

Team	Kamaole	Samplers (Last Name, 1st Initial)	Cyr R Scott Gravies Cyr M Harry Techt					Meters and Probes ID					
Session	42							HQ40d: 2			2100Q: 2		
Date	12/10/19			pH: 4	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 NKN191210	N	8:07	26.1	33.5	6.30	94.1	8.14	2.86	1.59	1.13	0
Waipuilani Park KWP191210	N	8:30	25.0	33.5	6.34	92.9	8.08	13.7	12.5	18.0	0
Kihei South KKS191210	N	8:55	26.0	33.6	6.26	93.0	8.16	5.25	4.80	4.71	0
Kalama Park KKP191210	N	9:15	25.9	34.3	6.82	101.6	8.17	6.53	7.45	6.95	2
Cove Park KCP191210	N	9:30	26.3	32.3	6.32	93.6	8.10	3.10	5.17	4.63	1
Mai Poina Oe Iau NMP191210	N	9:50	26.9	33.2	6.51	98.0	8.13	2.0	3.10	4.97	5

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

Use the back of the form if needed.

KWP turbid #4 16.1

NMP turbidity #4 2.07

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.43	57.4	594	
Pre-sampling	0.07	6.41	57.2	594
Post-sampling	0.03	6.33	57.7	594

CHAIN OF CUSTODY INFORMATION

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

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



Last updated September 2018

Team	North Kihei	Samplers (Last Name, 1st Initial)	F-Lo Bahr Kathy Thunholm Deborah Ryback						Meters and Probes ID			
Session	42								HQ40d: 2		2100Q: 2	
Date	12/12/19								pH: 4	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
Maalaea Harbor NMH191212	N	7:30	26.2	35.1	6.30	94.6%	8.14	.56	.62	.50	0 0 0
Maalaea Condos NMC191212	N	7:55	26.2	34.8 ⁴	6.14	99.9%	8.05	1.58	1.65	1.76	0 2 0
Haycraft Park NHP191212	N	8:20	26.4	34.8 ^{dec}	6.60	99.4%	8.15	1.40	1.55	1.65	* 6 3 0
Kealia Pond NKP191212	N	8:40	26.6	35.4	6.81	103.2	8.18	.78	.71	.72	0 3 0
Sugar Beach NSB191212	N	9:10	26.6	35.1	6.76	102.2	8.17	1.40	1.30	1.47	2 6 0
Kihei Canoe Club NKC191212	N	9:23	27.3	34.3	6.68	103.8	8.14	1.31	1.50	1.54	1 2 0

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

Use the back of the form if needed.

* Started late - miscommunication
 NMH → extremely calm (no wind)
 NMC → reading off probes because 1ST
 mmc 191212 · Read probes because 1ST
 reading settings on bottom

NOTE: TURBIDITY READING 1.43 after several
 NKC high readings (3.50 etc.)

↳ According to log, they read 4 more times b/c thought the #'s were too

Sites with streams/outflows: Kealia Pond far apart - thought the
 original 3 readings

TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.05	6.43	57.4	594
Pre-sampling	0.06	6.43	57.2	594
Post-sampling	0.04	6.40	57.3	594

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):

dinaashaw

Printed Name:

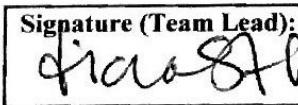
Tara Stark

Team	North Kihei	Samplers (Last Name, 1st Initial)	Flo Bahr kathy Thunholm Deborah Rybak			
Session	42					
Date	12/12/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NMH191212-N-1	Maalaea Harbor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NMC191212-N-1	Maalaea Condos	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NHP191212-N-1	Haycraft Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:20	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKP191212-N-1	Kealia Pond	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:40	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NSB191212-N-1	Sugar Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:10	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
NKC191212-N-1	Kihei Canoe Club	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:23	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	

Signature (Team Lead):


 Tiara Stark

Printed Name:

Tiara Stark

Team	Wailea	Samplers (Last Name, 1st Initial)	S. D'Alvata Allison, A Wolf, A						Meters and Probes ID				
Session	42								HQ40d: 2		2100Q: 2		
Date	12/13/19								pH: 4	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 WKD191213	N	8:18	26.4	35.4	6.81	103.1	8.17	.94	.93	.83	0	8	0
Keawakapu Beach WKB191213	N	8:38	26.8	35.4	6.71	102.0	8.16	.47	.51	.57	2	8	0
Ulua Beach WUL191213	N	8:58	21.2	35.3	6.76	103.6	8.15	0.63	.79	.73	11	8	0
Palaea WPL191213	N	9:16	26.9	35.2	6.76	103.1	8.15	0.91	.89	1.10	0	4	0
Poolenalena WPO191213	N	9:30	27.1	35.3	6.87	105.0	8.18	.39	.41	.39	2	4	1

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

Use the back of the form if needed.

rain last night
 Ulua - scuba divers near
 collection
 Poolenalena fishing line
 in water

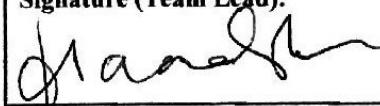
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.04	6.43	57.4	594
Pre-sampling	0.06	6.44	57.4	594
Post-sampling	0.05	6.41	57.6	593

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



Printed Name:

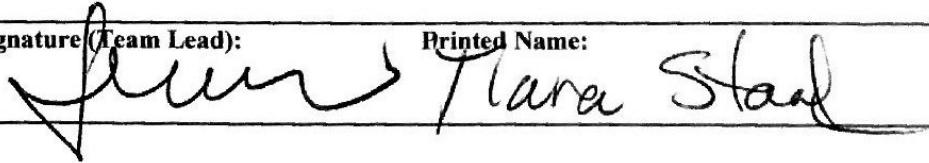
Tiara Stark

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Wailea	Samplers (Last Name, 1st Initial)	D'Altena S. A Allison A Wolfe			
Session	42					
Date	12/13/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
WKD191213-N-1	Kilohana Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:18	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WKB191213-N-1	Keawakapu Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:38	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WUL191213-N-1	Ulua Beach	<input type="checkbox"/>	<input type="checkbox"/>	8:58	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPL191213-N-1	Palauaea	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:16	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
WPO191213-N-1	Poolenalena	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:30	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: 

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

Session No:	Verifiers (pre-sampling):	Pre Date:	Pre Time:	Verifiers (post-sampling):	Post Date:	Post Time:
42	M.Brown, T.Stark	12/9/19	8:15 am	M.Brown, T.Stark	12/13/19	10:00 am

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 22.7°C	NIST 22.7°C	NIST — °C	NIST 26.0 °C	± 0.6 °C of NIST
	1	2	n/a		22.7		—		12/9 pre: 23.8°C post: 22.1°C
	2	2	n/a		22.7		25.1		12/13 pre: 22.1°C post: 22.8°C
Salinity			3 months	Std Val	Tap water 0.13	Salin Std 9/23/19 date 33.2 ppt	Tap water 0.13	Salin Std 9/23/19 date 33.2 ppt	± 1 ppt
	1	2	9/23/19		0.13	33.4	—	—	
	2	2	9/23/19		0.13	33.5	0.14	33.4	
Dissolved Oxygen			1 year	Std Val	100%		100%	± 5 %	
	1	2	10/18/19		98.6	—			
	2	2	10/18/19		102.7	102.3			
pH			3 weeks	Std Val	pH 7.00 6.99	pH 10.00	pH 7.00	pH 10.00	± 0.1 pH of pH std value
	3	2	12/9/19		7.03	10.01	—	—	task 2nd read for did not swirl for 1 min
	4	2	12/9/19		7.03	10.01	7.04	10.04	
Turbidity			3 months	Std Val	BLANK <0.1 NTU	LOW 1-10 NTU	BLANK <0.1 NTU	LOW 1-10 NTU	± 0.18 NTU Low 1-10
	1	1	n/a	12/9/19	0.04	6.73	—	—	std 1:
	2	2	n/a	12/9/19	0.04	6.44	0.05	6.41	std 2: 6.43

QA: * Are pre- and post within one week?

* Delay times are ok?

* Other equipment issues?

Team	Makena	Samplers (Last Name, 1st Initial)	SOUSA, B DUNNING, J SHARPE, M FRIES, S						Meters and Probes ID		
Session	42								HQ40d: 2	2100Q: 2	
Date	12/11/19			pH: 4	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	
Makena Landing MML191211	—	8:04	25.6	35.1	6.72	100.1	8.13	1.45	1.99	2.57	6	4	—	
S Maluaka Beach MMB191211	Ø	8:37	26.4	35.3	6.84	103.3	8.13	1.20	1.13	1.08	Ø	2	Ø	
Oneuli MON191211	—	8:56	26.4	35.4	6.83	103.4	8.13	1.98	2.77	1.18	1.17	0	4	—
Ahihi Kinau North MAN191211	—	9:22	26.1	35.1	7.14	107.3	8.11	1.62	1.97	1.66	5	4	—	
Ahihi Kinau South MAS191211	—	9:44	26.3	34.8	6.81	102.3	8.12	2.93	3.35	2.97	5	5	—	

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

Use the back of the form if needed.

* 47# Reading MON = 1.48

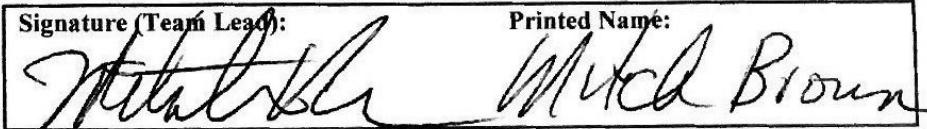
TURBIDITY VERIFICATION

	Blank (must be <0.10)	Low	Med	High
Standard	0.03	6.43	57.4	594
Pre-sampling	0.03	6.40	57.2	594
Post-sampling	0.05	6.42	57.4	594

CHAIN OF CUSTODY INFORMATION

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

Signature (Team Lead):



Printed Name:

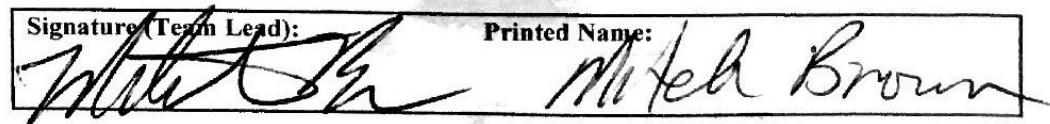
Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Makena	Samplers (Last Name, 1st Initial)	<i>Sousa B Dunning J. Shayne M Fries S</i>			
Session	42					
Date	12/11/19					

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
MML191211-N-1	Makena Landing	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MMB191211-N-1	South Maluaka Beach	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MON191211-N-1	Oneuli	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAN191211-N-1	Ahihi-Kinau North	<input checked="" type="checkbox"/>	<input type="checkbox"/>		125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
MAS191211-N-1	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:

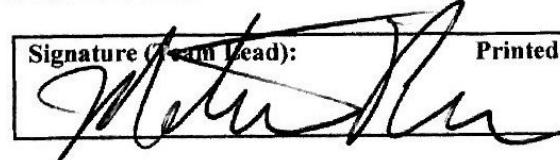
Mitch Brown

Hui O Ka Wai Ola - Sample Collection Datasheet

Team	Kamaole	Samplers (Last Name, 1st Initial)	Cyr K	graves S.
Session	42		Cyr M	Hecht H.
Date	12/10/19			

Sample ID	Location Name	Sample taken?	Storm sample?	Time	Volume	Protocol Notes	Comments
Nutrients							
NKN191210-N-1	Kalepolepo North	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:07	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KWP191210-N-1	Waipuilani Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:30	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKS191210-N-1	Kihei South	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8:55	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KKP191210-N-1	Kalama Park	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:15	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	
KCP191210-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	
NMP191210-N-1	Mai Poina Oe Iau	<input checked="" type="checkbox"/>	<input type="checkbox"/>	9:50	125 ml	Washed, rinsed syringes; acid washed bottles; 0.2 um disposable filters	

Sediments					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		
		<input type="checkbox"/>	<input type="checkbox"/>		500 ml		

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