



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



MELANIE LOYZIM
COMMISSIONER

September 14, 2022

To: Permit/License Holders of Maine Pollutant Discharge Elimination System (MEPDES) Permits and Maine Waste Discharge Licenses (WDLs)

From: Gregg Wood
Director, Division of Water Quality Management

RE: PFAS Testing Licensed Industrial/Commercial (private) Wastewater Facilities

On April 20, 2022, the Governor signed into law, L.D. 1911, An Act To Prevent the Further Contamination of the Soils and Waters of the State with So-called Forever Chemicals (P.L. 2021, ch. 641). LD 1911 revised Maine law, 38 MRS §413, sub-§12 to read as follows:

Sampling for perfluoroalkyl and polyfluoroalkyl substances. Notwithstanding section 414-A or any other provision of law to the contrary, the department by written notification may require a person licensed by the department to discharge wastewater to groundwater or any waters of the State to sample the effluent discharged for perfluoroalkyl and polyfluoroalkyl substances and to report the sample data to the department. Upon receipt of the written notification and as directed by the department, the person shall conduct the required sampling of the effluent for perfluoroalkyl and polyfluoroalkyl substances and report the sample data to the department. As used in this subsection, "perfluoroalkyl and polyfluoroalkyl substances" has the same meaning as in Title 32, section 1732, subsection 5-A. Subsection states that perfluoroalkyl and polyfluoroalkyl substances or "PFAS" means any member of the class of fluorinated organic chemicals containing at least one fully fluorinated carbon atom.

This letter serves as notification by the Maine Department of Environmental Protection (DEP) that sampling for PFAS is being required for your facility as a licensed industrial/commercial (private) discharger of treated wastewater to surface waters or groundwater, both of which are considered waters of the state. A separate letter has been sent to publicly owned treatment works (POTWs).

The Division of Water Quality Management will commence a monthly PFAS sampling project beginning October 2022 requiring selected POTWs and private facilities to sample their effluents monthly (or on an alternative schedule for non-continuous dischargers, to be determined) for approximately 10 months. Additionally, the selected spray irrigation facilities with groundwater monitoring wells will be doing quarterly sampling of one well each over the same period, performed by Bureau of Remediation and Waste Management (BRWM) staff for POTWs. BRWN staff will be reaching out to the affected facilities to arrange sampling events. The cost of courier transportation, sample analyses, and reporting for POTWs will be covered by funds under the American Rescue Plan Act (ARPA). Private facilities are responsible for covering their own shipping and analysis costs.

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

PFAS effluent samples must be collected and shipped to a Maine-approved laboratory for analysis using Maine-approved analytical methods as described below.

In support of this effort, the DEP will hold four training sessions throughout the state at DEP Regional offices as follows:

- Sept. 13 –DEP Augusta East Campus at 1:00 PM
- Sept 14 – DEP Presque Isle Regional Office at 10:00 AM
- Sept 15 – DEP Bangor Regional Office at 10:00 AM
- Sept 20 – DEP Portland Regional Office at 10:00 AM

The training will be conducted by DEP's contract laboratory for POTWs, Alpha Analytical, and DEP staff, and will cover the details associated with the collection, handling, preserving, transporting, and reporting on the effluent samples which treatment plant personnel will be taking. Due to spacing requirements, facilities are asked to send only one staff member to a training event, and if that person has not been vaccinated for COVID, they should be prepared to mask. See **Attachment A** of this letter for a list of contacts associated with this sampling project.

Background

PFOS and PFOA belong to a family of chemicals referred to as perfluoroalkyl substances or PFAS for short. PFOS (perfluorooctanesulfonic acid) and PFOA (perfluorooctanoic acid) are two chemicals in this family that were made in the largest amounts in the United States. Some other chemicals in this family that have been found in Maine soils and water are:

- Perfluorooctanoic acid (PFOA)
- Perfluorooctanesulfonate (PFOS)
- Perfluorononanoic acid (PFNA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorodecanoic acid (PFDA)

As early as the 1940's, PFAS (mostly PFOA and PFOS earlier on) became widely used in household products and industrial settings. These chemicals were also historically used in firefighting foams due to their effectiveness at quickly extinguishing petroleum-based fires. Because they have a unique ability to repel oil, grease, water, and heat, PFAS are used in many common products that we use regularly. For example, they have been used to make non-stick cookware, stain-resistant carpets and furniture, water-resistant clothing, heat/moisture/oil resistant paper/cardboard food packaging (like microwave popcorn and pizza boxes), and some personal care products. PFAS break down very slowly and are persistent in the environment. This means that PFAS may build up in people, animals, and the environment over time. Health agencies are working to understand more about the health effects of low level, long-term exposure.

According to the U.S. Agency for Toxic Substances and Disease Registry, some, but not all, studies have shown that PFOS and PFOA may:

- increase cholesterol levels;
- decrease how well the body responds to vaccines;
- increase liver enzymes;
- increase risk of high blood pressure or pre-eclampsia in pregnant women;
- decrease infant birth weight.

It is unclear if PFAS exposure directly causes cancer. Some studies show people exposed to high levels of PFOA may have an increased risk of kidney cancer or testicular cancer.

Standards

a. Drinking Water

1. Federal

There is no EPA maximum contaminant level (MCL) at this time. The EPA currently has a health advisory level of 70 nanograms /liter (ng/L) or parts per trillion (ppt) for drinking water for two PFAS compounds (PFOA and PFOS) either individually or the sum of two.

On June 15, 2022, the EPA established interim non-enforceable human health advisory levels as follows:

PFOS: 0.02 ng/l
PFOA: 0.004 ng/l
GenX: 10 ng/L
PFBS: 2,000 ng/L

The EPA has indicated it will be proposing to establish MCLs for PFOA, PFOS and other PFAS chemicals in November 2022 after assessing affordability and benefit-cost analysis.

2. State

On June 21, 2021, the Governor approved legislative resolve S.P. 64 – L.D. 129 (P.L. 2021, ch.82) that established an interim combined drinking water standard of 20 ng/L. The resolve established a schedule such that by June 1, 2024, the State of Maine shall adopt a final rule regulating PFAS contaminants including a MCL that is equally or more stringent than a MCL established by the federal government.

b. Aquatic Life Criteria

On May 3, 2022, the EPA published draft ambient water quality criteria for aquatic life for a formal 30-day comment period. On May 31, 2022, the EPA extended the comment period to July 2, 2022. The proposed criteria are as follows:

1. Fresh Water

PFOA Acute: 49 mg/l	PFOA Chronic: 0.094 mg/L
PFOS Acute: 3.0 mg/L	PFOS Chronic 0.0084 mg/L

2. Marine Waters

Acute: 7.0 mg/L Chronic: Not proposed

c. Human Health Criteria

EPA has indicated they will promulgate ambient water quality criteria for human health by December 31, 2024.

Sampling Plan

All analysis must be performed by a Maine-prequalified laboratory using a Maine-approved analytical method. For private facilities, a list of *Maine DEP Prequalified PFAS Laboratories* can be found on the DEP website, <https://www.maine.gov/dep/water/wwtreatment/index.html>, under Supplemental Materials and as **Attachment C** of this letter. For POTWs, DEP will be using Alpha Analytical of Westborough, MA and Brewer, ME to analyze and report PFAS results. DEP-funded samples from POTWs will be analyzed by Alpha Analytical (Alpha), 8 Walkup Dr Westborough MA 01581, Phone: (508) 898-9220. The Alpha project manager is Steve Knollmeyer, sknollmeyer@alphalab.com. Private systems can choose to use Alpha or another Maine-approved lab for their PFAS analysis.

Testing by private entities will not be covered by the DEP and must be paid for by the facility. Once the data has undergone a DEP quality assurance review, PFAS testing results from both POTWs and private facilities will be submitted to the DEP and available to the public on the DEP PFAS website, <https://www.maine.gov/dep/spills/topics/pfas/>.

All PFAS samples will be GRAB SAMPLES. See **Attachment B** of this letter for a PFAS sampling standard operating procedure (SOP).

Following collection, samples must be analyzed by a Maine-accredited laboratory using EPA method 537.1 Modified with Isotope Dilution. Results are reported for up to 28 individual PFAS compounds, as well as reporting Total PFAS comprised of the “sum of 6”: perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), perfluorononanoic acid (PFNA), perfluoroheptanoic acid (PFHpA) and perfluorodecanoic acid (PFDA). The standard reporting limit is 2 ng/L (nanograms per liter, a.k.a., parts per trillion or ppt).

All testing results must be reported as Level 2 QC reports and comply with DEP's Electronic Data Deliverable (EDD) format. . Instructions and forms for the EDD can be found on the DEP website at <https://www.maine.gov/dep/maps-data/egad/index.html>. See **Attachment D** of this letter for a sample Chain of Custody (CoC) form. Results from private entities (lab report and EDD) must be sent to the DEP within 2 weeks of report generation.

It is recommended that facilities complete a Sampling and Analysis Plan (SAP – See **Attachment B.3.a** of this letter) and review the DEP PFAS Sampling SOP prior to initiating sampling.

Spray irrigation facilities will collect a sample of the lagoon effluent, as directed by their compliance inspector. Collection of groundwater monitoring samples at spray irrigation facilities will be done by DEP personnel.

PFAS sampling documentation includes Chain of Custody (CoC), sample bottle labels, sampling logs, and/or field data sheets. The DEP and/or the contract lab will supply the required forms for data reporting. It is important to follow instructions carefully for completing the forms to avoid resampling.

Facilities with intermittent dischargers will coordinate with their DEP compliance inspector to make sure 10 samples are collected over the study period, even if it means collecting more than one sample per month. Facilities who fail to adhere to sampling schedules are subject to enforcement actions by the DEP.

In cases where samples are rejected by the lab or DEP due to Quality Control (QC) issues, the facility must arrange for the facility to collect a replacement sample for the month.

Based on results, DEP may require facilities to increase or decrease sampling. Additional sampling may be required at facilities with elevated results and a reduction of sampling may be allowed for locations with several months of "Clean" sample results.

Permitting

Results will be used by the Department to establish a baseline of PFAS levels in wastewater treatment plant effluents throughout the state that may be used for future regulation of PFAS chemicals. A tentative schedule is as follows:

December 31, 2023 – Complete 10-12 months of sampling.

June 21, 2024 – State of Maine to promulgate a drinking water MCL for PFAS.

December 31, 2024 – EPA to promulgate human health criteria for PFAS.

December 31, 2025 - DEP to complete rulemaking to adopt aquatic life and human health criteria for PFAS.

Following the promulgation of criteria cited above, the Department will incorporate applicable limitations and monitoring requirements in permits with schedules of compliance if necessary.

Thank you in advance for your attention to this matter. If you have questions or need additional information, see **Attachment A** of this letter for list of contacts that can assist you.



PFAS Wastewater Effluent Sampling Project Plan – 2022-2023

PFAS Effluent Sampling Project Contacts:

<u>Maine DEP Project Managers:</u>
James Crowley, DEP Compliance Supervisor, State Pretreatment Coordinator
207-287-8898
james.r.crowley@maine.gov
Brett Goodrich, DEP Technical Assistance
207-287-9034
Brett.A.Goodrich@maine.gov
Judy Bruenjes, DEP Technical Assistance
207-287-7806
Judy.K.Bruenjes@maine.gov
<u>ALPHA Analytical:</u>
Michael Chang, Alpha Analytical Project Manager
Contact for CoCs, reports, EDDs or other sample issues
508-439-5124
320 Forbes Ave, Mansfield, MA 02048
mchang@alphalab.com
Steve Knollmeyer, Alpha Account/Sales Rep
Contact for account set up, capabilities, pricing, contracts
603-498-7213
72 Center Street, Brewer, ME 04412
sknollmeyer@alphalab.com
Cindy Rogers, Brewer Service Center Manager
Contact for sample containers, courier setup)
Cindy Rogers (crogers@alphalab.com)
207-624-0713
72 Center Street, Brewer, ME 04412
Billy Dean, Maine Courier
Contact for sample pickup/ cooler delivery
wdean@alphalab.com , 207-852-1397



Attachment B

PFAS Sampling Standard Operating Procedure (SOP) for Wastewater Treatment Systems

Maine DEP ○ September, 2022

1.0 INTRODUCTION

This guidance document covers the Standard Operating Procedure (SOP) for MEPDES wastewater treatment facilities to sample their effluent for perfluoroalkyl and polyfluoroalkyl (PFAS) compounds. PFAS sampling of monitoring wells is not covered in this document. Spray irrigation facilities who are required to collect PFAS samples from both a groundwater well and an effluent monitoring point can use this SOP for the effluent sample collection.

All PFAS samples will be GRAB SAMPLES. Following collection, samples must be analyzed by a Maine-accredited laboratory using EPA Method 537.1 Modified with Isotope Dilution. Results are reported for up to 28 individual PFAS compounds, as well as reporting Total PFAS comprised of the “sum of 6”: perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), perfluorononanoic acid (PFNA), perfluoroheptanoic acid (PFHpA) and perfluorodecanoic acid (PFDA). The standard reporting limit is 2 ng/L (nanograms per liter, a.k.a., parts per trillion or ppt), however a higher detection limit may be necessary for specific samples, such as those with high solids or matrix interferences.

This SOP covers potential sources of PFAS contamination, pre-sampling preparation, sampling equipment, collection, preservation, storage, quality control (QC), documentation, equipment decontamination (decon), and transport of samples to the contract lab for analysis.

The DEP will continue to update this guidance as new information becomes available. For more information, refer to the DEP PFAS website, <https://www.maine.gov/dep/spills/topics/pfas/>.

2.0 POTENTIAL SAMPLE CONTAMINATION

PFAS compounds are present in many common household products, like clothing, consumer packaging and personal care products. Given the ubiquitous nature of PFAS compounds and the low detection levels that are generally requested for analysis, more stringent precautionary steps are required to prevent PFAS cross-contamination when collecting samples when compared to routine sampling for common wastewater parameters.

Personal care products that may contain PFAS should be avoided on sampling days. These include moisturizers, sunscreen, insect repellent or similar products that have not been determined to be PFAS-free. Commercial and industrial products that may contain PFAS include water-proof clothing, coated paper, blue ice, and plastic clipboards. PFAS can be found in food packaging and certain foods and beverages. Sampling ports and equipment containing LDPE or Teflon® sealants, tapes, or tubing should not be used during PFAS sampling. All grab sampling equipment used in this wastewater study must be properly cleaned and decontaminated to help reduce cross contamination. See Table 1 for a summary of PFAS-containing products to avoid on PFAS sampling days.

Remember, it is in the best interest of the facility to reduce the potential for sample contamination to the greatest extent possible. Greater than actual results could lead to additional sampling and analysis events, or long term, burdensome permit limits and unnecessary remedial actions. Therefore, careful preparation and following procedures is critical for accurate, successful PFAS sampling at your facility.



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Table 1. Personal Items to Avoid on PFAS Sampling Day

Items to Avoid on PFAS Sampling Day
• Avoid use of moisturizers, sunscreen, insect repellent or similar products that have not been determined to be PFAS-free on the day of the sampling event. • Avoid prepackaged food or fast-food packaging on sampling day. No food should be eaten in the sampling or staging area. • Do not wear on sampling day clothing and other materials that have been laundered with any chemicals, i.e. fabric softeners, waterproofing. Instead, use plain, unscented detergent or soap. New clothing should be washed several times before use. • Examples of clothing or gear that may contain PFAS include Gore-Tex™, Tyvek®, Teflon®, any fire retardant clothing and certain Carhartt products (e.g. "rain defender", "DWR", "Rugged Flex", etc.). • Keep PFAS sampling containers away from carpeting and upholstery. Do not use foil as a layer between stacked sample bottles. • Do not use latex or vinyl gloves, pumps or tubing that contain Teflon® or other fluoropolymer-containing materials, or recycled or chemically treated paper towels. • When performing field documentation, do not use waterproof/treated paper or field book, plastic clipboard, spiral bound notebook, permanent marker, Post-It® or other adhesive paper products. • Do not use chemical (blue) ice packs to cool samples. Lab or commercially purchased ice is acceptable. • Untreated paper towels and cotton cloths may be used during the sampling event.

3.0 Preparation Prior to Conducting PFAS Sampling

- a) Sampling Plan. Prior to conducting any investigative field work, a sampling plan should be developed. Elements of the sampling plan include: names of personnel managing the project and collecting the samples, personnel training, sampling documentation, sample location, methods for collecting, storing and transporting samples to the contract lab, sample equipment decontamination and storage between sampling events, and receipt and maintenance of PFAS sampling results.
- b) Training. All personnel involved in PFAS sampling should be properly trained on PPE, proper sampling technique, equipment, completing required documentation, and determining which personal care products and consumer materials should be avoided on PFAS sampling days.
- c) Gloves. Single use disposable powder-free nitrile gloves should be worn for the duration of the sampling event.



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- d) Clothing. A cotton or cotton blend lab coat or utility overall should be over worn over street clothes that has been washed several times in fragrance- and softener-free laundry detergent prior to using the first time and washed again following each sampling event.
- e) Consumer products. See Table 1 for a summary of PFAS-containing products to avoid on PFAS sampling days. Do not allow any prepackaged or fast-food packaging in the sampling area. No food should be eaten in the staging or sampling areas.
- f) Sampling Documentation. PFAS sampling documentation includes Chain of Custody (COC), sample bottle labels, sampling logs, and/or field data sheets.
 - The DEP and/or the contract lab will supply the required forms for data reporting. Information includes facility location and contacts, sampling location, sampling date and time, collection methods, and required signatures. For each participating public facility, these forms will be customized and provided as a template.
 - The DEP may require field data sheets and/or sampling logs that include plant condition at the time of sampling, such as wet weather flow, septage received, and total daily flow. For each participating public facility this information is entered in a section provided on the customized COC.
 - Private commercial/industrial facilities participating in the Project will be selecting their preferred Maine-certified analytical laboratory. Each participating facility will ensure that the COC used contains at least the same information as the state template.
- g) Sampling Equipment. The facility must prepare to receive, store, and decontaminate (decon) sampling equipment using PFAS-free materials, such as HDPE or stainless steel. All equipment must be properly cleaned, and then rinsed with PFAS-free water prior to use, and again prior to re-use.
 - Sampling “kits” are provided by the contract laboratory by mail, courier, or potentially picked up at a designated location. Sample bottles must be polypropylene with unlined, polypropylene caps (no Teflon®-lined caps).
 - In most cases a dedicated cooler will be supplied by the contract lab. Included in the sampling “kits” are two, 250 mL sample bottles, bottle labels, COC forms, and Ziploc® bags for storing collected samples. The kit may also include Quality Control (QC) sample bottles (field blank [two], equipment blank [two], and a temperature blank (do not use), and approximately one liter of PFAS-free water for decontamination of sampling equipment.
 - The coolers should only be used to store PFAS samples and equipment. The cooler may stay at the facility between sampling events or be used to transport samples to the lab, depending on the pickup/delivery plan for each location.
 - Equipment used for sampling collection and any portion of dippers, long-handled swing samplers, scoop/extension rod, etc. that come into contact with the effluent sample should made of PFAS-free material, such as high-density polyethylene



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(HDPE) or stainless steel. Sample-taking containers should be a minimum of 1 liter capacity, and not greater than about 2 liters. If ropes are necessary for sample collection, use natural fiber ropes.

- h) Determine PFAS sampling location(s). For required sampling, the DEP Compliance Inspector can assist the facility regarding the appropriate PFAS sampling location. In most cases PFAS samples will be collected at or near the same location as MEPDES final effluent samples, or as otherwise directed.
- Facilities without open access to the effluent stream or which are unable to collect a grab sample from a tap directly into an active wastewater discharge line must consult their DEP Compliance Inspector to determine an appropriate sampling location or collection technique.
 - Facilities using ports or pumps for sampling collection must verify that submersible pumps, tubing, and bladders are PFAS-free (HDPE, silicone, or stainless steel). Use of pumps or other kinds of more complex sampling equipment will entail the use of equipment blanks.
 - Avoid grabbing samples from areas containing high solids, excessive turbulence or foam, as PFAS compounds can accumulate on suspended solids and are attracted to the air/water interface of bubbles and foam.
- i) Scheduling PFAS sampling. For required sampling, the DEP will notify the facility of the overall sampling schedule. ***In general, this will be once a month for 10 consecutive months for effluent samples, and once a quarter for a minimum of four samples for groundwater monitoring. Additionally, field blanks and equipment blanks will be required with the first two sampling events.*** Public facilities participating in the Project will be using Alpha Analytical to provide courier (sample kit delivery and sample pickup), analytical, and data acquisition (Level 2 Report of analyses and EGAD-compatible EDD form completion). Participating commercial/industrial facilities who elect to use Alpha Analytical may be able to use the same services, as individually determined.
- Avoid times of upsets or unscheduled maintenance activities unless specifically requested by the DEP. Weather (rain, snow, wind, etc.) impacts your ability to accurately collect your effluent sample, consider rescheduling for another day to avoid cross contamination from water-proof rain gear or other causes. If necessary, use wet weather gear and boots made of polyurethane and PVC only.
 - Facilities with irregular or intermittent discharges should contact their compliance inspector to determine when to perform PFAS sampling.
 - Facilities where winter conditions prevent a Q1 2023 groundwater sampling event will alternatively run two samples in Q2 or Q3.
 - As applicable, shipping arrangements with the contract lab for sample drop off/pick up should be made at least 48 - 72 hours prior to the sampling day.



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When properly packed in ice the sample hold time for Method 537.1 M is 14 days. However, it is advisable that samples be held no longer than a maximum of 2 – 3 days before shipment to allow for handling and transportation variability, weekends, and holidays.

j) Sampling Practices

- In most cases the sample bottle will contain a small amount of white powder (Trizma) to dechlorinate the sample. To avoid losing the Trizma, the effluent sample will be collected in an intermediate container and transferred to the sample bottle.
- The collection container used by the facility should be made of a PFAS-free material (i.e., HDPE or stainless steel) with a volume of at least 1-L that was properly cleaned and rinsed with PFAS-free water before sampling. The contract lab may provide a 1L HDPE container for this purpose.
- Any equipment used during sample collection that comes into contact with the effluent sample, such as long-handled swing samplers, scoop/extension rod, etc. should be made of PFAS-free material. If ropes are necessary for sample collection, use natural fiber ropes.
- Samples collected from sampling ports (or pumps): Attach PFAS-free tubing or sampling equipment to sampling ports, pumps, etc., *if necessary (not recommended)*, in accordance with the sampling plan. Turn on the tap (or pump) and allow the effluent to flow freely for at least 5 minutes before collecting the sample to obtain a representative sample, free of potential local contamination.

k) Quality Control (QC) Samples. QC samples, including field and/or equipment blanks will be collected on the first two sampling events or subsequently when requested by DEP or the contract laboratory. The purpose is to check for air-borne, site, or sampling technique contamination. A temperature blank (a small bottle of PFAS-free water) will be included by the lab to verify that the samples are properly cooled during transportation and arrive in-spec.



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4.0 SAMPLING COLLECTION PROCEDURES

- a) Attach the collection container to the sampling device (dipper, rope, etc.) and rinse with site medium. Collect a grab sample under the effluent stream.
- b) Carefully transfer the sample from the collection container into the sample bottles, filling two, 250 mL bottles. The bottles should be filled to the neck (or fill-line if present), with headspace left at the top.
- c) The sample bottles will contain a small amount of white-powder, TRIZMA®, used for dechlorination. Make sure not to overfill the bottles or pour any water out in order to avoid losing powder.
- d) Don't let the inside of the bottle, cap or threads touch anything. Do not place bottle caps on the ground during sampling or they may get contaminated. It is best to hold the bottle caps with one hand while sampling with the other. Get help from an appropriately prepared assistant if you need it.
- e) Once filled, cap and gently flip bottle upside down (~5x) until preservative mixed in. Don't re-open bottle.
- f) Fill in the sample date, time and sampler's initials on the pre-printed labels *prior to actual sampling activity*. Put the bottles into zip-lock bags and place in the cooler.
- g) Collecting a field blank: At the start of the sampling event open the empty bottle and the bottle full of PFAS-free water, pour the field blank water into the empty bottle, and close. *Include both the full field blank bottle and the empty PFAS-free water bottle in the sample package being returned to the lab.*
- h) Collecting an equipment blank: Pour PFAS-free water into or through the sampling device before sampling the waste stream, and then into the laboratory provided sample container.
- i) Complete the COC, noting sampling date, time, sampler name, and sign where necessary. Include any comments and other information required. Verify the date and time on the bottle labels match the COC. Put COC in plastic bag and place in the cooler. Public facilities participating in the Project will be using pre-labeled bottles and pre-filled COCs requiring date, time, and sampling individual inputs (COCs require additional facility information); it is advisable that writing on the sample bottles take place immediately ahead of the sampling activity. Commercial/industrial facilities should follow the same protocol.
- j) Complete COCs or field data sheets as required by the DEP. This may include information on plant conditions at the time of the sampling, such as wet weather, septage/transported waste received, and the previous day's total daily flow.
- k) All collected sample bottles and required paperwork should be put into Ziploc® plastic bags and stored in the dedicated cooler packed with regular ice from your lab or commercially purchased. Do not use "blue ice" chemical icepacks. Do not place any other non-PFAS samples in the same cooler. Make sure the temperature blank (a small bottle of PFAS-free water) is included in the cooler.



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- l) Store coolers with collected samples in a safe location while maintaining the temperature $\leq 10^{\circ}\text{C}$ (50°F) during the first 48 hours, and $\leq 6^{\circ}\text{C}$ after 48 hours. Do not allow samples to freeze. If samples must be stored for a day or two while awaiting transfer to the lab, it may be possible to store smaller coolers in a designated refrigerator but avoid storing near other items that may contain PFAS. The preferred technique is to store the samples in ice in the cooler, draining water and replenishing the ice as needed.
- m) Ship the coolers to the contract lab in accordance with the sampling plan. Adequate ice is particularly important when collecting samples during hot weather or for overnight shipment.
- n) Properly discard disposable equipment. Do not reuse nitrile gloves. Decon reusable equipment in accordance with Section 5.0 below. Cover the clean equipment and store in a dedicated location for the next sampling event. Do not use the sampling equipment for non-PFAS sampling.

5.0 DECONTAMINATION (DECON)

- a) Clean equipment and containers thoroughly with Alconox® or Liquinox® labware cleaner and tap water. Do not use Decon 90 or Dawn® dish detergent.
- b) Perform a final rinse with PFAS-free water. In most cases, PFAS-free water will be supplied by the contract lab and a portion should be reserved for the final rinse.
- c) Store the clean sampling container in a Ziploc® bag, separate from the rope, line, or other equipment used. Do not use this sampling container or tie line for any purpose other than PFAS sampling.

6.0 PFAS TESTING RESULTS

PFAS lab results are typically available from the laboratory 3-4 weeks following sample receipt.

Results include a Level 2 QC lab report and an Electronic Data Deliverable (EDD) form. For public facilities in the Project, this has been pre-arranged with Alpha Analytical.

Commercial/industrial facilities should consult with their Compliance Inspector regarding reporting data.

For more information, contact your DEP Compliance Inspector.

Jim Crowley, ES-IV
Compliance Supervisor/Pretreatment Coordinator
Project Technical Advisor
207-287-8898
james.r.crowley@maine.gov

ATTACHMENT C

Maine DEP Prequalified PFAS Laboratories

Current as of 7/16/2020

Laboratory	Matrices awarded
Absolute Resource Associates 124 Heritage Ave. Unit 16 Portsmouth, NH 03801 Contact: Aaron DeWees (603)436-2001 aarond@absoluteresourceassociates.com	Drinking Water
Alpha Analytical 72 Center Street Brewer, ME 04401 Contact: Steve Knollmeyer (603)498-7213 sknollmeyer@alphalab.com	Drinking Water Groundwater Surface Water Wastewater Soil Sediment Sludge/Compost Vegetative Material Tissue
ALS Environmental 1317 13 th Ave Kelso, WA 98626 Contact: Howard Boorse (360)577-7222 Howard.Boorse@alsglobal.com	Drinking Water Groundwater Surface Water Wastewater Soil Sediment Sludge/Compost
Battelle 141 Longwater Drive, Suite 202 Norwell, MA 02061 Contact: Jonathan Thorn (781)681-5565 thorn@battelle.org	Drinking Water Groundwater Surface Water Wastewater Soil Sediment Sludge/Compost Vegetative Material Tissue
Con-Test Analytical Laboratory 39 Spruce Street East Longmeadow, MA 01028 Contact: Jim Georgantas (413)525-2332 jgeorgantas@contestlabs.com	Drinking Water Groundwater Surface Water Wastewater Soil
EMSL Analytical 200 Route 130 Cinnaminson, NJ 08077 Contact: Robert DeMalo (856)858-4800	Drinking Water

contracts@emsl.com	
Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Contact: Jane Huber (717)209-1438 JaneHuber@eurofinsus.com	Drinking Water Groundwater Surface Water Wastewater Soil Sediment Sludge/Compost Vegetative Material Tissue
SGS AXYS Analytical Services 2045 Mills Road West Sidney, BC V8L 5X2 Canada Contact: Nick Corso (781)799-5740 Nicholas.Corso@sgs.com	Vegetative Material Tissue
SGS North America 550 Business Dr. Wilmington, NC 28405 Contact: Jeannie Milholland (910)667-0134 Jeannie.milholland@sgs.com	Drinking Water
TestAmerica Laboratories 880 Riverside Parkway West Sacramento, CA 95605 Contact: Debby Wilson (949)237-0603 Debby.wilson@testamericainc.com	Drinking Water Groundwater Surface Water Wastewater Soil Sediment Sludge/Compost Vegetative Material Tissue
Vista Analytical Laboratories 1104 Windfield Way El Dorado Hills, CA 95762 Contact: Jennifer Miller (916)673-1520 jmillier@vista-analytical.com	Drinking Water Groundwater Surface Water Wastewater Soil Sediment Sludge/Compost Vegetative Material Tissue

**** Before arranging for testing, have the lab confirm that they can provide bottles, the shipping required, pricing, turn-around-times, and MEDEP suggests requesting an isotope dilution method with a full or standard reporting list, typically 18 – 28 compounds. Requesting an electronic data deliverable (EDD) in addition to the report in pdf format, will make it easier to summarize and sort results.**

ATTACHMENT D

Example CHAIN OF CUSTODY PAGE 1 OF 1 Maine DEP- LD1911 PFAS Project Samples								Date Rec'd in Lab:		Lab Job #:	
Project Information: Facility Name: MEPDES # (Client Project #): EGAD Site #: DEP Project Manager: Brett Goodrich, ; Brett.A.Goodrich@maine.gov Facility Contact: Facility Email: Facility Phone: Lab report copies to: dep.edd.maine.gov; Brett.A.Goodrich@maine.gov ; Other email:								Contract and Billing Information: Invoice to: To be completed by permittee before submitting samples Daily Flow (MGD) for 24-hourr period prior to sampling MGD Check if applicable: ☐ Wet weather event within 24 hours of sampling ☐ Septage Received within 24 hours of sampling ☐ Leachate or Other Transported Waste w/i 24 hr of sampling			
Client Information: Client: Contact: Address: State: Zip Code: Phone: Email:								Turn-Around Time: ☒ Standard ☐ Rush (only confirmed if pre-approved) Date Due:			
Sampling Notes:										Total # Bottles Sample Comments:	
Lab ID (Lab Use Only)	Sample Point Name (Ex. Outfall 001-A, Lagoon Effluent Before Spray)	Sample Date	Sample Time	Sample Matrix/ Type	Sample Location	Collection Method	Treatment Status	Analysis: Maine 28 PFAS Compounds (Isotope Dilution)			
	Effluent Outfall #:			WW	EF	G	T	X		2	
	Field Blank (if applicable)							X		1	
	Equipment Blank (if applicable)							X		1	
Container Type: P=Plastic A=Amber Glass V=Vial G=Glass B=Bacteria cup C=Cube O=Other E=Encore BOD=Bottle	Preservative: Tz= Trizma A=None O = Other _____		Sampled by:					Container Type: P	All samples subject to Alpha's terms and conditions.		
	Relinquished by:					Date/ Time:		Received by:		Date/ Time:	
	Relinquished by:					Date/ Time:		Received by:		Date/ Time:	
	Relinquished by:					Date/ Time:		Received by:		Date/ Time:	
	Relinquished by:					Date/ Time:		Received by:		Date/ Time:	
Relinquished by:					Date/ Time:		Received by:		Date/ Time:		