Sample Decanting SOP, NTN



Items needed:

- Field Observer Report Form (FORF), as started the previous week
- sample bucket containing sample to be processed
- balance (minimum capacity: 8 kg; readability: 0.5 g or better; accuracy: ±0.2 g or better)
- calibration weights (100 g and 1 kg), if available
- 1-L sample bottle for shipping
- sample bottle shipping box
- log book, if used

Precautions:

Use care when handling the sample bottle, sample bucket, and lid to avoid contaminating the sample. NTN samples are analyzed for sodium, chloride, and potassium all of which are present in sweat. Oils present on skin are difficult to remove. Detergents are <u>not</u> used to clean the bucket, lid, or bottle.

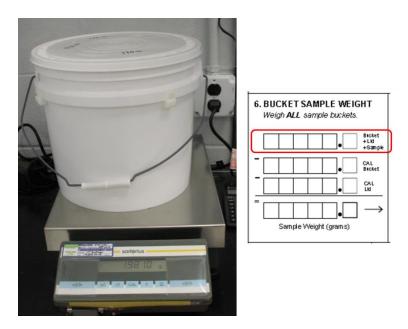
If the sample is frozen, allow the sample to thaw completely before decanting. Do not place the sample bucket on or near a heat source. NTN samples should be allowed to melt at room temperature.

Instructions:

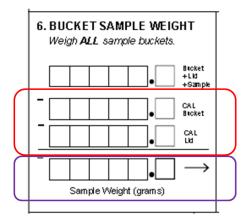
1. Verify calibration of balance, if calibration weights are available. If the calibration is off by more than 1 g and the scale cannot be corrected, record the difference in Block 10 **Remarks** block of the field form.



2. Weigh the sealed bucket containing last week's sample. Enter the mass (Bucket + Lid + Sample) in Block 6 **Bucket Sample Weight** of the FORF. Complete this step each week, regardless of whether precipitation occurred during the week. Network operating procedures require that the sample bucket be changed at least once every 194 hours (8 days and 2 hours).



3. Enter the mass of the CAL bucket and the CAL lid in Block 6 **Bucket Sample Weight** of the FORF. These values are written on the outside of the bucket and the lid. Calculate the Sample Weight



- 4. If the bucket is empty (i.e., no precipitation occurred during the week), skip to step 11. Otherwise, continue to step 5.
- 5. Put on a pair of clean laboratory gloves. Remove a clean sample bottle from its zipped bag, and uncap the bottle. The cap should be placed upright on a clean surface to prevent contaminating the cap.

6. Remove the lid from the sample bucket by grasping the far edge of the lid and pulling the lid toward you. This eliminates the possibility that the sample may be contaminated by clothing fibers or sweat passing over the exposed sample.



- 7. Tilt the bucket toward you to inspect the sample for physical contamination (e.g., pollen, leaves, dirt) then decant the sample into the sample bottle. Note the following:
 - do **not** swirl the sample before decanting,
 - avoid decanting physical contaminants into the bottle,
 - use both hands, one on either side of the bucket, to support the bucket,
 - hold the handle against the side of the bucket with one hand to keep it from moving,
 - avoid contacting the lip of the bucket to the mouth of the bottle,
 - do **not** discard low volume samples. All samples, regardless of volume, should be submitted for analysis,
 - sample volume greater than the volume of the sample bottle may be discarded, and
 - decant the NADP sample before decanting sample for other studies.

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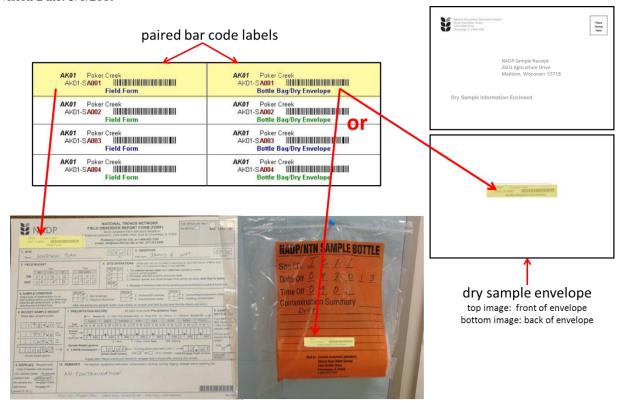




- 8. Cap the sample bottle. Ensure the cap is tight to prevent the sample from leaking during shipment.
- 9. Using a permanent marker, write the site ID, Date Off, and any contamination observed in the sample on the outside of the zipped sample bag.



- 10. Re-seal the sample bottle in its zipped bag.
- 11. Place a bar code label on the FORF, and its matched pair on the zipped sample bag, or on a dry sample envelope if no precipitation occurred during the week.



12. Complete Block 8 **Sample Bottle Use** to indicate whether sample is decanted to a sample bottle and will be shipped to the laboratory for analysis. If sample is present, it should be decanted and submitted for analysis.



- 13. Inspect the FORF and complete any missing fields.
- 14. Use a sample bottle shipping box to ship the bagged sample bottle and the completed FORF to the address shown below for analysis. If no precipitation occurred during the week, mail the completed FORF in the dry sample envelope.

NADP Central Analytical Laboratory WI State Laboratory of Hygiene – **Sample Receiving** 465 Henry Mall Madison, Wisconsin 53706 Wisconsin State Laboratory of Hygiene

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15. Place the used bucket back in its plastic bag and place it with the used supplies. The bag does not need to be secured with a wire tie. Used lids may be stored in a single zipped plastic bag. Return the used supplies to the shipping address listed below when the shipping box is full.

NADP Central Analytical Laboratory WI State Laboratory of Hygiene – **Supply Receiving** 465 Henry Mall Madison, Wisconsin 53706