Salmon Forever / Watershed Watch Lab/Grab Sampling Training

9/4/99

Sign-in Sheet

Volunteer Sampling:

Sample your stream for turbidity and suspended sediment during storms Record velocity and depth of streams , other fun stuff

Help document unhealthy sediment levels in your watershed

Lab Work:

Run samples , Prep filters , wash sample bottles , QC checks , run turbidities , sample sign in

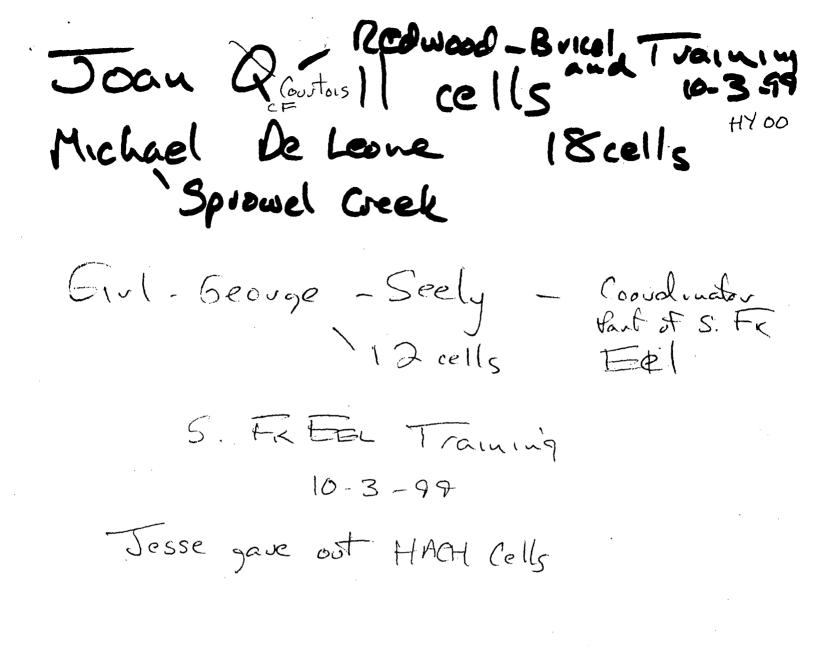
Volunteer Coordinator:

Coordinate sampling in a watershed , train volunteers , pick up samples , run turbidities

Data Entry:

Enter data sheets into databases , enter QC results , run calculations

Name	Volunteer In	iterest V	Vatershed	E-mail	Phone #	
Nathan (haney			nec5@axe.	826-2	2381
Lia r	Alcantara	OIEN		lia @leadpipe	postere.com	825-8347
Travis	Gall	Sampling		+lg25@axe.hur	boldt-	826-1086
Jeme	Noell		fis	yer ling 99 Cy	aheo.ium	839-755Z
CLARK	FENTON					826-2978
Anita Ani	dazola	· ·.		bugsouffle:ya	hor .com	822-8576
NATE!	EMRA	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	nstomb	a@{ps.h	et 269.0522
H	elen Tink	lepangh		ntin K@1	•	t1.com
V	IA BEROL	V- 0-		1	~	-444-8136 826-1963
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* Josh	UT OF VOIC	· · · · · · · · · · · · · · · · · · ·	cedars	nag @ hot ma	il.com	
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Salmon Forever / Watershed Watch

Lab/Grab Sampling Training

10/3/99

Sign-in Sheet

Volunteer Sampling:

Sample your stream for turbidity and suspended sediment during storms Record velocity and depth of streams , other fun stuff

Help document unhealthy sediment levels in your watershed

Lab Work:

Run samples , Prep filters , wash sample bottles , QC checks , run turbidities , sample sign in

Volunteer Coordinator:

Coordinate sampling in a watershed , train volunteers , pick up samples , run turbidities

Data Entry:

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Enter data sheets into databases , enter QC results , run calculations

	Name	Volunteer In	nterest	Watershe	d E-mail	Phone #	
/	Joe H	liney Se	ment	Sandlin ,	Spravel Greek	707 923	3277
	Micha	el deckan		· · · ··	ideleen pais	100, 707 9;	23 34/3
	Mar.1.	yn Hober	Ν.	Stevel VEnerx	Sprnvel Creek Ideleen Daiis	10m 707	9232413
	Cath	y Miller	١,	t		•	
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Salmon Forever / Watershed Watch

FILLD Failure Sampling Training

10/9/99 10/17/99

Sign-in Sheet

Volunteer Sampling:

Sample your stream for turbidity and suspended sediment during storms Record velocity and depth of streams , other fun stuff

Help document unhealthy sediment levels in your watershed

Lab Work:

Run samples , Prep filters , wash sample bottles , QC checks , run turbidities , sample sign in

Volunteer Coordinator:

Coordinate sampling in a watershed , train volunteers , pick up samples , run turbidities

Data Entry:

Enter data sheets into databases , enter QC results , run calculations

Watershed E-mail Volunteer Interest Phone # Name Samphinglab Jolly Giant Laper Reveile, rom 826-9258 merson iche line /lab Jolly (signit chancy-Vi@prodigy, met 826-2381 CELLOR د . Training Sign-in/excel

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Salmon Forever / Watershed Watch

Grab Sampling Training form dated 10/23/99 11-14-99 Sign-in Sheet

Volunteer Sampling:

Sample your stream for turbidity and suspended sediment during storms Record velocity and depth of streams , other fun stuff

Help document unhealthy sediment levels in your watershed

Watershed Coordinator:

Coordinate sampling in a watershed , train volunteers , pick up samples , run turbidities

	Name	Watershe	d E-mail	Phone #	Bottle	es/Cells
	JOHN+M	ARNI RAPE	- N. BUTTCRE	REEK	6	Bottles/(HACH)
		john rapf(e	+coetrini	ty. K12. Ca.U		t more bottles, cork +
		(530) 628 - 1		/		terproof forms)
	Green a.	·		2.20 % 2 7 ° 5 (3). 		Sm (
11-14-9	9 JIM C	urry for	HF 96041	30-628-	42.08	12 BOTTLES
		Stokely				6 Bettles
	99 B; 11			628-5		6 BOTTLES
		Sebring	FO 1245 HF	628-4	503	6 BOTTLES
					99 b 1 / 2 2 4 5 4 7 4 7	
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				·	· · · · · · · · · · · · · · · · · · ·	·····
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	Training Sign-in/excel					•
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Salmon Forever / Watershed Watch

Grab Sampling Training - 00

Sign-in Sheet

Volunteer Sampling:

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Sample your stream for turbidity and suspended sediment during storms Record velocity and depth of streams , other fun stuff

Help document unhealthy sediment levels in your watershed

Watershed Coordinator:

Name	Watershed	E-mail	Phone # 925-6329	Bottles/Cells
DAY	SF 22LIM	Ill creek	272-1323	27
<u></u> ,_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u>, , , , , , , , , , , , , , , , , , , </u>			
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Training Sign-in/excel				

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Salmon Forever / Watershed Watch **Grab Sampling Training** Sign-in Sheet Location Mattole Communi Date 1-29-2000 E-mail Bottles/Cells Name Watershed Phone # MurestRecht Hill CHESTURY Salmone hundrett inco 62.9-2660 li Freedly Mrc. C. Inreach. COM 639.3514 Olympia Franklin humboldtoly@hotinail.com 629-3394 629-3514 elon or y 7 (a) com 1.2 Thompson Gr. /Mattole R. 800 674 8077× 7266 ampell Thompson 629-35-00 2 Chi 1 auto ellen & Tay 1s & yahop. Cor moson 1.29-3670 notrolia @ sol.com hr 629-3429 Snider Mattole River Smider Pinreach LOM MillCr cbs@eduallac.net 629-3625 Methde R. Evensor Qige org 629.3679 DENSON Ryosha@hotmail.com 6293689 Matta

Training Sign-in 1-23-00/excel 98/cf/1-00

Salmon Forever / Watershed Watch **Grab** Sampling Training Sign-in Sheet LAB LOCATION SUNNY BRAE SEDMENT LAB 10/00 Date _ Bottles/Cells Watershed É-mail Phone # 922-3869 Name Vdg1 Qaxe hu 12 axe, humboldt, edu. 825.9190 In a Kman rino (K)Chotmai . com cedarsnag Sra 12 839-7444 UY. 0 (cm INC ٠. Training Sign-in 1-23-00/excel 98/cf/1-00

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Salmon Forever Sunny Brae Sediment Lab

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terie Inst	Sample Filter Drying and Weighing Proficiency Checklist
1949 - S Salah Salah Sal Salah Salah Sala	This checklist covers the proper procedure for Drying and Weighing Suspended Sediment Filter Samples Using a Mettler H20t Balance
Persor	checked CLARK FENTON Date 10-17-99 By CLARK FENTO
	After air-drying filters 1 hour on wire rack, placed filters in a clean pan in rows of 4 and 5 filter and heated at 105° C for 1 and 1/2 hours for sample filters and 1/2 hour for filter tares.
$\underline{\checkmark}$	Removed pan from oven and immediately placed in desiccator to cool for at least 1 hour for sample filters and 1/2 hour for filter tares before weighing.
	Zeroed balance by first full releasing scale gently and let balance settle for at least 10 seconds. Used zero knob to set zero and then return scale gently to full arrest.
$\underline{\vee}$	Zeroed balance between each weigh.
	Weighed a check weight before weighing filters and used weight every 10th weigh and record on data sheet and in Lab Check Weight book. Checked the pan for debris, and if present, gentl removed it with fine brush or compressed air.
V	Set balance gently to full release, opened dessicator, removed sample tray and transferred a ro of 4 or 5 filters to another tray. Immediately put tray with remainder of filters back into dessicator and closed door. Zeroed balance and brought balance back to full arrest.
<u> </u>	Opened the sliding door and carefully placed the filter on the center of the weighing pan and the closed the door. Determined weight to tenth of a gram with half release. Set to full release and balance stabilize for at least 10 seconds. Determined the remainder of the weight with knob and then recorded the weight on the data sheet.
$\underline{\checkmark}$	Opened the door and removed the filter. Closed the door.
A	Checked the final weight against the initial weight. The final weight should be larger. If the initial weight is larger than the final weight tried to determine where the error occurred and recorded error code on data sheet.
Comm	ents: 1st weighs of 9 standard QA filters

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Lab Technician Weigh Checks

Lab Technician weighing proficiency shall be checked with comparison of 9 filter weighs. Lab Techs. will demonstrate proficiency weighing these standard filters before weighing sample filters. These 9 filters are used every time and represent varying suspended sediment concentrations. The Standard weight will be the one done by the Lab Manager. Lab Tech. weights of filters shall be within 1% of Standard Weight. Lab Techs shall repeat filter weighs until able to weigh within 1% on all 9 filters.

Check Wt. 1.00010 1 . H . C. . Standard Weight Filter ID # 0.20294 X1265 0.16013-X1315 0.13419 X1319 0.1242 X1261 0:10702 XQC154 0.15909 X1288 0 12414 X1249 0.12161 X1283 0.11145 X1245 10 11. 111 *.* Check Weight 1.00007 -

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air 8 ministes. 055 Comments

PrCkLst Filter Wghs Std1 10-99/wd98/10-99

	This checklist covers the Susper Usi	he'proper procedu nded Sediment Fil ng a Mettler H200	cor oumproo	g and Weigh	ing
Person	checked Clark Fenton	Date	11/13/99	-By Anit	a Andazola
<u></u>	After air-drying filters 1 hour on v and heated at 105° C for 1 and 1/2				
Ver if a	Removed pan from oven and imp sample filters and 1/2 hour for filt	mediately placed i ter tares before we	n desiccator eighing.	to cool for a	t least 1 hour for
n.Varias Tana ta	Zeroed balance by first full releas Used zero knob to set zero and the	sing scale gently a en return scale ge	nd let balanc ntly to full ar	e settle for a rest.	t least 10 second
<u> </u>	Zeroed balance between each wei	igh.			· ·
144 14 F F	Weighed a check weight before w on data sheet and in Lab Check W removed it with fine brush or con	Veight book. Chec			
	Set balance gently to full release, of 4 or 5 filters to another tray. In dessicator and closed door. Zeroe	nmediately put tra	y with remain	nder of filter	s back into
V The second se	Opened the sliding door and caref closed the door. Determined weig balance stabilize for at least 10 se then recorded the weight on the d	to tenth of a gr conds. Determine	am with half	release. Set	to full release an
v .eg	Opened the door and removed the	e filter. Closed the	e door.		
2;k": '	Checked the final weight against initial weight is larger than the fin recorded error code on data sheet.	hal weight tried to	The final we determine w	here the erro	be larger. If the or occurred and
	ents:		· · ·		
Comm					1

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d. T. Lab Technician Weigh Checks

Lab Technician weighing proficiency shall be checked with comparison of 9 filter weighs. Lab Techs. will demonstrate proficiency weighing these standard filters before weighing sample filters. These same 9 filters are used every time and represent varying suspended sediment concentrations. The Standard weight will be the one done by the Lab Manager. Lab Tech. weights of filters shall be within 1% of Standard Weight. Lab Techs shall repeat filter weighs until able to weigh within 1% on all 9 filters.

· · ·	Check Wt	9		a support of the state
31.1	Filter ID #	Standard Weight	Tech. Wt.	+ - 1.0% Range
	X1265	0.20294 Grams	0.20292	0.20497 Grams 0.20091 Grams
	X1315		0.160 (0	0.16173 Grams 0.15853 Grams
	X1319	· · · · ·	0.13435	0.13553 Grams 0.13285 Grams
1 74 25 - 5	, X1261 Johnson der Steinen Littlick auchtenen	0.12421 Grams	0.12436	0.12545 Grams 0.12297 Grams
, .		a a bizz por se angle	the second s	0.10809 Grams 0.10595 Grams
	X1288	0.15909 Grams	0 159 60	0.16068 Grams 0.15750 Grams
ad		0.12414 Grams	0.12424	0.12538 Grams 0.12290 Grams
	X1283	0.12161 Grams	0.12167	0.12283 Grams 0.12039 Grams
	X1245 ₃₀ - Special and Research and the second second	0.11145 Grams _{1 10}	- Zillefen Bulliefen der Sternet,	0.11257 Grams 0.11033 Grams
	Check Weight	<u>0008</u> .,	Acceptable?	yes
	<u>.</u>		, <u>.</u> .	1

Comments_

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PrCkLst Std Fltr Weigh 10-99/wd98/10-99

Sample Filter Drving and Weighing Proficiency Checklist

This checklist covers the proper procedure for Drying and Weighing Suspended Sediment Filter Samples Using a Mettler H20t Balance

Person checked ANITA ANDAZOLA Date 11-13-99 By C. FENTON

- After air-drying filters 1 hour on wire rack. placed filters in a clean pan in rows of 4 and 5 filters and heated at 105° C for 1 and 1/2 hours for sample filters and 1/2 hour for filter tares.
 - Removed pan from oven and immediately placed in desiccator to cool for at least 1 hour for sample filters and 1.2 hour for filter tares before weighing.
- Zeroed balance by first fullyreleasing scale gently, and let balance settle for at least 10 seconds. Used zero knob to set zero and then return^escale gently to full arrest.
 - Zeroed balance between each weigh.
 - Weighed a check weight before weighing filters, and used'weight every 10th weigh and recorded on data sheet and in Lab Check Weight book. Checked the pan for debris, and if present, gently removed it with fine brush or compressed air.

check

continued

- Set balance gently to full release, opened dessicator, removed sample tray and transferred a row of 4 or 5 filters to another tray. Immediately put tray with remainder of filters back into dessicator and closed door. Zeroed balance and brought balance back to full arrest.
- ✓ Opened the sliding door and carefully placed the filter on the center of the weighing pan and then closed the door. Determined weight to tenth of a gram with half release. Set to full release and let balance stabilize for at least 10 seconds. Determined the remainder of the weight with knob and then recorded the weight on the data sheet.
- \underline{V} Opened the door and removed the filter. Closed the door.
- \underline{V} Checked the final weight against the initial weight. The final weight should be larger. If the initial weight is larger than the final weight tried to determine where the error occurred and recorded error code on data sheet.

Comments:

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POLESSIES Weigh 10-99 wob8 10-99

Lab Technician Weigh Checks

Lab Technician weighing proficiency shall be checked with comparison of 9 filter weighs. Lab Techs. will demonstrate proficiency weighing these standard filters before weighing sample filters. These same 9 filters are used every time and represent varying suspended sediment concentrations. The Standard weight will be the one done by the Lab Manager. Lab Tech. weights of filters shall be within 1% of Standard Weight. Lab Techs shall repeat filter weighs until able to weigh within 1% on all 9 filters.

Check WL 1.00007

Filter ID #	Standard Weight	Tech. WL	+ - 1.0% Range
- X1265	0.20294 Grams	0.20310	0.20497 Grams 0.20091 Grams
X1315	0.16013 Grams	0.16021	0.16173 Grams 0.15853 Grams
- X1319	0.13419 Grams	0.13433	0.13553 Grams 0.13 285 Grams
- X1261	0.12421 Grams	0.12431	0.12545 Grams 0.12297 Grams
XQC154	0.10702 Grams	0.10711	0.10809 Grams 0.10595 Grams
X1288	0.1 <i>5</i> 909 Grams	0.15948	0.16068 Grams 0.15750 Grams
- X1249	0.12414 Grams	0.12410	0.12538 Grams 0.12290 Grams
-X1283	0.12161 Grams	0.12163	0.12283 Grams 0.12039 Grams
- X1245	0.11145 Grams	0.11/48	0.11257 Grams 0.11033 Grams
Check Weight _/. 00	007	Acceptable?	ks

Comments_

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Sample Filter Drying and Weighing Proficiency Checklist

This checklist covers the proper procedure for Drying and Weighing Suspended Sediment Filter Samples Using a Mettler H20t Balance Person checked Vaula Rhule Date 1-22-00 By (lark After air-drying filters 1 hour on wire rack, placed filters in a clean pan in rows of 4 and 5 filters and heated at 105° C for 1 and 1/2 hours for sample filters and 1/2 hour for filter tares. Removed pan from oven and immediately placed in desiccator to cool for at least 1 hour for sample filters and 1/2 hour for filter tares before weighing. Zeroed balance by first full releasing scale gently and let balance settle for at least 10 seconds. Used zero knob to set zero and then return scale gently to full arrest. Zeroed balance between each weigh. Weighed a check weight before weighing filters and used weight every 10th weigh and recorded on data sheet and in Lab Check Weight book. Checked the pan for debris, and if present, gently removed it with fine brush or compressed air. Set balance gently to full release, opened dessicator, removed sample tray and transferred a row of 4 or 5 filters to another tray. Immediately put tray with remainder of filters back into dessicator and closed door. Zeroed balance and brought balance back to full arrest. Opened the sliding door and carefully placed the filter on the center of the weighing pan and then closed the door. Determined weight to tenth of a gram with half release. Set to full release and let balance stabilize for at least 10 seconds. Determined the remainder of the weight with knob and then recorded the weight on the data sheet. Opened the door and removed the filter. Closed the door. Checked the final weight against the initial weight. The final weight should be larger. If the initial weight is larger than the final weight tried to determine where the error occurred and recorded error code on data sheet.

Comments:

POLLS 511 For Weigh 11-99 wo98 11-99

continued

Lab Technician Weigh Checks

Lab Technician weighing proficiency shall be checked with comparison of 9 filter weighs. Lab Techs. will demonstrate proficiency weighing these standard filters before weighing sample filters. These same 9 filters are used every time and represent varying suspended sediment concentrations. The Standard weight will be the one done by the Lab Manager. Lab Tech. weights of filters shall be within 1% of Standard Weight. Lab Techs shall repeat filter weighs until able to weigh within 1% on all 9 filters.

Check WL 1. 00009 Filter ID # Standard Weight Tech. Wt. + - 1.0% Range 0.20357X1265 0.20294 Grams 0.20497 Grams 0.20091 Grams 0.16122 0.16-6- RL X1315 0.16013 Grams 0.16173 Grams 0.15853 Grams 0.13506 0.13419 Grams 0.13553 Grams X1319 0.13285 Grams 0.12504 0.12421 Grams 0.12545 Grams X1261 e 0.12297 Grams 0.10768 XQC154 0.10702 Grams 0.10809 Grams 0.10595 Grams 0.16038 0.15909 Grams 0.16068 Grams X1288 0.15750 Grams 0.12462 0.12414 Grams 0.12538 Grams X1249 0.12290 Grams 0.12213 · X1283 0.12161 Grams 0.12283 Grams 0.12039 Grams 0.112 14 • X1245 0.11145 Grams 0.11257 Grams 0.11033 Grams Check Weight 1.00004 Acceptable?

possible -22 - 00 Comments 68% 12 a6 el Protina Sud Fir Weige 10-99 wol98 10-99

Sample Filter Drying and Weighing Proficiency Checklist

This checklist covers the proper procedure for Drying and Weighing Suspended Sediment Filter Samples Using a Mettler H20t Balance

Person checked Michelle Huberson Date 1-03-00 By CLARK FEUTAN

After air-drying filters 1 hour on wire rack, placed filters in a clean pan in rows of 4 and 5 filters and heated at 105° C for 1 and 1.2 hours for sample filters and 1/2 hour for filter tares.

- Removed pan from oven and immediately placed in desiccator to cool for at least 1 hour for sample filters and 1/2 hour for filter tares before weighing.
- Zeroed balance by first full releasing scale gently and let balance settle for at least 10 seconds. Used zero knob to set zero and then return scale gently to full arrest.
 - Zeroed balance between each weigh.
 - Weighed a check weight before weighing filters and used weight every 10th weigh and recorded on data sheet and in Lab Check Weight book. Checked the pan for debris, and if present, gently removed it with fine brush or compressed air.
 - Set balance gently to full release. opened dessicator. removed sample tray and transferred a row of 4 or 5 filters to another tray. Immediately put tray with remainder of filters back into dessicator and closed door. Zeroed balance and brought balance back to full arrest.
 - Opened the sliding door and carefully placed the filter on the center of the weighing pan and then closed the door. Determined weight to tenth of a gram with half release. Set to full release and let balance stabilize for at least 10 seconds. Determined the remainder of the weight with knob and then recorded the weight on the data sheet.
 - Opened the door and removed the filter. Closed the door.
 - Checked the final weight against the initial weight. The final weight should be larger. If the initial weight is larger than the final weight tried to determine where the error occurred and recorded error code on data sheet.

Comments:

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Lab Technician Weigh Checks

Lab Technician weighing proficiency shall be checked with comparison of 9 filter weighs. Lab Techs. will demonstrate proficiency weighing these standard filters before weighing sample filters. These same 9 filters are used every time and represent varying suspended sediment concentrations. The Standard weight will be the one done by the Lab Manager. Lab Tech. weights of filters shall be within 1% of Standard Weight. Lab Techs shall repeat filter weights until able to weigh within 1% on all 9 filters.

Check WL 1, 00007

Filter ID #	Standard Weight	Tech. Wt.	+ - 1.0% Range
X1265	0.20294 Grams	0.20360	0.20497 Grams 0.20091 Grams
X1315	0.16013 Grams	0,145990	0.16173 Grams 0.15853 Grams
X1319	0.13419 Grams	0.13505	0.13553 Grams 0.13285 Grams
X1261	0.12421 Grams	0.12500	0.12545 Grams 0.12297 Grams
XQC154	0.10702 Grams	0.0756	0.10809 Grams 0.10595 Grams
X1288	0.1 <i>5</i> 909 Grams	0.16021	0.16068 Grams 0.15750 Grams
X1249	0.12414 Grams	0.12456	0.12538 Grams 0.12290 Grams
X1283	0.12161 Grams	0.12217	0.12283 Grams 0.12039 Grams
X1245	0.11145 Grams	0.11197	0.11257 Grams 0.11033 Grams
Check Weight	<u></u>	Acceptable?	1.00006

Comments_

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Sample Filter Drying and Weighing Proficiency Checklist

This checklist covers the proper procedure for Drying and Weighing Suspended Sediment Filter Samples Using a Mettler H20t Balance

Krs. KRAY Date 5-18-00 By C. FENTOJ Person checked

- After air-drying filters 1 hour on wire rack, placed filters in a clean pan in rows of 4 and 5 filters and heated at 105° C for 1 and 1/2 hours for sample filters and 1/2 hour for filter tares.
- Removed pan from oven and immediately placed in desiccator to cool for at least 1 hour for sample filters and 1/2 hour for filter tares before weighing.
- Zeroed balance by first full releasing scale gently and let balance settle for at least 10 seconds. Used zero knob to set zero and then return scale gently to full arrest.
- Zeroed balance between each weigh.
- Weighed a check weight before weighing filters and used weight every 10th weigh and recorded on data sheet and in Lab Check Weight book. Checked the pan for debris, and if present, gently removed it with fine brush or compressed air.
- Set balance gently to full release, opened dessicator, removed sample tray and transferred a row of 4 or 5 filters to another tray. Immediately put tray with remainder of filters back into dessicator and closed door. Zeroed balance and brought balance back to full arrest.
- Opened the sliding door and carefully placed the filter on the center of the weighing pan and then closed the door. Determined weight to tenth of a gram with half release. Set to full release and let balance stabilize for at least 10 seconds. Determined the remainder of the weight with knob and then recorded the weight on the data sheet.
- Opened the door and removed the filter. Closed the door.
 - Checked the final weight against the initial weight. The final weight should be larger. If the initial weight is larger than the final weight tried to determine where the error occurred and recorded error code on data sheet.

Comments:

Lab Technician Weigh Checks

Lab Technician weighing proficiency shall be checked with comparison of 9 filter weighs. Lab Techs. will demonstrate proficiency weighing these standard filters before weighing sample filters. These same 9 filters are used every time and represent varying suspended sediment concentrations. The Standard weight will be the one done by the Lab Manager. Lab Tech. weights of filters shall be within 1% of Standard Weight. Lab Techs shall repeat filter weighs until able to weigh within 1% on all 9 filters.

Check Wr. 1.00005

Filter ID #	Standard Weight	Tech. WL	+ - 1.0% Range
X1265	0.20294 Grams	0.20304	0.20497 Grams 0.20091 Grams
X1315	0.16013 Grams	0.16032	0.16173 Grams 0.15853 Grams
X1319	0.13419 Grams	0.134 56	0.13553 Grams 0.13285 Grams
X1261	0.12421 Grams	0.12453	0.12545 Grams 0.12297 Grams
XQC154	0.10702 Grams	0.10735	0.10809 Grams 0.10595 Grams
X1288	0.15909 Grams	0.15990	0.16068 Grams 0.15750 Grams
X1249	0.12414 Grams	0.12422	0.12538 Grams 0.12290 Grams
X1283	0.12161 Grams	0.12189	0.12283 Grams 0.12039 Grams
X1245	0.11145 Grams	0.1116.5	0.11257 Grams 0.11033 Grams
Check Weight 1. C	2000 <u>8</u>	Acceptable?	yes
Comments 60	od Club =	Jal	

PrOxLat Stal Flur Weight 10-99 web98 10-99

Sample Filter Drying and Weighing Proficiency Checklist

This checklist covers the proper procedure for Drying and Weighing Suspended Sediment Filter Samples Using a Mettler H20t Balance

Person checked Neil Mock Date 5-31-00 By C. TENTON

- After air-drying filters 1 hour on wire rack. placed filters in a clean pan in rows of 4 and 5 filters and heated at 105° C for 1 and 1/2 hours for sample filters and 1/2 hour for filter tares.
- Removed pan from oven and immediately placed in desiccator to cool for at least 1 hour for sample filters and 1.2 hour for filter tares before weighing.
- Zeroed balance by first full releasing scale gently and let balance settle for at least 10 seconds. Used zero knob to set zero and then return scale gently to full arrest.
- Zeroed balance between each weigh.
- Weighed a check weight before weighing filters and used weight every 10th weigh and recorded on data sheet and in Lab Check Weight book. Checked the pan for debris, and if present, gently removed it with fine brush or compressed air.
- Set balance gently to full release, opened dessicator, removed sample tray and transferred a row of 4 or 5 filters to another tray. Immediately put tray with remainder of filters back into dessicator and closed door. Zeroed balance and brought balance back to full arrest.
- Opened the sliding door and carefully placed the filter on the center of the weighing pan and then closed the door. Determined weight to tenth of a gram with half release. Set to full release and let balance stabilize for at least 10 seconds. Determined the remainder of the weight with knob and then recorded the weight on the data sheet.
- Opened the door and removed the filter. Closed the door.
- Checked the final weight against the initial weight. The final weight should be larger. If the initial weight is larger than the final weight tried to determine where the error occurred and recorded error code on data sheet.

Comments:

Lab Technician Weigh Checks

Lab Technician weighing proficiency shall be checked with comparison of 9 filter weighs. Lab Techs. will demonstrate proficiency weighing these standard filters before weighing sample filters. These same 9 filters are used every time and represent varying suspended sediment concentrations. The Standard weight will be the one done by the Lab Manager. Lab Tech. weights of filters shall be within 1% of Standard Weight. Lab Techs shall repeat filter weighs until able to weigh within 1% on all 9 filters.

Check WL 1.00004 Standard Weight Tech. WL Filter ID # 0.20285 · X1265 0.20294 Grams 0.16013 Grams 0.16016 · X1315 0.13445 · X1319 0.13419 Grams · X1261 0.12421 Grams 0.12444 0.10732 0.10702 Grams XQC154 • X1288 0.15909 Grams 0.15970 0.12415 · X1249

 · X1249
 0.12414 Grams
 0.12415
 0.12538 Grams

 · X1283
 0.12161 Grams
 0.12188
 0.12283 Grams

 · X1245
 0.11145 Grams
 0.11179
 0.11257 Grams

 · X1245
 0.11145 Grams
 0.11179
 0.11257 Grams

Check Weight 1.00005

Acceptable?

+ - 1.0% Range

0.20497 Grams

0.20091 Grams

0.16173 Grams

0.15853 Grams

0.13553 Grams

0.13285 Grams

0.12545 Grams

0.12297 Grams

0.10809 Grams

0.10595 Grams

0.16068 Grams 0.15750 Grams

Comments

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Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified Paula Rhude Date 9-9-97 By Clark Fentor

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing

If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter

Waited 3 seconds for air bubbles to rise before pressing read button

 $\underline{\ }$ Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

 $\underline{\smile}$ Shook sample bottle vigorously until no sediment is stuck to the bottom

Poured shaken sample bottle water into HACH cell as soon as possible

----Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E7 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

____Poured sample water in tared beaker and record as " original volume"

 $_$ Added appropriate dilution volume and recorded as "1[#] dilution volume total" and ran turbidity

Continued dilutions until turbidity read and calculate actual turbidity

For small dilutions poured sample water in beaker into HACH cell as soon as possible

____ Stirred large dilutions with spoon and dipped HACH cell into beaker

___Ran HACH cell in HACH 2100P Turbidimeter per protocol

_____Éither poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

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Comments

Certlabt/wd98/1-99

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Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified Michelle Anderson Date 10-30-99 By CLARK FENTON

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing

If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter

Waited 2 seconds for air bubbles to rise before pressing read button

____Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

- _____Shook sample bottle vigorously until no sediment is stuck to the bottom
- ____Poured shaken sample bottle water into HACH cell as soon as possible
- _____Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E3 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

- ____Poured sample water in tared beaker and record as " original volume"
- Added appropriate dilution volumes and recorded as "1st dilution volume total" and ran turbidity
- _____ Continued dilutions until turbidity read and calculate actual turbidity
- For small dilutions poured sample water from beaker into HACH cell as soon as possible
- _____Stirred large dilutions with spoon and dipped HACH cell into beaker
- Ran HACH cell in HACH 2100P Turbidimeter per protocol
- Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Comments	JEC	10-27-99	16:00	Sample	J J J	

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Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified Clark Fenton Date 11/13/99 By Anita Andazola

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label

- V Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter
- \checkmark Waited \clubsuit seconds for air bubbles to rise before pressing read button

 \checkmark Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

Shook sample bottle vigorously until no sediment is stuck to the bottom

 $\sqrt{}$ Poured shaken sample bottle water into HACH cell as soon as possible

 $\sqrt{1}$ Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E3 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

- ____Poured sample water in tared beaker and record as " original volume"
- $\sqrt{1}$ Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity
- $\underline{\checkmark}$ Continued dilutions until turbidity read and calculate actual turbidity
- $\underline{\checkmark}$ For small dilutions poured sample water from beaker into HACH cell as soon as possible
- $\sqrt{}$ Stirred large dilutions with spoon and dipped HACH cell into beaker
- ____ Ran HACH cell in HACH 2100P Turbidimeter per protocol

<u>*V*</u>Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Comments

anita Andarpla

Certlabt/wd98/1-99

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Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified <u>HNITA ANDAZOLA</u> Date <u>11-13-99</u> By <u>CLARK</u> FENTON Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label

- Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter
- \bigvee Waited \Im seconds for air bubbles to rise before pressing read button
- <u>Kecorded</u> turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

- _____Shook sample bottle vigorously until no sediment is stuck to the bottom
- Poured shaken sample bottle water into HACH cell as soon as possible
- Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E3 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

- _____Poured sample water in tared beaker and record as " original volume"
- _____ Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity
- Continued dilutions until turbidity read and calculate actual turbidity
- For small dilutions poured sample water from beaker into HACH cell as soon as possible
- ____Stirred large dilutions with spoon and dipped HACH cell into beaker
- Ran HACH cell in HACH 2100P Turbidimeter per protocol

Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Comments

Certlabt/wd98/1-99

HY 2000

Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified JESSE NDel Date 11-16-99 By C. Feuton

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing

If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter

_____Waited 2 seconds for air bubbles to rise before pressing read button

 $\underline{\checkmark}$ Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

_____Shook sample bottle vigorously until no sediment is stuck to the bottom

____Poured shaken sample bottle water into HACH cell as soon as possible

_____Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E7 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

_____Poured sample water in tared beaker and record as " original volume"

Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity

____ Continued dilutions until turbidity read and calculate actual turbidity

For small dilutions poured sample water from beaker into HACH cell as soon as possible

Stirred large dilutions with spoon and dipped HACH cell into beaker

Ran HACH cell in HACH 2100P Turbidimeter per protocol

Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Comments

PrCkLst Turb, 10-99/wd98/cf/10-99

HY 2000

Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified	Gemino	Holpen	2000 Date 1-4-94	C.F. By CLARK	LOTCET
Person certified	Suge	NOIPIN	Date $\underline{(-)}$	By <u>Contex</u>	

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing

If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

____Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label

Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter

 \bigvee Waited 3 seconds for air bubbles to rise before pressing read button

Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

____Shook sample bottle vigorously until no sediment is stuck to the bottom

____Poured shaken sample bottle water into HACH cell as soon as possible

_____Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E7 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

Poured sample water in tared beaker and record as "original volume"

_____ Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity

_____ Continued dilutions until turbidity read and calculate actual turbidity

_____For small dilutions poured sample water in beaker into HACH cell as soon as possible

____Stirred large dilutions with spoon and dipped HACH cell into beaker

_____Ran HACH cell in HACH 2100P Turbidimeter per protocol

Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Comments

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Certlabt/wd98/1-99

Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

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Person certified	Joyce	King	Date 1 - 16 - 00	By CLARKTENTON
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Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing

If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter

Waited 3 seconds for air bubbles to rise before pressing read button

____Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

Shook sample bottle vigorously until no sediment is stuck to the bottom

____Poured shaken sample bottle water into HACH cell as soon as possible

Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E7 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

____Poured sample water in tared beaker and record as " original volume"

Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity

Continued dilutions until turbidity read and calculate actual turbidity

____For small dilutions poured sample water in beaker into HACH cell as soon as possible

____Stirred large dilutions with spoon and dipped HACH cell into beaker

Ran HACH cell in HACH 2100P Turbidimeter per protocol

Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Boll Co 1-15-00 Comments 21:05

Salmon Forever / Sunny Brae Sediment Lab Turbidity Sample Processing Proficiency

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Sampler EMELIA BEROL Date 2-28-00 Certified By CLARK FENTON

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

<u>Y</u>Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label

- Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter
- V Waited 2 seconds for air bubbles to rise before pressing read button

 \underline{V} Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

Shook sample bottle vigorously until no sediment is stuck to the bottom

▶ Poured shaken sample bottle water into HACH cell as soon as possible

Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E3 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data. See directions in SOP

- _____Poured sample water in tared beaker and record as " original volume"
- _____Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity
- _____ Continued dilutions until turbidity read and calculate actual turbidity
- ____For small dilutions poured sample water from beaker into HACH cell as soon as possible
- _____Stirred large dilutions with spoon and dipped HACH cell into beaker
- Ran HACH cell in HACH 2100P Turbidimeter per protocol
- Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Comments

PrCkLst Turb, 10-99/wd98/cf/10-99

Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified Gabe ZINGARO Date 3-1-00 By C. FENTON

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing

If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

 $\frac{1}{2}$ Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell

label aligned with bar on case of HACH 2100P Turbidimeter

Waited 3 seconds for air bubbles to rise before pressing read button

Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

Shook sample bottle vigorously until no sediment is stuck to the bottom

Poured shaken sample bottle water into HACH cell as soon as possible

Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E7 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

Poured sample water in tared beaker and record as " original volume"

____ Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity

____ Continued dilutions until turbidity read and calculate actual turbidity

___For small dilutions poured sample water in beaker into HACH cell as soon as possible

Stirred large dilutions with spoon and dipped HACH cell into beaker

_Ran HACH cell in HACH 2100P Turbidimeter per protocol

Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Sign-Ins 2 3-1-00 Comments

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Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified Katherine Blackman Date 3-18-00 By C.F.

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing

If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label

Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter

Waited 3 seconds for air bubbles to rise before pressing read button

_____Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

____Shook sample bottle vigorously until no sediment is stuck to the bottom

____Poured shaken sample bottle water into HACH cell as soon as possible

_____Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E7 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

____Poured sample water in tared beaker and record as " original volume"

_____Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity

Continued dilutions until turbidity read and calculate actual turbidity

_____For small dilutions poured sample water in beaker into HACH cell as soon as possible

· . ..

_____Stirred large dilutions with spoon and dipped HACH cell into beaker

____Ran HACH cell in HACH 2100P Turbidimeter per protocol

Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

Clark Sect

Comments

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Salmon Forever / Sunny Brae Sediment Lab Turbidity Sample Processing Proficiency

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

VETTE GARCIA Date 1-3-00 Certified By CLARK FENFOJ

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter

 \bigvee Waited 2 seconds for air bubbles to rise before pressing read button

<u>Recorded</u> turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

____Shook sample bottle vigorously until no sediment is stuck to the bottom

Poured shaken sample bottle water into HACH cell as soon as possible

Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E3 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data. See directions in SOP

- _____Poured sample water in tared beaker and record as "original volume"
- _____ Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity
- _____ Continued dilutions until turbidity read and calculate actual turbidity
- ____For small dilutions poured sample water from beaker into HACH cell as soon as possible
- _____Stirred large dilutions with spoon and dipped HACH cell into beaker
- Ran HACH cell in HACH 2100P Turbidimeter per protocol

Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

KRW 3-12-00.... Comments

PrCkLst Turb, 10-99/wd98/cf/10-99

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Salmon Forever / Sunny Brae Sediment Lab Turbidity Sample Processing Proficiency

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Sampler Josh Israel Date 4-5-00 Certified By CLARK FENTON

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label
Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell
label aligned with bar on case of HACH 2100P Turbidimeter

Waited 2 seconds for air bubbles to rise before pressing read button

Use this protocol for samples in bottles other than HACH cells

___Shook sample bottle vigorously until no sediment is stuck to the bottom

Poured shaken sample bottle water into HACH cell as soon as possible

_____Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E3 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data. See directions in SOP

- _____Poured sample water in tared beaker and record as " original volume"
- _____Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity
- _____ Continued dilutions until turbidity read and calculate actual turbidity
- ____For small dilutions poured sample water from beaker into HACH cell as soon as possible
- _____Stirred large dilutions with spoon and dipped HACH cell into beaker
- ____Ran HACH cell in HACH 2100P Turbidimeter per protocol

__Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

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PrCkLst Turb, 10-99/wd98/cf/10-99

Turbidity Sample Processing Certification

This checklist outlines the proper procedures for determining the turbidity of several different types of sample containers with the HACH 2100P Turbidimeter

Person certified Barbara Weisdue Mer 4-5-00 By CLARK TENTON

Turbidity is to be run on all samples as soon as possible and recorded on sign-in sheet and data sheet Turbidities are recorded and samples are placed back in order for ssc processing

If proceeding directly afterwards to SSC processing, weigh the total sample bottle weight before running turbidity

Use this protocol for running sample HACH cells in the HACH 2100P Turbidimeter

Put 1 drop of silicone on HACH cell and wiped with black cloth, did not wipe off sample label Shook HACH cell for at least 5 seconds and then inserted HACH cell with white diamond point of cell label aligned with bar on case of HACH 2100P Turbidimeter

Waited 3 seconds for air bubbles to rise before pressing read button

Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

____Shook sample bottle vigorously until no sediment is stuck to the bottom

____Poured shaken sample bottle water into HACH cell as soon as possible

_____Filled HACH cell up to white label line and ran and recorded turbidity per protocol

If HACH 2100P turbidimeter reading is a flashing E7 or 1000+ then dilute the sample to get actual turbidity Use NTU Dilution sheet to record and calculate dilution data

____Poured sample water in tared beaker and record as " original volume"

Added appropriate dilution volume and recorded as "1st dilution volume total" and ran turbidity

Continued dilutions until turbidity read and calculate actual turbidity

For small dilutions poured sample water in beaker into HACH cell as soon as possible

Stirred large dilutions with spoon and dipped HACH cell into beaker

Ran HACH cell in HACH 2100P Turbidimeter per protocol

Either poured HACH cell water back into sample bottle or proceeded to SSC processing with HACH cell and remainder of sample

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Comments

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Suspended Sediment Sample Processing Certification

This checklist covers the proper procedure for processing suspended sediment samples.

Person certified Michelle Anderson Date 10-30-99 By C. Fenton

Filled out headings properly on appropriate suspended sediment concentration data sheet

Examined sample identification and matched with sign in sheet – recorded any identification discrepancies and transferred sample info to data sheet

Weighed and recorded Total bottle weight to the nearest 0.1 of a gram on data sheet

Wrote down starting filter # on data sheet and QC filters & subsequent filters for that sample

vacuum

Wet filter with distilled water and checked for holes

Poured sample without shaking first into funnel

Washed sample cap into funnel

Washed interior and outer neck of sample container into funnel

Washed any sediment from sides of funnel down onto filter

 $\underline{\checkmark}$ Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter

Vicked off organics

Allowed at least an hour for all filters to air dry on rack before putting on tray

 $_$ Put tray into 105 ° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples

Weighed empty bottle and cap and recorded Tare Bottle weight on data sheet

Used common sense and safe procedures

Put red mark on sign in sheet next to completed sample

Comments Strongs Crk 2-6-98 #2 ssclabcert/cf/wd6/1-99

HY2000

Salmon Forever Sunny Brae Sediment Lab

Suspended Sediment Sample Processing Certification

This checklist covers the proper procedure to process suspended sediment samples

Person certified ANITA ANDAZOLA Date 11-13-99 By CLARK FENTON
Filled out headings properly on appropriate suspended sediment concentration data sheet
Examined sample identification and matched with sign in sheet – recorded any identification discrepancies and recorded info on data sheet
$\underbrace{\bigvee}$ Weighed and recorded Total bottle weight with cap on to the nearest 0.1 of a gram on data sheet
Checked volume mark on bottle and responded appropriately
Wrote down QC filter # and sample filter #'s on data sheet
 Handled filters with forceps and placed filter fuzzy side down on glass support and turn on vacuum Wet filter with distilled water and checked for holes Clamped on glass funnel Poured sample without shaking first into funnel Washed sample cap into funnel Washed interior and outer neck of sample container into funnel Washed any sediment from sides of funnel down onto filter Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter Turned off vacuum and transferred filter to drying rack to dry
Weighed empty bottle and cap and recorded Tare Bottle weight to nearest 0.1 gram
\leq Allowed filters to air dry on rack at least one hour before putting on tray
\sim Put filters into 105 ° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples
Followed SSC Protocol and recorded appropriate Quality Codes
Put red mark on sign in sheet next to completed sample
Used common sense and safe procedures
Comments
Plank Fait
ssclabcert/cf/wd6/1-99

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Salmon Forever Sunny Brae Sediment Lab

Suspended Sediment Sample Processing Certification

This checklist covers the proper procedure to process suspended sediment samples

Person certified Clark Fenton Date 11/13/99 By Anita Andazola
/ Filled out headings properly on appropriate suspended sediment concentration data sheet
Examined sample identification and matched with sign in sheet – recorded any identification discrepancies and recorded info on data sheet
<u>\checkmark</u> Weighed and recorded Total bottle weight with cap on to the nearest 0.1 of a gram on data sheet
\checkmark Checked volume mark on bottle and responded appropriately
\checkmark Wrote down QC filter # and sample filter #'s on data sheet
 Handled filters with forceps and placed filter fuzzy side down on glass support and turn on vacuum Wet filter with distilled water and checked for holes Clamped on glass funnel Poured sample without shaking first into funnel Washed sample cap into funnel Washed interior and outer neck of sample container into funnel Washed any sediment from sides of funnel down onto filter Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter Turned off vacuum and transferred filter to drying rack to dry
<u>V</u> Weighed empty bottle and cap and recorded Tare Bottle weight to nearest 0.1 gram
$- \frac{1}{2}$ Allowed filters to air dry on rack at least one hour before putting on tray
<u>\vee</u> Put filters into 105 ° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples
Put red mark on sign in sheet next to completed sample
Used common sense and safe procedures
Comments
ssclabcert/cf/wd6/1-99

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Salmon Forever Sunny Brae Sediment Lab

This checklist covers the proper procedure for processing suspended sediment samples.

Person certified Lasla Rhude Date 12-12-99 By (. Fordo $\underline{\checkmark}$ Examined sample identification and matched with sign in sheet – recorded any identification discrepancies and transferred sample info to data sheet Weighed and recorded Total bottle weight to the nearest 0.1 of a gram on data sheet UWrote down starting filter # on data sheet and QC filters & subsequent filters for that sample Handled filters with forceps and placed filter fuzzy side down on glass support and turn on vacuum \checkmark Wet filter with distilled water and checked for holes \checkmark Poured sample without shaking first into funnel \underline{V} Washed sample cap into funnel Washed interior and outer neck of sample container into funnel V Washed any sediment from sides of funnel down onto filter \mathcal{V} Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter \underline{V} Allowed at least an hour for all filters to air dry on rack before putting on tray \checkmark Put tray into 105 ° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples \checkmark Weighed empty bottle and cap and recorded Tare Bottle weight on data sheet **V** Recorded appropriate Quality Codes \checkmark Used common sense and safe procedures \checkmark Put red mark on sign in sheet next to completed sample Data Shpet 12-2-99 Comments PrCkLst SSC 10-99/cf/wd98/10-99

Salmon Forever Sunny Brae Sediment Lab

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Suspended Sediment Sample Processing Certification

This checklist covers the proper procedure for processing suspended sediment samples.

Person certified JESSE NOEL Date 2-18-00 By C. FENTON

_____ Filled out headings properly on appropriate suspended sediment concentration data sheet

- Examined sample identification and matched with sign in sheet recorded any identification discrepancies and transferred sample info to data sheet
- Weighed and recorded Total bottle weight to the nearest 0.1 of a gram on data sheet
- Wrote down starting filter # on data sheet and QC filters & subsequent filters for that sample
- <u>Handled filters with forceps and placed filter fuzzy side down on glass support and turn on</u> vacuum
- _____ Wet filter with distilled water and checked for holes
- ____ Clamped on glass funnel
- ____ Poured sample without shaking first into funnel
- ____ Washed sample cap into funnel
- ____ Washed interior and outer neck of sample container into funnel
- ____ Washed any sediment from sides of funnel down onto filter
- ____ Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter
- _____ Turned off vacuum and transferred filter to drying rack.
- _____ Allowed at least an hour for all filters to air dry on rack before putting on tray
- ____ Put tray into 105° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples
- ____ Weighed empty bottle and cap and recorded Tare Bottle weight on data sheet
- ____ Recorded appropriate Quality Codes
- ____ Used common sense and safe procedures
- ____ Put red mark on sign in sheet next to completed sample

Comments _____ ssclabcert/cf/wd6/1-99

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Salmon Forever Sunny Brae Sediment Lab

Suspended Sediment Sample Processing Certification
This checklist covers the proper procedure for processing suspended sediment samples.
Person certified GABE ZINGARD Date 3-4-00 By CLARK FEDTON
\swarrow Filled out headings properly on appropriate suspended sediment concentration data sheet
Examined sample identification and matched with sign in sheet – recorded any identification discrepancies and transferred sample info to data sheet
Weighed and recorded Total bottle weight to the nearest 0.1 of a gram on data sheet $QC F_{ILT} \in C$ $T_{ILT} \in C$ Wrote down starting filter # on data sheet and QC filters & subsequent filters for that sample
<u>Handled filters with forceps and placed filter fuzzy side down on glass support and turn on</u> vacuum
\sim Wet filter with distilled water and checked for holes
Clamped on glass funnel
Poured sample without shaking first into funnel
<u> </u>
Washed interior and outer neck of sample container into funnel
Washed any sediment from sides of funnel down onto filter
\checkmark Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter
Turned off vacuum and transferred filter to drying rack.
- Allowed at least an hour for all filters to air dry on rack before putting on tray
Put tray into 105° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples
\checkmark Weighed empty bottle and cap and recorded Tare Bottle weight on data sheet
Recorded appropriate Quality Codes
Used common sense and safe procedures
Comments SFE SAMPLES 1-25-20 ssclabcert/cf/wd6/1-99

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Salmon Forever Sunny Brae Sediment Lab

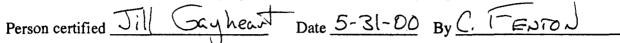
Suspended Sediment Sample Processing Certification
This checklist covers the proper procedure for processing suspended sediment samples.
Person certified Hauriet Hill Date 4-23-00 By CLARK FENTON
$\stackrel{\smile}{\rightharpoonup}$ Filled out headings properly on appropriate suspended sediment concentration data sheet
Examined sample identification and matched with sign in sheet – recorded any identification discrepancies and transferred sample info to data sheet
Weighed and recorded Total bottle weight to the nearest 0.1 of a gram on data sheet
Vrote down starting filter # on data sheet and QC filters & subsequent filters for that sample
✓ Handled filters with forceps and placed filter fuzzy side down on glass support and turn on vacuum
\checkmark Wet filter with distilled water and checked for holes
Poured sample without shaking first into funnel
Washed sample cap into funnel
Washed interior and outer neck of sample container into funnel
V Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter
Allowed at least an hour for all filters to air dry on rack before putting on tray
\sim Put tray into 105 ° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples
Weighed empty bottle and cap and recorded Tare Bottle weight on data sheet
<u> Recorded appropriate Quality Codes</u>
Used common sense and safe procedures
Put red mark on sign in sheet next to completed sample Comments Clay Check Samples. Ran W/C-F. Plake Just
Plate Dart
PrCkLst SSC 10-99/cf/wd98/10-99

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Salmon Forever Sunny Brae Sediment Lab

Suspended Sediment Sample Processing Certification

This checklist covers the proper procedure for processing suspended sediment samples.



- X Filled out headings properly on appropriate suspended sediment concentration data sheet
- Examined sample identification and matched with sign in sheet recorded any identification discrepancies and transferred sample info to data sheet
- \times Weighed and recorded Total bottle weight to the nearest 0.1 of a gram on data sheet
- \times Wrote down starting filter # on data sheet and QC filters & subsequent filters for that sample
- \times Handled filters with forceps and placed filter fuzzy side down on glass support and turn on vacuum
- \underline{X} Wet filter with distilled water and checked for holes
- $\cancel{1}$ Poured sample without shaking first into funnel
- \times Washed sample cap into funnel
- \times Washed interior and outer neck of sample container into funnel
- \mathbf{X} Washed any sediment from sides of funnel down onto filter
- \underline{X} Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter
- _____ Allowed at least an hour for all filters to air dry on rack before putting on tray
- ____ Put tray into 105 ° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples
- ____ Weighed empty bottle and cap and recorded Tare Bottle weight on data sheet
- ____ Recorded appropriate Quality Codes
- _____ Used common sense and safe procedures
- ____ Put red mark on sign in sheet next to completed sample

Comments _

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Salmon Forever Sunny Brae Sediment Lab

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Suspended Sediment Sample Processing Certification This checklist covers the proper procedure for processing suspended sediment samples.
Person certified LISA GAGNON Date 6-8-00 By C. FENTON
Example content of the set of the
Examined sample identification and matched with sign in sheet – recorded any identification discrepancies and transferred sample info to data sheet
Weighed and recorded Total bottle weight to the nearest 0.1 of a gram on data sheet
<u>V</u> Wrote down starting filter # on data sheet and QC filters & subsequent filters for that sample
Handled filters with forceps and placed filter fuzzy side down on glass support and turn on vacuum
\checkmark Wet filter with distilled water and checked for holes
<u> Poured sample without shaking first into funnel</u>
<u></u> Washed sample cap into funnel
V Washed interior and outer neck of sample container into funnel
\checkmark Washed any sediment from sides of funnel down onto filter
\checkmark Unclamped funnel with vacuum on and rinsed any sediment on bottom of funnel onto filter
\checkmark Allowed at least an hour for all filters to air dry on rack before putting on tray
Put tray into 105 ° C oven to dry for at least 0.5 hour for tare filters and 1.5 hours for samples
\checkmark Weighed empty bottle and cap and recorded Tare Bottle weight on data sheet
<u><i>r</i></u> Recorded appropriate Quality Codes
Used common sense and safe procedures
Put red mark on sign in sheet next to completed sample
Comments DUMP 20 FTR Clark Jet

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Salmon Forever / Sunny Brae Sediment Lab Discharge Measurement Proficiency

THE OL CONTRACTOR REPORTED

This checklist outlines the proper procedures for collecting data with a Price AA or a Pygmy current meter for determining the discharge of creeks and streams and recording pertinent information.

A set of the set of the

enton Date 2-41-00 Certified By Jene Whell art Sampler

Setting Up:

Х

 \underline{X} Be aware of never wading deeper than your waist. Always have a partner nearby. Look out for debris coming downstream. Rope up in PAST WATER

_____ Current Meter, Headphones, Top Set Rod, Data Sheet, Stopwatch, Measuring Tape, Spikes

 \underline{X} Tried to measure discharge on the falling limb of the hydrograph or with flow at a steady stage Selected a stream reach optimally with:

1. A straight reach, with a uniform depth and as rectangular of a channel morphology as possible,

2. A streambed free of large rocks, weeds, and obstructions which would create turbulence.

3. A site with an existing cross section and stable stream bottom. Call the decision of the with a

Set up a tape measure extending behind the left bank to beyond the right bank: Second Second

Determined and recorded on the data sheet the points on the tape measure of the Right-edge-of Water (REW) and LEW looking downstream. A set of the tape of the rest of the res

_____ Determined and recorded on the data sheet the dead right-edge-of Water (DREW) and DLEW. This can also be called zero velocity right and zero velocity left.

en para de la francese de la parte de la presenta de la contra de la contra de la contra de la contra de la pre La para de la contra de la para de

 \times Determined spacing of the subsections or cells. Start measurements half the width of a cell from zero velocity edge of water.

 \sum Used appropriate meter and method for conditions (440, -440, -400, -260, -360, -400, -260,

X Checked spin duration. 1.25 MINUTES

Taking Measurements:

 \underline{X} Stood holding top set rod in a position that least affected the velocity of water passing the meter. Held the wading rod at the tag line (tape measure line) stood 1 to 3 inches downstream of the tag line and 12 or more inches from the wading rod.

and the among the states of

Read depth of water on hex rod correctly.

____ Counted revolutions made by meter in 40 to 70 second increments, usually just over 40 seconds.

_ Started stopwatch simultaneously with the end of the first click, starting counting with zero.

	If the stage is rising or falling rapidly, switched to 20-second measurements at 3-foot spacing.
Bridge	Use: A-55 Sounding Reel and Crane: The Columbus weight was lowered until the horizontal fins are level with the water surface,
ere Xite	The A-55 depth-measuring reel was zeroed out and the weight is lowered until it touches bottom
	The depth of water was read off the reel and a chart is consulted for the proper depth of the current ght is raised to the proper depth and velocity measurements begin.
to de la com	ing Data: The name of stream and exact location, any rebar point and/or photopoint. The name of stream and exact location, any rebar point and/or photopoint. The name of stream and exact location, any rebar point and/or photopoint. Who did the measurements?
	The date, type of meter suspension (top set rod or crane); and meter id #. do and the comment
<u> </u>	The distance points on the tape measure of the REW and LEW.
	The distance points of DREW (dead right edge of water) and DLEW or zero velocity.
	investigation of the second of the design of the strugger of the second second second where the first of the se The distance point on the tape measure of each measurement. Second second second second second second second sec
<u> </u>	Starting and finishing time of the measurement with <i>Policy</i> tables to observe source source the end of the measurement with <i>Policy</i> tables to observe the end of the source of the end of
<u>X</u> beginnin	Recorded stage heights from a staff plate and corresponding times when staff plates are read (at ag and end of measurement). Also record any electronic stage levels at the same time.
$\frac{X}{\text{beginnin}}$	Recorded velocity measurement time to the nearest tenth of a second and number of revolutions.
$\frac{X}{\log(nn)}$	Recorded velocity measurement time to the nearest tenth of a second and number of revolutions. Recorded velocity measurement time to the nearest tenth of a second and number of revolutions.
$\frac{X}{\sqrt{\lambda}}$	Recorded velocity measurement time to the nearest tenth of a second and number of revolutions.
$\frac{X}{MA}$	 A state depiction of the device exception of the large particle is the end of the device and the recorded stage heights from a staff plate and corresponding times when staff plates are read (at any and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement method (0.6 depth from bottom position or others). A state a state and the device a state and corresponding times when staff plates are read (at a state a stat
$\frac{X}{\lambda}$	Cleaned meter after each day's use.
$\frac{X}{\lambda}$	 A state depiction of the device exception of the large particle is the end of the device and the recorded stage heights from a staff plate and corresponding times when staff plates are read (at any and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement). Also record any electronic stage levels at the same time. A state and end of measurement method (0.6 depth from bottom position or others). A state a state and the device a state and corresponding times when staff plates are read (at a state a stat
$\frac{X}{\sqrt{\frac{1}{2}}}$	Cleaned meter after each day's use.
$\frac{X}{X}$	The spin duration check results. Whether it was a rising or falling stage. DiSCHARCEE $af 11257$ $2-14-00$ $MemerMMet 2$
X beginnin X X X MA it. it. X Commer Commer PrCkLatDischar	$\frac{1}{12} \frac{1}{12} \frac$

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Stopped the stopwatch at the end of a click after in least 40 second-

gue and the second factor of Sunny Brae Sediment Lab Discharge Measurement Proficiency

Bridge Use: A 33 Sounding Red and Crane:

This checklist outlines the proper procedures for collecting data with a Price AA or a Pygmy current meter for determining the discharge of creeks and streams and motion and the discharge of creeks and streams and recording pertinent information.

be Lather Date Sale 200 Certified By CATCK FESTOR neron inveno si Sampler of

Setting Up:

Recording Linter

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Be aware of never wading deeper than your waist. Always have a partner nearby. Look out for debris coming downstream.

_ Current Meter, Headphones, Top Set Rod, Data Sheet, Stopwatch, Measuring Tape, Spikes

Tried to measure discharge on/the falling limb of the hydrograph or with flow at a steady stage Selected a stream reach optimally with:

1. A straight reach, with a uniform depth and as rectangular of a channel morphology as possible.

2. A streambed free of large rocks, weeds, and obstructions which would create turbulence.

3. A site with an existing cross section and stable stream bottom. 1940 (1946) (1946) (1947)

Set up a tape measure extending behind the left bank to beyond the right bank. added to the stream. Used a cloth or fiberglass tape and use spikes to secure either end so the tape is tight across the stream.

reginiting and and of measurement). Also record any electronic stage level: 11 the sent in a

Determined and recorded on the data sheet the points on the tape measure of the Right-edge-of Water (REW) and LEW looking downstreamilizing monoid mont digitive.0) bother international potnesses and the second se

Determined and recorded on the data sheet the dead right-edge-of Water (DREW) and DLEW. This can also be called zero velocity right and zero velocity left.

bebrook but woll to algue out to assore antionst grinusion out of aslanding to too due woll i) Determined spacing of the subsections or cells. Start measurements half the width of a cell from zero velocity edge of water.

 $\underline{\mathcal{U}}$ Used appropriate meter and method for conditions $\log (w + w)$ by $\log (w + w)$

_____ Checked spin duration.

son algula noss rolls ar an harest)

Taking Measurements:

Stood holding top set rod in a position that least affected the velocity of water passing the meter. Held the wading rod at the tag line (tape measure line) stood 1 to 3 inches downstream of the tag line and 12 or more inches from the wading rod.

_____ Read depth of water on hex rod correctly.

_____ Counted revolutions made by meter in 40 to 70 second increments, usually just over 40 seconds.

Started stopwatch simultaneously with the end of the first click, starting counting with zero.

If the stage is rising or falling rapidly, switched to 20-second measurements at 3-foot spacing. Bridge Use: A-55 Sounding Recl and Crane: The Columbus weight was lowered until the horizontal fine are level with the water surface. The A-55 depth-measuring real was zeroed out and the weight is lowered until it couches bottom. The depth of water was read off the reel and a chart is consulted for the proper depth of the current m The depth of water was read off the reel and a chart is consulted for the proper depth of the current m The depth of water was read off the reel and a chart is consulted for the proper depth of the current m The depth of water was read off the reel and a chart is consulted for the proper depth of the current m The distince point on the tape measurements begin. Recording Data: \Left The distance points on the tape measure of the read at LEW. The distance point on the tape measure of the read and DLEW or zero velocity. Left The distance point on the tape measure of each measurement. Starting and finishing time of the measurement. Recorded stage heights from a staff plate and corresponding times when staff plates are read (at least beginning and end of measurement). Also record any electronic stage levels at the same time. Recorded velocity measurement time to the nearest tenth of a second and number of revolutions. If flow was not at right angles to the measuring tapeline, measured the angle of flow and recorded it.	Bridge Use: A-55 Sounding Reel and C	Crane: ed until the ho			
 The Columbus weight was lowered until the horizontal fins are level with the water surface. The A-55 depth-measuring reel was zeroed out and the weight is towered until it touches bottom. The depth of water was read off the reel and a chart is consulted for the proper depth of the current m The weight is raised to the proper depth and velocity measurements begin. Recording Data: Y The name of stream and exact location, any rebar point and/or photopoint. Who did the measurements? The date, type of meter suspension (top set rod or crane); and meter id #. The distance points on the tape measure of the REW and LEW. Y The distance points of DREW (dead right edge of water) and DLEW or zero velocity. The distance point of DREW (dead right edge of water) and DLEW or zero velocity. The distance point on the tape measure of each measurement. Starting and finishing time of the measurement! Recorded stage heights from a staff plate and corresponding times when staff plates are read (at least beginning and end of measurement) thus record any electronic stage levels at the same time. Recorded velocity measurement time to the nearest tenth of a second and number of revolutions. If flow was not at right angles to the measuring tapeline, measured the angle of flow and recorded it. The spin duration check results. Whether it was a rising or falling stage. Cleaned meter after each day's use. Comments Discharge (Hill) AM 	The Columbus weight was lower	ed until the ho	rizontal fins are,	evel with the w	
The depth of water was read off the reel and a chart is consulted for the proper depth of the current m The weight is raised to the proper depth and velocity measurements begin. Recording Data: The name of stream and exact location, any rebar point and/or photopoint. Who did the measurements? The date, type of meter suspension (top set rod or crane)/ and meter id #	The A-55 depth-measuring reel w		· · ·		
The weight is raised to the proper depth and velocity measurements begin. Image: Constraint of the second of t		vas zeroed out	and the weight is	s lowered until i	t touches bottom.
The name of stream and exact location, any rebar point and/or photopoint. Who did the measurements? The date, type of meter suspension (top set rod or crane); and meter id #. The distance points on the tape measure of the REW and LEW. The distance points of DREW (dead right edge of water) and DLEW or zero velocity. The distance points of DREW (dead right edge of water) and DLEW or zero velocity. The distance point on the tape measure of each measurement. Starting and finishing time of the measurement. Recorded stage heights from a staff plate and corresponding times when staff plates are read (at least beginning and end of measurement). Also record any electronic stage levels at the same time. Recorded measurement method (0.6 depth from bottom position or others). Recorded velocity measurement time to the nearest tenth of a second and number of revolutions. If flow was not at right angles to the measuring tapeline, measured the angle of flow and recorded it. Whether it was a rising or falling stage. Cleaned meter after each day's use. Comments Discharge C (U : 2) FR PULictuatege2+1 boweffedDee	•				
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The distance points of DREW (deàd right edge of water) and DLEW or zero velocity. The distance point on the tape measure of each measurement. Starting and finishing time of the measurement. Recorded stage heights from a staff plate and corresponding times when staff plates are read (at least beginning and end of measurement). Also record any electronic stage levels at the same time. Recorded measurement method (0.6 depth from bottom position or others). For the distance of the measurement into the nearest tenth of a second and number of revolutions. Recorded velocity measurement time to the nearest tenth of a second and number of revolutions. If flow was not at right angles to the measuring tapeline, measured the angle of flow and recorded it. Cleaned meter after each day's use. Comments Disclarge (2000) (2	The distance points on the tape m	leasure of the I	REW and LEW.	Maria de Calada Maria de Maria	n 1997 - Santa Santa 1999 - Santa S
 The distance point on the tape measure of each measurement. Starting and finishing time of the measurement. Recorded stage heights from a staff plate and corresponding times when staff plates are read (at least beginning and end of measurement). Also record any electronic stage levels at the same time. Recorded measurement method (0.6 depth from bottom position or others). Recorded velocity measurement time to the nearest tenth of a second and number of revolutions. If flow was not at right angles to the measuring tapeline, measured the angle of flow and recorded it. The spin duration check results. Whether it was a rising or falling stage. Cleaned meter after each day's use. Comments Discharge Child Child			of water) and DI	EW or zero vel	ocity.
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Recorded stage heights from a staff plate and corresponding times when staff plates are read (at least beginning and end of measurement). Also record any electronic stage levels at the same time. Recorded measurement method (0.6 depth from bottom position or others). He was a first and a staff plate at the nearest tenth of a second and number of revolutions. If flow was not at right angles to the measuring tapeline, measured the angle of flow and recorded it. The spin duration check results. Whether it was a rising or falling stage. Cleaned meter after each day's use. Comments Disc Marge (a) (4:2) FAR Comments Disc Marge (a) (4:2) FAR Control of the staff of		measurement	and in the state of	an e e e t	2.00 C
beginning and end of measurement). Also record any electronic stage levels at the same time. Recorded measurement method (0.6 depth from bottom position or others). Recorded velocity measurement time to the nearest tenth of a second and number of revolutions. If flow was not at right angles to the measuring tapeline, measured the angle of flow and recorded If flow was not at right angles to the measuring tapeline, measured the angle of flow and recorded If the spin duration check results. Whether it was a rising or falling stage. Comments Discharge 2:11:00/w98/d12:00 					
Recorded measurement method (0.6 depth from bottom position or others). Be a set of the second and number of revolutions. The probability measurement time to the nearest tenth of a second and number of revolutions. The probability measurement time to the nearest tenth of a second and number of revolutions. The probability measurement time to the nearest tenth of a second and number of revolutions. The probability measurement time to the nearest tenth of a second and number of revolutions. The probability measurement time to the nearest tenth of a second and number of revolutions. The probability measurement time to the nearest tenth of a second and number of revolutions. The probability measurement and the measuring tapeline, measured the angle of flow and recorded to the the probability of the proba					
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Salmon Forever / Sunny Brae Sediment Lab Stream Sampling Certification

This checklist covers the proper way to collect samples of water for turbidity and suspended sediment concentration and pertinent information.

Sampler Joyce King Date 1-15-00 1 174 By By Mone Moeller a the transformed and

1. Equipment

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- _____ Sample containers properly cleaned.
- ____ Stopwatch
- ____ Pencil
- ____ Rite in the Rain note paper (field data sheet).
- ____ Tape measure (used plastic or fiberglass to resist rust).
- 2. Safety
- _____ Established a safe path to the site: streambanks are soft and slippery.
- _____ Never waded into water deeper than knees.
- ____ Took a friend to monitor at night.
- ____ Trusted judgement above all else no sample is worth personal injury.
- 3. Sampling location

Streambank:

Lif possible, sampled the main current near the center of the stream. Lie outside curve of the river is often a good place to sample since the main current tends to hug this bank.

____ In shallow stretches, carefully waded into the center current to collect the sample.

Culvert:

_____ Sampled culvert outflow if access is safe, (the flow here is well mixed)

_____ Sampled the main flow section by lowering a bottle on a weighted string or tape measure into flow several inches.

4. Sampling Procedure

A. Grab Sampling with Plastic Bottles / HACH Cells

_ Removed the cap from the bottle just before sampling. Avoided touching the insid of the bottle or the cap.

Wading: Tried to disturb as little bottom sediment as possible. Careful not to colle water that has sediment from bottom disturbance. Stood facing upstream, Collected th water sample on upstream side. in front.

Held the bottle near its base and plunged it (opening downward) below the water surface. If using an extension pole, removed the cap, affixed the bottle and plunged it into the upstream waters.

Collected water sample 2 to 6 inches beneath the surface or mid-way between the surface and the bottom if the river reach is shallow.

Turned the submerged bottle into the current and upward and away.

Left a small air space in sample bottle. Recapped the bottle carefully, remembered not to touch or contaminate the inside.

Labeled the bottle with the site location, sampling date and time.

Recorded on rite-in-rain note paper or field data sheet:

_____ Recorded sampling date, time and location . · · · .

____ Recorded fast and slow strand floating object time and distance.

____ Recorded stage.

____ Recorded whether flow is on the rising or falling limb of the hydrograph.

in the second of the second of the second second

B. DH-48 / Depth Integrated Sampling / Wading Rod

_____ Sampled at 5 to 15 representative spacings across the stream.

_ Graphed the cross-section water depth and width of the stream.

Recorded on rite-in-rain note paper or field data sheet:

____ Recorded sampling date, time and location.

___ Recorded fast and slow strand floating object time and distance.

Recorded dead water strand edges.

Recorded whether flow is on the rising or falling limb of the hydrograph.

C. Velocity Measurements w / floating object

____ Straight, uniform stream reach.

____ Reach long enough to give velocities in the 6-12 second range at high flow.

_____ Graphed the cross-section water depth and width of the stream.

_____ Established benchmark reference for cross-section, if new site.

____ Elapsed time for object to traverse velocity section taken to nearest 0.1 second

____ Distance of velocity section measured to nearest inch.

____ Object time and distance measured in fast strand flow and slow strand flow.

____ Strand widths recorded.

- D. Stage Measurements / Staff Plate
- _____ Read stage to nearest 0.1 of a foot or nearest inch.
- _____ Staff plate or bridge rail or culvert invert correlated to crossection.
- ____ Staff plate isn't under water at high flow and is protected from debris.

5. Recording Data

- ____ Location
- ____ Date
- ____ Time
- _____ Note date, time, and approximate elapsed time since start of rain.
- _____ Note staff/stage gauge water level (or distance down from the bridge guardrail).
- ____ Time and distance of floating object in fast and or slow strand
- ____ Estimated width of velocity strands, dead water, total wetted creek width.
- ____ RR or RL if sampled at one side.

6. Proper Labeling

Bottle:

____ Location, Date, and Time.

_____ Velocity and Distance and Stage if possible on bottle.

- 7. Storing the Sample
- ____ Kept in a dark and cool place and / or refrigerated.

_____ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments:

Cert.Samp.4-27-99/word98/cf

Salmon Forever / Sunny Brae Sediment Lab Stream Sampling Certification

12-10-6

This checklist covers the proper way to collect samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

00K Date 12 - 10 - 99 Certified By Sampler USA-1. Equipment $(\infty, n) = (-1)^{2n} (n - n)^{2n}$ \underline{V} Sample containers that are properly cleaned. Stopwatch Pencil \mathbf{v} Rite in the Rain note paper or field data sheet. Tape measure (used plastic or fiberglass to resist rust). 2. Safety \angle Established a safe path to the site: streambanks are soft and slippery. ____ Never waded into water deeper than knees. ____ Took a friend to monitor at night. Trusted judgement above all else - no sample is worth personal injury. and the second second second **3. Sampling location** Streambank: 1.1.1. 1.8 a transfer 2. If possible, sampled the main current near the center of the stream. The outside curve of the river is often a good place to sample since the main current tends to hug this bank. Culvert: المرجوع فليعرف والمعادي ومعتاد المراجع Sampled culvert outflow if access is safe, (the flow here is well mixed) Bridge: e eget de la 1. 11 Sampled the main flow section by lowering a bottle on a weighted string or tape measure or plastic pipe into flow several inches. **4.** Sampling Procedure Sec. A. State of the sec. A. Grab Sampling with Plastic Bottles / HACH Cells _____Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap. Wading; Tried to disturb as little bottom sediment as possible. Careful not to collect water that has sediment from bottom disturbance. Stood facing upstream. Collected the water sample on upstream side, in front. / Held the bottle near its base and plunged it (opening downward) below the water surface. If using an extension pole, removed the cap, affixed the bottle and plunged it into the upstream waters. Collected water sample 2 to 6 inches beneath the surface or mid-way between the surface and the bottom if the river reach is shallow. \sum Turned the submerged bottle's mouth into the current and upward and away. Left a small air space in sample bottle. Using plastic bottles, fill bottle only 2/3. Recapped the bottle carefully, remembered not to touch or contaminate the inside. Marked the volume level with a mark on a piece of tape on the side of the bottle. Labeled the bottle with the site location, sampling date and time. Recorded on rite-in-rain note paper or field data sheet: $\underline{\checkmark}$ Recorded sampling date, time and location. V Recorded fast and slow strand floating object time and distance. $\frac{1}{2}$ Recorded stage from staff plate or other benchmark. $\underline{\mathscr{V}}$ Recorded whether flow is on the rising or falling limb of the hydrograph.

Ø

B. DH-48 / Depth Integrated Sampling / Wading Rod Sampled at 5 to 15 representative spacings across the stream. Sampled at same steady rate down and up water column. Graphed the cross-section water depth and width of the stream. Recorded on rite-in-pain note paper or field data sheet: Recorded sampling date, time and location. 1990年,大**相**纪。 Recorded Bottles # 1 of 3, 2 of 3 etc... Recorded fast and slow strand floating object time and distance. Recorded dead water strand edges. Recorded stage and which side sampling started - River Left'(RL) or River Right (RR). Recorded whether flow is on the rising or falling limb of the hydrograph. Real March 19 Lasiona provide a sector of there is a tradition of the sector of the se C. Velocity Measurements w / floating object Straight, uniform stream reach. 7.5, per 261=3.47 F/S 7.01 per 361=3.71F/S _____Reach long enough to give velocities in the 6-12 second range at high flow. Graphed the cross-section water depth and width of the stream. Established benchmark reference for cross-section, if new site. Elapsed time for object to traverse velocity section taken to nearest 0.1 second Distance of velocity section measured to nearest inch. Object time and distance measured in fast strand flow and slow strand flow. 1. an 12 _Strand widths recorded. and the second and the second **D.** Stage Measurements / Staff Plate Read stage to nearest 0.1 of a foot or nearest inch. Staff plate or bridge rail or culvert invert correlated to crossection. Staff plate isn't under water at high flow and is protected from debris. ra na baran ar ana araba arba arbana arbana arba araba araba araba 5. Recording Data Location / Date lange in state of the state of the **√**Time Note date, time, and approximate elapsed time since start of rain. Note staff/stage gauge water level (or distance down from the bridge guardrail). Time and distance of floating object in fast and or slow strand Estimated width of velocity strands, dead water, total wetted creek width. RR or RL if sampled at one side. 4: <u>-</u> -: -: a contract proto property 6. Proper Bottle Labeling Bottle: Location, Date, and Time. Velocity and Distance and Stage and sampled by if possible on bottle. 7. Storing the Sample Kept in a dark and cool place and / or refrigerated. I GOT X Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible. MEASORED AT UPSAZEAM, RAIL STAGE Comments: 19 ATO PERSON CORRELATE WITH 20 - HH DISCH, 99 12-10 TURBIDIT JEL 7:5 sec + 7.0 sec For 26:0 SA- ORANGES PFFI SOUTH ABUTHENT A STATE AND A CONTRACT OF A TO NEXT PrCkLst Sampling 11-99/word98/cf Endre # 46-49 Howard Ats Ro id PM 0.01

12-10-94 bow in the Alicentation of the provide that the effective 同论 医肉 内阁 名 Salmon Forever / Sunny Brae Sediment Lab Stream Sampling Certification and a tradition of a second second second balance This checklist covers the proper way to collect samples of water for turbidity and suspended sediment concentration analysis and pertinent information. Date 12 - 10 - 99 Certified By Sampler a tapata and a factor of the state of the 1. Equipment en al la cale da la cale contra compañía compañía Sample containers that are properly cleaned. HAD BEERE CONTRACT ____ Stopwatch 1. 建立力量化的原因。16.5万量化的标准不可以把方式的工作。16.10、mm的增加量 Pencil and see a second of the production of the mail of the mail Rite in the Rain note paper or field data sheet. The work is manual with an and you want the start proceeded have Tape measure (used plastic or fiberglass to resist rust). A subary a construction of the plastic of the construction of the 二角にや眼外の (広園・コンボン・イン・コンパー the state of the second st 2. Safety and the second second 1. 1. 4. 6. Established a safe path to the site: streambanks are soft and slippery. ____ Never waded into water deeper than knees. Secondaria da Compañía de C Took a friend to monitor at night. All shows the above of the second second _ Trusted judgement above all else - no sample is worth personal injury. 1. 1. 1. 1. appropriate they are a present of the test of the second second in the state of th 3. Sampling location Streambank: B at same tracks If possible, sampled the main current near the center of the stream. The outside curve of the river is often a good place to sample since the main current tends to hug this bank. Culvert: and worked and any deal to a strengt of the second second second second second Sampled culvert outflow if access is safe, (the flow here is well mixed) Humps in Lease the matter of the product of the second second second second second second second second second There is the post of the and the back of the second s **Bridge:** Sampled the main flow section by lowering a bottle on a weighted string or tape measure or plastic pipe into flow several inches. 4. Sampling Procedure public factorials of a property of A. Grab Sampling with Plastic Bottles / HACH Cells Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap. Wading: Tried to disturb as little bottom sediment as possible. Careful not to collect water that has sediment from bottom disturbance. Stood facing upstream. Collected the water sample on upstream side, in front. Marken in a Held the bottle near its base and plunged it (opening downward) below the water surface. If using an extension pole, removed the cap, affixed the bottle and plunged it into the upstream waters. Collected water sample 2 to 6 inches beneath the surface or mid-way between the surface and the bottom if the river reach is shallow. \underline{V} Turned the submerged bottle's mouth into the current and upward and away. Left a small air space in sample bottle. Using plastic bottles, fill bottle only 2/3. Recapped the bottle carefully, remembered not to touch or contaminate the inside. Marked the volume level with a mark on a piece of tape on the side of the bottle. Labeled the bottle with the site location, sampling date and time. Recorded on rite-in-rain note paper or field data sheet: Recorded sampling date, time and location. Recorded fast and slow strand floating object time and distance. and the second second

_ Recorded stage from staff plate or other benchmark.

___ Recorded whether flow is on the vising or falling limb of the hydrograph.

B. DH-48 / Depth Integrated Sampling Wading Rod _ Sampled at 5 to 15 representative spacings across the stream to 1 monthly Sampled at same steady rate down and up water column. Graphed the cross-section water depth and width of the stream. Recorded on rite-in-rain note paper or field data sheet: obmogsus to Recorded sampling date, time and location, where to obtain our part of the content of the location when _ Recorded fast and slow strand floating object time and distance. _ Recorded dead water strand edges. ____ Recorded stage and which side sampling started - River Left (RL) or River Right (RR). Recorded whether flow is on the rising or falling limb of the hydrograph. to should f 26 0 per 7,1 sec = 3,66 C. Velocity Measurements w / floating object $\underline{\mathcal{N}}$ /Straight, uniform stream reach. \swarrow Reach long enough to give velocities in the 6-12 second range at high flow. Graphed the cross-section water depth and width of the stream. 111 Established benchmark reference for cross-section, if new site. An arrest of the sector and the sector of the sect 1.1.47 Elapsed time for object to traverse velocity section taken to nearest 0.1 second $\overline{\nabla}$ Distance of velocity section measured to nearest inch. Object time and distance measured in fast strand flow and slow strand flow. 1. 1. 1. 1. 1. 1. Strand widths recorded. proceeding on the second state of the second state of the second state of the ana na amin'ny tanàna mandritry dia kaominina dia kaominina dia kaominina dia kaominina dia kaominina dia kaomi D. Stage Measurements / Staff Plate where a_{1} and a_{2} and a_{3} and a_{4} and T \bigvee Read stage to nearest 0.1 of a foot or nearest inch. **UStaff plate or bridge rail or culvert invert correlated to crossection**. The sector with the relation of the sector in the sec Δ Staff plate isn't under water at high flow and is protected from debris. ac of polyptick I Continues of 5. Recording Data ante a la Maran data ang atri ing atrian ata ang atriang atriang at Location al and et that is Chapter Brender of All Stage Bren Date Lege prod Time \underline{V} Note date, time, and approximate elapsed time since start of rain. Are dire . * Note staff/stage gauge water level (or distance down from the bridge guardrail). n. ditta. Time and distance of floating object in fast and or slow strand Estimated width of velocity strands, dead water, total wetted creek width. RR or RL if sampled at one side, the game bit of the term brack back of the second of the second 6. Proper Bottle Labeling A second s Bottle: 网络沙目秋阳 网络达尔斯特拉克亚特古英格兰拉 Velocity and Distance and Stage and sampled by if possible on bottle of the data well constrained to a data a constraint 7. Storing the Sample some made as the hubble of the second of the secon Kept in a dark and cool place and / or refrigerated. Aquank is an a start of search and the start of the star ____ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible. 11 11 -Il Q the generation of the state of the second second Comments: Matter 2 (m); SIDE The Noticity - Top Vail - upstveam side NEXT TO SOUTH ABUTT FUT # 4C-49 HOWARD HTS. PrCkLst Sampling 11-99/word98/cf 6 PH 0,01

Salmon Forever / Sunny Brae Sediment Lab Stream Sampling Certification

This checklist covers the proper way to collect samples of water for turbidity and suspended sediment concentration and pertinent information.

Sampler <u>Ralph Krajs</u> Date <u>B-3-99</u> By C. FENTON 17:20 3J305 PM 3.38 - ELK RIJER RD 4C-57

1. Equipment

Sample containers properly cleaned.

_____Stopwatch

____ Pencil

 \underline{V} Rite in the Rain note paper (field data sheet).

_____Tape measure (used plastic or fiberglass to resist rust).

2. Safety

_____ Established a safe path to the site: streambanks are soft and slippery.

_____ Never waded into water deeper than knees.

____ Took a friend to monitor at night.

_____ Trusted judgement above all else - no sample is worth personal injury.

3. Sampling location

Streambank:

____ If possible, sampled the main current near the center of the stream. The outside curve of the river is often a good place to sample since the main current tends to hug this bank.

_____ In shallow stretches, carefully waded into the center current to collect the sample.

Culvert:

____ Sampled culvert outflow if access is safe, (the flow here is well mixed)

Bridge:

 \times Sampled the main flow section by lowering a bottle on a weighted string or tape measure into flow several inches.

white disc on end - water dept

Notch - upstiean Side MID BRIDGE - TOP OF CONCIETE RAIL

4. Sampling Procedure

String

A. Grab Sampling with Plastic Bottles /(HACH Cells)

____ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.

____ Wading: Tried to disturb as little bottom sediment as possible. Careful not to collect water that has sediment from bottom disturbance. Stood facing upstream. Collected the water sample on upstream side, in front.

_____ Held the bottle near its base and plunged it (opening downward) below the water surface. If using an extension pole, removed the cap, affixed the bottle and plunged it into the upstream waters.

____ Collected water sample 2 to 6 inches beneath the surface or mid-way between the surface and the bottom if the river reach is shallow.

_____ Turned the submerged bottle into the current and upward and away.

____ Left a small air space in sample bottle. Recapped the bottle carefully, remembered not to touch or contaminate the inside.

____ Labeled the bottle with the site location, sampling date and time.

Recorded on rite-in-rain note paper or field data sheet:

_____ Recorded sampling date, time and location .

_____ Recorded fast and slow strand floating object time and distance.

____ Recorded stage.

_____ Recorded whether flow is on the rising or falling limb of the hydrograph.

B. DH-48 / Depth Integrated Sampling / Wading Rod

____ Sampled at 5 to 15 representative spacings across the stream.

____ Graphed the cross-section water depth and width of the stream.

Recorded on rite-in-rain note paper or field data sheet:

- ____ Recorded sampling date, time and location.
- ____ Recorded fast and slow strand floating object time and distance.
- ____ Recorded dead water strand edges.

____ Recorded stage.

_____ Recorded whether flow is on the rising or falling limb of the hydrograph.

C. Velocity Measurements w / floating object

- _____ Straight, uniform stream peach.
- ____ Reach long enough to give velocities in the 6-12 second range at high flow.
- ____ Graphed the cross-section water depth and width of the stream.
- ____ Established benchmark reference for cross-section, if new site.

____ Elapsed time for øbject to traverse velocity section taken to nearest 0.1 second

____ Distance of velocity section measured to nearest inch.

_____ Object time and distance measured in fast strand flow and slow strand flow.

_____ Strand width's recorded.

off rail

D. Stage Measurements / Staff Plate

- $\underline{}$ Read stage to nearest 0.1 of a foot or nearest inch.
- _____ Staff plate or bridge rail or culvert invert correlated to crossection.
- ____ Staff plate isn't under water at high flow and is protected from debris.

5. Recording Data

- ____ Location
- ____ Date
- ____ Time
- _____ Note date, time, and approximate elapsed time since start of rain.
- ____ Note staff/stage gauge water level (or distance down from the bridge guardrail).
- ____ Time and distance of floating object in fast and or slow strand
- ____ Estimated width of velocity strands, dead water, total wetted creek width.
- ____ RR or RL if sampled at one side.

6. Proper Labeling

Bottle:

____ Location, Date, and Time.

_____ Velocity and Distance and Stage if possible on bottle.

7. Storing the Sample

_____ Kept in a dark and cool place and / or refrigerated.

_____ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments:

Cert.Samp.4-27-99/word98/cf

Salmon Forever / Sunny Brae Sediment Lab Stream Sampling Certification

This checklist covers the proper way to collect samples of water for turbidity and suspended sediment concentration and pertinent information.

Sampler _____ CLARK FENTION Date 11/30/99 By Jene Moell

1. Equipment

- _____ Sample containers properly cleaned.
- ____ Stopwatch

____ Pencil

- _____ Rite in the Rain note paper (field data sheet).
- _____ Tape measure (used plastic or fiberglass to resist rust).

2. Safety

- ____ Established a safe path to the site: streambanks are soft and slippery.
- _____ Never waded into water deeper than knees.

_____ Took a friend to monitor at night.

_____ Trusted judgement above all else - no sample is worth personal injury.

3. Sampling location

Streambank:

If possible, sampled the main current near the center of the stream. The outside curve of the river is often a good place to sample since the main current tends to hug

this bank.

In shallow stretches, carefully waded into the center current to collect the sample.

Culvert:

_____ Sampled culvert outflow if access is safe, (the flow here is well mixed)

Bridge:

_____ Sampled the main flow section by lowering a bottle on a weighted string or tape measure into flow several inches.

4. Sampling Procedure

A. Grab Sampling with Plastic Bottles / HACH Cells

_____ Removed the cap from the bottle just before sampling. Avoided touching the insid of the bottle or the cap.

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____ Collected water sample 2 to 6 inches beneath the surface or mid-way between the surface and the bottom if the river reach is shallow.

____ Turned the submerged bottle into the current and upward and away.

____ Left a small air space in sample bottle. Recapped the bottle carefully, remembered not to touch or contaminate the inside.

_____ Labeled the bottle with the site location, sampling date and time. Recorded on rite-in-rain note paper or field data sheet:

____ Recorded sampling date, time and location .

_____ Recorded fast and slow strand floating object time and distance.

____ Recorded stage.

_____ Recorded whether flow is on the rising or falling limb of the hydrograph.

B. DH-48 / Depth Integrated Sampling / Wading Rod

____ Sampled at 5 to 15 representative spacings across the stream.

____ Graphed the cross-section water depth and width of the stream.

Recorded on rite-in-rain note paper or field data sheet:

_____ Recorded sampling date, time and location.

_____ Recorded fast and slow strand floating object time and distance.

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- ------Recorded stage o mine of the state o

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C. Velocity Measurements w / floating object

____ Straight, uniform stream reach.

____ Reach long enough to give velocities in the 6-12 second range at high flow.

____ Graphed the cross-section water depth and width of the stream.

____ Established benchmark reference for cross-section, if new site.

____ Elapsed time for object to traverse velocity section taken to nearest 0.1 second

____ Distance of velocity section measured to nearest inch.

_____ Object time and distance measured in fast strand flow and slow strand flow.

_____ Strand widths recorded.

D. Stage Measurements / Staff Plate

- ____ Read stage to nearest 0.1 of a foot or nearest inch.
- ____ Staff plate or bridge rail or culvert invert correlated to crossection.
- ____ Staff plate isn't under water at high flow and is protected from debris.

5. Recording Data

- ____ Location
- ____ Date
- ____ Time
- ____ Note date, time, and approximate elapsed time since start of rain.
- ____ Note staff/stage gauge water level (or distance down from the bridge guardrail).
- _____ Time and distance of floating object in fast and or slow strand
- ____ Estimated width of velocity strands, dead water, total wetted creek width.
- ____ RR or RL if sampled at one side.

6. Proper Labeling

Bottle:

- ____ Location, Date, and Time.
- ____ Velocity and Distance and Stage if possible on bottle.
- 7. Storing the Sample
- ____ Kept in a dark and cool place and / or refrigerated.
- _____ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments:

Cert.Samp.4-27-99/word98/cf

D. Stage Measurements / Staff Plate

- ____ Read stage to nearest 0.1 of a foot or nearest inch.
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- ____ Kept in a dark and cool place and / or refrigerated.

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Comments:

Cert.Samp.4-27-99/word98/cf

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Salmon Forever / Sunny Brae Sediment Lab Stream Sampling Certification

This checklist covers the proper way to collect samples of water for turbidity and suspended sediment concentration and pertinent information.

Date 11-30-97 oell esise Sampler

1. Equipment

- _____ Sample containers properly cleaned.
- ____ Stopwatch
- ____ Pencil
- ____ Rite in the Rain note paper (field data sheet).
- ____ Tape measure (used plastic or fiberglass to resist rust).

2. Safety

- _____ Established a safe path to the site: streambanks are soft and slippery.
- _____ Never waded into water deeper than knees.
- ____ Took a friend to monitor at night.
- _____ Trusted judgement above all else no sample is worth personal injury.
- 3. Sampling location

Streambank:

If possible, sampled the main current near the center of the stream. The outside curve of the river is often a good place to sample since the main current tends to hug

this bank.

_____ In shallow stretches, carefully waded into the center current to collect the sample.

Culvert:

_____ Sampled culvert outflow if access is safe, (the flow here is well mixed)

Bridge:

_____ Sampled the main flow section by lowering a bottle on a weighted string or tape measure into flow several inches.

4. Sampling Procedure

A. Grab Sampling with Plastic Bottles / HACH Cells

_____ Removed the cap from the bottle just before sampling. Avoided touching the insid of the bottle or the cap.

— Wading: Tried to disturb as little bottom sediment as possible. Careful not to colle water that has sediment from bottom disturbance. Stood facing upstream. Collected th water sample on upstream side, in front.

_____ Held the bottle near its base and plunged it (opening downward) below the water surface. If using an extension pole, removed the cap, affixed the bottle and plunged it into the upstream waters.

____ Collected water sample 2 to 6 inches beneath the surface or mid-way between the surface and the bottom if the river reach is shallow.

_____ Turned the submerged bottle into the current and upward and away.

____ Left a small air space in sample bottle. Recapped the bottle carefully, remembered not to touch or contaminate the inside.

____ Labeled the bottle with the site location, sampling date and time.

Recorded on rite-in-rain note paper or field data sheet:

____ Recorded sampling date, time and location .

_____ Recorded fast and slow strand floating object time and distance.

____ Recorded stage.

_____ Recorded whether flow is on the rising or falling limb of the hydrograph.

B. DH-48 / Depth Integrated Sampling / Wading Rod

_____ Sampled at 5 to 15 representative spacings across the stream.

____ Graphed the cross-section water depth and width of the stream.

Recorded on rite-in-rain note paper or field data sheet:

____ Recorded sampling date, time and location.

____ Recorded fast and slow strand floating object time and distance.

____ Recorded dead water strand edges.

_____ Recorded stage. o miner on the rising or falling limb of the hydrograph.

C. Velocity Measurements w / floating object

____ Straight, uniform stream reach.

____ Reach long enough to give velocities in the 6-12 second range at high flow.

____ Graphed the cross-section water depth and width of the stream.

____ Established benchmark reference for cross-section, if new site.

____ Elapsed time for object to traverse velocity section taken to nearest 0.1 second

____ Distance of velocity section measured to nearest inch.

____ Object time and distance measured in fast strand flow and slow strand flow.

____ Strand widths recorded.