

# SHIPPING and RECEIVING FIELD SAMPLES

## STANDARD OPERATING PROTOCOL

### I. TIMING FOR PREPARATION OF SAMPLING SUPPLIES

Please always have a full month's supply of media for each matrix. Once the supplies have been made, another month's media supply should be prepped. This premeditative action can ensure we have supplies on hand if additional sampling is required due to unforeseen issues and additional sampling requirements. IADN averages 20 HiVol and 10 MIC samples per month. **We should aim to have these on hand and available in advance of when we need them.**

### II. SAMPLE SCHEDULING

1. Operators should receive sampling supplies and protocols **one week prior to the 1<sup>st</sup> of the month.**
2. Protocols should be ready **3 weeks before 1<sup>st</sup> of the month** to permit adequate time preparing supplies to be shipped.

### III. SAMPLE RECEIVING, HANDLING, AND STORAGE

#### A. Unboxing

1. All IADN sampling materials are to be shipped to IU and no other address.
2. Boxes that contain supplies return to IU from the field should be opened, evaluated, and processed on the day that they arrive (sampling materials can be placed in cold storage for up to 3 days when necessary). **Unboxing should not be done more than 3 days after receiving the shipment. This would allow for a timely check on samples received.**
3. Boxes should be opened, evaluated, and processed one at a time to avoid intermingling sampling materials before IDs and field data are compared and confirmed.
4. **All samples should be referenced checked with field sheets and other sampling documents to ensure if all samples are received and if the ID assigned to the received samples are correct. When inconsistencies are noticed, notes should be made in the log spreadsheet and field sheets. See details below.**

#### B. Air vapor samples/XAD-2 cartridges

1. On the same day samples arrive at IU from the site operators, inspect the shipped materials for any issues with packaging or sample integrity. Note anything on the corresponding field data sheet and in the sample log file (LabLog spreadsheet).
2. Verify that the sample IDs listed on field data sheets are correct in relation to the sampling activities outlined in the associated field forms (Site Visit Sheet data should match Field Data Sheet data), and that the sample IDs on the physical samples match those on the corresponding field forms.

3. Follow regular steps outlined in the Field SOP to unwrap and transfer XAD and label the sample. Store the sample in the freezer at  $-20^{\circ}\text{C}$  until extraction.
4. Sign and date the field data sheet and write comments, if any.
5. File field data sheets and site visit sheets on a weekly basis.
6. Enter the sample ID and corresponding field collection data into the Laboratory Log spreadsheet (LabLog).

*Note: If the samples cannot be transferred immediately, they can be stored in the refrigerator ( $4^{\circ}\text{C}$ ) for no more than 3 days upon arrival to IU.*

### C. Quartz fiber filters

1. On the same day samples arrive at IU from the site operators, inspect the shipped materials for any issues with packaging or sample integrity. Note anything on the corresponding field data sheet and in the sample log file (LabLog spreadsheet).
2. Verify that the sample and filter IDs listed on field data sheets are correct in relation to the sampling activities outlined in the associated field forms (Site Visit Sheet data should match Field Data Sheet data), and that the sample and filter IDs on the physical samples match those on the outer foil wrapping and corresponding field forms.
3. Follow the regular steps outlined in the Field SOP for unwrapping, weighting, storing and labeling the received filter samples.
4. Sign and date the field data sheet and write comments, if any.
5. Enter the sample and field IDs and all corresponding field collection data into the Laboratory Log spreadsheet (LabLog) right away.
6. Recording the weights and sample IDs alongside their corresponding filter IDs in the TSP logbook right away.
7. File field data sheets and site visit sheets on a weekly basis.
8. Enter the filter weights information from the TSP logbook into the LabLog spreadsheet to complete the calculation of total suspended particles.

*Note: If the samples cannot be put in the humidity chamber immediately, they can be store in cold room ( $10^{\circ}\text{C}$ ) for not more than 3 days upon arrival to IU.*

### D. Precipitation Columns

1. On the same day samples arrive at IU from the site operators, inspect the shipped materials for any issues with packaging or sample integrity. Note anything on the corresponding field data sheet and in the sample log file (LabLog spreadsheet).
2. Verify that the sample IDs listed on field data sheets are correct in relation to the sampling activities outlined in the associated field forms (Site Visit Sheet data should match Field Data Sheet data), and that the sample IDs on the physical samples match those on the corresponding field forms.
3. Sign and date the field data sheet and write comments, if any.
4. Follow the regular steps outlined in the Field SOP for transferring, labeling, and storing precip columns.
5. Enter the sample and field IDs and all corresponding field collection data into the Laboratory Log spreadsheet (LabLog) right away to avoid mistakes.
6. File field data sheets and site visit sheets on a weekly basis.

*Note: If the samples cannot be transferred immediately, they can be stored in refrigerator ( $4^{\circ}\text{C}$ ) for not more than 3 days upon arrival to IU.*

#### E. PFAS Precipitation Bottles

1. On the same day samples arrive at IU from the site operators, inspect the shipped materials for any issues with packaging or sample integrity. Note anything on the corresponding field data sheet and in the sample log file (LabLog spreadsheet).
2. Verify that the sample IDs listed on field data sheets are correct in relation to the sampling activities outlined in the associated field forms (Site Visit Sheet data should match Field Data Sheet data), and that the sample IDs on the physical samples match those on the corresponding field forms.
3. Sign and date the field data sheet and write comments, if any.
4. Bottles are to be transferred and stored in refrigerator (4°C) following visual integrity and data accuracy assessment.
5. Enter the sample and field IDs and all corresponding field collection data into the Laboratory Log spreadsheet (LabLog) right away to avoid mistakes.
6. File field data sheets and site visit sheets on a weekly basis.