.9	33.1	6.82	100.9	8.13	4.13	4.08	4.38	0	0	0	3	-	<input type="checkbox"/>
Kaanapali Sh RKS RKS170530	8:23	26.0 ✓ 26.1 25.9	34.5	6.83	101.8	8.09	2.84	2.78	2.78	0	1	30	6	-	<input type="checkbox"/>
Airport Beach RAB RAB170530	8:47	26.5 ✓ 26.3	34.3	6.83	102.3	8.16	1.26	1.29	1.19	0	1	10	10	-	<input type="checkbox"/>
Canoe Beach RCB RCB170530	9:04	26.4 ✓ 26.5 26.3	33.9	6.87	102.9	8.16	5.46	4.76	4.98	0	1	0	0	-	<input type="checkbox"/>
Wahikuli RWA RWA170530	9:20	26.4 ✓ 26.5 26.2	33.8	6.78	101.4	8.16	2.77	3.33	3.21	0	1	0	0	-	<input type="checkbox"/>

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Most recent low tide time/height (Lahaina station):	High 6:31 a.m. falling; Low 12:16 p.m.
Moon Day (from new)	5/6
Cloud Cover (1-8):	0-1
Rain Conditions (last 24 hours)	0
Wind conditions (Trades? Kona?):	KONA - 0
Streams flowing? (Y/N)	N

QA Notes and Comments (Trends? Equip problems? Errors? Concerns?)

Bruce Banker observing

Waves: 0 ft = no waves; 1 ft = small waves; 2 ft = knee high; 3 ft = waist high

Wind: 0 = calm, 1 = light air, 2 = light breeze, 3 = gentle breeze, 4 = moderate breeze

People: Swimmers/Kayakers/Surfers, On beach, Campers: 0, 1-5, 5-10, 10-20, 20-40

Turbidity Verification

	Blank	Low	Med	High
Standard	0.04	5.40	56.0	608
Pre	0.05	5.34	55.8	608
Post	0.04	5.31	56.0	607

	Total # of samples	Relinquished To::	Contact
Sediment		LHS	Dana Reed
Nutrient		LHS	Dana Reed
Bacteria			

Signature (Lead):

Judy A Schroeder

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
R2R - 22	Ty, Terry	5/30/17	7:30 am	9:30 am

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
RNS170530-N-1	Napili Bay	<input checked="" type="checkbox"/>	<input type="checkbox"/>	07:45	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
RPO170530-N-1	Pokahu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08:06	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
RKS170530-N-1	Kaanapali Sh	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08:26	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
RAB170530-N-1	Airport Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	08:50	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
RCB170530-N-1	Canoe Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	09:08	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
RWA170530-N-1	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	09:26	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
RWA170530-N-2	Wahikuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>	09:26	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
Sediment							
RNS170539-S-1	Napili Bay	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
RPO170530-S-1	Pokahu	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
RKS170530-S-1	Kaanapali Sh	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
RAB170530-S-1	Airport Beach	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
RCB170530-S-1	Canoe Beach	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
RWA170530-S-1	Wahikuli	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>

REPLICATE SAMPLE PROCEDURE NEEDS TO BE INCORPORATED

Jerry G. Stroeder

Team/ Session:	Samplers (Initials):	Instrument #	Probe #s	pH	DO	Salinity	Date:	1 st Sample Time	End Sample Time:
Polanui	Lead: <i>Cathy</i>	40d: <i>2</i>	40d:	<i>3</i>	<i>1</i>	<i>2</i>	5/31/17	<i>8:15</i>	<i>10:25</i>
<i>22</i>	Notetaker: <i>Kit</i>	2100q: <i>1</i>							

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Sat (%)	pH	Turbidity (NTU)			Waves	Wind	People			TSS ?
												Swim	Beach	Camp	
505 Front St PFF PFF170531	<i>8:12</i>	<i>26.4</i>	<i>34.0</i>	<i>6.21</i>	<i>92.8</i>	<i>8.07</i>	<i>4.12</i>	<i>3.83</i>	<i>3.86</i>	<i>choppy</i>	<i>on shore</i> <i><5</i>	<i>0</i>	<i>1</i>	<i>0</i>	<input type="checkbox"/>
Lindsey Hale PLH PLH170531	<i>8:41</i>	<i>26.5</i>	<i>34.4</i>	<i>6.32</i>	<i>94.9</i>	<i>8.06</i>	<i>4.84</i>	<i>5.54</i>	<i>5.05</i>	<i>textured</i>	<i>on shore</i> <i><5</i>	<i>0</i>	<i>3</i>	<i>0</i>	<input type="checkbox"/>
Lahaina Town PLT PLT170531	<i>9:02</i>	<i>26.8</i>	<i>33.7</i>	<i>6.01</i>	<i>90.3</i>	<i>8.05</i>	<i>12.6</i>	<i>12.6</i>	<i>14.5</i>	<i>textured</i>	<i><5</i> <i>on shore</i>	<i>0</i>	<i>6</i> <i>4 surfers</i>	<i>0</i>	<input checked="" type="checkbox"/>
Puamana PPU PPU170531	<i>9:25</i>	<i>26.9</i>	<i>34.6</i>	<i>6.73</i>	<i>101.8</i>	<i>8.15</i>	<i>3.31</i>	<i>2.98</i>	<i>3.00</i>	<i>2' +</i>	<i>on shore</i> <i><5</i>	<i>0</i>	<i>0</i>	<i>0</i>	<input type="checkbox"/>
Launiupoko OLP OLP170531	<i>9:48</i>	<i>26.9</i>	<i>34.8</i>	<i>6.80</i>	<i>103.2</i>	<i>8.12</i>	<i>2.94</i>	<i>2.54</i>	<i>2.29</i>	<i><1</i>	<i>on shore</i> <i><5</i>	<i>2</i>	<i>10</i> <i>10</i>	<i>0</i>	<input type="checkbox"/>
Olowalu Pier OSF OSF170531	<i>10:10</i>	<i>27.1</i>	<i>34.7</i>	<i>7.27</i>	<i>110.5</i>	<i>8.10</i>	<i>2.29</i>	<i>2.71</i>	<i>1.93</i>	<i>textured</i>	<i>on shore</i> <i><10</i>	<i>0</i>	<i>0</i>	<i>0</i>	<input type="checkbox"/>

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Most recent low tide time/height (Lahaina station):	High 8:20 a.m. falling; Low 1:14 p.m.
Moon Day (from new)	<i>6/7</i>
Cloud Cover (1-8):	<i>0, 20%, 20%, 30%, 15%</i>
Rain Conditions (last 24 hours)	
Wind conditions (Trades? Kona?):	<i>on shore</i>
Streams flowing? (Y/N)	<i>Y</i>

QA Notes and Comments (Trends? Equip problems? Errors? Concerns?)
PFF running + sand is cut out to 1+ ft (see pic)
crustship
PLH drain is 80% sand filled (see pic) recent + King tides

Waves: 0 ft = no waves; 1 ft = small waves; 2 ft = knee high; 3 ft = waist high

Wind: 0 = calm, 1 = light air, 2 = light breeze, 3 = gentle breeze, 4 = moderate breeze

People: Swimmers/Kayakers/Surfers, On beach, Campers: 0, 1-5, 5-10, 10-20, 20-40

Turbidity Verification

	Blank	Low	Med	High
Standard	<i>0.04</i>	<i>5.40</i>	<i>56.0</i>	<i>608</i>
Pre	<i>0.05</i>	<i>5.41</i>	<i>55.9</i>	<i>607</i>
Post	<i>0.04</i>	<i>5.36</i>	<i>55.9</i>	<i>606</i>

	Total # of samples	Relinquished To::	Contact
Sediment	<i>1</i>	LHS	Dana Reed
Nutrient	<i>6</i>	LHS	Dana Reed
Bacteria			

Signature (Lead):

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
Polanui - 22	Cathy, Rich, Kit	5/31/17	8:15	10:25

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
PFF170531-N-1	505 Front St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:12	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
PLH170531-N-1	Lindsey Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:41	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
PLT170531-N-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:02	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
PPU170531-N-1	Puamana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:25	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
OLP170531-N-1	Launiupoko	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:48	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
OSF170531-N-1	Olowalu SF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10:10	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>		125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
Sediment							
PFF170531-S-1	505 Front St	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
PLH170531-S-1	Lindsey Hale	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
PLT170531-S-1	Lahaina Town	<input checked="" type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
PPU170531-S-1	Puamana	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
OLP170531-S-1	Launiupoko	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
OSF170531-S-1	Olowalu SF	<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>

Team/ Session:	Samplers (Initials):	Instrument #	Probe #s	pH	DO	Salinity	Date:	1 st Sample Time	End Sample Time:
Olowalu 22	Lead: <i>George 660</i> Notetaker: <i>DLW/660</i>	40d: 2 2100q: 1	40d:	3	1	2	6/1/17	720	9:30

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Sat (%)	pH	Turbidity (NTU)			Waves	Wind	People			TSS ?
												Swim	Beach	Camp	
Martin Hale OPM OPM170601	720	25.0	34.5	5.80	85.1	8.00	1.90	1.83	1.87	0	0	0	0	0	<input type="checkbox"/>
Camp Olowalu OCO OCO170601	745	25.8	34.6	6.45	96.1	8.09	6.00	5.96	5.59	1ft	1	0	20-40	0	<input type="checkbox"/>
Mile Marker 14 OMM OMM170601	805	26.0	34.7	5.87	87.7	8.06	3.90	4.17	4.13	1ft	1	1	-	-	<input type="checkbox"/>
Ukumehame OUB OUB170601	830	25.8	34.9	6.84	101.8	8.09	6.75	7.11	7.56	3	3	0	2	0	<input type="checkbox"/>
Papalaua Beach OPB OPB170601	850	25.9	34.8	7.01	104.5	8.15	4.43	4.36	4.47	2	3	0	0	0	<input type="checkbox"/>
Papalaua Pali OPP OPP170601	910	25.8	34.7	6.96	103.6	8.16	2.48	3.04	2.93	3	3	0	5-10	1-5	<input type="checkbox"/>

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Most recent low tide time/height (Lahaina station):	Low 4:59 a.m. rising; High 10:50 a.m.
Moon Day (from new)	7/8
Cloud Cover (1-8):	0
Rain Conditions (last 24 hours)	None
Wind conditions (Trades? Kona?):	CalM
Streams flowing? (Y/N)	N

QA Notes and Comments (Trends? Equip problems? Errors? Concerns?)

BARBARA BYRN OBSERVED

Waves: 0 ft = no waves; 1 ft = small waves; 2 ft = knee high; 3 ft = waist high

Wind: 0 = calm, 1 = light air, 2 = light breeze, 3 = gentle breeze, 4 = moderate breeze

People: Swimmers/Kayakers/Surfers, On beach, Campers: 0, 1-5, 5-10, 10-20, 20-40

Turbidity Verification

	Blank	Low	Med	High
Standard	0.04	5.40	56.0	608
Pre	0.06	5.33	55.9	608
Post	0.04	5.39	56.0	607

	Total # of samples	Relinquished To::	Contact
Sediment		LHS	Dana Reed
Nutrient		LHS	Dana Reed
Bacteria			

Signature (Lead):

Sam B. M. E.

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
Olowalu - 22		06/01/17		

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
OPM170601-N-1	Martin Hale	<input checked="" type="checkbox"/>	<input type="checkbox"/>	120	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
OCO170601-N-1	Camp Olowalu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	145	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
OMM170601-N-1	Mile Marker 14	<input checked="" type="checkbox"/>	<input type="checkbox"/>	805	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
OUB170601-N-1	Ukumehame	<input checked="" type="checkbox"/>	<input type="checkbox"/>	830	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
OPB170601-N-1	Papalaua Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	850	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
OPP170601-N-1	Papalaua Pali	<input checked="" type="checkbox"/>	<input type="checkbox"/>	910	125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>		125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input type="checkbox"/>
Sediment							
OPM170601-S-1	505 Front St	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
OCO170601-S-1	Lindsey Hale	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
OMM170601-S-1	Lahaina Town	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
OUB170601-S-1	Puamana	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
OPB170601-S-1	Launiupoko	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>
OPP170601-S-1	Olowalu SF	<input type="checkbox"/>	<input type="checkbox"/>		500		<input type="checkbox"/>