

J Bart Ruiter
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To: Maria S Angelo/AE/DuPont@DuPont, Richard S Vickery/AE/DuPont@DuPont, Thomas R Morgan/AE/DuPont@DuPont, Mary A Kaiser/AE/DuPont@DuPont
cc: Stephen W Constable/AE/DuPont@DuPont, Catherine A Barton/AE/DuPont@DuPont, Robert A Reich/AE/DuPont@DuPont
Subject: Chambers Works: Effluent and River Draft Sampling Plan

Maria, Rick and Tom

I upgraded the Phase I sampling plan for the effluent and river based on your comments. This should be the final sampling plan.

Any questions let me know

Bart

Effluent and River Sampling Plan (4/8/03)

Objectives of Sampling Plan

Perform screening assessment of wastewater outfalls and river.

Sampling Locations

- Outfall sample 001 & 662. (Outfall 662 is filtered w/.45 micron filter and unfiltered)
- Internal Sampling Points 529 & 803 & Regional Tank 883/A
- River Samples
 - CW Intake 101
 - Salem Canal Raw water intake and finished water sample (after carbon filter)
- Upstream River Sample DuPont Repauno Intake

Sample Type

- Delaware River and Salem Canal samples 24 hour composite sample
- Outfall and internal samples 48 hour composites (2 - 24 hour composites combined)

Note (Outfall samples 001 and 662 should lag approximately 24 hours after internal samples to take into account HRT of WWTP)

Parameters to be Sampled

PFOA \$625 per sample which includes replicate and spike
TSS
TOC

Blanks - Equipment Blank will be collected by running analyte free water supplied by Exygen over ISCO tubing, jar and strainer at Salem canal and one location at WWTP before sampling. A field blank will be

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collected by bottle to bottle transfer at Salem canal and one location at WWTP at the end of the sampling event.

Duplicate for each day of sampling

Analytical Laboratory

- Oxygen

Sampling Technique



3M SOP Water Sampling.c sampling precautions.pj

Collection of Samples (Timing)

Based on input from the mass balance team, sampling events will be coordinated to four operating scenarios:

- No loading (baseline)
- WW/DDE
- WW/DFS
- All areas

First sampling event targeted for week of 4/14

Second sampling event targeted for early May

Third sampling event targeted for late May (depending on production schedules)

Baseline sample will need to be orchestrated for when no units are running

Upstream river sample only needs to be taken during first sampling event

Salem canal sample only needs to be taken during first sampling event

River intake - TBD

Note: surface water samples do not have to be taken simultaneously as WWTP samples, but close in time

Cost Estimate

a) Outfall and Internal Sampling per sampling event

- Manpower for Sample Collection \$ 800 per event
- Analytical Costs (8 samples) \$5000 per event
(001, 662 filtered and unfiltered, 529, 803, duplicate, field, and rinse blank)

b) River Sampling per sampling event

- Manpower for Sample Collection \$ 800 per event
- Analytical Costs (7 samples) \$4375 per event
(Intake 101, Salem Canal Raw and Finished water, Repauno Intake, duplicate, field, and rinse blank)

Other

- Record Manufacturing Operations & OSWB Activity at Time of Sampling
- The cost estimate assumes that the outfall and river sampling will be performed on different days.
- Any samples that need filtering, URS will filter the samples with a .45 micron sample

- Bottles will be delivered to Mike Aucoin at BMP 27. Bottles for any sample that is not collected at the Chambers Works facility (e.g. Repauno Intake) will not be brought on site.
- New tubing will be used for each sampling event

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