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## **1. INTRODUCTION**

Woodard & Curran was retained by The Procter & Gamble Manufacturing Company (Procter & Gamble) to prepare this Interim Closure Report (ICR) for the Wastewater Treatment Plant (WWTP) located at its former Woods Corners Facility in Norwich, New York (the "Site"). The work reported herein was conducted in preparation to sell the property and transfer the facility permit to a new owner. Work was conducted in accordance with the January 7, 2009 Interim Closure Plan (ICP) that was approved by the New York State Department of Environmental Conservation (NYSDEC) on February 17, 2009. The Site has since been sold to Agro-Farma, Inc., a manufacturer and distributor of dairy products.

### **1.1 PURPOSE**

This ICR describes the actions, sequence, and chronology of activities completed to temporarily close the existing WWTP in preparation for transfer of the facility permit to the new owner/operator of the Site. The ICR involves the removal of sludge and materials, and cleaning the equipment, structures, and lagoons to place the WWTP in temporary closure status pending permit transfer and reuse by the new owner/operator.

### **1.2 REGULATORY SUMMARY**

The WWTP operates under State Pollutant Discharge Elimination System (SPDES) Permit Number NY0004146. For the purposes of this ICP, with transition of the Woods Corners Facility to new ownership, the terms and conditions of the existing SPDES Permit Number NY0004146 were presumed to remain in effect during implementation of the ICP, and the Permit will be transferred to the new owner/operator upon their successful completion of an application to the NYSDEC for the transfer.

Regulations governing the SPDES Permit include a provision that outlines closure requirements for wastewater treatment facilities operating under such a permit, 6 NYCRR Subpart 750-2.11: Operating In Accordance With a SPDES Permit, Closure Requirements for Wastewater Treatment Facilities. The ICP herein has been drafted in general accordance with the guidelines for closure as outlined in 6 NYCRR Subpart 750-2.11.

### **1.3 PRESENTATION OF THE ICR**

Interim closure of the WWTP was implemented as a multi-disciplinary effort and is documented in the following sections as outlined below:

- A description of the existing WWTP (Section 2);
- Design, installation, and start-up of temporary treatment facilities while the WWTP is off-line during the cleaning process and temporary closure (Section 3);
- Site civil engineering/construction review of the sequence of operations and material management methods used to conduct the cleaning and sludge removal process (Section 4);
- Confirmation and disposal characterization sampling results including data validation and inspection reporting (Sections 5 and 6); and
- Project completion including interim closure of the existing temporary WWTP and the Professional Engineer's certification (Section 7).

## **2. EXISTING WWTP**

The Site is located in Norwich, New York, situated on the east bank of the Chenango River, and consists of approximately 88 acres of land containing several buildings that housed chemical and pharmaceutical development laboratories, pilot plants and manufacturing facilities. The land is flat, lying in the Chenango River valley, and is surrounded by mostly rural farmland and woods. The original facility buildings were constructed in the 1950s, with expansions and additions through the early 2000s. Water is supplied by two on-site production wells. Wastewater is treated on-site via the existing WWTP located on the western portion of the Site, abutting the Chenango River.

The existing WWTP at the Site includes four lagoons for the treatment of laboratory, maintenance, and sanitary wastewaters as follows: a 0.72 million gallon (MG) Equalization Basin (at 5 foot depth) (Basin 1), a 1.25 MG Aeration Basin (Basin 3), a 25 foot diameter Secondary Clarifier, a 1.25 MG aerated Digester Basin (Basin 2), and a 0.75 MG Polishing Pond (Basin 4). A block flow diagram and layout drawing of the system is included in Appendix A. The influent wastewater is equalized in the Equalization Basin (Basin 1) and then is conveyed to the Aeration Basin (Basin 3) for biological treatment. The mixed liquor from the Aeration Basin (Basin 3) is conveyed to the Clarifier for solids/liquid separation. The clarified effluent is then disinfected using ultraviolet (UV) reactors and discharged to Basin 4 for polishing. The treated effluent is then discharged to the Chenango River. Clarifier underflow is returned to the Aeration Basin (Basin 3) and a portion is wasted to the digester (Basin 2).

### 3. TEMPORARY WASTEWATER TREATMENT PLANT

For implementation of the ICP, provisions were made to install a temporary WWTP to treat all domestic wastewater, laboratory and maintenance wastewater, and any rainwater collected in the lagoons. During June, July, and August 2009 a temporary WWTP was delivered, installed and started up on-site to treat the wastewater in the existing lagoons during the dewatering and cleaning process, residual wastewater generated by the Procter & Gamble production facility, and any rainwater that accumulated in the lagoons from direct precipitation during the process. No stormwater runoff enters the lagoons.

The temporary WWTP was designed in compliance with parameters as specified in SPDES Permit Number NY0004146 that governs operation and discharge of the WWTP. Procter & Gamble successfully pilot tested an ultrafiltration membrane system during the fall of 2007. A temporary system of the same technology was selected to treat the lagoon wastewaters and residual wastewater from the Procter & Gamble production facility.

#### 3.1 ENGINEERING DESIGN BASIS

The temporary WWTP was designed to treat wastewater in the existing lagoons during the dewatering phase of the project, as well as incoming wastewater from the Procter & Gamble production facility during both the active dewatering phase and when the lagoons were temporarily shut-down pending restart by the new owner/operator. The two phases of the project had two different projected design bases: (1) the projected average wastewater flow rate during the dewatering phase; and (2) the projected average wastewater flow rate from the Procter & Gamble production facility once lagoon closure activities were complete. These design bases are presented below.

<b>Parameter</b>	<b>Minimum Average (Wastewater Only)</b>	<b>Maximum Average (Wastewater, Lagoon Dewatering and Rainwater)</b>
Flow (gpd)	10,000	50,000
BOD (mg/l)	50	50
BOD Loading (lb/d)	4.2	20.9

The minimum average flow rate projections were based on a flow study conducted by Procter & Gamble during September and October 2008, as well as projections for the anticipated wastewater flow rate from the Procter & Gamble production facility by April 2009.

The maximum average flow rate projections were based on providing additional capacity, above the minimum average flow rate, which would be used to treat the wastewater in the existing lagoons, sludge permeate from the dewatering process, and accumulated rainwater during the closure process. Based on these estimates, the temporary WWTP was originally designed for a maximum average capacity of 50,000 gpd; however, Procter & Gamble was able to procure a unit with a purported maximum average capacity of 100,000 gpd. This provided, on average, approximately 80,000 gpd of capacity for dewatering activities during the dewatering phase.

### **3.2 SELECTION OF TREATMENT TECHNOLOGY**

A temporary membrane bioreactor (MBR) was selected as the preferred wastewater treatment option to be used during the interim closure due to the successful pilot test of the technology in 2007. The conclusion of the pilot test was that a positive solids/liquid separation system, in the form of a 0.04 micron ultrafiltration membrane, best fit the application. This type of system was anticipated to be effective in reducing particulate levels in the wastewater from agitated sediment in the lagoons during the dewatering phase of the project.

An MBR system also offered the most flexibility for biological treatment and solids separation. The BOD loading to the existing WWTP is and was expected to remain low, requiring minimal biological treatment; however, membrane ultrafiltration provides solids separation and high effluent quality despite poor flocculation or settling that might occur in a traditional activated sludge clarifier under such under-loaded conditions. MBR technology was also best suited to address the phased operational approach of the two design bases developed during preliminary engineering. The mixed liquor suspended solids (MLSS) concentration in the bioreactor can be controlled to add flexibility during episodes of higher or lower BOD loading.

A number of membrane manufacturers, vendors, and contractors were contacted to offer proposals for the temporary MBR system. The variable design capacity, estimated project duration, and anticipated project start date eliminated many of these preliminary options. The option selected that met project requirements was a Siemens Water Technologies (SWT) X-Press 100 MBR package system. The SWT Xpress 100 MBR is a complete wastewater treatment plant, purportedly capable of treating up to an average of 100,000 gpd and peaks as high as 200,000 gpd. The unit was a pre-designed and skid-mounted system that reduced installation time and expense. The system included influent screening, a self-contained bioreactor, membranes and membrane tanks, permeate pumps, recycle pumps, both aeration and membrane scouring blowers, and the instrumentation and control packages required for operation. The SWT Xpress 100 MBR system was mounted on two independent skids that were placed within the storage bay of the existing wastewater treatment building at the Site. The only peripheral equipment required to support the MBR system were two influent feed pumps, a temporary lagoon wastewater transfer pump system, screenings container, sludge holding tanks, and instrumentation and a programmable logic controller (PLC) for control of these peripheral systems.

A product data sheet for the SWT Xpress MBR package system is included in Appendix B.

### **3.3 TEMPORARY WWTF PROCESS DESIGN DESCRIPTION**

Wastewater from the Procter & Gamble production facility flows to the existing Building 106 Sump (B-106 Sump). The existing WWTF operation utilized two transfer pumps to convey the influent wastewater from B-106 Sump to the Equalization Basin. The new temporary WWTF utilized two new smaller pumps which transferred the influent wastewater to the MBR located in the storage bay of the existing wastewater treatment building. The new B-106 Sump pumps were supplied with variable frequency drives (VFDs) and a new control panel (CP-01). Another new pump and remote control panel (CP-02) was designed as a mobile system that could be deployed at each of the four lagoons as needed during the dewatering phase. This pump utilized existing piping and sections of temporary piping to convey wastewater from each of the lagoons to the MBR located in the storage bay of the existing wastewater treatment building. The pump was installed on an existing lagoon float system enabling the pump to be submerged as the lagoon was dewatered and the wastewater level dropped. Panel CP-02 was located near the pump system and provided power, speed control, and communication with Panel CP-01.

Panels CP-01 and CP-02 communicated to provide consistent wastewater flow to the MBR based on the water level in the B-106 Sump, speed control for the lagoon pump system, and the MBR set points. This allowed the influent wastewater from the production facility to B-106 to continue to be treated during dewatering activities.

The B-106 influent wastewater and lagoon wastewater were combined and conveyed to the influent fine screen on the MBR. The screened solid materials were collected in a holding container for removal. After screening, the wastewater and MLSS in the bioreactor were pumped to the membrane tanks where permeate pumps drew water through the ultrafiltration membranes and out to the existing ultraviolet (UV) system for disinfection. Concentrated MLSS was recycled back to the bioreactor or wasted to a sludge holding tank for removal to the digester and further dewatering. Blower air was supplied to the bioreactor for biological treatment, and a second blower fed air to a diffuser system under the membranes, creating a scouring effect which minimized buildup on the membrane pores.

A process flow diagram and general arrangement drawings for the temporary WWTP are included in Appendix B.

### **3.4 START-UP AND OPERATION**

Upon completion of the MBR unit installation and debugging in June and July 2009, the system was started up in August 2009 and began receiving wastewater from the existing lagoons, which continued to treat the production facility wastewater from B-106. The existing clarifier screw pump, clarifier, and Polishing Pond were taken off-line, cleaned, and put in a stand-by status with the MBR functioning as the main solids separation process in place of the clarifier. MBR effluent was disinfected using the existing UV disinfection system prior to discharge. The system functioned in this mode through April 2010.

Dewatering activities began in April 2010, at which time the new pump system in B-106 was started up in order to feed all production facility wastewater directly to the MBR for treatment. This enabled the existing lagoon systems to be taken off-line, and the temporary lagoon pump system was started up to feed wastewater from the lagoons to the MBR during the dewatering phase. The system functioned in this mode through October 2010 when sludge dewatering activities concluded.

The MBR will continue to function as the wastewater treatment system for the production facility wastewater pending re-start of the lagoon-based system by the new owner/operator.

## **4. INTERIM CLOSURE OF THE EXISTING WWTP**

With the installation and start-up of the temporary WWTP, lagoon closure activities commenced on April 5, 2010. Discharges to the lagoons were redirected to the temporary WWTP. During the preparation of the ICP, it was anticipated the four lagoons (Equalization Basin, Aeration Basin, Digester Basin and Polishing Pond) had a sludge layer estimated at +/- one foot deep (combined average) across the bottom of the lagoon. Upon completion of the ICP, the existing WWTP lagoons will remain inactive pending reuse by the new owner/operator. The minimal domestic wastewater generated at the production facility in the interim will be directed to the temporary WWTP for treatment and discharge under the existing SPDES permit.

The ICP primarily involved cleaning existing equipment components, dewatering the existing lagoons and removing sludge and waste materials. The following sections describe the methods used to perform this work in conformity with the ICP.

### **4.1 ISOLATED EXISTING EQUIPMENT COMPONENTS**

Existing equipment components in the lagoons were removed and disposed of in the following manner:

- Plastic balls floating on surface of Digester and Aeration Basins were removed via boats and netting. Plastic balls were collected in clear plastic bags and disposed at the Chenango County Landfill.
- High density polyethylene aeration piping, fittings, and valves and the corresponding concrete anchors were removed from the Digester and Aeration Basins, flushed with clean water via fire hose, and transported to an on-site storage location.
- Other miscellaneous equipment components of the WWTP that were not used during operation of the temporary WWTP were cleaned and secured pending re-use by the new owner/operator.
- The Clarifier was shut-down, isolated, evacuated of liquid contents, cleaned, drained, and secured. The clarifier was kept in a standby state (i.e., oil was retained in the gear box) in the event that the unit was needed as a treatment unit during sludge dewatering operations.
- Other components of the WWTP not in use, such as piping and components (pumps, valves, etc.) were cleaned (flushed with water), drained, and secured. Structures (sumps, splitter boxes, etc.) were evacuated, flushed and cleaned with water, again evacuated, and secured (refer to Section 3.0). Equipment components with hydraulic or lubricating fluids (i.e., agitators) that were not in present use and that did not have a foreseeable use were drained of these fluids at the direction of Procter & Gamble, and the fluids were given to Procter & Gamble for storage or recycle.

### **4.2 LAGOON DEWATERING**

Dewatering operations initially began around March 1, 2010 and ran for 24 hours per day to get the current water levels closer to the sludge layer. Once levels in the lagoons were lowered to the existing sludge depths, the dewatering activities were limited to daylight hours.

Once the in-place systems dewatered the lagoons to the extent practicable, portable pumps were used to continue dewatering, discharging the effluent to the existing Building Sump in the northwest corner of the



wastewater treatment building. There, the lagoon wastewater was combined with other facility wastewaters and conveyed in a controlled manner (50 to 60 gallons per minute) to the temporary WWTP as described in Section 3.3.

Lagoons were dewatered in the following sequence:

- Equalization Basin
- Aeration Basin
- Polishing Pond
- Digester Basin

The dewatering activities were completed under Woodard & Curran oversight to document compliance with the ICP (refer to field reports in Appendix C and photo documentation in Appendix D).

#### **4.3 SLUDGE REMOVAL AND DRYING**

Once the lagoons were dewatered to the desired levels, sludge removal activities began on or around April 4, 2010. Total suspended solids analyses on sludge samples from each lagoon taken prior to sludge removal and drying activities, as identified in the ICP, yielded the following results:

- Equalization Basin: 1.7%
- Polishing Pond: 5.6%
- Aeration Basin: 4.8%
- Digester Basin: 10.1%

During contractor procurement, the contractor was given the opportunity to select the methods, techniques, materials and equipment used for the sludge dewatering and removal process. The contractor was asked to demonstrate experience with the equipment, and provide references from similar projects.

The Contractor awarded the work, Fluid Technologies Incorporated, chose to accomplish the sludge drying process via a mobile double belt filter press with a corresponding 20,000 gallon mix tank and a 20,000 gallon weir tank. The system was staged on the concrete drying bed located between the Equalization Basin and Digester Basin. Sludge removal from the lagoons was achieved via a lagoon pump, powered by an agricultural tractor, to slurry and pump sludge to the mix tank. The mix tank effectively kept solids in suspension as the sludge material was pumped into the press for polymer injection and flocculation.

In accordance with requirements of SPDES Permit NY0004146, the “WTC Usage Notification Requirements for SPDES Permittees” Form was submitted to the NYSDEC on February 16, 2010 for approval of the polymer prior to the start of dewatering activities. Use of polymer Hyperloc CE 2054 was approved by the NYSDEC on February 17, 2010. Due to non-heterogeneities in the sludge material, a revised Form was submitted requesting increased usage of Hyperloc CE 2054, which was subsequently approved by the NYSDEC on July 6, 2010 (refer to Appendix E).

After flocculation, the material was delivered to the press for mechanical dewatering. On-site grab samples were gathered from the pressed sludge material for testing of percent solids using an Ohaus MB-45 moisture analyzer. These samples were used solely by the contractor to confirm system operations

were achieving the minimum 20% solids content required by the receiving facility, the Chenango County Landfill. Additional solids' testing was performed by a certified laboratory under contract to Procter & Gamble prior to hauling to meet landfill testing requirements as described in Section 5.2.

After passing through the belt press, the dewatered belt press cake was stockpiled on the existing on-site concrete containment area (drying bed) between the Equalization Basin and Digester Basin. There, the sludge was staged until loading and transportation to the landfill as described in Sections 5.2. This containment area is sloped toward the Digester Basin where drains direct any liquid back to the adjacent Digester Basin for treatment by the WWTP.

The dewatered filtrate and belt wash water from the dewatering process was pumped into the on-site weir tank to settle any residual solids. Clarified water was then either discharged back to the Digester Basin to reuse in the sludge removal process, or pumped to the temporary WWTP where it was combined with other facility wastewaters and was conveyed in a controlled manner to the temporary WWTP as described in Section 3.3. The Digester Basin was the last lagoon to be cleaned, so treatment of the dewatered liquids entering the Digester Basin was integral to the general cleaning process.

#### **4.4 RAINWATER MANAGEMENT**

Rainwater collected in the lagoons as a result of direct precipitation during implementation of field activities for the ICP (cleaning, dewatering, and sludge removal and drying) was minimal. Any rainfall was managed as wastewater and transferred to the temporary WWTP for treatment and discharge. Following implementation of the ICP, while the lagoons are in temporary shut-down pending restart by the new owner/operator, incidental rainwater will be allowed to collect and rise to the level of gravity overflow from the lagoons.

#### **4.5 SLUDGE AND MATERIAL MANAGEMENT AND DISPOSAL**

As described in Section 4.3, dewatered sludge material was stockpiled on the existing on-site concrete containment area. The dewatered solids tonnage based on truck tickets for each of the lagoons was as follows:

- Equalization Basin: 59.73 tons
- Aeration Basin: 260.07 tons
- Polishing Pond: 596.97 tons
- Digester Basin: 699.07 tons

The sludge was sampled and characterized to verify disposal options and to secure approval for off-site disposal at the Chenango County Landfill as described in Section 5.2. Due to the confirmation requirements of the receiving facility for moisture content, dewatered sludge was temporary stockpiled in the containment area pending certified laboratory results for this parameter. The dewatered sludge was segregated to prevent comingling between lagoons. Demarcation methods were used to differentiate piles matched to the test results for each load taken to the landfill.

## **5. SAMPLING PROGRAM**

Once the sludge was removed, the clay liner in each lagoon was inspected and samples were collected of the liner system to determine if any site-related constituents of concern (COCs) remained at concentrations requiring remediation in accordance with NYSDEC regulations.

A Sampling and Analysis Plan (SAP) was included in Appendix D of the ICP. The SAP addressed all required sampling for the cleaning and usability of the lagoons, including liner confirmation sampling and disposal characterization sampling (sludge and clay liner). The SAP specified sample locations and analytical methods, quality assurance and quality control sampling requirements, specific laboratory coordination requirements, establishing and maintaining the chain of custody, and Standard Operating Procedures for sampling.

### **5.1 SITE CONSTITUENTS OF CONCERN**

To develop a COC list for the interim closure sampling, Woodard & Curran reviewed previous sludge sampling results and the current SPDES permit. Additionally, Woodard & Curran included analytical parameters to identify contaminants reasonably expected to be associated with potential wastes that may have entered the WWTP from the manufacturing and pilot plant. Based on the research conducted by Woodard & Curran and our experience with similar facilities, confirmation samples were proposed to be analyzed for the following parameters:

- Volatile organic compounds (VOCs) via Method 5035/8260B;
- Semi-volatile organic compounds (SVOCs) via Method 8270C;
- Alcohols via Method 8015C;
- Total 13 priority pollutant metals plus barium via Methods 6020/7471A;
- Cyanide via Method 9012A;
- Herbicides via Method 8151A; and
- Radioactivity via Method 900.

Due to the nature of the activities (pharmaceutical research, development, and manufacturing) conducted at the Site, the selected laboratory was instructed to provide tentatively identified compounds (TICs) associated with analysis for VOCs and SVOCs in addition to the analytical method's standard compound list. Based on the initial sampling results, leachable extraction and analysis by the Toxicity Characteristic Leaching Procedure (TCLP by Method 1312) was requested to confirm compliance with disposal requirements.

### **5.2 SLUDGE CHARACTERIZATION SAMPLING**

To verify disposal options for the sludge material and other potentially contaminated materials (Section 4.3), characterization samples were collected of the sludge material. Per the ICP it was proposed to take one sample every 200 CY following sufficient dewatering and drying time. During the contractor procurement process, it was realized that costs could be saved if a belt filter press was used to dewater the sludge and the sludge was loaded onto trucks for disposal, minimizing stockpiling. This also alleviated concern with large volumes of sludge exposed to the weather while in storage on-site.

Therefore rather than sampling a stockpile, Woodard & Curran proposed an alternative sampling plan and it was approved by the DEC by electronic mail on July 30, 2009 (refer to Appendix E). The alternative plan was implemented on March 18, 2010 and consisted of sampling each lagoon as follows:

Each lagoon was divided into four quadrants and a water/sludge sample was collected from each quadrant and subjected to simulated pressing (using weight to "press" the water/sludge sample between 2 pieces of belt filter material as is done for bench testing). A portion of one of the samples was immediately placed into appropriate sample containers for analysis of Volatile Organic Compounds plus Tentatively Identified Compounds (VOCs+TICs) and field screening. The remainder of the sample was placed into a stainless steel mixing bowl to homogenize the four discrete samples and then submitted for additional laboratory analysis by the methods specified in Section 5.1 plus leachable metals (per disposal facility requirements). Results are summarized in Table 1A and laboratory analytical reports are included in Appendix F.

Upon completion of the sludge characterization procedures it was realized that due to the small scale and time constraints of the bench-scale process, the samples produced varying dryness between 9% and 30% solids. Therefore, at the request of the landfill, moisture content analysis was conducted routinely during the sludge dewatering operation to verify that a minimum of 20% solids was achieved on-site prior to off-site transportation to the landfill (refer to Appendix E).

Additional sludge characterization samples were collected during implementation of the ICP as summarized in Table 1B and discussed in Section 6.2.

### **5.3 LAGOON CONFIRMATION SAMPLING**

#### **5.3.1 Inspection**

Upon sludge removal to the extent practicable, the clay liner in each lagoon was inspected by a New York Professional Engineer for indications of potential impact to underlying soil, including:

- potential breaches of the lagoon clay liners that appeared to be fully penetrating or that posed a reasonable likelihood of having allowed a release to the underlying soils;
- unnatural discoloration of the clay liners or any exposed soils; or
- chemical odors or unanticipated levels of organic compounds detected during air monitoring activities (e.g., elevated photoionization detector (PID) readings above background concentrations using an 11.7 electron volt lamp).

Any integrity issues identified during the inspection of the clay liners were investigated with separate, discrete soil samples collected at those specified locations.

#### **5.3.2 Confirmation Soil Sample Collection**

The objective of the confirmation liner sampling program was to collect sufficient analytical data to demonstrate that the clay liner was not impacted from contaminants potentially present in the sludge or wastewater. The liner samples were collected manually through a series of sampling locations spatially distributed throughout each of the lagoons. Sample Location Maps representative of each lagoon are attached as Figures 1, 2A, 2B, and 3.

Quality assurance and quality control (QA/QC) samples were collected including duplicate samples, matrix spike samples, equipment and trip blanks. QA/QC samples ensure that the analytical data collected are of high quality and are representative, reproducible, and defensible.

Samples of the clay liner material were collected to a depth of six inches within the lagoon area. Samples were collected for field screening (VOC headspace analysis) and laboratory analysis. Samples were composited from up to five discrete locations and analyzed for the parameters indicated in Section 5.1. At least three composite samples were collected from each lagoon. Any integrity issue (possible contaminant migration pathway) identified during the inspection of the clay liner (refer to Section 5.2.1), were addressed by the sampling program with separate, discrete samples in addition to the proposed sampling indicated above.

All samples were transported via laboratory courier under chain of custody to Upstate Laboratories, Inc. of East Syracuse, New York (Upstate), a New York State certified laboratory. Upstate provided analytical data in accordance with NYSDEC's Analytical Services Protocol (ASP) to insure the best possible data quality for NYSDEC program needs.

### **5.3.3 Analytical Results**

Analytical results of liner confirmation samples were reviewed and compared against New York Restricted Use Commercial and Protection of Ground Water Site Clean-up Objectives guidance values. In the case of groundwater samples, analytical results were compared to Technical & Operational Guidance Series (TOGS) 1.1.1 *Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations*. If closure samples were found to exceed a guidance value, additional cleaning and material removal was conducted and new confirmation samples were collected and analyzed for those COCs exceeding their respective guidance value to confirm the effectiveness of the remedy. Closure was considered complete when samples from lagoon beds were in compliance with the guidance values (refer to Section 6.0).

### **5.3.4 Data Validation and Usability**

Ten percent of the laboratory analytical data for samples (four soil samples and one water sample) were reviewed by a third party independent data validation contractor, Alpha Geoscience of Clifton Park, New York, in accordance with the NYSDEC Data Usability Summary Report (DUSR) guidelines. Data validation criteria that were reviewed for representative samples included: sampling and analysis date, sample custody, holding times, sample handling and preservation procedures, field blank results, field and laboratory duplicate sample results, surrogate recoveries, matrix spike/matrix spike duplicate results, laboratory control standards, laboratory method blanks, lot assignment reports, and miscellaneous observations. Several matrix interferences were noted by the laboratory for detections of VOCs, SVOCs and Radioactivity. Based on validation results, the majority of data were acceptable and deemed usable with some issues that are identified and discussed in the DUSRs included in Appendix G. Data that did not meet performance criteria was flagged with qualifiers describing the data's usability for project decisions and the report tables were updated to include such qualifiers.

## 6. IMPLEMENTATION AND RESULTS

Cleaning operations under the ICP were completed between April 5, 2010 and October 26, 2010. Per the ICP, cleaning operations included the removal of water and sludge from the lagoons to the extent practicable. Stone that had been along the sides of the lagoons was moved to the center and washed. Sludge was removed, pressed, and transferred to the Chenango County Landfill (Appendix A). Water was transferred to the on-site temporary treatment plant and discharged under the facility's SPDES Permit No. NY0004146. Inspections were conducted by Anne E. Proctor, PE, a Professional Engineer Registered in New York State.

Confirmatory samples of the clay liner for each lagoon were collected and analyzed. Sample results are summarized in Tables 2 through 5, and laboratory analytical reports are provided in Appendix F.

### 6.1 EQUALIZATION BASIN

On April 20, 2010, the Equalization Basin clay liner was inspected and observed to be in very good condition. The only areas of note were along the lagoon sides where stone had been removed and there was evidence of spider cracking due to drying and shrinkage from exposure to the elements (sun and wind). In accordance with the ICP, three composite samples of the lagoon liner were collected. A sample was also collected of the stone material. A fifth, discrete sample was collected from the lagoon side wall in an area of the spider cracking to confirm simple exposure. Sample locations are depicted on Figure 1. During sampling, the cracking was confirmed to be superficial, extending a very short depth into the clay. All COCs in all samples were in compliance with criteria as noted in Table 2.

In addition to implementation of the ICP, Procter & Gamble has been implementing a parallel investigation of the lagoon area, working with the NYSDEC Division of Water and Division of Environmental Remediation. Based on results of the area investigation, portions of the Equalization Basin will need to be removed to facilitate further investigation and remediation of underlying media. We are therefore documenting herein permanent closure of the Equalization Basin under the SPDES Permit Program.

Permanent closure of the unit is documented as follows:

- The ICP (January 2009) provided notification that the Equalization Basin was to be taken out of service. Discharge to the unit ceased April 5, 2010;
- The influent pipe to the Equalization Basin was sealed with a buried (inaccessible) blind flange on July 16, 2010, and flow is directed to the Aeration Basin. Photo-documentation of this activity is provided in Appendix C; and
- Effluent pumping equipment and piping have been dismantled, removed, cleaned and rinsed. This equipment and piping is in storage pending reuse, resale, recycle (scrap), or removal as construction debris.

With permanent closure of the Equalization Basin, the lagoon berms will be retained to protect the area against flooding. All remediation work will be within the limits of outer berm walls. Rainwater will be allowed to follow the natural contour of the land until such time as a Remedial Action Work Plan (RAWP) necessitates review of stormwater quality issues, such as silt and erosion control measures.

## 6.2 POLISHING POND

During removal of the sludge material, a soft spot was encountered in the lagoon bottom of material from a previous underlying lagoon. The lagoon footprint was over-excavated to remove this underlying material down to a natural clay bottom bearing a grey to yellow color. This underlying material, primarily identified as a darker black-brown soil mixture, was visually removed with the exception of a small section of the north eastern corner that approached the WWTP Clarifier and Building 106. Excavation was suspended to avoid undermining the surface structures, and to take confirmatory liner samples to help plan future steps. Additional characterization samples were collected to ensure the underlying material was compatible with the waste profile for the sludge (refer to Table 1B). The characterization samples were compliant with the waste profile; however, analytical results indicated an elevated PCB concentration of 14 and 19 mg/kg. As a precaution, PCBs were added to the parameter list for confirmation samples for the Polishing Pond.

An engineering inspection of the Polishing Pond was conducted by Woodard & Curran on August 5, 2010. Clay was visible on the bottom and sides of the lagoon, and pieces of wood, brick and metal debris remaining indicative of fill material historically used to elevate the area. A few lower areas of the lagoon bottom had standing water. There were a few isolated locations along the eastern wall of the lagoon that were a different color than the surrounding material and two locations that appeared as a dark organic material. The bottom and sides of the lagoon appeared intact without evidence of breeches with the exception of the low areas bearing water. The west portion of the lagoon did not have impacted material underlying the clay and the lagoon bottom was retained, making that section of the lagoon a higher elevation. A pipe for the former lagoon, plugged on the exterior to the lagoon, was found along the south wall of the lagoon. Interior sections of the pipe were additionally plugged as they were located.

Due to the finding and excavation of the material below the Polishing Pond, the confirmation sampling program was expanded. Three composite bottom samples were collected of the western, central, and eastern sections of the lagoon. Three additional composite samples were collected from the lower eastern lagoon wall, and the north and south lagoon walls. Discrete samples were collected of the colored and organic materials noted along the eastern lagoon wall. Discrete samples of standing water and clay material underlying standing water were also collected from separate locations. Sample locations are depicted on Figures 2A and 2B. Analysis of PCBs was omitted from the samples collected on August 5, and a second sampling event occurred on September 8 to collect samples for analysis of PCBs. Additionally, two samples from September 8 were analyzed for Hexavalent Chromium that corresponded to detection of Total Chromium in samples collected on August 5 (refer to Table 3A).

Per Table 3B, the groundwater sample contained an estimated concentration of Benzene of 3 micrograms per liter (ug/L); however, the dissolved concentration of Benzene was estimated to be less than 0.075 ug/L. The estimated detection of Benzene is believed to be associated with particulate in the groundwater sample; Benzene was below the detection limit in all soil/clay samples.

Concentrations of COCs detected in samples were in compliance with criteria as noted in Table 3A with the exception of Mercury in three discrete samples from the east side wall of the lagoon. One of these locations (the dark organic material) also contained PCBs over Soil Cleanup Objectives at 36 mg/kg and Hexavalent Chromium at an elevated detection limit.

On October 25, 2010, additional excavation activities were conducted along the Polishing Pond east wall, inclusive of the three sample locations that exceeded criteria (See Figure 2A for sample locations). A follow-up inspection was conducted the following day and the three locations were re-sampled for

Mercury, Total and Hexavalent Chromium, VOCs (due to elevated detection limits), and PCBs. In the course of sample collection, the wall destabilized and threatened to undermine surface structures. The area was backfilled following sample collection to stabilize the area.

Results from the October 26, 2010 sampling event are included in Table 3A and the laboratory analytical report is provided in Appendix F. Acetone is the only remaining COC above screening criteria. As was noted during excavation activities, surface features prevent any additional excavation in the Polishing Pond area and material in the area has been excavated to the extent practicable without comprising structures or safety.

Acetone detections were compared to criteria as established in Section 5.3.3. Acetone was in compliance with the Restricted Use Commercial guidance value, and only exceeded the Protection of Ground Water guidance value. In accordance with Section V.D.2 of NYSDEC Commissioner Policy *CP-51: Soil Cleanup Guidance*, Protection of Groundwater Soil Cleanup Objectives do not apply due to the following exceptions:

- (i) The groundwater standard contravention is due to on-site historic Site use (historic Site operations and filled areas).
- (ii) Site groundwater is not and will not be used for consumption.
- (iii) A groundwater sample was collected from the excavated lagoon bottom as part of confirmation sampling, and groundwater monitoring wells in the vicinity of the WWTP were sampled in 2007, including wells TW-22 and TW-23 as shown on Figure 2A. In all cases, Acetone was less than the laboratory detection limit (i.e., less than 5 or 10 ug/L).

### 6.3 DIGESTER BASIN

On August 16, 2010, the Digester Basin was inspected and observed to be in very good condition. Some shrinkage cracks were noted along the lagoon liner; however, the clay liner material was pliable and the cracks disappeared when pressed. There were also some voids and depressions in the clay liner material from stones that were not fully penetrating. There was a depression into the east wall of the lagoon with no evidence of discoloration. The lagoon floor had some puddling indicating the unit held water. Equipment tracks were visible indicative of the thickness and pliability of the clay liner. The clay had some color variation (red, grey and yellow) and green moss was evident in the moist environment. Stone material from the lagoon was stockpiled along the southwest corner of the unit; the material appeared clean and ready for reuse. Fluid Technologies had removed a layer of clay from the north wall and southeast corner that appeared to be discolored. One section of the north wall appeared to have loosened and sloughed off yielding some coloration in underlying material; this was selected for discrete sampling, but was believed to be native material. A layer of stabilizing cement had been placed around the top of the lagoon when the lagoons were constructed. Where exposed, sludge material had been washed from under the cement. There were two influent pipes, one overflow discharge pipe and one cross connect pipe for the lagoon; no anomalies were noted associated with the pipes. A cement pad under the western mixer was worn and a hole had developed through and under the pad.

In accordance with the ICP, three composite samples were collected of the liner from the western, central, and eastern portions of the lagoon. Samples were also collected from the depression into the east wall, colored material in the sloughed area along the north wall, and from the bottom of the hole under the west mixer. Sample locations are depicted on Figure 3. Sample results are summarized in Table 4 and the



laboratory analytical report is provided in Appendix F. All COCs in all samples were in compliance with criteria as noted in Table 4.

## **6.4 AERATION BASIN**

On August 25, 2010, the Aeration Basin was inspected and observed to be in very good condition. The lagoon floor had some puddling and green algae were evident indicating the unit held water. Stone material from the lagoon was stockpiled in the western half of the unit; the material appeared clean and ready for reuse. Surficial erosion and shrinkage were noted along the lagoon side walls from exposure of the liner to the elements. Stones were embedded in the clay liner material, but the clay was continuous. A layer of stabilizing cement had been placed around the top of the lagoon when the lagoons were constructed. Where exposed, sludge material had been washed from under the cement. There were two influent pipes, one overflow discharge pipe and one cross connect pipe in-line with the cement at the top of the lagoon and no anomalies were noted associated with the pipes. The cement pads under the mixers showed wear, but only the western mixer had wear that was fully penetrating and had created a hole under the pad.

In accordance with the ICP, three composite bottom samples were collected of the western, central, and eastern sections of the lagoon. Two discrete samples were collected from an area of stone embedded liner along the north wall of the lagoon, and from the void beneath the western mixer. Sample locations are depicted on Figure 3.

Concentrations of COCs detected in samples were in compliance with criteria as noted in Table 5 with the exception of Acetone in a sample collected in the north end of the lagoon and several parameters (metals and Acetone) in the sample collected from beneath the western mixer.

On October 25, 2010, additional cleaning activities were conducted at the two sample locations exceeding criteria in the Aeration Basin (see Figure 3 for sample locations). A follow-up inspection was conducted the following day and the two locations were re-sampled for parameters exceeding criteria or with elevated detection limits. Sample results are summarized in Table 5 and the laboratory analytical report is provided in Appendix F. Following the additional cleaning activities, all COCs in all samples were in compliance with criteria as noted in Table 5.

## 7. PROJECT COMPLETION

### 7.1 PERMIT TRANSFER

This Report describes the actions, sequence, and timeline of activities completed to place the WWTP in temporary shut-down (interim closure) status pending reactivation by the new owner/operator, Agro-Farma. During the transition of the Woods Corners Facility to new operations, the terms and conditions of the existing SPDES Permit Number NY0004146 will be transferred to Agro-Farma upon their successful completion of an application to the NYSDEC for the transfer.

### 7.2 INTERIM CLOSURE OF THE WWTP

Upon completion of lagoon dewatering and sludge removal, tasks were completed on August 27, 2010 to drain, flush, and transfer the anoxic tank contents to the belt press, and return the filtrate back to the MBR system.

With the lagoons certified clean, the existing WWTP components have been secured pending reactivation by the new owner/operator, including buildings, sheds and mechanical components (pumps, valves, etc.) that are not in use. The Site, including the lagoon area, remains surrounded by continuous fencing with secured, gated entrances.

### 7.3 PROFESSIONAL ENGINEER'S CERTIFICATION

I hereby certify that I have reviewed this document and its attachments and being familiar with the New York State Department of Environmental Conservation Regulation 6 NYCRR 750-2.11 do attest that closure of the existing Wastewater Treatment Plant has been conducted in accordance with the approved Interim Closure Plan dated January 9, 2009.

Signature: Anne E. Proctor

Professional Engineer Name: Anne E. Proctor, PE

Date: January 5, 2011



**TABLE 1A**  
**CHARACTERIZATION SAMPLE SUMMARY**  
**SLUDGE CHARACTERIZATION SAMPLES**

Interim Closure Report  
Procter & Gamble  
Norwich, NY

Pond			E Basin		North Basin		Aeration Basin		Polishing Pond		Statistical Analysis		
Sample ID			A	B	A	B	A	B	A	B	Minimum	Average*	Maximum
CONSTITUENT	Units	Regulatory Level											
Metals - TCLP													
Barium	mg/l	100	0.41	0.52	0.34	0.37	0.66	0.61	0.63	<0.3	<0.3	0.46	0.66
Cadmium	mg/l	1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Chromium	mg/l	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Lead	mg/l	5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Silver	mg/l	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		
Mercury	mg/l	0.2	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004		
Metals - Total													
Barium	mg/kg-dry	NE	190	310	350	380	270	450	500	280	190	341	500
Cadmium	mg/kg-dry	NE	2.6	1.5	0.44	0.72	0.91	<0.57	0.77	<0.21	<0.21	0.92	2.6
Chromium	mg/kg-dry	NE	29	27	33	41	26	35	66	54	26	39	66
Lead	mg/kg-dry	NE	45	49	27	26	33	24	36	28	24	34	49
Silver	mg/kg-dry	NE	22	10	<2.6	4.1	2.1	<5.7	<3.8	<2.1	<2.1	5.7	22
Mercury	mg/kg-dry	NE	0.87	0.933	0.617	0.496	1.11	0.908	0.451	0.303	0.303	0.711	1.11
Volatiles - TCLP													
1,4-Dichlorobenzene	mg/l	7.5	<0.03	<0.03	0.035	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.035
Miscellaneous													
Sulfide	mg/kg-dry	NE	41.4	14.2	<1.03	<1.24	<0.64	<2.29	<1.5	<0.835	<0.64	7.4	41.4
pH	SU	2-12.5	7.19	7.04	7.17	9.66	8.77	8.33	8.1	8.14	7.04	NA	9.66
Radioactivity - Gross Alpha	pCi/g	NE	<2	<2	<2	<2	<2	<2	<2	<2	<2		
Radioactivity - Gross Beta	pCi/g	NE	4.2	<3	<3	<3	<3	<3	<3	<3	<3	<3	4.2
Percent Moisture	wt%	NA	85	85.9	80.6	83.8	68.8	91.2	86.7	76	68.8	82.3	91.2

**Notes:**

NA = Not Applicable

NE = Not Established

TCLP = Toxicity Characteristic Leaching Procedure

\* Assume one half the detection limit for concentrations not detected.

TABLE 1B

CHARACTERIZATION SAMPLE SUMMARY ADDITIONAL SLUDGE CHARACTERIZATION SAMPLES  
POLISHING POND LINER

Interim Closure Report  
Procter & Gamble  
Norwich, NY

Pond			Polishing Pond		Statistical Analysis		
Sample ID			A	B	Minimum	Average	Maximum
CONSTITUENT	Units	Regulatory Level					
Metals - TCLP							
Arsenic	mg/l	5	<0.5	<0.5	<0.5		
Barium	mg/l	100	0.82	0.94	0.82	0.88	0.94
Cadmium	mg/l	1	<0.005	<0.005	<0.005		
Chromium	mg/l	5	<0.05	<0.05	<0.05		
Lead	mg/l	5	<0.1	<0.1	<0.1		
Silver	mg/l	5	<0.05	<0.05	<0.05		
Mercury	mg/l	0.2	<0.0004	<0.0004	<0.0004		
Metals - Total							
Arsenic	mg/kg-dry	NE	12	9.4	9.4	10.7	12
Barium	mg/kg-dry	NE	130	99	99	114.5	130
Cadmium	mg/kg-dry	NE	1.3	1.0	<0.21	1.15	1.3
Chromium	mg/kg-dry	NE	20	19	19	19.5	20
Lead	mg/kg-dry	NE	45	34	34	39.5	45
Silver	mg/kg-dry	NE	<7.3	<7.2	<7.3		
Mercury	mg/kg-dry	NE	14.5	11.1	11.1	12.8	14.5
PCBs							
Aroclor 1262	mg/kg-dry	50	14	19	14	16.5	19
Miscellaneous							
Sulfide	mg/kg-dry	NE	11.8	5.76	5.76	8.78	11.8
Ignitability	deg. C	< 60	>60	>60	>60		
pH	SU	2-12.5	7.00	6.58	6.58	to	7.00
Radioactivity - Gross Alpha	pCi/g	NE	<3	<3	<3		
Radioactivity - Gross Beta	pCi/g	NE	<4	<4	<4		
Percent Moisture	wt%	>20%	31.9	30.5	30.5	31.2	31.9

**Notes:**

NA = Not Applicable

NE = Not Established

TCLP = Toxicity Characteristic Leaching Procedure

**TABLE 2**  
**CONFIRMATION SAMPLE SUMMARY**  
**EQUALIZATION BASIN LINER SAMPLES**

Interim Closure Report  
Procter & Gamble  
Norwich, New York

Location Sample ID Sample Date			E-Basin EB-Comp-A 4/20/2010	E-Basin CL-Dup-1 4/20/2010 Duplicate of EB-Comp-A	E-Basin EB-Comp-B 4/20/2010	E-Basin EB-Comp-C 4/20/2010	E-Basin EB-CompGR-B 4/20/2010	E-Basin EB-B-06 4/20/2010
CONSTITUENT	NY-SCO- COM	NY-SCO- GW	Primary		Primary	Primary	Primary	Primary
<b>Moisture (%)</b>								
Moisture Content (1)	NE	NE	13.3	11.3	10.7	7.69	10.1	8.12
<b>Inorganics (mg/kg)</b>								
Barium	400	820	84.4	78.7	86.1	78.9	31.6	92.3
Cadmium	9.3	7.5	1.35	1.22	1.33	1.14	1.30	1.27
Chromium (2)	400	19	13.7	13.2	13.8	12.6	9.2	14.4
Copper	270	1,720	19.3	20.4	14.5	14.6	9.33	18.5
Lead	1,000	450	17.0	15.0	18.0	15.0	17.0	19.0
Mercury	2.8	0.73	<0.0577	<0.0564	<0.0560	<0.0542	0.0762	<0.0544
Nickel	310	130	23.2	21.2	22.1	20.4	12.7	25.1
Silver	1,500	8.3	<2.31	<2.26	<2.24	<2.17	3.66	<2.18
Zinc	10,000	2,480	65.6	60.9	63.5	57.0	54.0	71.9
<b>Volatile Organic Compounds (ug/kg)</b>								
Methyl Tert-Butyl Ether	500,000	930	<5.8	8.7	<5.6	12.0	<5.6	<5.4
Total TICs	NE	NE	ND	ND	ND	ND	ND	ND
<b>Semi-Volatile Organic Compounds (ug/kg)</b>								
Bis(2-Ethylhexyl)Phthalate	NE	NE	230	250	270	220	410	220
Caprolactam	NE	NE	<200	<190	70 J	70 J	90 J	70 J
Total TICs (3)	NE	NE	2,152	3,554	4,310	2,152	7,800	2,855

**Notes:**

B = Analyte detected in blank.

J = Estimated value.

NA = Not Analyzed

ND = None Detected

NE = Not Established

NY-SCO-COM = New York State Soil Cleanup Objectives for Commercial Use

NY-SCO-GW = New York State Soil Cleanup Objectives for Commercial Use, Protective of Groundwater

Total PCBs = Total of Polychlorinated Biphenyls Aroclors

Total TICs = Total of Tentatively Identified Compounds

(1) Moisture Content for metals results used as default.

(2) Criteria used is for Hexavalent Chromium as the most stringent criteria for Chromium.

(3) Tentatively Identified Compounds (TICs) suspected to be primarily from binding agents in clay.

Analyte exceeds NY-SCO-GW criteria.

Analyte exceeds NY-SCO-COM criteria.

Analyte exceeds NY-SCO-GW and COM criteria.

**TABLE 3A**  
**CONFIRMATION SAMPLE SUMMARY**  
**POLISHING POND LINER SAMPLES**

Interim Closure Report  
Procter & Gamble  
Norwich, New York

Location			PP PP-Comp-A and PP- ComGR-A1	PP PP-Comp-B and PP-Grab- B1	PP PP-Grab-B5	PP PP-Comp-C and PP-Grab- C4	PP PP-Grab-C5	PP PP-Grab-C52	PP PP-Grab-C6	PP PP-Grab-C7	PP PP-Grab-C7	PP PP-Grab-C8	PP PP-Grab-C8	PP PP-Grab-C82	PP PP-Grab-C9	PP PP-Grab-C92	PP PP-Comp-G	PP PP-Comp-D and PP-Grab- D3	PP PP-Comp-E and PP-Grab- E1	PP PP-Comp-F and PP-Grab- F2
Sample ID																				
Sample Date			8/5/2010 and 9/8/2010	8/5/2010 and 9/8/2010	8/5/2010	8/5/2010 and 9/8/2010	8/5/2010 and 9/8/2010	10/26/2010	8/5/2010	8/5/2010	8/5/2010	8/5/2010 and 9/8/2010	9/8/2010	10/26/2010	8/5/2010	10/26/2010	9/8/2010	8/5/2010 and 9/8/2010	8/5/2010 and 9/8/2010	8/5/2010 and 9/8/2010
CONSTITUENT	NY-SCO- COM	NY-SCO- GW	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Duplicate	Primary	Duplicate	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Moisture (%)																				
Moisture Content (1)	NE	NE	18.5	17.4	24.5	17.3	60.4	55.1	8.96	10.4	11.8	50.3	28.9	22.3	52.7	10.6	16.1	25.3	23.7	26.2
Inorganics (mg/kg)																				
Barium	400	820	113	111	26.7	121	236 J	NA	78.1	41.2	52.7	196	NA	NA	251	NA	NA	98.4	76.7	82.2
Chromium (2)	400	19	15.9	16.2	12.9	19.8	22.1 J	6.17	11.7	8.46	11.4	18.6	NA	13.0	9.29	10.2	NA	14.1	15.2	15.6
Hexavalent Chromium	400	19	NA	NA	NA	<4.9	<150	<0.89	NA	NA	NA	--	NA	<0.51	--	<0.45	NA	NA	NA	NA
Trivalent Chromium	1,500	NE	NA	NA	NA	19.8	NA	6.17	NA	NA	NA	NA	NA	13.0	--	10.2	NA	NA	NA	NA
Copper	270	1,720	2.94	9.84	14.4	11.3	60.8 J	NA	10.9	10.7	19.1	42.4	NA	NA	35.3	NA	NA	14.7	14	12.5
Lead	1,000	450	17.6	13.2	12.9	17.0	72.6 J	NA	21.3	15.3	23.4	53.6	NA	NA	63.7	NA	NA	25.9	18.5	20.0
Mercury	2.8	0.73	<0.0613	0.244	<0.0663	0.0943	12.8 J	<0.111	0.129	0.308	0.277	17.6	NA	0.0933	11.9	0.124	NA	0.687	0.0953	0.0823
Nickel	310	130	20.6	19.3	28	18.2	22.6 J	NA	17.5	14.5	20.7	27.4	NA	NA	<12.7	NA	NA	19.8	23.7	20.6
Zinc	10,000	2,480	64.9	77.4	61.8 J	55.9	53.3 J	NA	69.5 J	183	210	138	NA	NA	59.9	NA	NA	64	76.2	80.6
Cyanide	27	40	<1.23	<1.21	ND	<1.21	9.9 J	NA	<1.1	<1.12	<1.13	4.89	NA	NA	2.69	NA	NA	<1.34	<1.31	<1.35
Volatile Organic Compounds (ug/kg)																				
Acetone	500,000	50	18	<68	28	<25	<2500	1,200	26	<56	<11	<2000	NA	620	<2100	<11	NA	<13	<14	<13
Ethanol	NE	NE	<490	<480	<530	<480	2,500	NA	<440	<450	<450	900	NA	NA	<850	NA	NA	<540	<520	<540
Toluene	500,000	700	<6.4	<34	4 J	<12	600 J	<22	<5.5	<28	<5.7	<1000	NA	<32	<1100	<5.6	NA	<6.4	<7.2	<6.5
Tetrachloroethene	150,000	1300	<6.4	<34	<6.6	<12	<1300	<22	<5.5	<28	2 J	<1000	NA	<32	<1100	<5.6	NA	5 J	<7.2	<6.5
Xylenes	500,000	1600	<6.4	<34	<6.6	<12	600 J	<22	<5.5	<28	<5.7	<1000	NA	<32	<1100	<5.6	NA	<6.4	<7.2	<6.5
Total TICs	NE	NE	ND	3,530	ND	6,760	326,900	ND	9.6	16,900	38	30,580	NA	ND	114,800	ND	NA	194	61	26
Semi-Volatile Organic Compounds (ug/kg)																				
Biphenyl	NE	NE	<210	2,000 J	70 J	610	630,000	NA	5,700	<1900	<1900	230,000	NA	NA	250,000	NA	NA	8,400	200 J	70 J
Bis(2-Ethylhexyl)Phthalate	NE	NE	100 JB	<2100	<230	100 JB	<430000	NA	<1900	<1900	<1900	<34000	NA	NA	<36000	NA	NA	<2300	100 JB	200 JB
Di-n-butyl phthalate	NE	NE	100 JB	<2100	<230	100 JB	<430000	NA	<1900	<1900	<1900	<34000	NA	NA	<36000	NA	NA	<2300	100 JB	100 JB
Total TICs (3)	NE	NE	6,488	5,100	15,370	17,210	330,000	NA	13,790	23,200	17,500	616,000	NA	NA	442,000	NA	NA	25,510	14,270	17,130
Polychlorinated Biphenyls (mg/kg)																				
Total PCBs	1	3.2	0.49	0.081	NA	0.051	36	0.13	NA	NA	NA	0.39	0.33	0.059	NA	0.43	ND	0.009 J	0.007 J	0.064

**Notes:**

B = Analyte detected in blank.

J = Estimated value.

NA = Not Analyzed

ND = None Detected

NE = Not Established

NY-SCO-COM = New York State Soil Cleanup Objectives for Commercial Use

NY-SCO-GW = New York State Soil Cleanup Objectives for Commercial Use, Protective of Groundwater

Total PCBs = Total of Polychlorinated Biphenyls Aroclors

Total TICs = Total of Tentatively Identified Compounds

(1) Moisture Content for metals results used as default.

(2) Criteria listed for Total Chromium is for Hexavalent Chromium as the most stringent criteria for Chromium. For those samples which Total Chromium exceeded the criteria for Hexavalent Chromium, analysis was additionally requested for Hexavalent Chromium, with Trivalent Chromium equal to the difference between Total Chromium and Hexavalent Chromium.

(3) Tentatively Identified Compounds (TICs) suspected to be primarily from binding agents in clay.

Analyte exceeds NY-SCO-GW criteria.

Analyte exceeds NY-SCO-COM criteria.

Analyte exceeds NY-SCO-GW and COM criteria.

Sample location excavated and resampled.

**TABLE 3B**  
**CONFIRMATION SAMPLE SUMMARY**  
**POLISHING POND WATER SAMPLES**

Interim Closure Report  
Procter & Gamble  
Norwich, New York

Location		PP	PP
Sample ID		PP-GW-1	PP-GW-1
Sample Date		8/5/2010	8/5/2010
CONSTITUENT	TOGS 1.1.1	Total	Dissolved
<b>Inorganics (ug/L)</b>			
Barium	400	240	170
<b>Volatile Organic Compounds (ug/L)</b>			
Benzene (1)	1	3 J	<0.75 J*
Butanol	NE	<100	20 J
Ethanol	NE	<100	130
Methanol	NE	<1000	900 J
Propanol	NE	3 J	<100
Total TICs	NE	ND	8.8
<b>Semi-Volatile Organic Compounds (ug/L)</b>			
Bis(2-Ethylhexyl)Phthalate	5	<5	2 JB
Di-n-butyl phthalate	50	<5	2 JB U
Total TICs	NE	284	411
<b>Radioactivity (pci/L)</b>			
Alpha, Gross	15	4.8	<2
Beta, Gross	1,000	12.4 J	<3

**Notes:**

\* Method Detection Limit.

B = Analyte detected in blank.

J = Estimated value.

ND = None Detected

NE = Not Established

TOGS 1.1.1 = Technical & Operational Guidance Series Ambient Water Quality Standards and Guidance Values

Total TICs = Total of Tentatively Identified Compounds, suspected to be primarily from binding agents in clay.

(1) Method Detection Limit for dissolved concentration of analyte is in compliance with TOGS criteria.



.E 4  
CONFIRMATION SAMPLE SUMMARY  
DIGESTER BASIN LINER SAMPLES

Interim Closure Report  
Procter & Gamble  
Norwich, New York

Location			DB DB-Comp-A and DB-Grab- A5 8/16/2010	DB DB-Comp-B and DB-Grab- B5 8/16/2010	DB DB-Comp-C and DB-Grab- C5 8/16/2010	DB DB-Grab-D 8/16/2010	DB DB-Grab-E 8/16/2010	DB DB-Grab F 8/16/2010
Sample ID								
Sample Date								
CONSTITUENT	NY-SCO- COM	NY-SCO- GW	Primary	Primary	Primary	Primary	Primary	Primary
<b>Moisture (%)</b>								
Moisture Content (1)	NE	NE	13.7	14.1	17.5	15.1	21.6	22.9
<b>Inorganics (mg/kg)</b>								
Barium	400	820	61.2	62.4	128	69	215	63.5
Total Chromium (2)	400	19	13.8	15.2	18.8	20.5	21.9	15.1
Hexavalent Chromium	400	19	NA	NA	NA	<4.7	<5.1	NA
Trivalent Chromium	1,500	NE	NA	NA	NA	20.5	21.9	NA
Copper	270	1,720	11.3	10.1	12.5	34.7	10.8	8.8
Lead	1,000	450	9.62	9.54	16.5	7.39	12.6	10.2
Mercury	2.8	0.73	<0.058	<0.0582	0.0727	ND	<0.0638	0.0768
Nickel	310	130	18.4	18.7	19.3	26.5	22.7	17.7
Zinc	10,000	2,480	55.3	49.8	71.6	74.6	87.5	56.1
<b>Volatile Organic Compounds (ug/kg)</b>								
Carbon Disulfide	NE	NE	<5.6	<5.6	<6.1	110	<6.4	<6.5
Chlorobenzene	500,000	1,100	<5.6	<5.6	<6.1	2 J	<6.4	<6.5
1,4-Dichlorobenzene	130,000	1,800	12	<5.6	<6.1	<5.9	<6.4	<6.5
Trichloroethene	200,000	470	<5.6	<5.6	4 J	<5.9	8.1	<6.5
Total TICs	NE	NE	ND	ND	ND	ND	ND	ND
<b>Semi-Volatile Organic Compounds (ug/kg)</b>								
Bis(2-Ethylhexyl)Phthalate	NE	NE	100 JB	200 JB	200 JB	200 JB	200 JB	200 JB
Di-n-butyl phthalate	NE	NE	90 JB	100 JB	100 JB	100 JB	100 JB	100 JB
Total TICs (3)	NE	NE	2,057	1,592	5,750	13,330	9,980	23,600
<b>Radioactivity (pci/g)</b>								
Alpha, Gross	NE	NE	2.9	3.8	3.7	4.1	3.0	2.3
Beta, Gross	NE	NE	2.5	1.9	2.7	2.6	2.5	1.9

**Notes:**

B = Analyte detected in blank.

J = Estimated value.

NA = Not Analyzed

ND = None Detected

NE = Not Established

NY-SCO-COM = New York State Soil Cleanup Objectives for Commercial Use

NY-SCO-GW = New York State Soil Cleanup Objectives for Commercial Use, Protective of Groundwater

Total PCBs = Total of Polychlorinated Biphenyls Aroclors

Total TICs = Total of Tentatively Identified Compounds

(1) Moisture Content for metals results used as default.

(2) Criteria listed for Total Chromium is for Hexavalent Chromium as the most stringent criteria for Chromium. For those samples which Total Chromium exceeded the criteria for Hexavalent Chromium, analysis was additionally requested for Hexavalent Chromium, with Trivalent Chromium equal to the difference between Total Chromium and Hexavalent Chromium.

(3) Tentatively Identified Compounds (TICs) suspected to be primarily from binding agents in clay.

Analyte exceeds NY-SCO-GW criteria.

Analyte exceeds NY-SCO-COM criteria.

Analyte exceeds NY-SCO-GW and NY-SCO-COM criteria.



**TABLE 5**  
**CONFIRMATION SAMPLE SUMMARY**  
**AERATION BASIN LINER SAMPLES**

Interim Closure Report  
Procter & Gamble  
Norwich, New York

Location			AB AU-Comp-A and AU-Grab A5 8/25/2010	AB AU-Grab-A51 10/26/2010	AB AU-Comp-B and AU-Grab B5 8/25/2010	AB AU-Comp-C and AU-Grab C5 8/25/2010	AB AU-Grab-D 8/25/2010	AB AU-Grab-D1 10/26/2010	AB AU-Grab-E 8/25/2010
Sample ID									
Sample Date									
	NY-SCO- COM	NY-SCO- GW	Primary	Primary	Primary	Primary	Primary	Primary	Primary
<b>Moisture (%)</b>									
Moisture Content (1)	NE	NE	18.0	17.3	23.2	17.8	80.2	26.5	31.5
<b>Inorganics (mg/kg)</b>									
Barium	400	820	80.4	NA	128	102		156	149
Beryllium	590	47	<0.732	NA	<0.782	0.82	<3.03	<0.816	<0.876
Cadmium	9.3	7.5	<1.22	NA	<1.3	<1.22	7.35	<1.36	<1.46
Chromium (2)	400	19	17.6	NA	15.3	14.7	129	18.5	15.9
Hexavalent Chromium	400	19	NA	NA	NA	NA	NA	<0.54	NA
Trivalent Chromium	1,500	NE	NA	NA	NA	NA	NA	18.5	NA
Copper	270	1,720	21	NA	12.8	8.31	345	3.09 B	102
Lead	1,000	450	19.3	NA	15.7	10.5	77.9	15.9	28.9
Mercury	2.8	0.73	<0.061	NA	0.15	<0.0608		0.0796	<0.073
Nickel	310	130	<7.32	NA	17.6	19.9	93.3	23.1	18.6
Silver	1,500	8.3	<2.44	NA	<2.61	<2.43	<10.1	<2.72	<2.92
Zinc	10,000	2,480	69.3	NA	102	60.2	1,050	65.1	92.2
<b>Volatile Organic Compounds (ug/kg)</b>									
Acetone	500,000	50		<24	<26	24		<14	35
2-Butanone (MEK)	500,000	120	10 J	NA	<26	<13	74	NA	<15
Carbon Tetrachloride	22,000	760	<5.9	NA	<13	<6.6	240	NA	<7.3
1,4-Dichlorobenzene	130,000	1,800	<5.9	NA	<13	4 J	38	NA	<7.3
1,2,4-Trichlorobenzene	NE	NE	<5.9	NA	<13	<6.6	79	NA	<7.3
Xylenes	500,000	1600	<5.9	NA	<13	<6.6	20 J	NA	<7.3
Total TICs	NE	NE	ND	NA	ND	58	714	NA	1,065
<b>Semi-Volatile Organic Compounds (ug/kg)</b>									
Benzo(a)anthracene	5,600	1,000	200 J	NA	<2200	<210		<230	<2500
Benzo(a)pyrene	1,000	22,000	100 J	NA	<2200	<210	<8600	<230	<2500
Bis(2-Ethylhexyl)Phthalate	NE	NE	100 JB	NA	<2200	<210	<8600	320	<2500
Crysene	56,000	1,000	200 J	NA	<2200	<210		<230	<2500
Di-n-butyl phthalate	NE	NE	<210	NA	<2200	<210	<8600	200 J	<2500
Flouranthene	500,000	1,000,000	<210	NA	<2200	<210	6000 J	<230	<2500
Phenanthrene	500,000	1,000,000	<210	NA	<2200	<210	3000 J	<230	<2500
Pyrene	500,000	1,000,000	100 J	NA	<2200	<210	3000 J	<230	2500
Total TICs (3)	NE	NE	12,609	NA	6,000	10,784	148,800	1,420	7,400
<b>Radioactivity (pci/g)</b>									
Alpha, Gross	NE	NE	4.03	NA	17.6	3.8	15.2	<4	1.7
Beta, Gross	NE	NE	2.7	NA	2.1	2.9	16.1	<4	1.6

**Notes:**

B = Analyte detected in blank.

J = Estimated value.

NA = Not Analyzed

ND = None Detected

NE = Not Established

NY-SCO-COM = New York State Soil Cleanup Objectives for Commercial Use

NY-SCO-GW = New York State Soil Cleanup Objectives for Commercial Use, Protective of Groundwater

Total PCBs = Total of Polychlorinated Biphenyls Aroclors

Total TICs = Total of Tentatively Identified Compounds

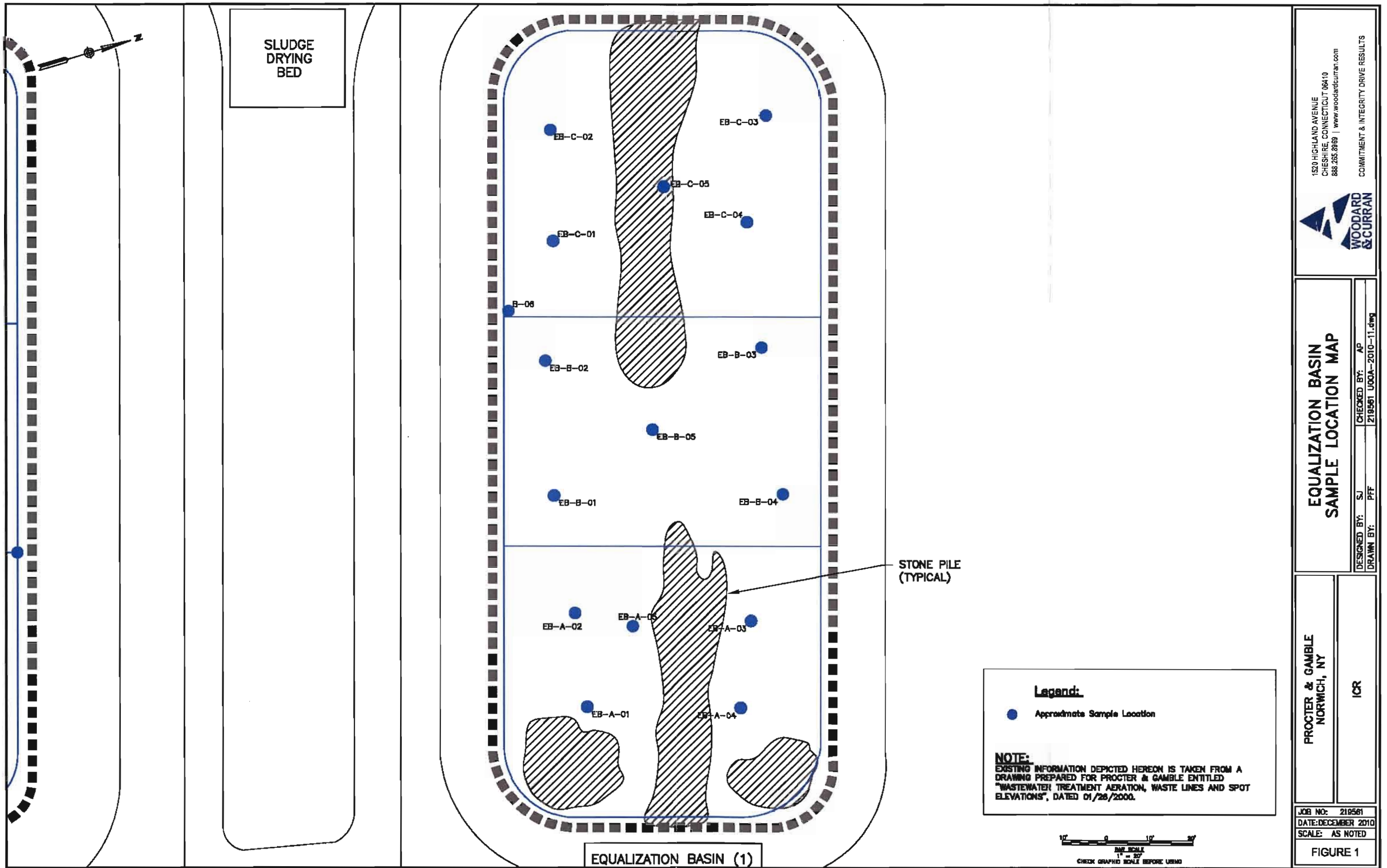
(1) Moisture Content for metals results used as default.

(2) Criteria listed for Total Chromium is for Hexavalent Chromium as the most stringent criteria for Chromium. For those samples which Total Chromium exceeded the criteria for Hexavalent Chromium, analysis was additionally requested for Hexavalent Chromium, with Trivalent Chromium equal to the difference between Total Chromium and Hexavalent Chromium.

(3) Tentatively Identified Compounds (TICs) suspected to be primarily from binding agents in clay.

Analyte exceeds NY-SCO-COM criteria.

Sample location cleaned and resampled.





TW-23

EXISTING 8" PIPE ALONG BOTTOM OF POND

EXISTING 8" PIPE ALONG BOTTOM OF POND

STONE PILE

TW-22

**Legend:**

- Sample Location (Depth from Pond Bottom)
- ⊕ Groundwater Sample Location
- Sample Location Excavated
- Temporary Monitoring Well Location

**NOTE:**  
EXISTING INFORMATION DEPICTED HEREON IS TAKEN FROM A  
DRAWING PREPARED FOR PROCTER & GAMBLE ENTITLED  
"WASTEWATER TREATMENT AERATION, WASTE LINES AND SPOT  
ELEVATIONS", DATED 01/28/2000.

POLISHING POND  
(4)

CLARIFIER

ADDITIONAL MATERIAL  
REMOVED AND LOCATIONS  
RE-SAMPLED



**POLISHING POND  
SAMPLE LOCATION MAP**

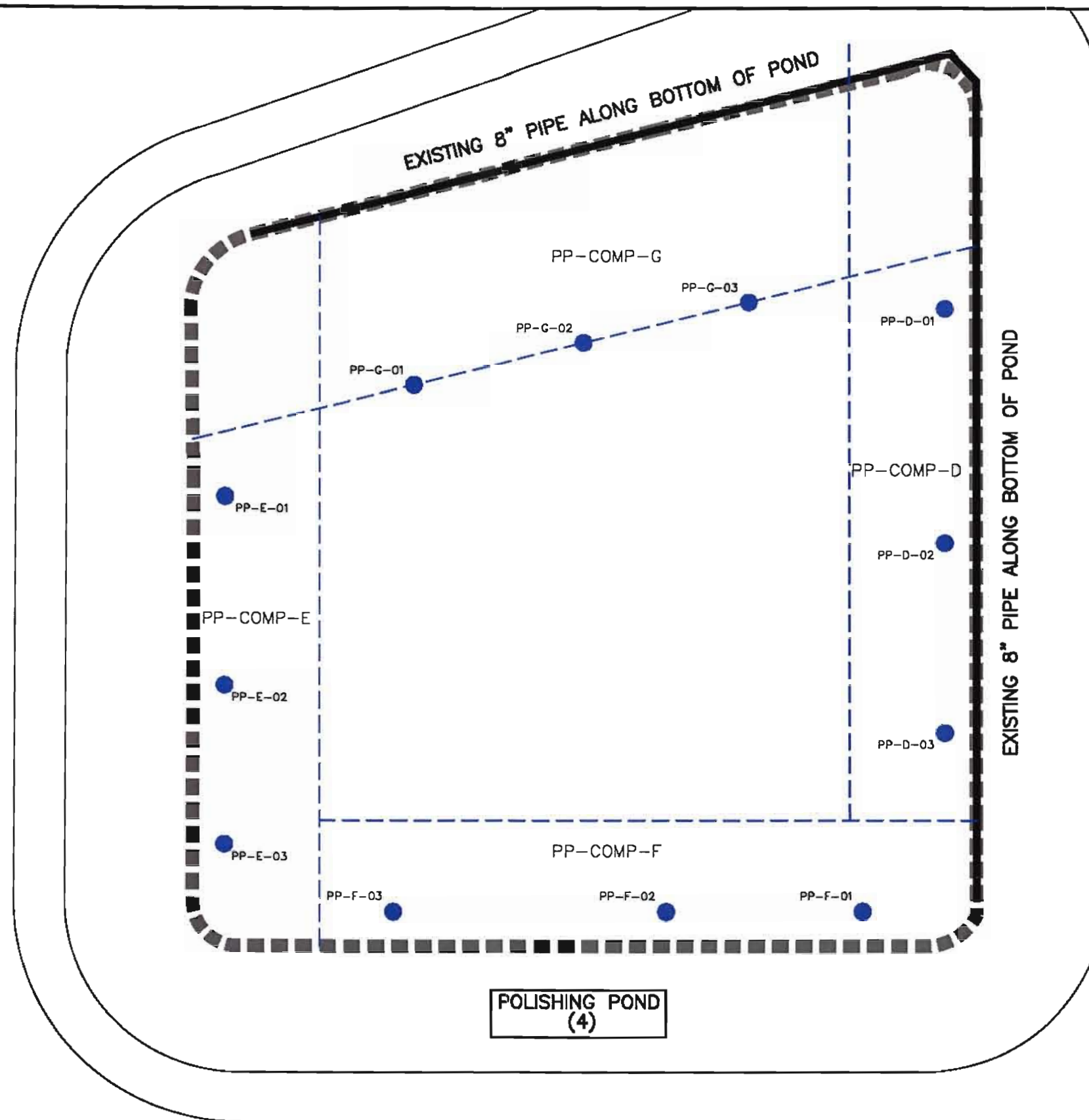
PROCTER & GAMBLE  
NORMICH, NY

ICR

JOB NO: 219561  
DATE: DECEMBER 2010  
SCALE: AS NOTED  
**FIGURE 2A**

1820 HIGHLAND AVENUE  
CHESHIRE, CONNECTICUT 06840  
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DESIGNED BY: SJ  
CHECKED BY: AP  
DRAWN BY: PFF  
219561 U00A-2010-11.dwg



EXISTING 8" PIPE ALONG BOTTOM OF POND

EXISTING 8" PIPE ALONG BOTTOM OF POND

PP-COMP-G

PP-G-03

PP-G-02

PP-G-01

PP-D-01

PP-COMP-D

PP-D-02

PP-D-03

PP-E-01

PP-COMP-E

PP-E-02

PP-E-03

PP-COMP-F

PP-F-03

PP-F-02

PP-F-01

POLISHING POND  
(4)

CLARIFIER

STONE PILE

**Legend:**

- Side Wall Sample Location

**NOTE:**  
EXISTING INFORMATION DEPICTED HEREON IS TAKEN FROM A  
DRAWING PREPARED FOR PROCTER & GAMBLE ENTITLED  
"WASTEWATER TREATMENT AERATION, WASTE LINES AND SPOT  
ELEVATIONS", DATED 01/28/2000.



**POLISHING POND SIDE WALL  
SAMPLE LOCATION MAP**

PROCTER & GAMBLE  
NORWICH, NY

ICR

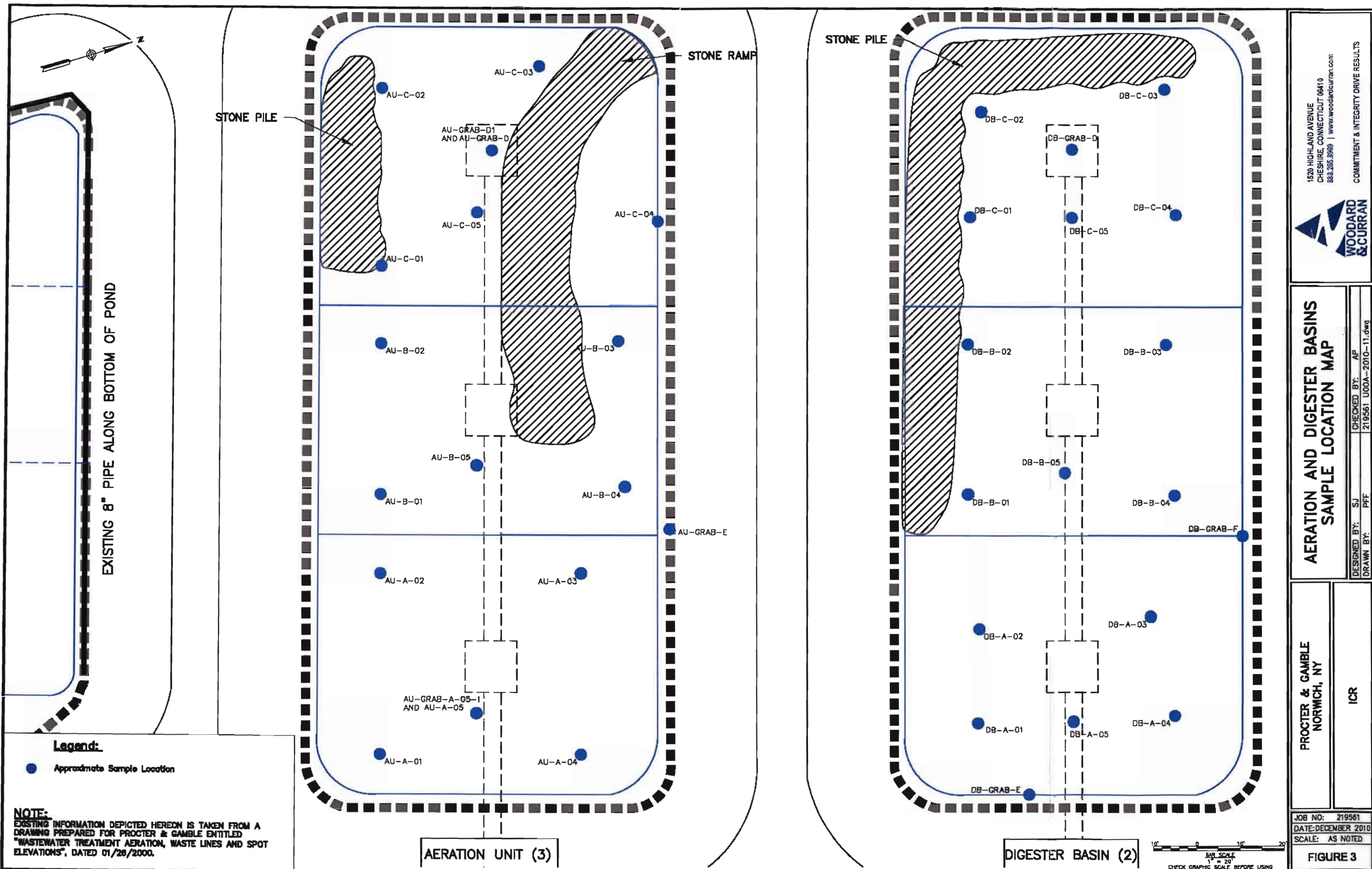
JOB NO: 219561  
DATE: NOVEMBER 2010  
SCALE: AS NOTED

**FIGURE 2B**



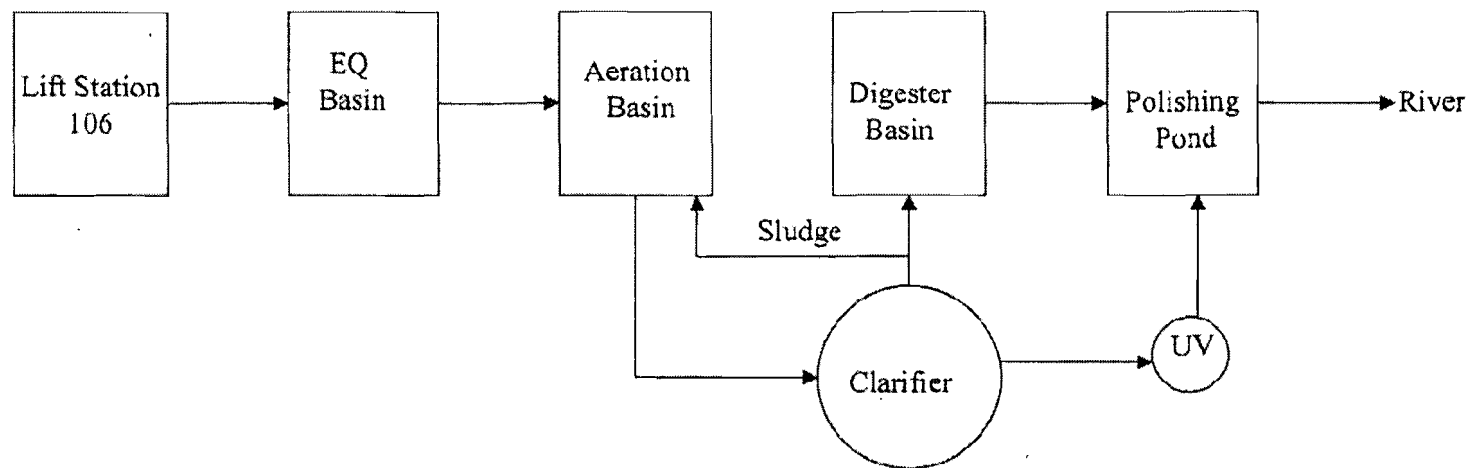
1520 HIGHLAND AVENUE  
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## **APPENDIX A: EXISTING WWTP PLANS**

Figure I – Current Operation

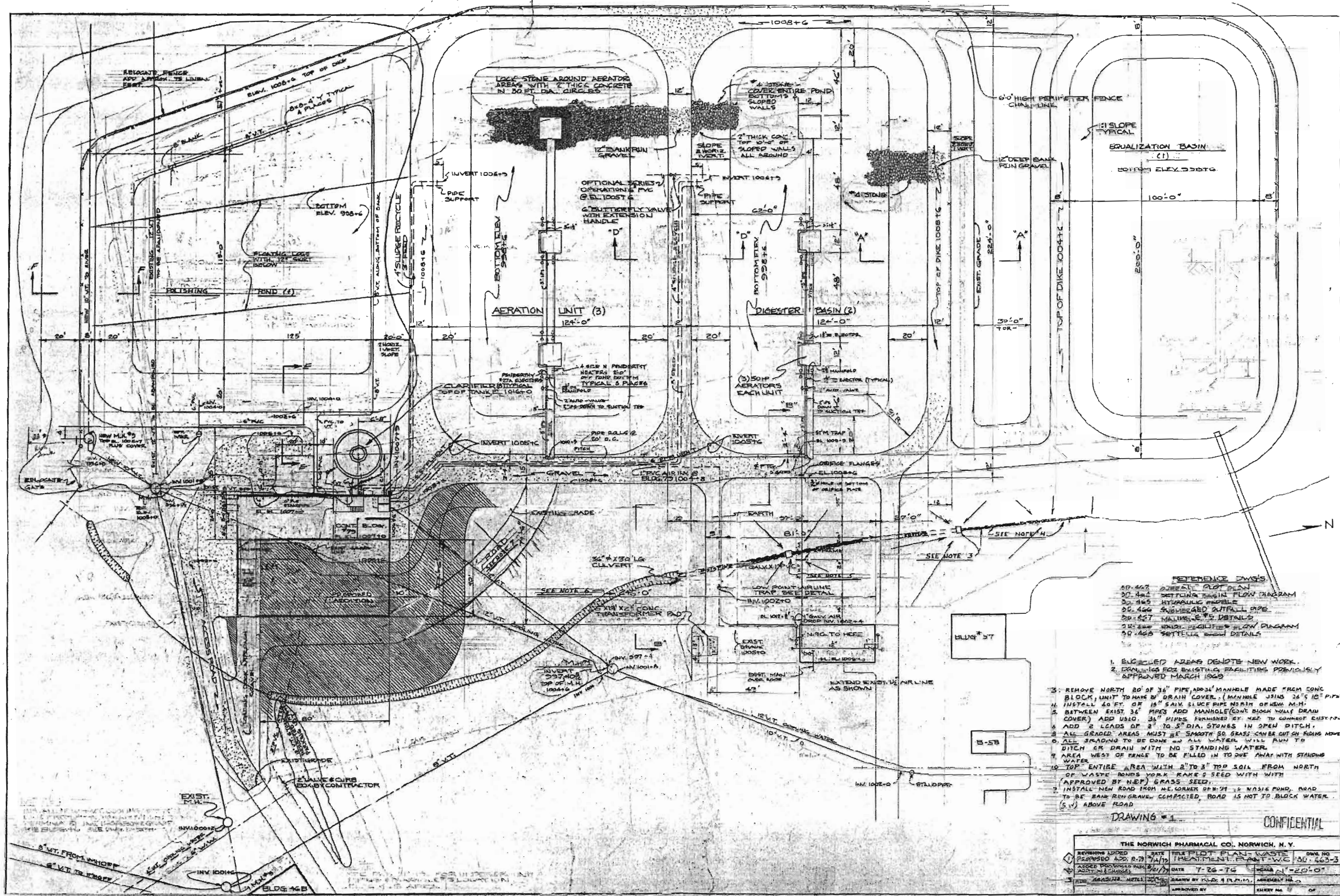




CONFIDENTIAL

[illegible]





- REFERENCE DWGS.
- 30-447 OVERALL SITE PLAN
  - 30-448 DETAILING BASIN FLOW DIAGRAM
  - 30-449 HYDRAULIC PROFILE
  - 30-450 SUBMERGED OUTFALL PIPE
  - 30-451 MANHOLE & VALVE DETAILS
  - 30-452 SLOPE & ELEVATION FLOW DIAGRAM
  - 30-453 SETTLING BASIN DETAILS

1. Hatched areas denote new work.
2. Drawings for existing facilities previously approved March 1969.
3. REMOVE NORTH 20' OF 36" PIPE, ADD 36" MANHOLE MADE FROM CONC. BLOCK, UNIT TO HAVE 2' DRAIN COVER. (MANHOLE JOINS 24" 10" PIPE)
4. INSTALL 40' OF 15" S&W SLUFF PIPE NORTH OF NEW M.H.
5. BETWEEN EXIST 36" PIPES ADD MANHOLE (CONC. BLOCK WITH DRAIN COVER) ADD 36" PIPES FURNISHED BY M.H. TO CONNECT EXIST. PIPES
6. ADD 2 LEADS OF 2" TO 5" DIA. STONES IN OPEN DITCH.
7. ALL GRADED AREAS MUST BE SMOOTH SO GRASS CANES CUT ON RIDING MOW.
8. ALL GRADING TO BE DONE SO ALL WATER WILL RUN TO DITCH OR DRAIN WITH NO STANDING WATER.
9. AREA WEST OF FENCE TO BE FILLED IN TO DUE AREA WITH STANDING WATER.
10. TOP ENTIRE AREA WITH 2" TO 3" TOP SOIL FROM NORTH OF WASTE POND, WORK RAKE & SEED WITH WITH APPROVED BY M.H. GRASS SEED.
11. INSTALL NEW ROAD FROM N.E. CORNER OF POND TO WASTE POND, ROAD TO BE BANK RUN GRAVEL, COMPACTED, ROAD IS NOT TO BLOCK WATER 5' ABOVE ROAD.

DRAWING #1

CONFIDENTIAL

THE NORWICH PHARMACAL CO., NORWICH, N. Y.					
REVISIONS ADDED	DATE	TITLE	PLANT	NO.	DATE
PROPOSED ADD. R. 7	7/1/70	TREATMENT PLANT	W.C.	30-403-3	
ADDED PROPOSED ADD. R. 7	7/1/70	DATE	7-26-76	SCALE	1"=20'-0"
APPROVED BY	DATE	DRAWN BY	DATE	APPROVED BY	DATE



## APPENDIX B: TEMPORARY WWTP PLANS

# Xpress™ Membrane Bioreactor Packaged Plants

The Xpress™ membrane bioreactor (MBR) packaged plant from Siemens Water Technologies is a robust wastewater treatment process with inherent features designed to reduce maintenance and provide reliable and efficient wastewater treatment for small scale applications.

The Xpress™ utilizes the immersed membrane bioreactor operating system from the MBR process, a unique wastewater treatment process designed for municipal and industrial applications.

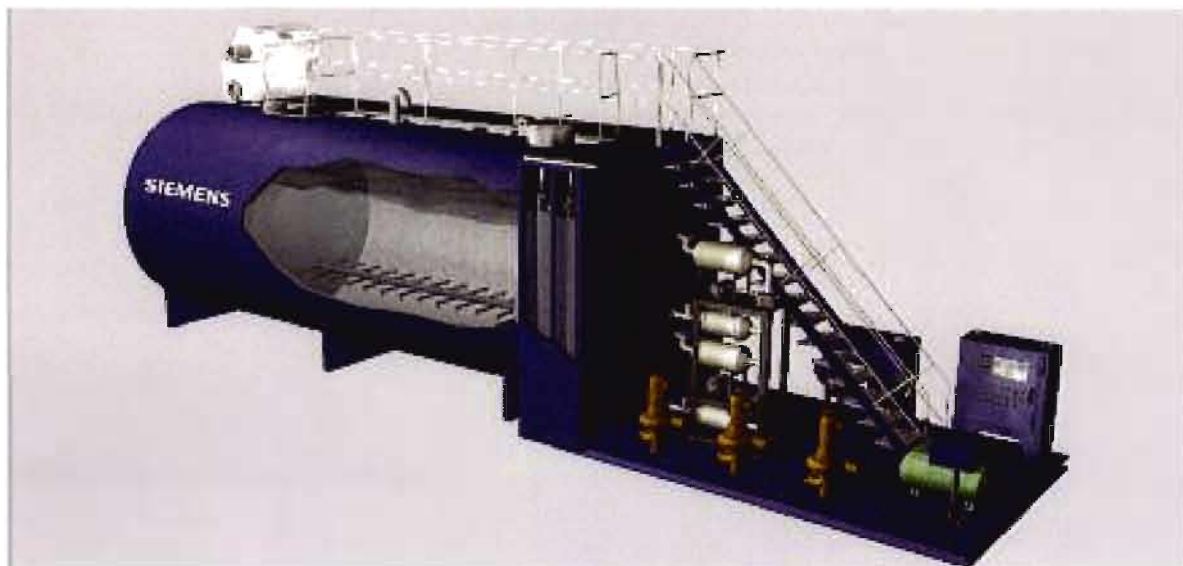
Membrane bioreactor systems may be used in such applications as water reuse, new housing developments, parks and resorts, retrofits, municipalities, industrial and turnkey projects. With the limited supply of potable water to support communities and industries, the increased cost of water and wastewater treatment, and stricter environmental regulations

the MBR process is a viable solution for current and future wastewater treatment.

## Xpress™ Process

The pre-designed and skid-mounted system can be offloaded quickly and efficiently at your wastewater treatment site. Designed for applications from 25,000 gallons per day (gpd) to 100,000 gpd, the Xpress is ideally suited for land development sites, golf courses, resorts, small municipalities or industrial applications. The prefabricated steel tanks will include pre-installed internals and skid-mounted pumps and blowers to reduce time and onsite labor for installation.

In the MBR process, wastewater is screened before entering the tank where biological treatment process takes place. Aeration within the aerobic reactor zone provides oxygen for the biological respiration and maintains solids in suspension. To retain the active biomass in the process, the MBR relies on submerged



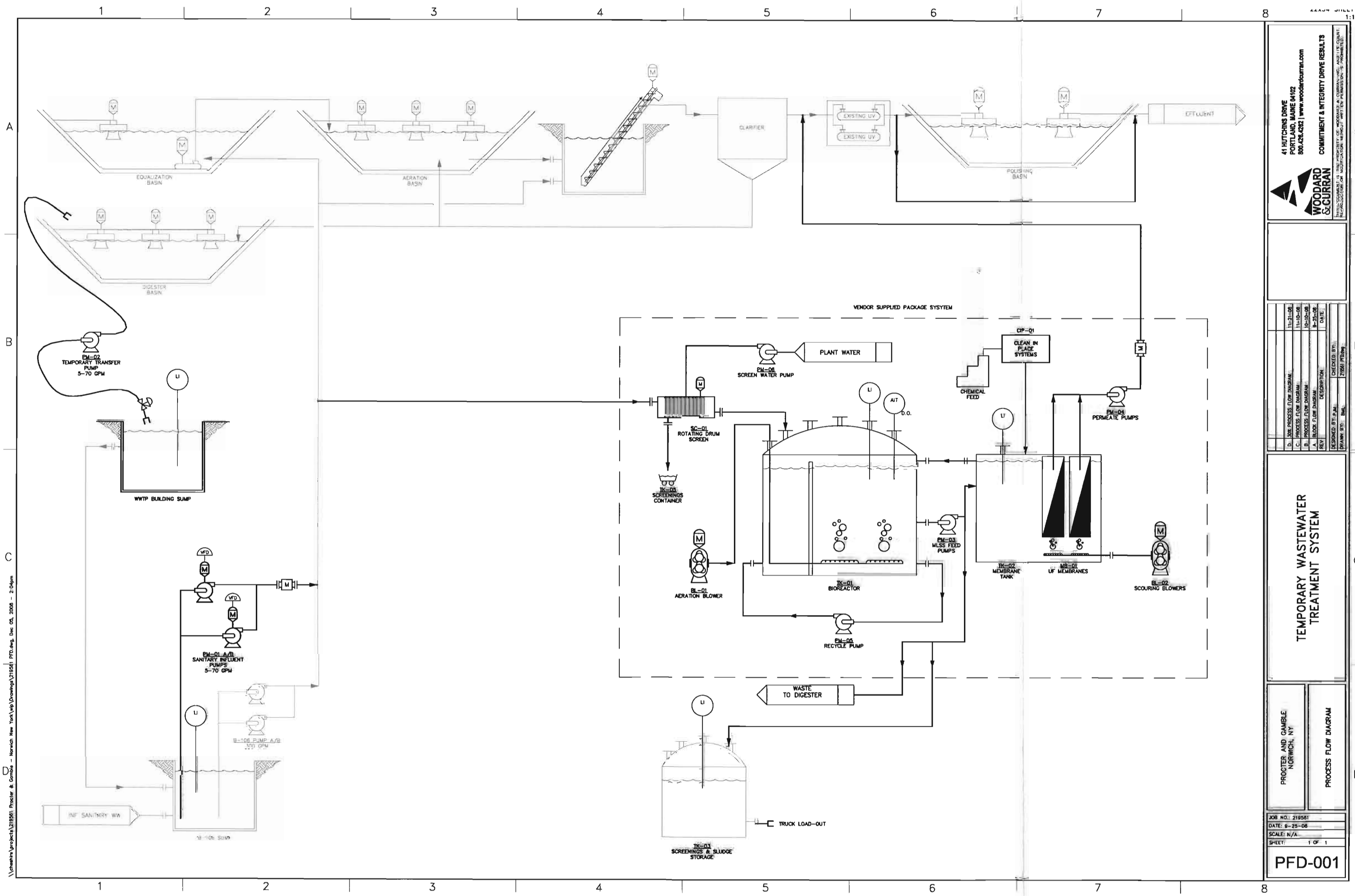


41 Hutchins Drive  
Portland, ME 04102  
Tel. (207) 774-2112

CLIENT: Procter & Gamble  
PROJECT: Interim Closure Plan  
PROJ. NO.: 219561

**Procter and Gamble, Norwich NY  
Equipment List  
Temporary Wastewater Treatment Plant**

		Description	New/Existing	Rent/Buy	Quantity	Comments
<b>Process Equipment</b>						
1.1	PM-01 A/B B-106 Influent Pumps	5-70 gpm @ 30', open impeller, self-priming centrifugal, cast iron wp	New	Buy	2	
1.2	PM-02 Temporary Transfer Pump	5-70 gpm. (May be able to use existing plant equipment)	New	Rent	0	
1.3	SC-01 Influent Screen	2-mm perforated plate rotating drum, 1 HP	New	Buy	1	*Included in the Siemens Xpress 100 MBR Package System
1.4	TK-01 Bioreactor	42,500 gal horizontal steel, fine bubble diffusers	New	Buy	1	
1.5	BL-01 Aeration Blower	220 scfm, 5.2 psi, 10 HP, sound enclosure	New	Buy	1	
1.6	PM-03 MLSS Feed Pump	580 gpm @ 10', 7.5 HP. Centrifugal	New	Buy	1	
1.7	TK-02 Membrane Tanks	2 carbon steel tanks, 20 B30R modules per tank	New	Buy	2	
1.8	MB-01 Membranes	Siemens B30R hollow fiber modules	New	Buy	40	
1.9	BL-02 Membrane Scouring Blower	265 scfm, 4 psi, 10 HP	New	Buy	1	
1.10	PM-04 Permeate Pump	151 gpm @ 25', 2 HP, VFD. Centrifugal.	New	Rent	1	
1.11	PM-05 Recirculation Pumps	350 gpm @ 10', 1.5 HP, VFD. Centrifugal.	New	Buy	1	
1.12	PM-06 Plant Water Pump	10 gpm @ 60 psi, 1 HP. Water for screen cleaning.	New	Buy	1	
1.13	CIP-1 Clean in Place	Sodium hypochlorite or citric acid. (CIP	New	Buy	0	
1.14	PLC-1 Membrane Control Panel	Siemens S7-300 PLC	New	Buy	1	
1.15	TK-03 Sludge Storage Tank	2,000 gal, HDPE vertical storage tank, fitted for outsourced sludge removal. (Use existing 2,000 gal HDPE tanks)	Existing	Reuse	2	
1.16	TK-05 Screenings Container	Roll-off, drum, or garbage container for dry screenings	New	Buy	1	
1.17	PLC-2 WWTP Control Panel	Control of peripheral equipment and membrane skid.	New	Buy	1	
1.18	Instruments (analog)	LIT, pH, DO, Temp, PIT, FIT, etc.	New	Buy	2	
1.19	Instruments (digital switches)	LS, XS, SS, PS, etc.	New	Buy	4	
1.20	Instruments (control valves)	FCV, AOV, etc.	New	Buy	2	



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D. 50% PROCESS FLOW DIAGRAM	11-21-08	DATE
C. 100% PROCESS FLOW DIAGRAM	11-10-08	DATE
B. 100% PROCESS FLOW DIAGRAM	10-10-08	DATE
A. 100% BLOCK FLOW DIAGRAM	9-25-08	DATE

DESIGNED BY: P.J.M.  
CHECKED BY: J.W.D.  
DRAWN BY: B.M.  
SCALE: 1" = 1'

PROCTER AND GAMBLE  
NORWICH, VT

PROCESS FLOW DIAGRAM

JOB NO.: 219561  
DATE: 9-25-08  
SCALE: N/A  
SHEET: 1 OF 1

**PFD-001**



1 2 3 4 5 6 7 8

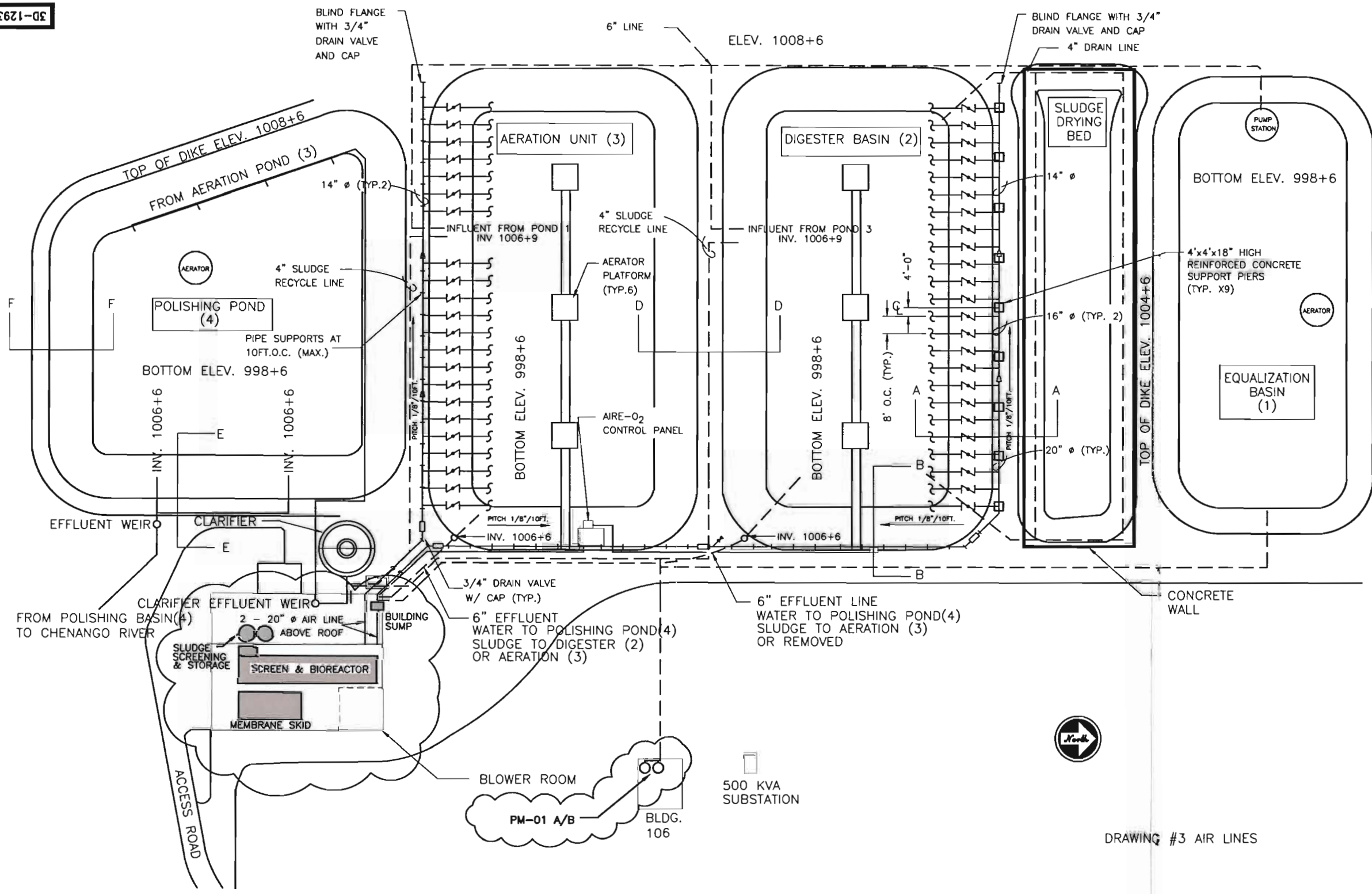
A

B

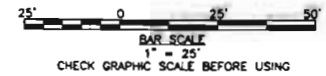
C

D

3D-1293



DRAWING #3 AIR LINES



\\chenango\projects\219561\Procter & Gamble - Norwich New York\dwg\219561\Std.dwg, Dec 05, 2008 - 2:07pm

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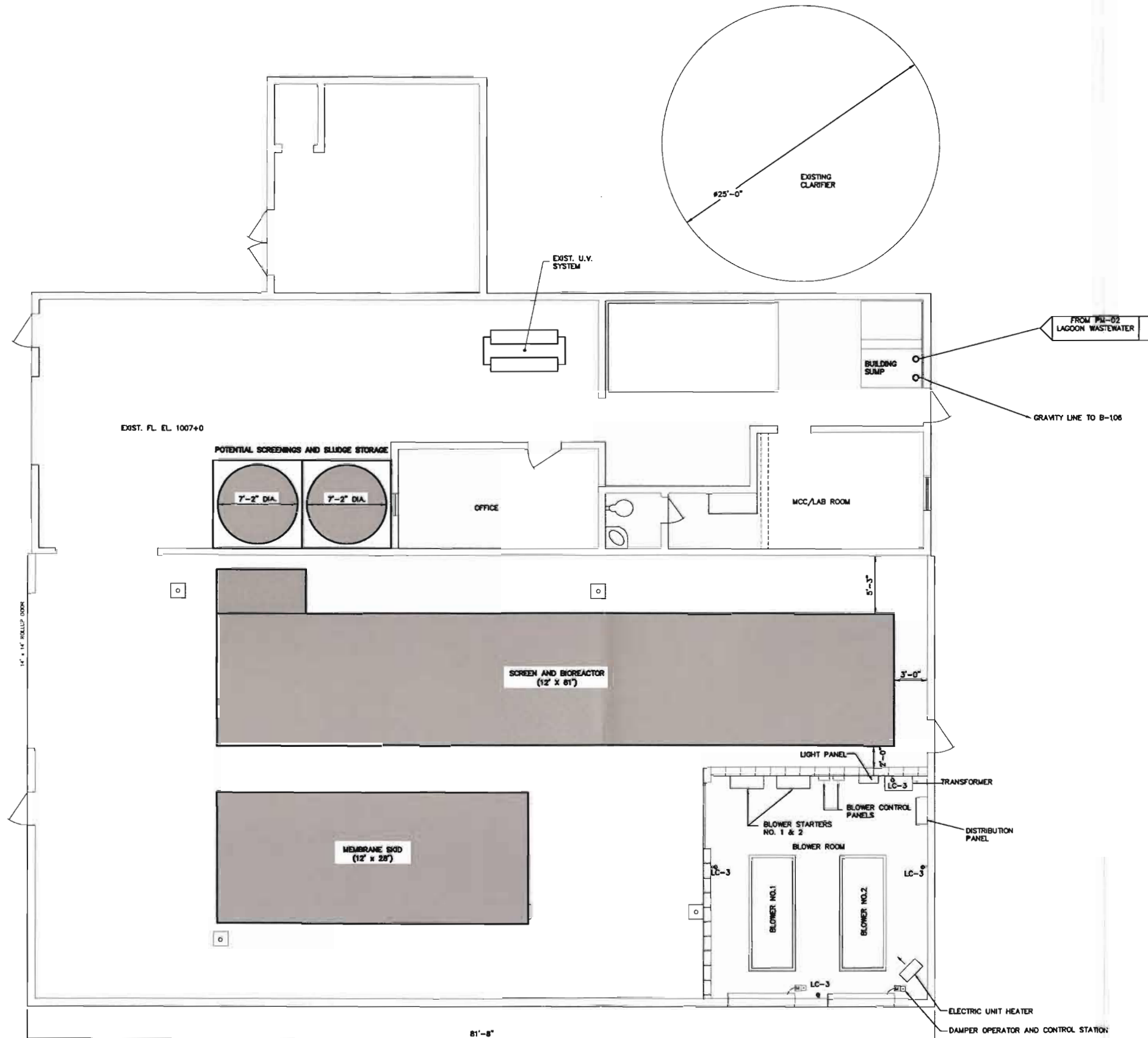
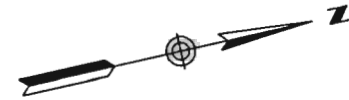
REV	DATE	DESCRIPTION	CHECKED BY	DESIGNED BY
B	11-21-08	SEE GENERAL ARRANGEMENT		
A	10-15-08	GENERAL ARRANGEMENT		

**TEMPORARY WASTEWATER TREATMENT SYSTEM**

PROCTER AND GAMBLE  
NORWICH, NY

JOB NO: 219561  
DATE: 10-14-08  
SCALE: AS NOTED  
SHEET: 1 OF 1

**GA-001**



FLOOR PLAN  
SCALE: 3/16" = 1'-0"  
BAR SCALE  
3/16" = 1'-0"  
CHECK GRAPHIC SCALE BEFORE USING

REV	DESCRIPTION	DATE
B	FOR GENERAL ARRANGEMENT	11-21-08
A	DRAWN	10-15-08
REV	DESCRIPTION	DATE
DESIGNED BY: P.M.	CHECKED BY:	
DRAWN BY: B.M.	21081 Layout.dwg	

TEMPORARY WASTEWATER  
TREATMENT SYSTEM

PROCTER AND GAMBLE  
NORWICH, NY

JOB NO.: 210561  
DATE: 8-25-08  
SCALE: AS NOTED  
SHEET: 1 OF 1  
GA-002

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41 HUTCHINS DRIVE  
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## APPENDIX C: FIELD REPORTS





## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	4/7/10
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Sunny ~ 70°F
<b>Owner:</b>	Proctor & Gamble		
<b>Contractor:</b>	Fluid Technology		
<b>W&amp;C Representative:</b>	Sandra Johnston and Janice Greenwood	<b>On-Site:</b> 11 AM – 3:30 PM	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John (Jack) Fontaine, Tom Franklin, Scott (Site Supervisor) and 3 Laborers	Fluid Technologies	All Day
Mike Quinn, Harry Gardner, and Jared Randall	Jones Lang Lasalle/Proctor & Gamble	Majority of the day
Jerry	Proctor & Gamble	Majority of the Day

### Work Performed:

Equalization Basin: First day of dewatering and sludge removal at the Equalization Basin (E-Basin). Minor adjustments were made to the weir tank and pump configurations to achieve optimum performance of the system. As water level in E-Basin fell, it was noted that significant amount of sludge is mixed in with No. 4 stone along the slope and possibly bottom of the Basin. Jack from Fluid Technologies would test different methods for removing the sludge prior to the next W&C visit to determine what process is the most effective.

Aeration Basin: Aeration Basin decanting to MBR to maintain proper pond levels

Digester Basin:

Polishing Pond:

### Samples Collected:

The first solids test of the dewatered sludge was conducted on-site (in trailer) approximately 3 minutes after start of dewatering activities. Result was 22.9%

### Erosion and Sediment Control:

N/A

### Other Issues:

N/A



## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	4/14/2010
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Sunny ~ Mid 60's F
<b>Owner:</b>			
<b>Contractor:</b>	Fluid Technology		
<b>W&amp;C Representative:</b>	Sandra Johnston & Janice Greenwood	<b>On Site:</b> 10AM-Noon	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John Ritzel, Jared Randell, Mike Quinn	Jones Lang Lasalle/P&G	Majority of the Day
John (Jack) Fontaine, Tom Franklin, Scott (Site Supervisor), 3 Laborers	Fluid Technologies	All Day
Bob Adsit	Hauler	11-11:30AM

### Work Performed:

Equalization Basin: W&C arrived on site at 10:00 AM to inspect the "stone washing" process used to remove sludge from the No. 4 stone located along slopes of the E-Basin. Contractor had manually washed the sides of the Basin with a fire hose directing the stones to the bottom of the E-Basin. Stone was continuously power-washed to separate sludge from the stone. This process appeared to be quite effective at washing the stone; however there was a concern that dislocating the stone from along the slope of the basin would impact the integrity and function of the basin. It was agreed to leave the stone piled at the bottom of the basin. It was also agreed that the E-Basin sludge removal is complete.

Aeration Basin: Contractor stated he plans to begin the removal of balls from the aeration basin tomorrow. He will be using two boats that are already on-site and collect the balls with netting and stockpile next to the sludge stockpiles.

Digester Basin:

Polishing Pond:

### Samples Collected:

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### Erosion and Sediment Control:

Sludge is stockpiled on concrete surface between the E-Basin and Aeration Basin and contractor covers stockpile with tarp at end of each day.

### Other Issues:

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## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	5-5-2010
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Partly Cloudy Mid 60's, Rain PM
<b>Owner:</b>	Proctor & Gamble		
<b>Contractor:</b>	Fluid Technology		
<b>W&amp;C Representative:</b>	Sandra Johnston	<b>On-Site:</b> 10:45 AM – 2:15 PM	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John Ritzel, Jared Randell, Mike Quinn, Harry	Jones Lang Lasalle/P&G	Majority of the Day
Scott (Site Supervisor), 2 Laborers	Fluid Technologies	All Day

### Work Performed:

**Polishing Pond:** Approximately 3.4-4 feet of water was present in the Polishing Pond at time of visit. It is anticipated that the sludge depth will be greater than the 1 foot originally estimated.

**Aeration Basin:** Very minimal water remains in the Aeration basin. 10 rows of aeration piping, fittings, and valves have been drained, flushed with clean water, and stockpiled on a grass area per the Owner's direction. Concrete anchors remain in place. All Plastic balls have been removed, placed in clear plastic bags, and stockpiled near the storage shed on-site. Sludge from the aeration basin is stockpiled on the sludge drying bed. Prior to hauling, this stockpile will be sampled by P&G for percent solids. Scott indicated the Aeration basin cleaning would be completed by mid next week (May 12<sup>th</sup>).

**Digester Basin:** All plastic balls have been removed from the Digester basin, placed in clear plastic bags, and stockpiled near a storage shed on-site. At time of visit approximately 2.5-3 feet of water was present in the basin, and water was continuously being pumped over to the polishing pond as the WWTP required additionally water to maintain activities.

**Equalization Basin:** N/A

### Samples Collected:

N/A

### Erosion and Sediment Control:

Sludge is stockpiled on designated 'sludge drying bed' area, and covered with tarp.

### Other Issues:

N/A



## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	5-11-2010
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Partly Cloudy - Mid 55°F
<b>Owner:</b>	Proctor & Gamble		
<b>Contractor:</b>	Fluid Technologies		
<b>W&amp;C Representative:</b>	Sandra Johnston	<b>On-Site:</b> 10:45 AM – 2:15 PM	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John Ritzel, Jared Randell, Mike Quinn, Harry	Jones Lang Lasalle/P&G	Majority of the Day
Tom Franklin, Jack Fontaine, Scott (Site Supervisor), 2 Laborers, 1 operator (excavator)	Fluid Technologies	All Day

### Work Performed:

Polishing Pond: Approximately 3-3.5 feet of water was present in the Polishing Pond at time of visit. It is anticipated that the sludge depth is at least 2 feet across the pond. Pond was noticeable turbid and sludge was observed along the embankments of the pond.

Aeration Basin: All 24 rows of aeration piping have been drained, flushed with clean water via fire hose, ends capped, and stockpiled on a grass area. At time of visit, contractors were pulling the concrete anchor stockpile out of the basin, via on-site excavator, and placing on grassed area. Contractor is continuing to dewater from the aeration basin and stockpiling on the sludge drying bed. Two separate stockpiles were present on-site, however both piles contained only sludge from the aeration basin, contractors were consolidating piles to prepare the piles for sampling by Mike Quinn of P&G per the requirements for the landfill. Sample results will be available Thursday night, and it is anticipated that hauling will begin Friday, and continue until Monday.

Digester Basin: Filtrate water was being discharged to the Digester basin.

Equalization Basin: N/A

### Samples Collected:

N/A

### Erosion and Sediment Control:

Sludge is stockpiled on designated 'sludge drying bed' area, and covered with tarp, rain is expected tonight

### Other Issues:

At time of visit, the temporary WWTP was not taking water from the ponds (not needed), and only treating water from the facility itself.



## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	5-17-2010
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Sunny ~ 60°F
<b>Owner:</b>	Proctor & Gamble		
<b>Contractor:</b>	Fluid Technologies		
<b>W&amp;C Representative:</b>	Sandra Johnston	<b>On-Site:</b> 10:30 AM – 1:00 PM	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John Ritzel, Mike Quinn, Harry	Jones Lang Lasalle/P&G	Majority of the Day
Scott (Site Supervisor) plus 2 Laborers	Fluid Technologies	All Day

### Work Performed:

Polishing Pond: N/A

Aeration Basin: Contractor is continuing to remove sludge from the aeration basin. Sludge stockpiles are segregated to distinguish piles that have been sampled and are ready for hauling, and those piles that need to still be sampled. All sludge stockpiles are contained within the concrete sludge drying bed. Hauling of previously sampled sludge began off-site removal today to the Chenango County Landfill. Four 10-yard trucks made continuous round trips throughout the day. Each load held approximately 12-17 tons. Two laborers from Fluid Technologies continued to wash stone with a fire hose and pump sludge to the compressor throughout the day.

Digester Basin: Filtrate water was continuing to be discharged to the Digester basin.

Equalization Basin: N/A

### Samples Collected:

N/A

### Erosion and Sediment Control:

Sludge is stockpiled on designated 'sludge drying bed' area, and covered with tarp.

### Other Issues:



## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	5-26-2010
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Sunny 87°F
<b>Owner:</b>	Proctor & Gamble		
<b>Contractor:</b>	Fluid Technologies		
<b>W&amp;C Representative:</b>	Sandra Johnston	<b>On-Site:</b> 10:30 AM – 1:00 PM	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John Ritzel, Jared Randall, Mike Quinn, Harry	Jones Lang Lasalle/P&G	Majority of the Day
Scott (Site Supervisor) and 1 Laborer	Fluid Technologies	All Day

### Work Performed:

Polishing Pond: Began sludge removal on 5/25. Sludge depth is greater than anticipated at 3 feet (originally anticipated 1 foot depth). One operator on site was creating the sludge stockpiles on the sludge drying bed and also operating the lagoon tractor pump. Second laborer was monitoring the belt press and weir/mix tanks.

Aeration Basin: Remaining sludge stockpiles hauled off-site to Chenango County Landfill by mid-day.

Digester Basin: Filtrate water was continuing to be discharged to the Digester basin.

Equalization Basin: N/A

### Samples Collected:

Sludge Solids Content samples taken today for polishing pond stockpiles.

### Erosion and Sediment Control:

Sludge is stockpiled on designated 'sludge drying bed' area, and covered with tarp.

### Other Issues:



## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	06-15-2010
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Sunny 85°F
<b>Owner:</b>	Proctor & Gamble		
<b>Contractor:</b>	Fluid Technologies		
<b>W&amp;C Representative:</b>	Sandra Johnston	<b>On-Site:</b> 10:30 AM – 1:30 PM	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John Ritzel, Jared Randall, Mike Quinn, Harry	Jones Lang Lasalle/P&G	Majority of the Day
Scott (Site Supervisor) and 2 Laborer	Fluid Technologies	All Day

### Work Performed:

**Polishing Pond:** Contractor is continuing to process sludge from the polishing pond. A "free" layer of sludge still remains above the aggregate. Contractor is using a fire hose to wash down the exposed side slopes of the basin, and also using the bob cat in the pond to slurry expose the aggregate. Hauling of polishing pond sludge continuing today.

**Aeration Basin:** N/A

**Digester Basin:** Filtrate water was continuing to be discharged to the Digester basin.

**Equalization Basin:** N/A

### Samples Collected:

P&G representatives continue to sample sludge stockpiles weekly (usually Fridays) for hauling purposes.

### Erosion and Sediment Control:

Sludge is stockpiled on designated 'sludge drying bed' area, and covered with tarp.

### Other Issues:

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## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	07-12-2010
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Sunny 85°F
<b>Owner:</b>	Proctor & Gamble		
<b>Contractor:</b>	Fluid Technologies		
<b>W&amp;C Representative:</b>	Sandra Johnston	<b>On-Site:</b> 10:30 AM -2:30 PM	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John Ritzel, Jared Randall, Mike Quinn, Harry	Jones Lang Lasalle/P&G	All Day
Scott (Site Supervisor) and 3 Laborers	Fluid Technologies	All Day

### Work Performed:

**Polishing Pond:** Contractor was uncovering and investigating soft spots found along the bottom of the polishing pond. It appears that an old liner exists under the new liner, with a layer of sludge/debris/general fill lying in between two liners. Contractor will continue to excavate and chase out the areas where fill exists and is currently stockpiling on-site. P&G will take composite sample of the stockpile to analyze for disposal criteria.

**Aeration Basin:** N/A

**Digester Basin:** Contractor has relocated sludge removal equipment to the Digester Basin and is continuing to dewater and remove sludge from this basin. At time of visit, piping was exposed in the basin, and contractor was using firehoses to slurry and clean the gravel stone. Piping and concrete anchors will be removed this weekend.

**Equalization Basin:** N/A

### Samples Collected:

P&G representatives continue to sample sludge stockpiles weekly for hauling purposes.

### Erosion and Sediment Control:

Sludge is stockpiled on designated 'sludge drying bed' area, and covered with tarp.

### Other Issues:

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## DAILY CONSTRUCTION PROGRESS REPORT

<b>Job Number:</b>	219561.01	<b>Date:</b>	07-27-2010
<b>Project:</b>	P&G Norwich	<b>Weather:</b>	Sunny 85°F
<b>Owner:</b>	Proctor & Gamble		
<b>Contractor:</b>	Fluid Technologies		
<b>W&amp;C Representative:</b>	Sandra Johnston	<b>On-Site:</b> 10:00 AM -2:30 PM	

### Visitors, Contractors, and Equipment On-site:

<b>Name</b>	<b>Representing</b>	<b>Time On-site</b>
John Ritzel, Jared Randall, Mike Quinn, Harry	Jones Lang Lasalle/P&G	All Day
Scott (Site Supervisor) and 3 Laborers	Fluid Technologies	All Day

### Work Performed:

**Polishing Pond:** Contractor was continuing to excavate down to old liner in areas where sludge/debris was found beneath the new liner. Long skid steer excavator was on-site to begin loading stockpile of fill too Chenango County Landfill. Excavator and small front loader (bob cat) was being used around the bottom of the pond to excavate and stockpile sludge. An area was found close to the existing pipe line on the side closest to the Aeration Basin, to contain stone and black sludge. An old stone wall existed in this area, when the old basins were in place. Contractor will continue to excavate this area to remove old stone wall.

**Aeration Basin:** N/A

**Digester Basin:** Contractor continuing sludge removal from the Digester Basin. Less than 6 inches water remains along bottom of pond, using fire hoses to spray down and wash sides of basin walls.

**Equalization Basin:** N/A

### Samples Collected:

P&G representatives continue to sample sludge stockpiles weekly for hauling purposes.

### Erosion and Sediment Control:

Sludge is stockpiled on designated 'sludge drying bed' area, and covered with tarp at end of day.

### Other Issues:

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## APPENDIX D: PHOTOGRAPHIC DOCUMENTATION

SLUDGE DEWATERING & SLUDGE REMOVAL EQUIPMENT

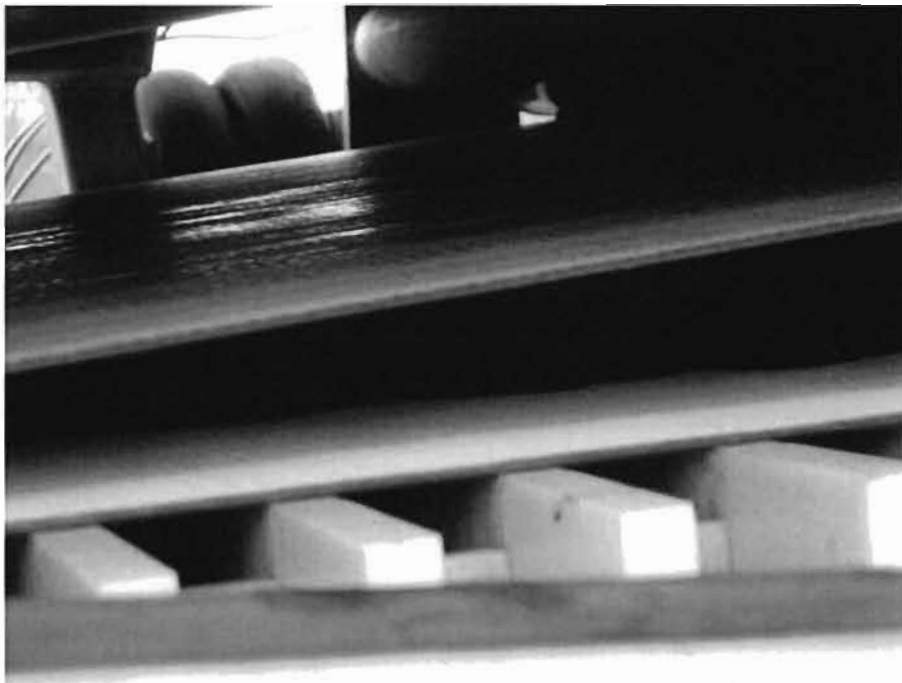


Double Belt Filter Press

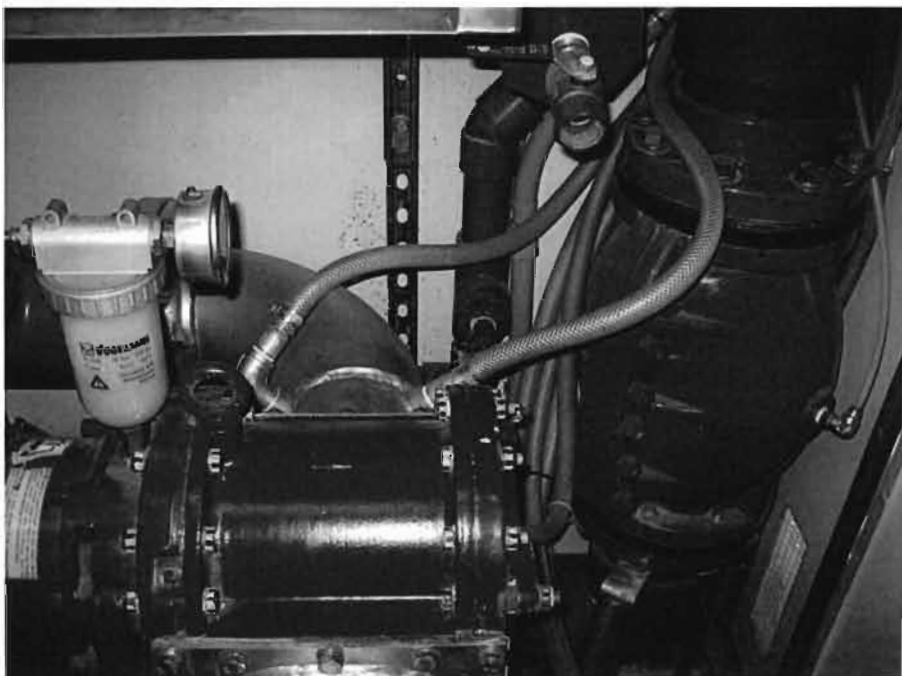


Double Belt Filter Press

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



Belt Press and Sludge



Polymer Addition

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



Mixing Tank and Weir Tank

EQUALIZATION BASIN



Lagoon Pump and Agricultural Tractor

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



April 9, 2010  
Lagoon Pump (Slurring)



April 9, 2010  
Sludge Stockpile Containment Area – Concrete Drying Bed

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



April 14, 2010  
Stone Washing Procedure



April 20, 2010  
Equalization Basin Liner Sampling Date

## AERATION BASIN



May 4, 2010  
Dewatering and Piping/Concrete Anchor Removal



May 11, 2010  
Aeration Basin Sludge Removal



Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



May 11, 2010  
Stone Washing Process



May 11, 2010  
Aeration Piping Removed, Cleaned and Stockpiled

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



May 11, 2010  
Concrete Anchors Removed, Cleaned, and Stockpiled



May 17, 2010  
Sludge Drying Bed – Containment Area

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



May 17, 2010  
Sludge Removal/Disposal



May 26, 2010  
Aeration Basin Cleaning Completed

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



October 26, 2010  
Aeration Basin Follow-Up Sample Location (AU-GRAB-D1)



October 26, 2010  
Aeration Basin Follow-Up Sample Location (AU-GRAB-A-05-1)

POLISHING POND



May 11, 2010  
Polishing Pond (Prior to Dewatering)



June 16, 2010  
Dewatering, Stone Washing

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



July 9, 2010  
Sludge Removal Polishing Pond



August 5, 2010  
Polishing Pond Liner Sampling Date



Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



August 5, 2010  
Polishing Pond Liner Sampling Date



October 26, 2010  
Polishing Pond Follow-Up Confirmation Sample Location

DIGESTER BASIN



July 12, 2010  
Dewatering



July 27, 2010  
Sludge Removal

Photographic Documentation  
WWTP Interim Closure Report  
Proctor & Gamble Woods Corners Facility  
Norwich, NY



August 16, 2010  
Digester Basin Sampling Date

## APPENDIX E: PROJECT DOCUMENTATION

**New York State Department of Environmental Conservation  
Division of Water**

Bureau of Water Permits, 4<sup>th</sup> Floor  
625 Broadway, Albany, New York 12233-3505  
Phone: (518) 402-8111 • FAX: (518) 402-9029  
Website: [www.dec.state.ny.us](http://www.dec.state.ny.us)



Alexander B. Grannis  
Commissioner

February 17, 2010

Mr. Paul R. Keller, Ph.D.  
Associate Director/Site Leader  
Procter & Gamble Manufacturing Company  
P. O. Box 191  
Norwich, NY 13815-0191

Dear Mr. Keller:

Re: Water Treatment Chemical  
SPDES Permit #: NY 0004146

The Department has reviewed and approved your request to use Hyperloc CE 2054 as a Water Treatment Chemical (WTC). Please note that this chemical must be used according to the WTC Usage Notification Requirements for SPDES Permittees on the attached page 3 of 3 of the WTC request form.

If you have any questions, please contact me at (518) 408-5772.

Sincerely,

Dare Adelugba, P.E.  
Environmental Engineer 2

cc:

Meghan Gilbert - Region 7  
Jared L. Randall, Ph.D. - Procter & Gamble

## Water Treatment Chemical (WTC) Usage Notification Requirements for SPDES Permittees

Page 1 of 3

Note: All requested information must be supplied. Incomplete submissions will not be reviewed.

Permittee completes items 1a and 2 - 14. Alternatively, the permittee may complete items 1a, 2 - 9 and 14 if the WTC manufacturer completes items 1b, 10 - 13 and 15. See instructions page.

1.a. Date Signed by Permittee - 2/12/2010		1.b. Date Signed by WTC Manufacturer - 2/15/2010	
2.a. Permittee Name - The Procter & Gamble Manufacturing Co.		2.b. SPDES No. - NY 0004146	
2.c. Contact Name - Paul R. Keller, Ph.D.			
3.a. WTC Name - Hyperloc CE 2054			
3.b. WTC Manufacturer - SNF			
4. WTC Function - Flocculating Agent			
5. Affected Outfall(s) - Outfall 002			
6.a. WTC Daily Dosage: average lbs/day = 30                      maximum lbs/day = 100			
6.b. Dosage Frequency: minutes/day = 600-1,440                      days/week = 7			
7.a. Outfall Flow Rate: average MGD = 0.07                      maximum MGD = 0.1			
7.b. Outfall WTC Concentration: average mg/L = 0.0026                      maximum mg/L = 0.0086			
8.a. System Blowdown Flow Rate: average gpm = NA                      maximum gpm = NA			
8.b. System Blowdown Frequency: minutes/day = NA                      days/week = NA			
9. List measures in place to ensure that excessive levels of WTC are not used and subsequently discharged - Information provided by the polymer vendor and dewatering contractors reveals that as Hyperloc CE 2054 flows through the dewatering and WWTP systems, 99% will be retained by the sludge, 95% will be removed by settling in holding tanks/ponds and 90 % will be removed by the membrane bioreactor. As such, Outfall average and maximum WTC concentrations (Item 7a) were determined using the following formula: (WTC daily dosage) x (1/Average Outfall Flow Rate in MGD) x (1/8.34) x (0.01 x 0.05 x 0.1). WTC will be added manually to removed wastewater/sludge under the supervision of the dewatering contractor. Additionally, after settling in two 20,000 Weir tanks (in series) and, initially, the digester lagoon, filtrate water will be recycled from the belt press system, further minimizing WTC usage.			
10.a. WTC Composition - Ingredients/Impurities (note: ingredients/impurities must total to 100%)	10.b. %	10.c. CAS#	10.d. Outfall Concentration
Polyacrylamide	45	69418-26-4	0.0039 mg/L
Isoparaffinic Solvent	26	64742-47-8	0.0022 mg/L
Sorbitan Monooleate	3	1338-43-8	0.0003 mg/L
Nonylphenol	3	9016-45-9	0.0003 mg/L
Water	23	7732-18-5	0.002 mg/L

10.e. Intermediate/Final Degradation Products - Carbon, nitrogen oxides, chloride salts




## NYSDEC - Division of Water

## WTC Usage Notification Requirements for SPDES Permittees

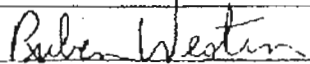
Page 2 of 3

1.a. Date Signed by Permittee - 2/12/2010		1.b. Date Signed by WTC Manufacturer - 2/15/2010			
2.b. SPDES No. - NY 0004146		3.a. WTC Name - Hypoclor CE 2054			
11. WTC BOD and COD (lb/lb) : BOD = 0.0075 lb/lb      COD = 0.8 - 1 lb/lb					
12.a. Is WTC a NYS registered biocide? No			12.b. Registration Number -		
13. WTC Toxicity Info (most sensitive species) - Attach description of endpoint for each EC50 and LOEC.					
13.a. Vertebrate Species	96 Hr LC50	EC50	NOEC	LOEC	Other -
Rainbow trout	10-100 mg/L				
13.b. Vertebrate Species	96 hr LC50	EC50	NOEC	LOEC	Other -
Fathead Minnow	10-100 mg/L				
13.c. Invertebrate Species	48 hr LC50	EC50	NOEC	LOEC	Other -
Daphnia magna		>50 mg/L			
13.d. Invertebrate Species	LC50	EC50	NOEC	LOEC	Other -
13.e. Other Species	LC50	EC50	NOEC	LOEC	Other -

14. Permittee Certification - I certify under penalty of law that this notification and all attachments are, to the best of my knowledge and belief, true, accurate and complete. The generic WTC usage requirements noted below will be adhered to.

PRINT NAME - Paul R. Keller, Ph.D.	SIGNATURE 
TITLE/COMPANY - Associate Director / Site Leader / The Procter & Gamble Manufacturing Company	
TELEPHONE - 607-335-6736	FAX - 607-335-2055

15. WTC Manufacturer Certification - I certify under penalty of law that this notification and all attachments are, to the best of my knowledge and belief, true, accurate and complete.

PRINT NAME - Ruben Westin	SIGNATURE - 
TITLE/COMPANY - SNF	
TELEPHONE - 912-880-8014	FAX - 912-880-8010

## NYSDEC - Division of Water

## WTC Usage Notification Requirements for SPDES Permittees

Page 3 of 3

1.a. Date Signed by Permittee - 2/12/2010	1.b. Date Signed by WTC Manufacturer - 2/15/2010
2.b. SPDES No. - NY 0004146	2.c. Contact Name - Paul R. Keller, Ph.D.
3.a. WTC Name - Hyperloc CE 2054	6.a. Avg/Max Daily Dosage = 30/100 lbs/day

Generic WTC Usage Requirements

1. WTC use shall not exceed the rate reported by the permittee or authorized below, whichever is less.
2. The discharge shall not cause or contribute to a violation of water quality or an exceedance of AWQC.
3. **The permittee must maintain a logbook** of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to
4. ensure that excessive levels of WTCs are not used and subsequently discharged through outfalls. The permittee shall retain the logbook data for a period of at least 3 years. This period may be extended by request of the DEC.
5. **The permittee shall provide an annual report**, attached to the December DMR, containing the following information for each outfall: the current list of WTCs authorized for use and discharge by the DEC, for each WTC the amount in pounds used during the year, identification of authorized WTCs the permittee no longer uses, and any other pertinent information.

Items 16 - 17 must be completed by NYSDEC permit writer.

Review Decision (check the appropriate box). Fax or mail a copy of the completed form to the person identified in item 2.c and, if appropriate, to the facility inspector.



The proposed WTC usage may proceed as proposed without permit modification subject to the conditions noted above.



The proposed WTC usage may not proceed for one of the following three reasons:



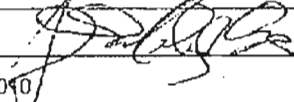
As noted below, the information provided is insufficient to complete our review.

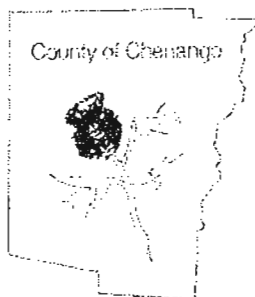


As noted below, the SPDES permit must first be modified to add new requirements.



As noted below, the proposed use is prohibited.

17 Permit Writer Information:	
PRINT NAME - Dare Adelugba	SIGNATURE - 
TITLE - Environmental Engineer 2	DATE - 02/17/2010
ADDRESS - NYSDEC, Division of Water, 4 <sup>th</sup> Floor, 625 Broadway, Albany, NY 12233-1550	
TELEPHONE - 518-408-5772	FAX - 518-402-9029



Randy W. Gibbon,  
P.E. Director

## DEPARTMENT OF PUBLIC WORKS

79 Rexford Street  
Norwich, N.Y. 13815-1199  
Highway — (607) 337-1710  
Waste — (607) 337-1790

Fax: (607) 336-8988  
email: RANDYG@CO.CHENANGO.NY.US



April 21, 2010

Jared L. Randall, Ph.D.  
Manager  
P&G Manufacturing Co.  
P.O. Box 191  
147 State Hwy. 320  
Norwich, NY 13815

Re: Proposed delivery of P&G sludge

Mr. Randall,

Chenango County will accept the sludge from the basins represented by the sampling results provided by Upstate Laboratories on April, 2010.

The materials brought to our facility must be accompanied by documentation of the testing results of that material.

If you have questions or concerns regarding this matter please contact me at (607) 337-1710.

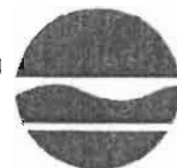
Thank you.

Randy W. Gibbon, P.E.  
Director  
Chenango County DPW

cc: file

**New York State Department of Environmental Conservation  
Division of Water**

**Bureau of Water Permits, 4<sup>th</sup> Floor**  
625 Broadway, Albany, New York 12233-3505  
**Phone:** (518) 402-8111 **FAX:** (518) 402-9029  
**Website:** [www.dec.state.ny.us](http://www.dec.state.ny.us)



Alexander B. Grannis  
Commissioner

July 6, 2010

Mr. Paul R. Keller, Ph.D.  
Associate Director/Site Leader  
Procter & Gamble Manufacturing Company  
P. O. Box 191  
Norwich, NY 13815-0191

Dear Mr. Keller:

Re: Water Treatment Chemical  
SPDES Permit #: NY 0004146

The Department has approved your request to use Hyperloc CE 2054 as a Water Treatment Chemical (WTC). The WTC is requested to be used as a flocculating agent. Please note that this chemical must be used according to the WTC Usage Notification Requirements for SPDES Permittees on the attached page 3 of 3 of the WTC request form.

If you have any questions, please contact me at (518) 408-5772.

Sincerely,

Dare Adelugba, P.E.  
Environmental Engineer 2

cc:

Meghan Gilbert - Region 7  
Jared L. Randall, Ph.D. - Procter & Gamble

## NYSDEC - Division of Water

## WTC Usage Notification Requirements for SPDES Permittees

Page 3 of 3

1.a. Date Signed by Permittee - 6/7/10	1.b. Date Signed by WTC Manufacturer - 6/8/10
2.b. SPDES No. - NY 0004146	2.c. Contact Name - Paul R. Keller, Ph.D.
3.a. WTC Name - Hyperfloc CE 2054	6.a. Avg/Max Daily Dosage = 100 / 800 lbs/day

Generic WTC Usage Requirements

- A. WTC use shall not exceed the rate reported by the permittee or authorized below, whichever is less.
- B. The discharge shall not cause or contribute to a violation of water quality or an exceedance of AWQC.
- C. **The permittee must maintain a logbook** of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure that excessive levels of WTCs are not used and subsequently discharged through outfalls. The permittee shall retain the logbook data for a period of at least 3 years. This period may be extended by request of the DEC.
- D. **The permittee shall provide an annual report**, attached to the December DMR, containing the following information for each outfall: the current list of WTCs authorized for use and discharge by the DEC, for each WTC the amount in pounds used during the year, identification of authorized WTCs the permittee no longer uses, and any other pertinent information.

**Items 16 - 17 must be completed by NYSDEC permit writer.**

16. Review Decision (check the appropriate box). *Fax or mail a copy of the completed form to the person identified in item 2.c and, if appropriate, to the facility inspector.*



The proposed WTC usage may proceed as proposed ~~without~~ permit modification subject to the conditions noted above.



The proposed WTC usage may not proceed for one of the following three reasons:

<input type="checkbox"/>	As noted below, the information provided is insufficient to complete our review.
<input type="checkbox"/>	As noted below, the SPDES permit must first be modified to add new requirements.
<input type="checkbox"/>	As noted below, the proposed use is prohibited.

## 17. Permit Writer Information:

PRINT NAME - Dare Adelugba, P.E.	SIGNATURE - <i>Dare Adelugba</i>
TITLE - Environmental Engineer 2	DATE - 07/06/10
ADDRESS - NYSDEC, Division of Water, 625 Broadway, Albany, NY 12233-3505	
TELEPHONE - (518) 408-5772	FAX - (518) 402-9029

Job Name: P&G Norwich

Type of vessel: Lagoon Tonnage

Year Last Cleaned:

Since New

Dry Tons Processed (Est.): 1,581.64

Wet Tons Processed: 2736.73

Yards Processed (Est.): 1,184

Average Solids Content: 0.5811

Date	Time In	Time Out	Run Time	Load	Est. Yds	Solids	Wet Tons	Dry Tons	Scaled LBS.	Wght Tckt
4/29/2010	EQ			1	10.88	35.02%	0.08	3.17	18,120	144161
4/29/2010	EQ			2	9.88	30.88%	8.23	3.28	18,480	144163
4/29/2010	EQ			3	15.87	42.10%	13.40	5.80	28,980	144170
4/29/2010	EQ			4	12.50	31.71%	10.70	3.30	21,400	144171
4/29/2010	EQ			5	17.04	32.24%	14.48	4.87	28,980	144178
4/29/2010	EQ			6	13.24	40.82%	11.25	4.57	22,500	144179
4/29/2010	EQ			7	14.08	38.51%	12.73	4.00	25,480	144184
4/29/2010	EQ			8	13.74	40.10%	11.88	4.88	23,380	144185
4/30/2010	EQ			9	13.08	39.92%	11.10	4.40	22,200	144193
4/30/2010	EQ			10	15.00	36.25%	12.83	4.86	25,880	144197
4/30/2010	EQ			11	11.82	38.43%	10.05	3.88	20,100	144206
4/30/2010	EQ			12	14.12	42.98%	12.00	5.16	24,900	144210
4/30/2010	EQ			13	11.75	40.95%	9.90	4.00	19,980	144215
4/30/2010	EQ			14	10.82	35.29%	9.03	3.19	18,080	144221
5/3/2010	Balls			15	1.41	100.00%	1.20	1.20	2,400	144322
5/3/2010	Balls			16	1.51	100.00%	1.28	1.28	2,560	144332
5/3/2010	Balls			17	1.48	100.00%	1.28	1.28	2,520	144341
5/4/2010	Balls			18	1.54	100.00%	1.31	1.31	2,620	144349
5/4/2010	Balls			19	1.81	100.00%	1.37	1.37	2,740	144359
5/4/2010	Balls			20	1.87	100.00%	1.42	1.42	2,840	144370
5/4/2010	Balls			21	1.87	100.00%	1.42	1.42	2,840	144376
5/4/2010	Balls			22	1.88	100.00%	1.41	1.41	2,820	144387
5/5/2010	Balls			23	1.59	100.00%	1.35	1.35	2,700	144393
5/5/2010	Balls			24	1.80	100.00%	1.53	1.53	3,060	144408
5/5/2010	Balls			25	1.91	100.00%	1.82	1.82	3,240	144420
5/17/2010	AB			26	15.25	55.52%	12.98	7.20	25,920	144812
5/17/2010	AB			27	20.59	57.01%	17.50	9.98	35,000	144820
5/17/2010	AB			28	12.88	55.48%	10.93	6.08	21,880	144824
5/17/2010	AB			29	18.80	59.98%	14.11	8.48	28,220	144830
5/17/2010	AB			30	17.47	47.47%	14.85	7.06	29,700	144839
5/17/2010	AB			31	10.42	60.78%	16.51	10.03	33,920	144849
5/18/2010	AB			32	18.73	47.85%	15.92	7.59	31,840	144864
5/18/2010	AB			33	13.22	48.72%	11.24	5.25	22,480	144865
5/18/2010	AB			34	16.14	42.10%	13.72	5.78	27,440	144878
5/18/2010	AB			35	12.06	44.78%	10.24	4.58	20,480	144879
5/18/2010	AB			36	15.71	51.89%	13.35	6.00	28,700	144884



5/18/2010	AB	37	11.82	50.46%	0.88	4.08	10,780	144886
5/18/2010	AB	38	7.33	52.30%	8.23	3.28	12,480	144895
5/21/2010	AB	39	15.34	64.54%	13.04	8.42	28,080	144973
5/21/2010	AB	40	14.81	60.88%	12.50	8.77	25,180	144985
5/21/2010	AB	41	15.18	60.88%	12.80	9.00	25,780	144994
5/21/2010	AB	42	16.13	68.82%	13.71	9.41	27,420	145005
5/21/2010	AB	43	15.40	60.35%	13.17	9.13	28,340	145017
5/24/2010	AB	44	15.14	64.58%	12.87	8.31	25,740	145085
5/24/2010	AB	45	14.56	68.34%	12.37	8.21	24,740	145094
5/24/2010	AB	46	15.14	57.90%	12.87	7.46	25,740	145106
5/24/2010	AB	47	14.82	68.42%	12.43	8.50	24,880	145114
5/24/2010	AB	48	18.00	60.81%	13.80	9.47	27,200	145122
5/25/2010	AB	49	18.20	64.15%	13.77	8.83	27,540	145132
5/25/2010	AB	50	15.54	66.24%	13.21	8.82	28,420	145139
5/25/2010	AB	51	18.08	67.28%	13.85	9.18	27,300	145148
5/25/2010	AB	52	18.09	68.38%	13.88	9.35	27,380	145155
5/25/2010	AB	53	14.78	70.00%	12.55	8.80	25,100	145162
5/25/2010	AB	54	15.88	72.97%	13.48	9.84	28,080	145164
5/28/2010	AB	55	19.47	60.03%	18.55	11.42	33,100	145172
5/28/2010	AB	56	18.38	70.72%	13.91	9.84	27,820	145178
5/28/2010	AB	57	12.22	60.80%	10.39	7.23	20,780	145190
5/28/2010	PP	58	13.80	23.71%	11.73	2.78	23,480	145259
5/28/2010	PP	59	11.48	23.28%	9.78	2.28	19,520	145262
5/28/2010	PP	60	15.19	27.04%	12.91	3.81	25,820	145274
5/28/2010	PP	61	12.58	25.83%	10.88	2.78	21,280	145277
5/28/2010	PP	62	11.53	23.51%	9.80	2.30	19,800	145288
5/28/2010	PP	63	11.41	25.50%	9.70	2.47	19,400	145298
6/1/2010	PP	64	14.91	25.87%	12.87	3.25	25,340	145376
6/1/2010	PP	65	15.47	25.17%	13.15	3.31	28,300	145388
6/1/2010	PP	66	15.13	25.50%	12.88	3.28	25,720	145407
6/1/2010	PP	67	14.94	27.00%	12.70	3.54	25,400	145417
6/1/2010	PP	68	18.32	25.75%	13.87	3.57	27,740	145426
6/2/2010	PP	69	14.84	24.30%	12.81	3.08	25,220	145433
6/2/2010	PP	70	18.08	24.51%	15.37	3.77	30,740	145442
6/7/2010	PP	71	16.80	24.85%	14.11	3.51	28,220	145674
6/8/2010	PP	72	12.22	22.40%	10.39	2.34	20,780	145681
6/8/2010	PP	73	14.81	21.88%	12.50	2.75	25,180	145679
6/8/2010	PP	74	17.05	29.08%	14.40	4.21	28,080	145689
6/8/2010	PP	75	12.84	24.33%	10.74	2.81	21,480	145690
6/8/2010	PP	76	18.28	25.20%	13.82	3.48	27,840	145696
6/8/2010	PP	77	12.28	24.18%	10.42	2.52	20,840	145699
6/8/2010	PP	78	18.47	25.80%	14.00	3.58	28,000	145711
6/8/2010	PP	79	12.28	27.87%	10.44	2.91	20,880	145715
6/8/2010	PP	80	15.20	28.82%	12.92	3.47	25,840	145719
6/8/2010	PP	81	12.52	25.77%	10.84	2.74	21,280	145724
6/8/2010	PP	82	15.46	23.98%	13.13	3.15	28,280	145733

6/8/2010 PP	83	12.55	27.83%	10.87	2.97	21,340	145736
6/14/2010 PP	84	12.48	35.03%	10.81	3.72	21,220	145927
6/14/2010 PP	85	15.28	46.82%	12.97	5.92	25,940	145932
6/14/2010 PP	86	13.24	40.33%	11.25	4.54	22,500	145937
6/14/2010 PP	87	15.52	37.01%	13.19	4.88	28,380	145938
6/14/2010 PP	88	13.48	39.70%	11.44	4.54	22,880	145945
6/14/2010 PP	89	18.25	38.94%	15.51	5.73	31,020	145953
6/14/2010 PP	90	13.08	40.78%	11.12	4.53	22,240	145956
6/15/2010 PP	91	16.21	42.22%	13.78	5.82	27,580	145966
6/15/2010 PP	92	15.89	41.82%	13.51	5.82	27,020	145974
6/15/2010 PP	93	13.52	48.78%	11.49	5.38	22,980	145975
6/15/2010 PP	94	18.87	46.20%	14.34	6.48	28,880	145986
6/15/2010 PP	95	13.72	47.07%	11.88	5.49	23,320	145987
6/15/2010 PP	96	17.28	48.75%	14.89	6.87	29,380	145990
6/15/2010 PP	97	13.71	44.89%	11.85	5.21	23,300	145991
6/15/2010 PP	98	17.78	40.75%	15.11	6.16	30,220	145999
6/15/2010 PP	99	13.84	43.48%	11.78	5.11	23,520	146002
6/15/2010 PP	100	16.29	40.22%	13.85	5.57	27,700	146006
6/15/2010 PP	101	13.16	44.28%	11.19	4.95	22,380	146007
6/18/2010 PP	102	16.28	48.94%	13.84	6.30	27,880	146124
6/18/2010 PP	103	16.80	54.75%	14.28	7.82	28,580	146132
6/18/2010 PP	104	15.88	54.14%	12.48	7.30	28,980	146137
6/21/2010 PP	105	16.18	58.13%	13.75	7.72	27,500	146222
6/21/2010 PP	106	13.53	58.10%	11.50	6.46	23,000	146226
6/21/2010 PP	107	16.47	57.88%	14.00	8.08	28,000	146234
6/21/2010 PP	108	13.53	57.54%	11.50	6.82	23,000	146240
6/21/2010 PP	109	16.47	58.93%	14.00	7.97	28,000	146251
6/21/2010 PP	110	13.53	59.11%	11.50	6.80	23,000	146253
6/21/2010 PP	111	16.27	58.43%	13.83	8.08	27,800	146261
6/21/2010 PP	112	13.72	59.82%	11.88	6.96	23,320	146262
6/21/2010 PP	113	16.85	62.48%	14.15	8.84	28,300	146265
6/21/2010 PP	114	13.33	63.28%	11.33	7.17	22,880	146266
6/22/2010 PP	115	15.99	62.10%	13.54	8.41	27,880	146274
6/22/2010 PP	116	17.88	59.88%	15.20	9.07	30,400	146282
6/22/2010 PP	117	17.88	62.88%	15.18	9.51	30,380	146293
6/22/2010 PP	118	18.82	61.25%	16.00	9.80	32,000	146300
6/25/2010 PP	119	19.91	66.84%	16.92	11.11	33,840	146406
6/25/2010 PP	120	20.25	67.83%	17.21	11.67	34,420	146415
6/25/2010 PP	121	21.01	83.81%	17.86	11.40	35,720	146432
6/25/2010 PP	122	19.47	66.43%	16.55	10.99	33,100	146449
6/25/2010 PP	123	20.51	66.83%	17.43	11.85	34,880	146456
7/2/2010 PP	124	19.22	83.47%	16.34	10.37	32,880	146741
7/2/2010 PP	125	20.38	65.74%	17.32	11.39	34,840	146763
7/2/2010 PP	126	20.00	83.88%	17.08	10.91	34,180	146783
7/2/2010 PP	127	21.39	67.23%	18.18	12.22	36,380	146793

7/8/2010	PP	128	18.00	68.12%	13.80	0.28	27.200	146862
7/8/2010	PP	129	19.87	69.53%	18.80	11.78	33.780	146875
7/8/2010	PP	130	14.74	68.97%	12.53	8.39	25.080	146882
7/8/2010	PP	131	19.90	74.53%	16.90	12.88	33.980	146894
7/8/2010	PP	132	14.19	75.25%	12.08	9.08	24.120	146902
7/8/2010	PP	133	19.38	68.90%	16.47	11.35	32.940	146907
7/8/2010	PP	134	14.39	70.22%	12.23	8.59	24.480	146915
7/8/2010	PP	135	14.87	69.48%	12.47	8.88	24.940	146926
7/8/2010	PP	136	14.84	72.12%	12.44	8.97	24.880	146938
7/7/2010	PP	137	14.75	67.88%	12.54	8.51	25.080	146944
7/7/2010	PP	138	15.82	70.88%	12.28	9.41	28.580	146951
7/7/2010	PP	139	14.80	73.25%	12.58	9.21	25.180	146962
7/7/2010	PP	140	13.35	66.31%	11.35	7.41	22.700	146978
7/7/2010	PP	141	14.20	68.88%	12.07	8.29	24.140	146982
7/7/2010	PP	142	12.30	72.70%	10.53	7.68	21.080	146984
7/15/2010	DP	143	17.18	71.57%	14.59	10.44	29.180	147275
7/15/2010	DP	144	22.41	71.91%	19.05	13.70	38.100	147276
7/15/2010	DP	145	14.90	52.28%	12.74	8.88	25.480	147280
7/15/2010	DP	146	18.85	44.42%	18.02	7.12	32.040	147285
7/15/2010	DP	147	13.88	42.87%	11.81	4.98	23.220	147292
7/15/2010	DP	148	17.54	31.87%	14.91	4.75	29.820	147298
7/15/2010	DP	149	12.71	35.43%	10.80	3.83	21.800	147302
7/15/2010	DP	150	17.46	37.26%	14.83	5.53	29.880	147305
7/15/2010	DP	151	13.58	44.74%	11.54	5.16	23.080	147307
7/12/2010	DP	152	12.04	38.82%	10.23	3.97	20.480	147542
7/12/2010	DP	153	13.87	37.57%	11.79	4.43	23.580	147549
7/12/2010	DP	154	12.89	40.77%	10.98	4.47	21.920	147558
7/12/2010	DP	155	12.98	38.87%	11.03	4.29	22.080	147564
7/12/2010	DP	156	13.47	38.80%	11.46	4.46	22.900	147567
7/28/2010	DP	157	18.88	67.13%	14.35	9.83	28.700	147738
7/28/2010	DP	158	21.20	68.83%	18.02	12.37	38.040	147740
7/28/2010	DP	159	18.28	73.35%	13.84	10.15	27.880	147758
7/28/2010	DP	160	18.32	71.47%	15.57	11.13	31.140	147766
7/28/2010	DP	161	15.82	72.92%	13.28	9.98	28.580	147772
7/28/2010	DP	162	23.28	70.08%	19.79	13.88	39.580	147778
7/28/2010	DP	163	18.08	71.81%	13.85	9.80	27.300	147782
7/28/2010	DP	164	14.91	69.72%	12.87	8.83	25.340	147790
8/2/2010	DP	165	15.88	72.48%	13.50	9.78	27.000	148102
8/2/2010	DP	166	20.22	73.98%	17.10	12.72	34.380	148105
8/2/2010	DP	167	17.81	73.58%	14.97	11.01	29.940	148107
8/2/2010	DP	168	19.74	74.53%	16.78	12.51	33.580	148119
8/2/2010	DP	169	21.40	70.28%	18.19	12.78	38.380	148128
8/3/2010	DP	170	24.00	74.25%	20.40	15.17	40.800	148214
8/3/2010	DP	171	20.06	72.06%	17.04	12.28	34.080	148218
8/3/2010	DP	172	22.32	72.83%	18.97	13.82	37.940	148221
8/3/2010	DP	173	21.08	78.14%	17.92	13.84	35.840	148227

8/3/2010 DP	174	22.78	73.51%	10.38	14.23	36.720	148228
8/4/2010 DP	175	18.87	71.43%	10.04	11.46	32.080	148236
8/4/2010 DP	176	10.03	72.48%	10.04	12.28	33.880	148247
8/4/2010 DP	177	10.25	70.80%	10.36	11.60	32.720	148256
8/4/2010 DP	178	18.86	73.46%	15.86	11.85	31.720	148264
8/4/2010 DP	179	17.31	74.30%	14.71	10.93	29.420	148269
8/9/2010 DP	180	10.06	77.04%	10.07	13.07	33.040	148415
8/9/2010 DP	181	20.84	77.50%	17.54	13.81	35.080	148427
8/9/2010 DP	182	20.48	75.02%	17.41	13.08	34.820	148441
8/9/2010 DP	183	18.38	73.00%	15.82	11.54	31.240	148451
8/9/2010 DP	184	21.34	72.03%	18.14	13.07	30.280	148460
8/10/2010 DP	185	15.00	75.80%	12.83	9.70	25.880	148469
8/10/2010 DP	186	18.00	78.52%	15.30	12.01	30.800	148472
8/10/2010 DP	187	10.38	73.53%	13.02	10.24	27.840	148479
8/10/2010 DP	188	10.88	75.27%	14.25	10.80	28.700	148488
8/10/2010 DP	189	18.15	74.00%	13.73	10.18	27.400	148495
8/13/2010 DP	190	21.08	78.82%	17.92	13.73	35.840	148594
8/13/2010 DP	191	21.21	78.28%	18.03	13.75	36.060	148602
8/13/2010 DP	192	10.88	77.47%	10.00	13.00	33.800	148614
8/13/2010 DP	193	10.25	77.35%	13.81	10.88	27.820	148618
8/13/2010 DP	194	20.48	78.87%	17.41	13.38	34.820	148626
8/13/2010 DP	195	10.20	77.52%	13.85	10.74	27.700	148627
8/13/2010 DP	196	21.25	77.40%	18.06	13.00	30.120	148631
8/13/2010 DP	197	10.88	73.81%	14.08	10.38	28.100	148635
8/13/2010 DP	198	21.85	79.84%	18.57	14.79	37.140	148639
8/13/2010 DP	199	10.82	88.85%	14.20	9.85	28.800	148641
8/13/2010 DP	200	15.45	72.85%	13.13	9.54	20.280	148857
8/13/2010 DP	201	10.45	70.28%	13.08	9.83	27.000	148867
8/13/2010 DP	202	18.51	73.80%	15.73	11.58	31.400	148881
8/13/2010 DP	203	18.28	72.51%	15.54	11.27	31.080	148891
8/13/2010 DP	204	18.90	75.40%	16.14	12.17	32.280	148897
8/13/2010 DP	205	17.33	72.73%	14.73	10.71	29.480	148904
8/13/2010 DP	206	21.80	83.80%	18.81	11.85	37.220	149324
8/13/2010 DP	207	22.28	84.71%	18.94	12.26	37.880	149337
8/13/2010 DP	208	20.39	75.87%	17.33	13.15	34.800	149351

EQ = Equalization Basin

AE = Aeration Basin

PP = Polishing Pond

DP = Digester Pond

## Anne Proctor

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**From:** Dare Adelugba [djadlug@gw.dec.state.ny.us]  
**Sent:** Thursday, July 30, 2009 10:18 AM  
**To:** Anne Proctor  
**Cc:** Brian Baker; James Burke; Ly Lim; Meghan Gilbert; Jared Randall; John Ritzel; Janice Greenwood  
**Subject:** Re: Procter & Gamble/Norwich, NY/ Lagoon Cleaning Project

Anne,

We have reviewed your proposed changes and it's acceptable. Please let me know if you have any further questions.

Thanks,

Dare J. Adelugba, P.E.  
Environmental Engineer 2  
NYS Department of Environmental Conservation Division of Water Bureau of Water Permits,  
4th Floor  
625 Broadway, Albany NY 12233-3505

Phone: (518) 408-5772 Fax: (518) 402-9029  
e-mail: djadelug <mailto:djadelug@gw.dec.state.ny.us> NYSDEC website: dec.ny.gov  
<<http://www.dec.ny.gov/>>

>>> "Anne Proctor" <aproctor@woodardcurran.com> 8:25 AM 7/29/2009 >>>  
Dare,

Thank you for returning my call earlier this week. Per our discussion, Procter & Gamble is in the process of bidding work to dewater and clean the lagoons that are part of their Wastewater Treatment Plant (WWTP) in accordance with the Interim Closure Plan (ICP) submitted to the Department on January 9, 2009 and approved by letter dated February 17, 2009.

One of the bidders has indicated savings will be realized if a belt filter press is used to dewater the sludge, and the sludge is loaded onto trucks for disposal without stockpiling. This will eliminate a two week standby period while awaiting results and will alleviate concerns with sludge exposed to the weather while in storage on-site. (This possibility was discussed in the last paragraph of Section 6.1 of the ICP.)

Per the Interim Closure Plan (ICP), we had proposed to take one sample every 200 CY for 3-8 samples. The modification is that rather than sampling a stockpile, we will pre-sample each lagoon twice for a total of 8 samples. Each lagoon will be pre-sampled twice as follows:

- The lagoon will be divided into 4 quadrants.
- The contractor will collect a water/sludge sample from each quadrant and simulate pressing (use weight to "press" the water/sludge sample between 2 pieces of belt filter material, as they do for their in-house testing);
- A portion of one of the samples will be immediately placed into appropriate sample containers for analysis of Volatile Organic Compounds plus Tentatively Identified Compounds (VOCs+TICs) and field screening.  
The remainder of the sample will be placed into a stainless steel mixing bowl.
- The four quadrant samples will be homogenized in the stainless steel mixing bowl, prepared and submitted for the following additional laboratory analysis:

Semi-Volatile Organic Compounds plus Tentatively Identified Compounds  
(SVOCs+TICs)  
Polychlorinated Biphenyls (PCBs)

Herbicides

Metals (RCRA 8)

Toxicity Characteristic Leaching Procedure (TCLP) Metals pH Ignitibility Reactivity  
Radioactivity Percent Solids

Please let us know if this modification meets with Department approval, or if any additional information is required to facilitate your review.

Sincerely,

Anne E. Proctor, PE

Sr. Project Manager

Woodard & Curran

1520 Highland Avenue

Cheshire, CT 06410

P: (203) 271-0379

F: (203) 271-7952

[aproctor@woodardcurran.com](mailto:aproctor@woodardcurran.com)



PHARSALIA LANDFILL  
439 County Road 47  
(607) 337-1769

000016 P & G NORWICH-G4P-4500936973  
PO BOX 191  
NORWICH NY 13815

Manual Gross Wt.		49680	LB
Scale 1 Tare Wt.		22000	LB
Net Weight		27680	LB
QTY	UNIT	DESCRIPTION	
13.84	TON	SLUDGE	

Phar. Hours: M-F 8 am-4 pm. SAT 8 am-noon Residential only  
N. Norwich & Brisben: MON 8 a.m-noon. T-S 8 a.m.-4 p.m.

WASTE TO REORDER CONTACT CAROLINA SOFTWARE (800) 567-6077 SIGNATURE

PHARSALIA LANDFILL  
439 County Road 47  
(607) 337-1769

000016 P & G NORWICH-G4P-4500936973  
PO BOX 191  
NORWICH NY 13815

Scale 1 Gross Wt.		52480	LB
Scale 1 Tare Wt.		22040	LB
Net Weight		30440	LB
QTY	UNIT	DESCRIPTION	
15.22	TON	SLUDGE	

Phar. Hours: M-F 8 am-4 pm. SAT 8 am-noon-Residential only  
N. Norwich & Brisben: MON 8 a.m-noon. T-S 8 a.m.-4 p.m.

WASTE TO REORDER CONTACT CAROLINA SOFTWARE (800) 567-6077 SIGNATURE

SITE	TICKET	CELL	WASTEMASTER
32	152539	CELL3	GARY
DATE IN	DATE OUT	TIME IN	TIME OUT
11/24/10	11/24/10	08:52	09:06
REFERENCE		ORIGIN	

CHENANGO COUNTY

Inbound - Charge ticket

RATE	EXTENSION	TAX	TOTAL
55.00	761.20	0.00	761.20

NET AMOUNT

761.20

CHANGE

CHECK NO.

SITE	TICKET	CELL	WASTEMASTER
02	152549	CELL3	GARY
DATE IN	DATE OUT	TIME IN	TIME OUT
11/24/10	11/24/10	10:20	10:33
REFERENCE		ORIGIN	

CHENANGO COUNTY

Inbound - Charge ticket

RATE	EXTENSION	TAX	TOTAL
55.00	837.10	0.00	837.10

NET AMOUNT

837.10

CHANGE

CHECK NO.

PHARSALIA LANDFILL  
439 County Road 47  
(607) 337-1769

000016 P & G NORWICH-G4P-4500936973  
PO BOX 191  
NORWICH NY 13815

Scale 1 Gross Wt. 48160 LB  
Scale 1 Tare Wt. 21980 LB  
Net Weight 26180 LB

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	FEES	TOTAL
13.09	TON	SLUDGE	55.00	719.95	0.00	719.95

Phar. Hours: M-F 8 am-4 pm. SAT 8 am-noon-Residential only  
N.Norwich & Brishen: MON 8 a.m-noon. T-S 8 a.m.-4 p.m.

NET AMOUNT

719.95

CHARGE

CHECK NO

WWATI TO REORDER CONTACT LAMARCA SOFTWARE 916 292 6167 SIGNATURE

PHARSALIA LANDFILL  
439 County Road 47  
(607) 337-1769

000016 P & G NORWICH-G4P-4500936973  
PO BOX 191  
NORWICH NY 13815

Scale 1 Gross Wt. 36500 LB  
Scale 1 Tare Wt. 22020 LB  
Net Weight 14480 LB

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	FEES	TOTAL
7.24	TON	SLUDGE	55.00	398.20	0.00	398.20

Phar. Hours: M-F 8 am-4 pm. SAT 8 am-noon-Residential only  
N.Norwich & Brishen: MON 8 a.m-noon. T-S 8 a.m.-4 p.m.

NET AMOUNT

398.20

CHARGE

CHECK NO

WWATI TO REORDER CONTACT LAMARCA SOFTWARE 916 292 6167 SIGNATURE