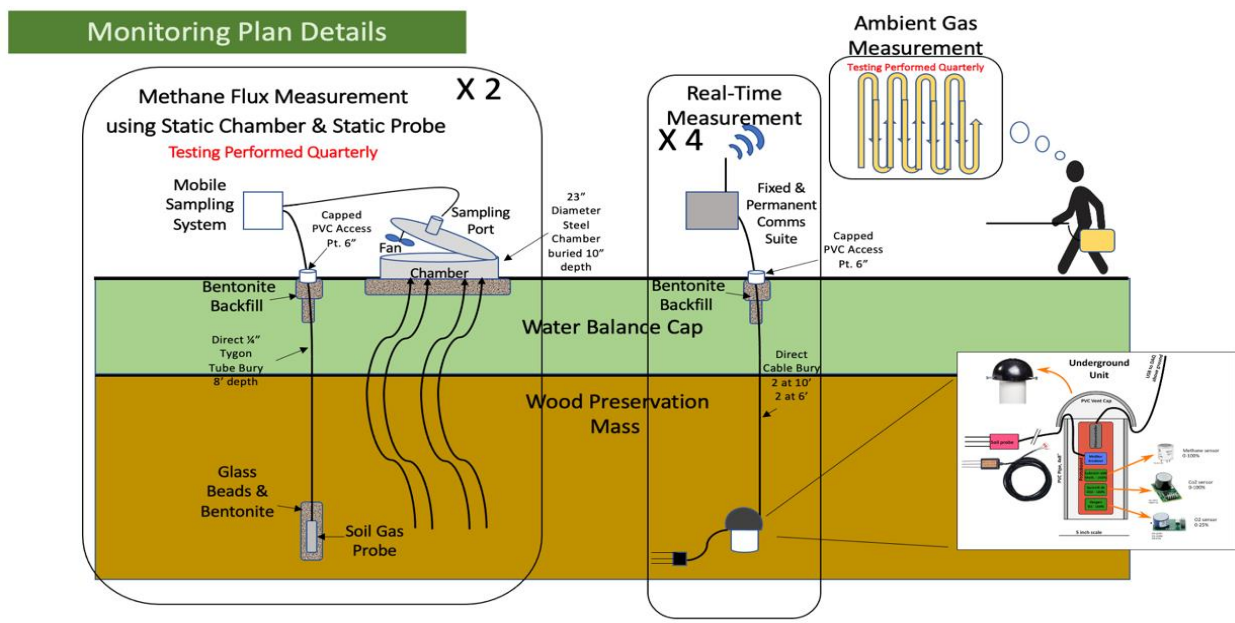


Measurement, Reporting and Verification (MRV)



Woodcache PBC a) deploys monitoring equipment b) conducts remote and in-person monitoring for at least 100 years, and c) manages any necessary mitigation to ensure the integrity of the woodcache. This all comes together in a best-in-class Measurement, Reporting and Verification (MRV) System.

We have deployed two systems that work in tandem, addressing multiple measurement and reporting needs, which we describe below.

What we are Looking For

MRV Best practices vary by Carbon Dioxide Removal (CDR) methodology. In Woody Biomass Storage we are ultimately looking to determine and manage:

- The rate at which greenhouse gases are emerging from the woodcache.
- The proportion of methane among greenhouse gas emissions from the woodcache.
- The effectiveness of the woodcache cap in destroying methane.
- The concentration of greenhouse gases remaining underground in the woodcache.

To achieve optimal values in the above, Woodcache measures and optimizes intermediate conditions in the woodcache, including:

- Moisture
- Humidity
- Temperature
- Oxygen

Ongoing Remote Monitoring (ORM) system

Woodcache PBC installs underground monitoring systems that provide real-time measurement and remote monitoring. These measure any buildup of greenhouse gases below ground, along with moisture, humidity, oxygen, and temperature. Combined with surface measures such as windspeed and direction, ambient temperature, and barometric pressure, these measures are transmitted real-time over the air to a centralized data center, and presented via web in time series format for immediate review.

Ongoing Remote Monitoring is especially important for quickly understanding trends and any deviations from norms. These support our need to appropriately manage any Leak Detection and Repair (LDAR). Each element of our remote monitoring system can be replaced at the end of its working life without disturbing the woodcache, allowing perpetual measurement.

Periodic Precision Monitoring (PPM) system

Ongoing Remote Monitoring is complemented by periodic onsite monitoring, using highly precise measurements, collected manually. *Flux chamber* measurements identify the rate at which greenhouse gases come out of the ground, *geoprobe* measurements measure quantities and proportions of greenhouse gas buildup under the ground, and *ambient* measurements identify any gas concentration above ground.

Each of our woodvault measurements are complemented by controls, allowing us to identify the degree to which any emissions result from the woodcache, and which occur independent of the woodcache.

The Periodic Precision Monitoring process is conducted with regularly calibrated, high precision instruments. This is especially necessary and useful when measuring any methane emissions, which detects methane in “parts per billion” (ppb) instead of the normal “parts per million” (ppm) for other gases.

Reporting

In addition to formal periodic reporting to permitting governments and regulators, our objective is to report regularly and fully to a wide range of audiences including:

- **Auditors**, who are responsible for verifying the number of carbon credits available to the market.
- **Investors**, who need to value Woody Biomass Storage relative to other climate technologies.
- **Carbon Credit Buyers**, who want to fully understand the long-term success of their purchase.

- **Researchers**, who aim to further Woody Biomass Storage (WBS) and Carbon Dioxide Removal (CDR) science.
- The **General Public**, who can receive summarized and well explained data.

Our goal is to deliver regular and appropriate access to various audiences, to build trust in Woody Biomass Storage and Woodcache PBC's practice thereof.

Remediation

Things go wrong. We may learn that emissions are too high, or there is a leak in the soil cover, or temperatures in the pit are too high. These may require fixes to ensure the carbon stays in the ground.

To address the problems we can deploy a menu of solutions, ranging from repairing an uphill berm, to increasing the thickness of the soil above the wood, to introducing more clay to reduce soil porosity. Our measurement and reporting will prompt the most appropriate actions.

Of equal importance is the financial means to execute these tasks. In addition to maintaining insurance, we set aside a portion of revenues for long-term maintenance and repair. Woodcache PBC is equipped to both understand what needs to be done, and have the means to do it.