HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler RACHEL MOORE Date 10-22-00 Certified By CLARK FENTON

1. Equipment

✓ Sample containers that are properly cleaned.
✓ Stopwatch
✓ Pencil
✓ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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. 0.01
___ 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 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.
___ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments: BEITH @ Golf course rd. BTG

HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler Kristi Wrigley Matt/Mike Date 10-28-00 Certified By C F

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe into flow several inches

4. Sampling Procedure

A. Grab Sampling with Plastic Bottles / HACH Cells
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___ 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded fast and slow strand floating object time and distance.
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___ 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 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.
___ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments: Fishing Pole @ KRW Grab from bank Intake for Ag Pump

HY01

Salmon Forever / Sunny Brae Sediment Lab
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This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler Ralph Kraus Date 10-28-00 SAT Certified By C. FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded fast and slow strand floating object time and distance.
___ Recorded dead water strand edges.
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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. - 0.01
___ 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 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.
___ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments: Elk River Rd Bridge 40.57 PM 3.38
RD # 35.305

Seth - 6.95 NTU Ralph - 19.3

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler DAWN McGUIRE Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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. HACH

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 from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
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___ Straight, uniform stream reach.
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___ 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. 0.01
___ 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 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.
___ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments: FTR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler KEN MILLER Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe into flow several inches

4. Sampling Procedure

A. Grab Sampling with Plastic Bottles / HACH Cells
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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'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. HACH

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 from staff plate or other benchmark.
___ 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.
___ Sampled at same steady rate down and up water column.
___ Graphed the cross-section water depth and width of the stream.
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___ 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).
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___ RR or RL if sampled at one side.

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

Comments: FTR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler SETH TARHI Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 inside of the bottle or the cap.
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Recorded on rite-in-rain note paper or field data sheet:
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___ Recorded whether flow is on the rising or falling limb of the hydrograph.

B. DH-48 / Depth Integrated Sampling / Wading Rod
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___ Sampled at same steady rate down and up water column.
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___ Staff plate or bridge rail or culvert invert correlated to crossection.
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___ Estimated width of velocity strands, dead water, total wetted creek width.
___ RR or RL if sampled at one side.

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

Comments: PTR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler JOYCE KING Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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.
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___ 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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FTR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler DAVID LaBOLLE Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FOR TRAINING

HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler KARISSA Willits Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FOR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler TODD NEWBERGER Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FOR TRAINING

HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler DANIELLE SALYR Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FTR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler Liz Gilliam Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FOR TRAINING

HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler BOB LONDON Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FTR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler TERRY POELOFS Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FOR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler TANYA CROWLEY Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:

___ Recorded sampling date, time and location.
___ 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.

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

Comments: FTR TRAINING

HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler LISA COOK Date 10-29-00 Certified By FRESHWATER

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FTR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler MAREN STOOLPH Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FTR TRAINING

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler RANDY KLEIN Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FOR TRAINING.

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler KRISTINA EIDE Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FTR TRAINING.

HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler HARRIET HILL Date 10-29-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: FOR TRAINING

HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler Jerry Blue Date 11-19-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: _____

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HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler LIZ FINGER Date 11-19-00 Certified By CLARK FENTON

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: _____

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HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler Bill Thompson Date 11-19-00 Certified By Clark Fenton

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: _____

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11 SNAG 11

JACOBY CRK

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler Debbie Hartman Date 1-4-01 Certified By C. Fenton

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: Debbie's backyard 45' upstream of culvert Jacoby Crk Rd. has crest stage recorder 5921 Jacoby Crk Rd.

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler TANYA Cowley Date 1-08-01 Certified By Clark FENTON

" MC "

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

Culvert:
___ Sampled culvert outflow if access is safe, (the flow here is well mixed) BOX

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

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's mouth into the current and upward and away. HACH
___ 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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: [illegible] TG: 060 PM 38.60 MC

'MC' BOX CULVERT DOWNSTREAM SIDE OF FR. RD.

Watershed Watch

HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler CLARK FENTON Date 1-20-01 Certified By Eileen Cashman

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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 ELDER BRIDGE

___ 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:

___ Sampled culvert outflow if access is safe, (the flow here is well mixed) — INVERT DEPTH

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

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. reach in
___ 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's mouth into the current and upward-and-away. HACH CELLS US, PLASTIC
___ 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.

LABEL BOTTLE DRY BEFORE

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 from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

C. Velocity Measurements w / floating object

1) USED STOPWATC
2) MEASURE DISTANCE

___ 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. .01
___ Elapsed time for object to traverse velocity section taken to nearest 0.1 second
___ Distance of velocity section measured to nearest inch. nearest 1/2 FOOT shoot for nearest inch if diff mark it
___ Object time and distance measured in fast strand flow and slow strand flow.
___ Strand widths recorded.

D. Stage Measurements / Staff Plate

.05'

___ Read stage to nearest 0.1 of a foot or nearest inch. STAFF TO .01 FOOT
___ ~~Staff plate or bridge rail or culvert invert correlated to cross-section.~~ MEASURING TAPE TO NEAREST
___ ~~Staff plate isn't under water at high flow and is protected from debris.~~ INCREMENT

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

Comments: _____

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HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler KEJ Miller Date 1-20-01 Certified By Eileen Cashman

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: _____

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HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler Kristi Wrigley Date 1-20-01 Certified By Eileen Cashman

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
(Bottle dry)

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 from staff plate or other benchmark.
___ 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.
___ 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:

___ Recorded sampling date, time and location.
___ 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.

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 Bottle Labeling

Bottle:

___ Location, Date, and Time. ALSO ON TOP
___ ~~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.
___ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments: _____

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HY01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler Joyce King Date 1-20-01 Certified By Eileen Cashman

1. Equipment

___ Sample containers that are properly cleaned. Labeled
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe into flow several inches

4. Sampling Procedure
Write on dry bottle
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'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.** (plastic)
___ 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 from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: _____

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HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler SETH FARAI Date 1-20-01 Certified By Eileen Cashman

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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

Comments: _____

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HY 01

Salmon Forever / Sunny Brae Sediment Lab
Stream Sampling Certification

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration analysis and pertinent information.

Sampler JESSE NOELL Date 1-20-01 Certified By Eileen Cashman

1. Equipment

___ Sample containers that are properly cleaned.
___ Stopwatch
___ Pencil
___ Rite in the Rain note paper or 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.

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 or plastic pipe 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 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'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.
___ Recorded stage from staff plate or other benchmark.
___ 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.
___ 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:
___ Recorded sampling date, time and location.
___ 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.

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. OR ACCURACY OF GAUGING METHOD
___ 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 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.
___ Returned to the Sunny Brae Sediment Lab for turbidity analysis within 48 hours if possible.

Comments: _____

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HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler BETH MELANDER Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
✓ ___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
✓ ___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

✓ ___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

✓ ___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
✓ ___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler MIKE HALL Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
✓ ___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
✓ ___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

✓ ___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

✓ ___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
✓ ___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
NA ___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

✓ ___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

✓ ___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
✓ ___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FSR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler Liz Gilliam Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler STACY KING Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler ERIC NYMAN Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTN

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler BOB LONDON Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel

Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler RALPH KRAUS Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
NA ___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
✓ ___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
✓ ___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
✓ ___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FFR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler RICHARD PELTIER Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler NICHOLE SMITH Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
NA ___ Recorded 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.

Velocity Measurements w / floating object

✓ ___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

✓ ___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
✓ ___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

✓ ___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel

Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler TISA COOK Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
NA ___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
✓ ___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

✓ ___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
✓ ___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

✓ ___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler TICO Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
✓ ___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
✓ ___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
✓ ___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

✓

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
✓ ___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler ANN HARKNESS Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
✓ ___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
✓ ___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

✓ ___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

✓ ___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
✓ ___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler SETH FARMI Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
✓ ___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
✓ ___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

✓ ___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

✓ ___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
✓ ___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___ Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel

Sample @ boom FM

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler AMANDA FREEMAN Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
✓ ___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
✓ ___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
✓ ___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
✓ ___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Reel

Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

Woldewski

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler KATRINA WOLDEWISKI Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
NA ___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
✓ ___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

✓ ___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
✓ ___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

✓ ___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel

Sample @ boom FTR

HY01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler MICHELLE Wallar Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange peel
Sample @ boom FR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler JILL SCHTÄGEL Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
✓ ___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

✓ ___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

✓ ___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
✓ ___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

NA

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel
Sample @ boom FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler BOB LANDRY Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
✓ ___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
✓ ___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
✓ ___Measured water level from top (invert) or bottom of culvert

Bridge:

✓ ___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
✓ ___Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
NA ___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___ Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: ORANGE Peel
Sample @ 600m FTR

HY 01

Salmon Forever / Watershed Watch
Field Sampling Proficiency Checklist
HY 01

This checklist documents proficiency in the proper procedures for collecting samples of water for turbidity and suspended sediment concentration determination.

Sampler BILL THOMPSON Date 1-27-01 Certified By Eileen Cashman
EILEEN CASHMAN

Safety:

___ Established a safe path to the site: streambanks are soft and slippery.
___ Never waded into water deeper than knees.
___ The outside curve of the river is a good place to grab a sample since the main current tends to hug this bank.

Equipment:

___ Sample containers properly cleaned
___ Stopwatch
___ Tape measure
___ Rite in the Rain note paper or field data sheet and pencil

Culvert:

___ Sampled culvert outflow if access is safe. Used weighted string sampler or grabbed sample from streambank
___Measured water level from top (invert) or bottom of culvert

Bridge:

___ Sampled the main flow section by lowering a bottle on a weighted string or plastic pipe into water 4 to 6 inches.

Plastic Bottles / HACH Cells:

___ Removed the cap from the bottle just before sampling. Avoided touching the inside of the bottle or the cap.
____Labeled the dry HACH Cell or sample bottle with the site location, sampling date and time before sampling.
___ 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.
___ Kneeling on streambank, reached over and lowered the bottle's mouth straight down into the current and then upstream.
___ Left small air pocket in HACH cell. If using plastic bottle, filled the bottle only 2/3. Recapped the bottle carefully.
___Marked the plastic bottle volume level with a mark on a piece of tape on the side of the bottle.

Continued.

DH-48 / Depth Integrated Sampling

___ Sampled at 5 to 15 representative spacings across the stream.
___ Sampled at same steady rate down and up water column.
___ Recorded sampling date, time and location and ID #.
___ Recorded Bottles # 1 of 3, 2 of 3 etc...
___ Recorded 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.

Velocity Measurements w / floating object

___ Elapsed time for object to traverse velocity section measured to the nearest 0.1 second
___ Distance of velocity section measured to nearest 6 inches.
___ Strand widths recorded to the nearest foot.

Stage Measurements / Staff Plate

___ Read staff plate to the nearest 0.01 of a foot.
___Measured water depth or measured down to water surface to the nearest inch.

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

___ Recorded sampling date, time, location and sample id #.
___ Recorded fast and slow strand floating object time and distance.
___ Estimated width of velocity strands, dead water, total wetted creek width.
___ Recorded stage from staff plate or water depth or culvert invert.
___ Start of rain time.
___ Recorded whether flow is on the rising or falling limb of the hydrograph.

Storing the Sample

___ Kept in a dark and cool place and / or refrigerated and returned to the Sunny Brae Sediment Lab within 48 hours if possible.

Comments: Orange Peel

1401

Salmon Forever
Sunny Brae Sediment Lab

Suspended Sediment Sample Processing Certification

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

Person certified Daryl Van Dyke Date 2-21-01 By Eileen Cashman

___ 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

___ 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

___ 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

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

___ Put tray into 105^{0} 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 _____

Salmon Forever
Sunny Brae Sediment Lab

Suspended Sediment Sample Processing Certification

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

Person certified Clark Fenton Date 2-21-01 By Eileen Cashman

___ 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

___ 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

___ 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

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

___ Put tray into 105 ^{0} 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 _____

Salmon Forever
Sunny Brae Sediment Lab

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 Daryl Van Dyke Date 2-21-01 By Eileen McCashman

___ 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:_____

_____

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 Wt. 0.09956

Filter ID #	Standard Weight	Tech. Wt.	+- 1.0% Range
X1265	0.20294 Grams	_____	0.20497 Grams 0.20091 Grams
X1315	0.16013 Grams	0.16089	0.16173 Grams 0.15853 Grams
X1319	0.13419 Grams	_____	0.13553 Grams 0.13285 Grams
X1261	0.12421 Grams	_____	0.12545 Grams 0.12297 Grams
XQC154	0.10702 Grams	0.10795	0.10809 Grams 0.10595 Grams
X1288	0.15909 Grams	_____	0.16068 Grams 0.15750 Grams
X1249	0.12414 Grams	0.12479	0.12538 Grams 0.12290 Grams
X1283	0.12161 Grams	0.12254	0.12283 Grams 0.12039 Grams
X1245	0.11145 Grams	_____	0.11257 Grams 0.11033 Grams

Check Weight _____ Acceptable? _____

Comments_____

_____

Salmon Forever
Sunny Brae Sediment Lab

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 Clark Fenton Date 2-21-01 By Eileen M Cashman

___ 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: _____

_____

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 Wt. _____

Filter ID #	Standard Weight	Tech. Wt.	+- 1.0% Range
X1265	0.20294 Grams	0.20342	0.20497 Grams 0.20091 Grams
X1315	0.16013 Grams	_____	0.16173 Grams 0.15853 Grams
X1319	0.13419 Grams	0.13519	0.13553 Grams 0.13285 Grams
X1261	0.12421 Grams	0.12508	0.12545 Grams 0.12297 Grams
XQC154	0.10702 Grams	_____	0.10809 Grams 0.10595 Grams
X1288	0.15909 Grams	0.16069	0.16068 Grams 0.15750 Grams
X1249	0.12414 Grams	_____	0.12538 Grams 0.12290 Grams
X1283	0.12161 Grams	_____	0.12283 Grams 0.12039 Grams
X1245	0.11145 Grams	~~0.11254~~ DO 0.11255	0.11257 Grams 0.11033 Grams

Check Weight _____ Acceptable? _____

Comments_____

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HY 01

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 RACHEL MOORE **Date** 11-6-00 **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
✓ Recorded turbidity on sign-in sheet

Use this protocol for samples in bottles other than HACH cells

JA ___ 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
NA ___ 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 Finish Bruceland Samples

AY01

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 Clark Fenton **Date** 1/6/01 **Certified By** Jesse Nicol

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. 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

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HY01

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 Jesse Noell **Date** 1-6-01 **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
✓ 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

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HY01

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 Clark Fenton **Date** 1/16/01 **Certified By** M. Jang

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
N/A Poured shaken sample bottle water into HACH cell as soon as possible
N/A 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
N/A ___ 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 Sample turbidity was @ 21.3 NTU so dilution was not necessary.

HY01

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 Seth Farhi **Date** 9/21/01 **Certified By** Eileen Cashman

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. 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

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HY01

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 Ken Miller **Date** 2/21/01 **Certified By** Eileen Cashman

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. 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

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HY01

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 Joyce King **Date** 2/21/01 **Certified By** Eileen Cashman

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. 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

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HY01

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 Daryl Van Dyke **Date** 02/21/01 **Certified By** Eileen Cashman

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. 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

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HY01

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 Harriet Hill **Date** 4-11-01 **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
✓ 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

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