

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

Teams:	Technician:	Session No:	Pre date:	Pre time:	Post: Date:	Post time:
	Dana Reed	18	3/6/17	9:15 AM	3/9/17	10:50

QA/QC Check	Inst #	Probe #	Last Cal Date	Verification Standard		PRE: Verification Value		POST: Verification Value		Acceptable Range (Check range)	Comments/ Notes
Temperature						24.1		23.2		± 1°C of NIST	Within 1°C
*	2	2(s)	3/6/17 N/A			24.5		23.6			
	2	1(s)	N/A					23.7			
Salinity				0ppt	35ppt	~0	35	.04	33.4	± 3%, blank	33.95 – 36.05
*	2	2	3/6/17			0.04	35	0.04	33.1		25.2°C
	2	1	3/6/17			.04	34.9	0.04	33.1 31.0		Probe stabilizing slow soaked in HCl - may need to be re-cal not used in field
Dissolved Oxygen				100%		100		100		Post-check ± 5 % of pre-check (0-100%)	80 – 120 %
*	2	2	7/25/16			98.1		100.6			
	2	1	7/25/16			98.0		98.2			17 days before sensor replacement 997 hPA
pH				7	10	7.00	10.01	7.00	10.01	± 3 % of calibration solution (6-8)	6.79 – 7.21
*	2	3	3/6/17			7.00	10.02	7.02	10.02		
	2	2	3/6/17			7.00	10.02	7.06	7.02 10.01		Probe took ~5 min to stabilize - needs to be replaced.

Notes:

* Probes used in field this week

IN-SITU READINGS:

Team:	Samplers:	Instrument #	Probe #s	Date:	Start time:	Finish time:
R2R	Ty, Dana, Terry Brenda	40d: 2 2100q 1	S: 2 pH: 3 DO: 2	3/7/17	7:20 AM	9:45 AM

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Saturation (%)	pH	Turbidity ¹ (NTU)			Comments		
										Waves	Swimmers	Wind
Napili Bay RNA RNS170307	7:40 7:40	24.3 24.2 ✓	34.5	6.75	97.9	8.16	1.69	1.99	1.73	STRONG Small	⊗	1-2 BFT
Pohaku RPO RPO170307	8:03	24.2 ✓ 24.3	32.8	6.81	97.7	8.14	9.03	9.79	9.71	seaweed spray on rocks small waves	5 SUP	2-3 BFT
Kaanapali Shores RKS RKS170307	8:25	24.3 ✓ 24.2	34.6	6.82	99.1	8.15	8.15	8.58	8.47	small waves	⊕	5 KHI 2-3 BFT
Airport Beach RAB RAB170307	8:45	24.5 24.6	34.2	6.70	97.5	8.15	7.01	7.43	7.15	SMALL WAVES CALM in UZKY	⊗ SCUBA SURFERS	3 BFT
Canoe Beach RCB RCB170307	9:04	24.9 ✓ 24.8	33.7	6.69	97.6	8.17	3.92	3.70	3.89	Ulva on rocks small waves close to flat	3 SUP	0-1 BFT
Wahikuli RWA RWA170307	9:25	24.9 ✓ 24.8	32.9	6.79	98.6	8.19	1.89	2.33	2.12	small waves shore break	⊕	1-2 BFT
Turbidity Verification	Pre:	Blank:	Low: 0-10	5.68	Med: 10-100	57.8	High: 100-1000	628	Comment			
	Post:	Blank:	0-10	5.63	10-100	58.0	100-1000	629				

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Tide height 7:00 a.m. (Lahiana station) 0.7 feet, falling

Moon: 10

Cloud Cover (1-8): LIGHT 3

Wind conditions (general): 1 BFT

Rain Conditions (general): CLEAR

NO

Hui O Ka Wai Ola, 12/12/2016

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
R2R	Ty, Dana, Terry, Brenda	3/7/17	7:20	

Sample No	Location Name	Time	Vol (mL)	Nutrient Bottle?	SSC ?	Quality control notes	Grab sample?
RNS170307-N-1	Napili	7:40	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RNS170307-S-1	Napili		500		X		<input type="checkbox"/>
RPO170307-N-1	Pokahu	8:06	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RPO170307-S-1	Pokahu		500		X		<input type="checkbox"/>
RKS170307-N-1	Kaanapali Sh	8:28	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RKS170307-S-1	Kaanapali Sh		500		X		<input type="checkbox"/>
RAB170307-N-1	Airport Beach	8:47	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RAB170307-S-1	Airport Beach		500		X		<input type="checkbox"/>
RCB170307-N-1	Canoe Beach	9:07	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RCB170307-S-1	Canoe Beach		500		X		<input type="checkbox"/>
RWA170307-N-1	Wahikuli	9:30	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
RWA170307-S-1	Wahikuli		500		X		<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Ty FIDELBERG
[Signature]

Hui O Ka Wai Ola, 12/12/2016

IN-SITU READINGS:

Team:	Samplers:	Instrument #	Probe #s	Date:	Start time:	Finish time:
Polanui	Dana, Kit Jim	40d: 2 2100q 1	S: 2 pH: 3 DO: 2	3/8/17	8:19	11:20

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Saturation (%)	pH	Turbidity ¹ (NTU)	Comments			
								Waves	Swimmers	Wind	
505 Front St PFF PFF170308	8:30	24.5 ✓	34.0	6.33	91.8	8.10	1.36 1.95 2.12	flat stream flow	1 wader	✓	0
Lindsey Hale PLH PLH170308	8:59	24.6 ✓ 24.5	33.9	6.13	88.8	8.10	6.45 7.81 10.4 5.83 7.32	flat	3 kayakers	0-5	1
Lahaina Town PLT PLT170308	9:24	24.6 ✓ 24.5	34.2	6.42	93.4	8.11	3.07 3.19 2.83	flat	flat sup	✓	2
Puamana PPU PPU170308	9:54	25.3 25.2 ✓	34.5	6.93	102.1	8.20	1.80 2.24 2.50	1' waves from S.	✓	✓	2
Launiupoko OLP OLP170308	10:24	25.7 25.6	34.5	7.07	104.9	8.21	1.64 1.81 1.59	1' waves	3 waders	1-2	3
Olowalu Pier OSF OSF170308	11:00	26.0 25.9	34.5	7.35	109.4	8.13	1.69 1.71 1.60	flat	✓	✓	3
Turbidity Verification Pre:	Blank:	0.05	Low: 0-10	5.70	Med: 10-100	57.8	High: 100-1000	629	Comment		
Post:	Blank:	0.05	0-10	5.68	10-100	58.1	100-1000	627			

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Tide height 7:00 a.m. (Lahiana station) 0.7 feet falling

Moon: 11

Cloud Cover (1-8): 0-3

Wind conditions (general): calm

Rain Conditions (general): ✓

Hui O Ka Wai Ola, 12/12/2016

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
Polanui	Dana, Jim, Kit	3/8/17	8:19	11:20

Sample No	Location Name	Time	Vol (mL)	Nutrient Bottle?	SSC ?	Quality control notes	Grab sample?
PFF170308-N-1	505 Front St	8:30	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PFF170308-S-1	505 Front St		500		X		<input type="checkbox"/>
PLH170308-N-1	Lindsey Hale	8:59	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PLH170308-S-1	Lindsey Hale		500		X		<input checked="" type="checkbox"/>
PLT170308-N-1	Lahaina Town	9:24	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PLT170308-S-1	Lahaina Town		500		X		<input checked="" type="checkbox"/>
PPU170308-N-1	Puamana	9:54	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
PPU170308-S-1	Puamana		500		X		<input type="checkbox"/>
OLP170308-N-1	Launiupoko	10:24	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OLP170308-S-1	Launiupoko		500		X		<input type="checkbox"/>
OSF170308-N-1	Olowalu SF	11:00	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OSF170308-S-1	Olowalu SF		500		X		<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

poured it out (turbidity was low)

K. Hanks
3/8/17

Hui O Ka Wai Ola, 12/12/2016

OUB * over 10% NTU - collected a large bottle

IN-SITU READINGS:

Team:	Samplers:	Instrument #	Probe #s	Date:	Start time:	Finish time:
Olowalu	Michelle Giffen	40d: 2	S: 2 pH: 3	3/9/17	7:15	9:00
	John Voorhees	2100q 1	DO: 2	3/9/17	7:15 7:15	9:00

Location Name	Time	Temp (C)	Sal (ppt)	DO (mg/L)	DO Saturation (%)	pH	Turbidity ¹ (NTU)			Comments		
										Waves	Swimmers	Wind
Martin Hale OPM OPM170309	7:30	24.5	34.3	5.97	86.5	8.05	2.34	2.27	2.09	Ø	Ø	Ø 8 cld
Camp Olowalu OCO OCO170309	7:50	25.4	34.5	6.26	92.1	8.09	4.73	4.49	4.59	Ø	Kayakers	Light 8/8
Mile Marker 14 OMM OMM170309	8:05	25.4	34.4	5.83	85.8	8.06	2.37	2.39	2.38	Ø	campers 10-15 snorkelers	Light 8/8
Ukumehame OUB OUB170309	8:15	24.7	34.5	6.76	98.6	8.11	15.5	15.3	15.5	1' small	Ø	calm 8/8
Papalaua Beach OPB OPB170309	8:30	25.2	34.9	6.91	101.2	8.15	8.68	9.45	9.15	2'	Ø	calm 8/8
Papalaua Pali OPP OPP170309	8:45	25.4	34.5	6.78	100.5	8.14	6.75	7.44	6.48	1'-2'	campers 10	calm
Turbidity Verification Pre:	Blank:	.09	Low: 0-10	5.66	Med: 10-100	57.6	High: 100-1000	629	Comment			
Post:	Blank:	.05	0-10	5.68	10-100	57.9	100-1000	628				

COASTAL AND ENVIRONMENTAL CONDITION NOTES

Tide height 7:00 a.m. (Lahiana station) 0.7 feet falling

Moon: 12

Cloud Cover (1-8): 8 ovc

Wind conditions (general): CA/wm

Rain Conditions (general): Ø

* Replicate nutrient sample: Use 2 syringes & take 2 samples. Filter both into N-1 bottle. Mix sample and pour half into N-2 bottle.

Hui O Ka Wai Ola, 12/12/2016

WATER QUALITY SAMPLING:

Team:	Samplers:	Date:	Start time:	Finish time:
Olowalu	Michelle Gifford John Voorik	3/9/17	715	900

Sample No	Location Name	Time	Vol (mL)	Nutrient Bottle?	SSC ?	Quality control notes	Grab sample?
OPM170309-N-1	Martin Hale	730	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OPM170309-S-1	Martin Hale		500		X		<input type="checkbox"/>
OCO170309-N-1	Camp Olowalu	750	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OCO170309-S-1	Camp Olowalu		500		X		<input type="checkbox"/>
OMM170309-N-1	Mile Marker 14	805	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OMM170309-S-1	Mile Marker 14		500		X		<input type="checkbox"/>
OUB170309-N-1	Ukumehame	815	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OUB170309-N-2	Ukumehame		125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OUB170309-S-1	Ukumehame		500		X		<input checked="" type="checkbox"/>
OPB170309-N-1	Papalaua Beach	830	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OPB170309-S-1	Papalaua Beach		500		X		<input type="checkbox"/>
OPP170309-N-1	Papalaua Pali	845	125	X		Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	<input checked="" type="checkbox"/>
OPP170309-S-1	Papalaua Pali		500		X		<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Michelle Gifford

Hui O Ka Wai Ola, 12/12/2016