DEPARTMENT OF ECOLOGY State of Washington

EIM Environmental Information Management

EIM Help – Passive Sampling Data

Version 1.1
August 2026

Overview

A passive sampler is a device deployed to a discrete location in the environment for a specific time interval AND contains a collecting medium that comes into equilibrium with or accumulates target chemicals from an environmental matrix, including surface water, groundwater, sediment pore water, air/gas, or soil/sediment. For many passive samplers, uptake to the collecting medium is controlled by a porous membrane. For water matrices, this generally means the sample fraction is dissolved, but not always. Check the manufacturer's technical specifications. The collecting medium can be a solid-phase polymer or sorbent, nonaqueous organic solvent, or deionized water.

After a device is recovered from the field, a lab analyzes the collecting medium using conventional methods. Non-water media must be digested and extracted prior to analysis.

Labs report analytical results relative to the mass of the passive sampler media and require post-analysis calculations. Results are time-weighted average concentrations and considered estimates. For this reason, passive sample results can't be compared directly to those from discrete samples.

Check with your regulatory agency staff to see what types of passive sampling are allowed under current regulations.

For more information on passive sampling, see the Interstate Technology and Regulatory Council's (ITRC) Passive Sampling Technology Update.

Related Measurements or Samples

Field measurements from passive samplers

Some passive samplers can take discrete field measurements such as pH and temperature. If you collected **discrete field measurements** with your passive sampler, follow the Field Measurements guidance to enter them into EIM.

Passive air samples

For passive air samples like soil gas, follow the Air, Vapor, and Soil Gas Data guidance.

How to Enter Passive Sampling Data

It's imperative for users to be able to identify results from passive samplers and not mistake them for discrete results since you can't compare them directly. Following this guidance is key to that.

Enter only the final, calculated results into EIM—**NOT the raw results**. Your project planning documents or reports should document how you calculated final concentrations. You can note this in the Study QA Project Plan Description field of the EIM Study template.

Passive grab samplers

The ITRC considers certain groundwater grab samplers, like HydraSleeve™ and Snap Sampler®, to be passive since they don't induce active media transport. (These devices can be also used in surface water). For EIM, we consider data from these types of samplers to be discrete results since they aren't temporal composites. Follow the guidance below, but note exceptions.

Result template fields needed for passive sampling data

Use this table along with the requirements in the Result template guidance for entering your data. Yellow fields with an asterisk in this table mean the field is required for passive samples.

Column	Field Name	Valid Values and Requirements
D	**Field Collection Type***	Enter *"Sample"* (for results derived from a lab analysis).
F	**Field Collection Start Date***	Enter "*MM/DD/YYYY*" Date the sampler was deployed.
H	**Field Collection End Date***	Enter "MM/DD/YYYY" Date the sampler was recovered. Exception - passive grab samples
J	Field Collection Comment	Optional. You can mention that this is a passive sample here but also include that info in the Result Comment or Result Additional Comment.

Column	Field Name	Valid Values and Requirements
M	Field Collection Reference Point	Required for passive sediment porewater and passive groundwater data. Download our Field Collection Depth or Height guidance for more help.
N	Field Collection Upper Depth	Required for passive sediment porewater and passive groundwater data.
O	Field Collection Lower Depth	Required for passive sediment porewater and passive groundwater data.
P	Field Collection Depth Units	Required for passive sediment porewater and passive groundwater data.
V	**Sample Composite Flag***	Enter *"Y"* Passive samples are temporal composites. Exception - passive grab samples
AA	**Sample Collection Method***	Required. See Passive Sampling Collection Methods below.
AB	Sample Preparation Method	Optional. You can add a digestion/extraction method here if it's not part of the Result Method. Search EIM for Method valid values and descriptions. If you need a method added, contact your EIM Data Coordinator.
AS	Result Data Qualifier	Enter the lab data qualifier. Search EIM for Data Qualifier valid values and descriptions.
AT	Fraction Analyzed	Usually "Dissolved" for passive samples with Sample Matrix of "Water." Depends on pore size of membrane. Leave blank for all other matrices. Passive grab samples can Dissolved or Total.
AY	Result Method	Required if Field Collection Type is "Sample." Examples: SW8260D, SW8270E, RSK-175, SW6020B. Search EIM for Method valid values and descriptions. If you need a method added, contact your EIM Data Coordinator.

Column	Field Name	Valid Values and Requirements
AZ	**Result Comment***	Enter a comment like "Passive Sample Data" and other relevant info like sampler configuration here or in Result Additional Comment field.

Passive sampling collection methods

We recently updated the EIM Sample Collection Methods for passive sampling to begin with "Passive" so that they are more consistent and easier to find.

We are retiring the combination Sample Collection/Result Methods like "INT-LB16-EPA1668C." Use separate Sample Collection and Result Analysis Methods instead.

If you don't see the method you used here, contact the EIM Team and we will add it for you.

Sample Collection Method (AA)	Description
PassiveDGT Formerly DGT	Diffusive Gradient in Thin Films (DGT) sampler for passive accumulation sampling over a specific time interval. Typically, a flat or piston-shaped device, housing an outer filter membrane, a diffusion gel layer, and a binding gel layer. See result comments in dataset for specific device configuration.
PassiveGrab-GW	Passive Grab Groundwater Sampler, like Snap or HydraSleeve
PassivePDB Formerly PDB-SedPoreWater or PDB-GW (we combined these)	Passive Diffusion Bag (PDB) sampler for passive equilibration sampling over a specific time interval. Typically, a mesh-covered LDPE or HDPE filter membrane sleeve filled with deionized water. Sediment and surface water samplers usually have protective housings. See result comments in dataset for specific device configuration.
PassivePeeper Formerly PeeperCylinderPolyP	Peeper sampler for passive equilibrium sampling over a specific time interval. Typically, a multichambered plate, cylinder, or bottle array with water-filled dialysis chambers covered by a filter membrane or mesh. See result comments in dataset for specific device configuration.
PassivePOCIS Formerly POCIS	Polar Organic Chemical Integrative Sampler (POCIS) for passive accumulation sampling over a specific time interval. Typically, a solid sorbent material between two filter membranes. See result comments in dataset for specific device configuration.

Sample Collection Method (AA)	Description
PassivePED-LDPE	LDPE Polymeric Sampling Device or Polyethylene Device (PED) for passive equilibration sampling over a specific time interval. Typically, a sheet of LDPE in a pouch or metal frame or as a strip in lab ex situ testing. See result comments in dataset for specific device configuration.
PassiveSPMD	Semi-Permeable Membrane Device (SPMD) for passive accumulation sampling over a specific time interval. Typically, a thin walled, lay flat, non-porous, LDPE membrane tubing containing a thin film of lipid. See result comments in dataset for specific device configuration.

Document Revision History

Revision date	Revision no.	Summary of changes	Reviser(s)
2026-03-20	1.0	Original document	CN
2026-08-18	1.1	Corrected typo, changed PassivePED-LPDE PassivePED-LDPE	CN