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

Session No: Verifiers: Pre date: Pre time: Post: Date: Post time:

37 Maxwell, C; Reed, D 4/2/18 9:40 4/6/18 1/-30

Callnan, L Post verifiers - Otomo, L 3, 6

NIII O Ka Wai Ola

31	C	allnan, i			7/2/18	Pes			, L 1, Markose	U,C.	
QA/QC Check	Inst#	Probe#	Last Cal Date		Verificat	tE: ion Value	Verific	OST: ation Value	Acceptable Range (Check range)	Comments/ Notes	QA
Temperature			n/a	Std	(pubis) 25.1			23)	± 1°C of NIST	Within 1°C	
	1	3	n/a	2	24	.9	24.4	:4			
	(2	n/a	DIS	25	-Z	-24.	2 o n			
Salinity			3 months	Std	0,04	Bothe 4/29/18 33.0 pot	0.04	Bothe 1/29/18 33.0 Ppt	± 3%, blank	33.95 – 36.05	
	1	3	3/12/18		0.04	33.3	0.04	33,Z ppt			
	1	2	1/8/18		0.04	33.1		5			
Dissolved Oxygen			1 year	Std	100%		100	7,	Post-check ± 5 % of pre-check (0-100%)	80 – 120 %	
	1	1	4 7 18 -3 12 18		100%	7	101.6%				
	1	2	3/11/19		99	7°4			14. 02 h		
рН			3 weeks	Std	7.00	10.01	7.00	10.01	± 3 % of calibration solution (6-8)	6.79 – 7.21	
	- 1	4	412/18		7.00	(0.01	7.02	(0.03		PRETEMP 25.1°C	
	1	3	3/12/18		7.00	(0.01					
Turbidity			4/2/18 3 months		<0.1	6.14	<0.1	6.14	Blank < 0.1 ± 3 % of secondary standard		
	3	\	1/29/18		0.06	6.13	0-05	6.14			

QA:

^{*} Are pre- and post within one week?

^{*} Delay times are ok?

^{*} Other equipment issues?

Team	R2RS	Samplers FREBERG, T, Joina Kani &.	Meters and Pro	oes ID	•	
Session	37	(Last Name, Schrider, T., Schroder M	HQ40d:		2100Q:	3
Date	4/3/18		рН: //	DO:	l	Salinity: 3

Location		Temp	Salinity	Dissolved	Oxygen	, i		Turbidity	,	Waves	Wind		People			Nutrient
Name Sample ID	Time	(°C)	(ppt)	(mg/L)	(%)	рН	* 	(NTU)		(0-3)	(0-6)	water	beach	camp	TSS	duplicate
Napili Bay RNS180403	8:20	34.8	33.0	696	102.	8.15	.96	1.02	1.34	O	0	Joseph J.	AFOR	-		
Pohaku RPO180403	8:48	24.5	328	6.65	96.7	8.18	215	223	2.30	0	D	3	8	\		
Kaanapali Sh RKS180403	9:02	24.6	33.7	6.82	99.7	8.17	8.60	8.44	80.8	0	3	0	9	ļ		
Airport Bch RAB180403	9:30	2502	33.7	6.85	101.3	8.22	1.72	1.76	1.76	P	3	divers !	10+	ł	٥	
Canoe Beach RCB180403	9:39	24.9	33.8	6.82	100.3	8.21	195	1-99	214	7	3	Divers	9			
Wahikuli RWA180403	9:54	- 24.7	33.7	681	999	8.22	.93	.85	.94	ð	4	0	7			

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: 10:56 am Lahaina Station High: 4:55 am Falling
Moon day (from new)	18
Cloud cover (0-8)	5 - 1055 as we went
Rain conditions (last 24 hrs)	Large Strons
Wind direction (Trades/Kona)	Kona-chaire totrade
Streams flowing? (Y/N)	Must be huge Rain Ver
	lack walk of a F

TURBIDITY VE	RIFICATION					
	Blank	Low	Med	High		
Standard	0.06	6.14	55.2	581		
Pre-sampling	0.10	6.08	58.3	582		
Post-sampling	0.06	6.16	55.5	582		

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

Use the back of the form if needed.

Huge Storms last right plash Flood Warring-Beautiful Colom murring grave count to comple Nepil: Pahakus Keena Puli Talked to grave count to comple Nepil: Pahakus Keena Puli Land trouble will blank readings on blank before starting Colled / talked to Cather-already did all the right things take lowest reading - used original blank bate

Pohaku-testerdey warking on moving Sald-Cleaning out

CHAIN OF CUSTODY INFORMATION									
	# of samples	Relinquished to	Contact						
Sediment	0	LHS	Dethy Maxwell						
Nutrients	6	LHS (Pothy Maxiel						
Bacteria	0		bet Marwell						

Signature (Team Lead):

Printed Name:

Cathy Maxwell

user cloudy a RAB. Cense dark douds. Fishermen. - more wind wight Kain Wahitali, windier, higher waves

Team:	Notetaker:	Last Name, 1st Initial	Date:
R2RS - 37	Schroeder.	M.	4/3/18

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
RNS180403-N-1	Napili Bay	Ø		8:20	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RPO180403-N-1	Pokahu	ď		8:42	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RKS180403-N-1	Kaanapali Sh	Ø		9:02	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RAB180403-N-1	Airport Beach	₽		9:20	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RCB180403-N-1	Canoe Beach	₽ P		9:39	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RWA180403-N-1	Wahikuli	<u> </u>		9:54	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
Sediment - TSS							
RNS180403-S-1	Napili Bay				500		
RPO180403-S-1	Pokahu				500		
RKS180403-S-1	Kaanapali Sh				500		
RAB180403-S-1	Airport Beach		0		500		
RCB180403-S-1	Canoe Beach				500		
RWA180403-S-1	Wahikuli	0			500		

Signature (Team Lead):	Print name here:
Cothrie Naxweel	Cathy Maxwell

Team Po	lanui Samplers	I IUA WEIT J	Meters and Probes ID		
Session 37	(Last Na 1st Initia		HQ40d:	2100Q:	3
Date 4/4	1/18	Harris, K	pH: 4 DO:	I	Salinity: 3

Location Name		Temp	Salinity	Dissolved	Oxygen			Turbidity		Waves	Wind	People				Nutrient
Sample ID	Time	(°C)	(ppt)	(mg/L)	(%)	PΗ		(NTU)		(0-3)	(0-6)	water	beach	camp	TSS	duplicate
505 Front St PFF180404	8:25	25.5°	<i>32.</i> 3	6.38	93.7	8.05	10.7	11.6	10.9	0	3	0	1	ß		0
Lindsey Hale PLH180404	8:45	25.5	32.5	6.26	91.9	8.09	14.9	<i>15.</i> 8	14.5	0	24	ગ્ર	2	Ø	Ø	
Lahaina Town PLT180404	9:05	25.9	<i>3</i> 3./	6.41	95,2	8.10	8.3	9.3	9.41	0	4	٥	٥	ø	Ø	
Puamana PPU180404	9:33	25.6	33.6	6.81	100.9	8,16	16.3	14.5	15.9))	6	à	Ø		
Launiupoko OLP180404	9:55	25.7	34.2	6.80	101.1	8,12	8,09	7.86	8.97)	3	۵	11	Ø		
Olowalu Pier OSF180404	10:20	26.3	34.2	6.66	100.2	8.09	5.14	4.53	4.07	0	2	6	٥	Ø		

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: 11:22 AM Lahaina Station High: 5:13 AM Lahaina Station							
Moon day (from new)	19							
Cloud cover (0-8)	. 8							
Rain conditions (last 24 hrs)	rainy							
Wind direction (Trades/Kona)	Kona							
Streams flowing? (Y/N)	У							

NOTES AND COMMENTS (trends, equipment pro Use the back of the form if needed.	oblems, errors, concerns).
PPF stream flowing	
(see pic). Running	nd by culvery
(see pic). Kunning	light +low

TURBIDITY VERIFICATION								
	Blank	Low	Med	High				
Standard	0.06	6.14	55.Z	581				
Pre-sampling	0.07	6.13	55.1	582				
Post-sampling	0.06	6.14	55.4	281				

CHAIN OF CUSTODY INFORMATION							
	# of samples	Relinquished to	Contact				
Sediment	2	D Recd	D Reed				
Nutrients	6	LHS	D Reed				
Bacteria							

Signature (Feam Lead):	Printed Na	ame:
Allen Jew	Dana	Reed

Team:	Samplers:	Date:	Start time:	Finish time:
Polanui - 37	maxwell, J	4/4/18		

Bayly, R Harris, K

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients						BOOK STATES OF STATES	
PFF180404-N-1	505 Front St	×		8:25	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
PLH180404-N-1	Lindsey Hale	R		8:45	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
PLT180404-N-1	Lahaina Town	æ		9:05	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
PPU180404-N-1	Puamana	M		9:33	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OLP180404-N-1	Launiupoko	Ø		9:55	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OSF180404-N-1	Olowalu SF	A		10:20	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
Sediment							
PFF180404-S-1	505 Front St				500		
PLH180404-S-1	Lindsey Hale	' ' '		8:45	500		
PLT180404-S-1	Lahaina Town	×		9:05	500		
PPU180404-S-1	Puamana				500	- A-	
OLP180404-S-1	Launiupoko				500		
OSF180404-S-1	Olowalu SF				500		

Signature (Tages bood).	Printed Name:
Signature (Team Lead):	Frinted Name.
Man Deal	Dana Reed

Team Olowalu	Samplers Noponen, R.	Meters and Probes ID	
Session 37	(Last Name, Otomo, L. 1st Initial)	HQ40d: / 210	0Q: 3
Date 4/5/18	Reed, D.	pH: 4 DO: 1	Salinity: 3

Location Name	4	Temp	Salinity	Dissolved	Oxygen			Turbidity		Waves	Wind		People			Nutrient
Sample ID	Time	(°C)	(ppt)	(mg/L)	(%)	рĦ		(NTU)		(0-3)	(0-6)	water	beach	camp	TSS	duplicate
Martin Hale OPM180405	0710	25,1	34.4	6.14	90.5	8.11	3.15	3,93	4.04	0	L	0	O	0		
Camp Olowalu OCO180405	0130		34.2	6,22	94.0	8,06	4.96	5.11	5.95	ţ	l	0	3	B		
Mile Marker 14 OMM180405	0742	26,4	33:7	5.52	82.7	8.03	2,50	2.67	2,38	l	Z	0	3	i		
Ukumehame OUB180405	0159	25.2	34.2	6.70	98.8	8.13	9.30	10.7	9,98	2	3	D	O	0		
Papalaua Beach OPB180405	0815	25,3	34.1	6.74	99.6	8.10	22.4	23:7	12,3	2	1	0	0	0		
Papalaua Pali OPP180405	0830	25.7	34.3	6,50	96.8	3.08	18.9	20,0	19.6	2	l	0	0	2		

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: 12:42 AM Lahaina Station High: 5:24 AM Lahaina Station			
Moon day (from new)	20			
Cloud cover (0-8)				
Rain conditions (last 24 hrs)	rain in last 24 hrs.			
Wind direction (Trades/Kona)	1. Concepted			
Streams flowing? (Y/N)	a merama to Alb			

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

Use the back of the form if needed.

slight drizzle started e Papalaua Pali

TURBIDITY VERIFICATION								
	Blank	Low	Med	High				
Standard	0.06	6-14	55,2	581				
Pre-sampling	0.05	6.16	55.2	582				
Post-sampling	0.04	6.14	55,4	581				

CHAIN OF CUSTODY INFORMATION								
	# of samples	Relinquished to	Contact					
Sediment	ϕ	LH5	D. Reed					
Nutrients	6	LHS	D. Reed					
Bacteria	ϕ							

Signature (Feam Lead):	Printed Name:	
A sun I	eal Dana	Reed

Team:	Samplers:	Date:	Start time:	Finish time:
Olowalu - 37	Noponen	4/5/18		

Homo

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
OPM180405-N-1	Martin Hale	A		7:10	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OCO180405-N-1	Camp Olowalu	N N		7:30	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OMM180405-N-1	Mile Marker 14	Ø		7:42	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OUB180405-N-1	Ukumehame	Ø		7:59	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OPB180405-N-1	Papalaua Beach	Σ}-		8:15	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
OPP180405-N-1	Papalaua Pali	区		8:30	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
Sediment							
OPM180405-S-1	Martin Hale				500		
OCO180405-S-1	Camp Olowalu				500		
OMM180405-S-1	Mile Marker 14				500		
OUB180405-S-1	Ukumehame				500		
OPB180405-S-1	Papalaua Beach				500		
OPP180405-S-1	Papalaua Pali				500		

Signature (Team Lead):	Printed Name:
Wm Seed	Dana Reed

		and the constants heet	
Team	R2RN	Samplers BANCAM, B	Meters and Probes ID
Session	37	(Last Name, STONE, A 1st Initial) HUTCHINGS, L	HQ40d: 2100Q: 3
Date	4/6/18	Huiciines, -	pH: 4 DO: 1 Salinity: 3

Location		Temp	Salinity	Dissolved	Oxygen			Turbidity		Wayes	Wind	*	People		e de la companya de l	
Name Sample ID	Time	(°C)	(ppt)	(mg/L)	(%)	рH		(NTU)		(0-3)	(0-6)	water	beach	camp	TSS	Nutrient duplicate
Honolua Bay RHL180406	7:500	23.83	34.4	6.54	929	8.19	3.22	3.10	2.94	0	0	2	2	0		٥
Fleming Nrth RFN180406	8:24	24.3	34.0	6.96	100.5	8.17	5.90	5.67	6.82	1	3	0	0	0		0
Oneloa Bay RON180406	9.05A	24.5	34.4	6.98	101.7	8.19	0.67	0.52	0.46	2	6	0	6	0	0	ם
Kapalua Bay RFS180406	9.30x	25.0	32.1	6.76	98.0	8.12	0.88	0.91	0.77	0	3	15	45	O	0	0
Ka'opala By RKO180406	9:501	25.6	34.2	6.04	89.4	8.11	3.89	3.46	3.33	0	Ī	0	Ó	0	0	٥
Kahana Vill RKV180406	401:01	25.7	33.8	6.75	99.8	8.13	1./3	1.31	1.33	0	2	0	0	0	٥	

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	2.12
Most recent tide time (falling or rising)	Low: 12:15 pm Lahaina Station High: 5:04 am Falling
Moon day (from new)	. 21
Cloud cover (0-8)	18
Rain conditions (last 24 hrs)	TY
Wind direction (Trades/Kona)	trades.
Streams flowing? (Y/N)	YRHL NRFN NRKO

NOTES AND COMMENTS (trends, equipment problems, errors, concerns).	
Use the back of the form if needed.	
light roin RHL, RPN, RON	
Ight roin RHLARPN, RON Framings - leaves in water	
tion - RFS ton - RKO, RKV car testing area wet RHL to RFS	
oun-RKO, RKV	
car testing area wet RHL to RHS	

TURBIDITY VE	RIFICATION			
	Blank	Low	Med	High
Standard	0.04	6.14	55.2	581
Pre-sampling	0.05	6,20	55.2	581
Post-sampling	0.05	6.14	55.2	581

CHAIN OF CU	STODY INFORMAT	TION	
	# of samples	Relinquished to	Contact
Sediment	0	LHS	Nothy Maxwell
Nutrients	6	LHS	Pathy Maxwell
Bacteria	0		Cothy Maxwell

Signature (Team Lead):	Printed Name:
Orbery Maxwell	Cathy Maxwell

Team:	Notetaker:	Last Name, 1st Initial	Date:
R2RN - 37	Hutchings	, L.	4/6/18

Sample No	Location Name	Sample taken?	Storm sample?	Time	Vol (mL)	Protocol notes	Comments
Nutrients							
RHL180406-N-1	Honolua Bay	Ø		7:50	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RFN180406-N-1	Fleming North	Ū.		8:30	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RON180406-N-1	Oneloa Bay	U		9:65	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RFS180406-N-1	Kapalua Bay	ď		9:30	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RKO180406-N-1	Ka'opala Bay	e		9:50	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
RKV180406-N-1	Kahana Village			10:10	125	Washed, rinsed syringes; acid washed bottles; 0.2 um filters; washed rinsed filter holders	
					125	Washed, rinsed syringes; acid washed bottles; 0.7 um filters; washed rinsed filter holders	
Sediment - TSS							
RHL180406-S-1	Honolua Bay				500		
RFN180406-S-1	Fleming North				500		
RON180406-S-1	Oneloa Bay				500		
RFS180406-S-1	Kapalua Bay				500		
RKO180406-S-1	Ka'opala Bay				500		
RKV180406-S-1	Kahana Village				500		

Signature (Team Lead):	Print name here:
atheric Maxwell	Cathy Maxwell