

Discharge Monitoring Report Summary (DMR) Results for Outfall 007
(2000 through 2007)
Amtrak Wilmington Rail Yard Facility
Wilmington, Delaware

Date	Oil & Grease mg/l	pH SU	Surfactants mg/l	PCBs ug/l	Trichloroethene mg/l	Total Nitrogen mg/l	Total Phosphorus mg/l	Enterococcus mg/l
Permit Limit	10mg/l*	6.0-9.0	**	See Note 1	**	**	**	**
03/2000	ND	7.1	0.02	ND	ND	NA	NA	NA
06/2000	NA	NA	NA	NA	NA	NA	NA	NA
07/2000	2.0	7.2	0.05	NA	NA	NA	NA	NA
10/2000	NA	NA	NA	NA	NA	NA	NA	NA
01/2001	NA	NA	NA	NA	NA	NA	NA	NA
02/2001	NA	NA	NA	NA	NA	NA	NA	NA
03/2001	4	6.5	<0.01	<0.0005 (2)	<0.005	NA	NA	NA
04/2001	NA	NA	NA	NA	NA	NA	NA	NA
05/2001	NA	NA	NA	NA	NA	NA	NA	NA
06/2001	NA	NA	NA	NA	NA	NA	NA	NA
07/2001	NA	NA	NA	NA	NA	NA	NA	NA
08/2001	NA	NA	NA	NA	NA	NA	NA	NA
09/2001	3	6.6	<0.05	NA	NA	NA	NA	NA
10/2001	NA	NA	NA	NA	NA	NA	NA	NA
11/2001	NA	NA	NA	NA	NA	NA	NA	NA
12/2001	NA	NA	NA	NA	NA	NA	NA	NA
01/2002	NA	NA	NA	NA	NA	NA	NA	NA
03/2002	2	7	0.08	<0.0005 (2)	<0.005	NA	NA	NA
04/2002	NA	NA	NA	NA	NA	NA	NA	NA
05/2002	NA	NA	NA	NA	NA	NA	NA	NA
06/2002	NA	NA	NA	NA	NA	NA	NA	NA
07/2002	NA	NA	NA	NA	NA	NA	NA	NA
08/2002	3	6.9	0.06	NA	NA	NA	NA	NA
09/2002	NA	NA	NA	NA	NA	NA	NA	NA
10/2002	NA	NA	NA	NA	NA	NA	NA	NA
11/2002	NA	NA	NA	NA	NA	NA	NA	NA
12/2002	NA	NA	NA	NA	NA	NA	NA	NA
06/2003	NA	NA	NA	NA	NA	NA	NA	NA
07/2003	NA	NA	NA	NA	NA	NA	NA	NA
08/2003	NA	NA	NA	NA	NA	NA	NA	NA
10/2003	NA	NA	NA	<0.5	NA	NA	NA	NA
11/2003	NA	NA	NA	<0.5	NA	NA	NA	NA
12/2003	NA	NA	NA	<0.5	NA	NA	NA	NA
03/2004	<2.0	6.3	<0.01	<0.5	<0.005	NA	NA	NA
05/2004	NA	NA	NA	NA	NA	NA	NA	NA
06/2004	NA	NA	NA	NA	NA	NA	NA	NA
07/2004	NA	NA	NA	NA	NA	NA	NA	NA
08/2004	5	7	0.27	NA	NA	NA	NA	NA
09/2004	NA	NA	NA	NA	NA	NA	NA	NA
10/2004	NA	NA	NA	NA	NA	NA	NA	NA
12/2004	NA	NA	NA	NA	NA	NA	NA	NA
01/2005	NA	NA	NA	NA	NA	NA	NA	NA
02/2005	NA	NA	NA	NA	NA	NA	NA	NA
03/2005	<2.0	7.1	0.16	<1.0	<0.005	NA	NA	NA
04/2005	NA	NA	NA	NA	NA	NA	NA	NA
06/2005	NA	NA	NA	NA	NA	NA	NA	NA
07/2005	NA	NA	NA	NA	NA	NA	NA	NA
08/2005	NA	NA	NA	NA	NA	NA	NA	NA
09/2005	NA	NA	NA	NA	NA	NA	NA	NA
10/2005	2	7.4	0.19	NA	NA	NA	NA	NA
12/2005	NA	NA	NA	NA	NA	NA	NA	NA
01/2006	4	6.7	<0.1	0.97	<0.005	NA	NA	NA
02/2006	NA	NA	NA	<0.5	NA	NA	NA	NA
03/2006	NA	6.3	NA	<0.5	NA	NA	NA	NA
04/2006	NA	6.3	NA	<0.5	NA	NA	NA	NA
08/2006	NA	NA	NA	NA	NA	NA	NA	NA
09/2006	<5.0	6.9	0.2	0.6	NA	0.6	0.28	230
12/2006	NA	NA	NA	NA	NA	NA	NA	NA
12/1/2006	NA	NA	NA	0.161433 (3)	NA	NA	NA	NA
01/2007	7	8.2	0.2	NA	NA	90	0.09	0.09
04/2007	NA	NA	NA	NA	NA	NA	NA	NA
7/11/2007	NA	NA	NA	0.807375 (3)	NA	NA	NA	NA
9/11/2007	NA	NA	NA	1.009123 (3)	NA	NA	NA	NA
11/2007	2.0	6.0	0.2	NA	NA	NA	NA	NA

Notes
 * 10mg/l is the average permit limit, and 15mg/l is the instantaneous maximum daily limit. The values reported in the table are average value.
 ** None specified in the permit.
 NA= Not Analyzed
 All samples are grab samples.
 (1) The PCB standard prior to May 1, 2006 was no detections at a detection limit of 0.5 ug/l for PCB aroclors; the current permit requires the analyses of 209 PCB congeners and does not specify a limit
 (2) The detection limit may have not been accurately entered on the DMR
 (3) Result is for 209 congeners per the NPDES Permit and PMP for the site

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND THE LAWS OF THE
STATE OF DELAWARE

In compliance with the provisions of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251 et seq.) (hereinafter referred to as "the Act"), and pursuant to the provisions of 7 Del. C., 6003

The National Railroad Passenger Corporation (AMTRAK)
Wilmington Maintenance Facility
4001 Vandever Avenue
Wilmington, Delaware 19801

is authorized to discharge from the facility (Point Sources 001, 002, 003, 004, 005, 006, and 007) located at

4002 Vandever Avenue
Wilmington, Delaware 19801

to receiving waters named

Brandywine Tributary (Outfalls 001, 003, 004, 005, 006, and 007)
Shellpot Creek (Outfall 002)

The effluent limitations, monitoring requirements and other permit conditions are set forth in Part I, II and III hereof.

R. Peder Hansen, P.E., Manager
Surface Water Discharges Section
Division of Water Resources
Department of Natural Resources
and Environmental Control

Date Signed

Part I

A. Description Facilities and Permitted Discharges

1. Permitted Discharges

Outfall 001 discharges storm water run-off via inverted pipes through a dam (Dam B) in the Eastern Drainage Ditch, a tributary of Brandywine Creek. The pipes discharge to rip-rap and then into the Eastern Drainage Ditch. The Outfall 001 drainage area is located at the southern portion of the site and is undeveloped except for a series of railroad tracks associated with the rail yard. Significant materials¹ generally are not stored in this area other than the interim storage of oil recovered from the diesel fuel remedial program.

Outfall 002 discharges storm water run-off through a 42-inch storm conduit that discharges to a drainage swale, a tributary to Shellpot Creek. The Outfall 002 drainage area is the northern portion of the Maintenance Facility and generally includes maintenance shop areas, catch basins, parking lots, and paved roadways. Significant materials are stored in this area.

Outfall 003 discharges storm water run-off to the Eastern Drainage Ditch through a collection point located on the east side of that Ditch, a tributary of the Brandywine Creek. The Outfall 003 drainage area is located at the southern portion of the site and includes an area where a 0.25 million gallon oil tank was previously located. Significant materials generally are not stored in this area other than the interim storage of oil recovered from the diesel fuel remedial program.

Outfall 004 discharges storm water run-off through a catchment box to the Western Drainage Ditch, a tributary to Brandywine Creek. The Outfall 004 drainage area is located along the western section of the maintenance yard. Significant materials generally are not stored in this area.

Outfall 005 discharges storm water run-off via inverted pipes through a dam (Dam C), in the Western Drainage Ditch, a tributary to Brandywine Creek. The Outfall 005 drainage area is located at the southern portion of the site. Storm water runoff from the west side, southern section of the maintenance yard discharges through this outfall. Significant materials generally are not stored in this area other than the interim storage of oil recovered from the diesel fuel remedial program.

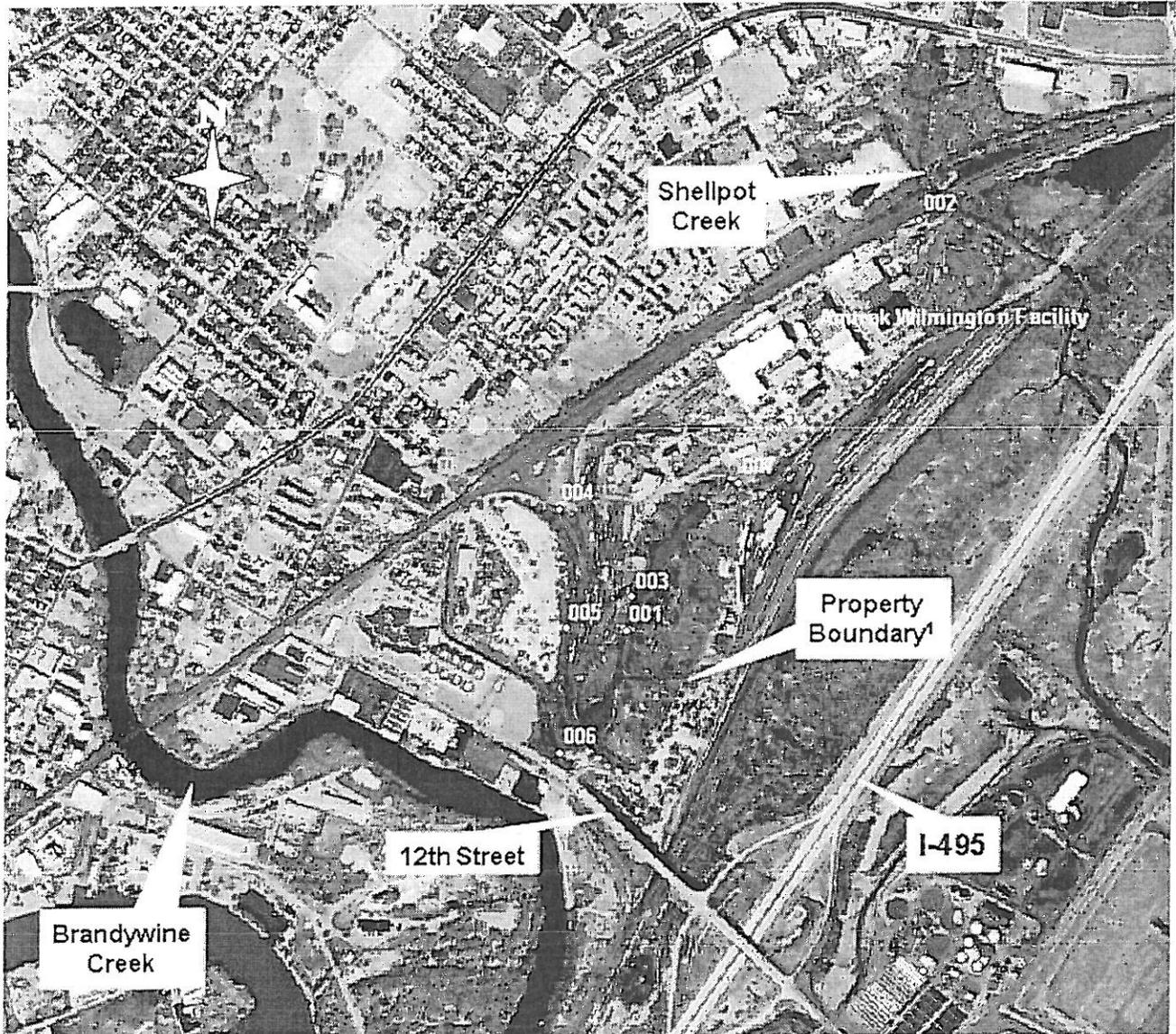
Outfall 006 discharges storm water run-off from inverted pipes through a dam (12th Street Dam) to a tributary to Brandywine Creek. Outfall 006 located at the convergence of the Eastern Drainage Ditch and the Western Drainage Ditch. The Outfall 006 drainage area is located at the southern portion of the site and is undeveloped except for a series of railroad tracks associated with the rail yard. Significant materials generally are not stored in this area other than the interim storage of oil recovered from the diesel fuel remedial program.

Outfall 007 discharges storm water run-off through a 42-inch storm conduit to a drainage swale that drains to the Eastern Drainage Ditch, a tributary of Brandywine Creek. The Outfall 007 drainage area is located in the central section of the facility and includes maintenance shop areas, the rail engine refueling area, multiple catch basins throughout the yard, parking lots, and paved roadways.

¹ Materials which could significantly impact storm water quality.

A. General Description of Discharges and Facilities (continued)

2. Site Location and Outfalls Locations Map¹



¹ The "Property Boundary" line in the "Outlines Locations Map" delineates the nominal area of responsibility of the permittee, and is not an exact property boundary line.

B. Effluent Limitations and Monitoring Requirements

1. Outfall 001 – EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through expiration date, the permittee is authorized to discharge from point source 001¹ the quantity and quality of effluent specified below:

Parameter	Effluent Limitations							Monitoring Requirements ²	
	Load			Concentration				Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Maximum Instantaneous	Units		
Flow			GPM	--	--	--	--	Instantaneous ³	Estimated ⁴
Oil and Grease	--	--	--	10.0	15.0	--	mg/L	Quarterly	Grab
pH	The pH shall be between 6.0 S.U. and 9.0 S.U. at all times						S.U.	Semi-annually	Grab
Surfactants	--	--	--	--	--	--	mg/L	Semi-annually	Grab
PCBs	See Special Conditions Nos.4 and 5 beginning on page 42 of this permit.						pg/L		
Discharges of stormwater associated with industrial activity shall be free of floating solids, sludge deposits, debris, oil, and scum to the MEP. ⁵ Non-stormwater discharges are prohibited. The discharges shall not cause scouring or erosion.									

The timing of sampling shall allow for two full days of standard operating activities to occur at the facility since the last rainfall event that resulted in run-off from the facility. A representative⁶ stormwater sample shall be taken at the discharge of Outfall 001, in accordance with the monitoring requirements specified above. No samples shall be taken under circumstances having the potential to endanger the person taking the sample.

1 See discharge description on page 2 of this permit.
2 Report "nondetected" testing results on the discharge monitoring report (DMR) as "<" and the applicable test MDL. For example, if Surfactants are "nondetected" using a test method with an MDL of 10 µg/L, report "< 10 µg/L" on the DMR.
3 The instantaneous flow rate shall be recorded at each time a sample is taken for each specific parameter.
4 Determine the flow of stormwater at the time the sample is taken. A reading from a rain gauge can be substituted for an estimate of flow.
5 Maximum Extent Practicable (MEP) – means to complete an objective or requirement of the permit to a level which bears the most benefit from and environmental standpoint but not to a level that is physically or economically unattainable, or that would jeopardize human health or safety, or that would prohibit the conductance of work at the facility.
6 Storm water must discharge for at least 15 minutes and the sample must be taken within the first hour of discharge in order to be representative.

B. Effluent Limitations and Monitoring Requirements (continued)

2. Outfalls 002, 006, and 007 – FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning three years after the effective date and lasting through expiration date, the permittee is authorized to discharge from point sources 002, 006, and 007¹ the quantity and quality of effluent specified below:

Parameter	Effluent Limitations							Monitoring Requirements ²		
	Load			Concentration				Measurement Frequency	Sample Type	
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Maximum Instantaneous	Units			
Flow			GPM	--	--	--		Instantaneous ³	Estimated ⁴	
pH	The pH shall be between 6.0 S.U. and 9.0 S.U. at all times							S.U.	Semi-annually	Grab
Oil and Grease	--	--	--	10.0	15.0	--	mg/L	Semi-annually	Grab	
Surfactants	--	--	--	--	--	--	mg/L	Semi-annually	Grab	
Trichloroethylene	--	--	--	--	--	--	mg/L	002 Only - Annually	Grab	
Total Nitrogen (as N)	--	--	--	--	--	--	mg/L	007 Only - Annually	Grab	
Total Phosphorus (as P)	--	--	--	--	--	--	mg/L	007 Only - Annually	Grab	
Enterococci	--	--	--	--	--	--	mg/L	007 Only - Annually	Grab	
PCBs	See Special Conditions Nos.4 and 5 beginning on page 42 of this permit.						pg/L	002 & 006 - Annually, 007 - Biennially	Composite ⁵	

Discharges of stormwater associated with industrial activity shall be free of floating solids, sludge deposits, debris, oil, and scum to the MEP.⁶
Non-stormwater discharges are prohibited. The discharges shall not cause scouring or erosion.

The timing of sampling shall allow for two full days of standard operating activities to occur at the facility since the last rainfall event that resulted in run-off from the facility. A sample from a representative⁷ stormwater discharge shall be taken at the location of the Outfalls in accordance with the monitoring requirements specified above. No samples shall be taken under circumstances having the potential to endanger the person taking the sample.

- 1 See discharge descriptions on page 2 of this permit.
- 2 Report "nondetected" testing results on the discharge monitoring report (DMR) as "<" and the applicable test MDL. For example, if Surfactants are "nondetected" using a test method with an MDL of 10 µg/L, report "< 10 µg/L" on the DMR.
- 3 The instantaneous flow rate shall be recorded at each time a sample is taken for each specific parameter.
- 4 Determine the flow of stormwater at the time the sample is taken. A reading from a rain gauge can be substituted for an estimate of flow.
- 5 For purposes of PCB congener monitoring at Outfall 006, a "composite" sample will be as defined in the approved Pollutant Minimization Plan. See Special Conditions Nos.4 and 5 beginning on page 20 of this permit.
- 6 Maximum Extent Practicable (MEP) – means to complete an objective or requirement of the permit to a level which bears the most benefit from and environmental standpoint but not to a level that is physically or economically unattainable, or that would jeopardize human health or safety, or that would prohibit the conductance of work at the facility.
- 7 Storm water must discharge for at least 15 minutes and the sample must be taken within the first hour of discharge in order to be representative.

Effective Date:
 Expiration Date:

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 State Permit Number WPCC 3089D/85
 NPDES Permit Number DE 0050962
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B. Effluent Limitations and Monitoring Requirements (continued)

3. Outfalls 003 and 004 – EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through expiration date, the permittee is authorized to discharge from point sources 003 and 004¹ the quantity and quality of effluent specified below:

Parameter	Effluent Limitations							Monitoring Requirements ²	
	Load			Concentration				Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Maximum Instantaneous	Units		
PCBs	See Special Conditions Nos.4 and 5 beginning on page 42 of this permit.						pg/L		
Discharges of stormwater associated with industrial activity shall be free of floating solids, sludge deposits, debris, oil, and scum to the MEP. ³ Non-stormwater discharges are prohibited. The discharges shall not cause scouring or erosion.									

1 See discharge descriptions on page 2 of this permit..

2 Report "nondetected" testing results on the discharge monitoring report (DMR) as "<" and the applicable test MDL. For example, if Surfactants are "nondetected" using a test method with an MDL of 10 µg/L, report "< 10 µg/L" on the DMR.

3 Maximum Extent Practicable (MEP) – means to complete an objective or requirement of the permit to a level which bears the most benefit from and environmental standpoint but not to a level that is physically or economically unattainable, or that would jeopardize human health or safety, or that would prohibit the conductance of work at the facility.

B. Effluent Limitations and Monitoring Requirements (continued)

4. Outfall 005 – EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through expiration date, the permittee is authorized to discharge from point source 005¹ the quantity and quality of effluent specified below:

Parameter	Effluent Limitations							Monitoring Requirements ²	
	Load			Concentration				Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Maximum Instantaneous	Units		
Flow			gpm	--	--	--	--	Instantaneous ³	Estimated ⁴
pH	The pH shall be between 6.0 S.U. and 9.0 S.U. at all times						S.U.	Semi-annually	Grab
Oil and Grease	--	--	--	10.0	15.0	--	mg/L	Semi-annually	Grab
Surfactants	--	--	--			--	mg/L	Semi-annually	Grab
PCBs	See Special Conditions Nos.4 and 5 beginning on page 42 of this permit.						pg/L		
Discharges of stormwater associated with industrial activity shall be free of floating solids, sludge deposits, debris, oil, and scum to the MEP. ⁵ Non-stormwater discharges are prohibited. The discharges shall not cause scouring or erosion.									

The timing of sampling shall allow for two full days of standard operating activities to occur at the facility since the last rainfall event that resulted in run-off from the facility. A representative⁶ stormwater sample shall be taken at the discharge of Outfall 001, in accordance with the monitoring requirements specified above. No samples shall be taken under circumstances having the potential to endanger the person taking the sample.

- 1 See discharge descriptions on page 2 of this permit.
- 2 Report "nondetected" testing results on the discharge monitoring report (DMR) as "<" and the applicable test MDL. For example, if Surfactants are "nondetected" using a test method with an MDL of 10 µg/L, report "< 10 µg/L" on the DMR.
- 3 The instantaneous flow rate shall be recorded at each time a sample is taken for each specific parameter.
- 4 Determine the flow of stormwater at the time the sample is taken. A reading from a rain gauge can be substituted for an estimate of flow.
- 5 Maximum Extent Practicable (MEP) – means to complete an objective or requirement of the permit to a level which bears the most benefit from and environmental standpoint but not to a level that is physically or economically unattainable, or that would jeopardize human health or safety, or that would prohibit the conductance of work at the facility.
- 6 Storm water must discharge for at least 15 minutes and the sample must be taken within the first hour of discharge in order to be representative.

C. Schedule of Compliance

1. The permittee shall comply with the requirements herein as soon as possible, but in no event later than the dates set forth in the following schedule:

None

2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

D. Monitoring and Reporting

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting

Monitoring results obtained during the previous one (1) month shall be summarized for each month and reported on a Discharge Monitoring Report Form ("DMR", EPA Form No. 3320-1), postmarked no later than the 28th day of the month following the completed reporting period. Electronically-generated DMR forms may be used, if approved by the Department in writing. Signed copies of these, and all other reports required herein, shall be submitted to the Department at the following address:

STATE OF DELAWARE DEPT. OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL,
DIVISION OF WATER RESOURCES, SURFACE WATER DISCHARGES SECTION, R & R
BUILDING, 89 KINGS HIGHWAY, DOVER, DELAWARE 19901
TELEPHONE: (302) 739-9946
FACSIMILE: (302) 739-8369

3. Definitions

- a. "Average daily loading" means the total discharge by weight during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.
- b. "Average monthly discharge" or "daily average discharge" is the arithmetic mean of all daily discharges during a calendar month, calculated as the sum of all daily discharges sampled and/or measured during the month divided by the number of daily discharges sampled or measured during such month.
- c. "Average monthly effluent limitation" or "daily average effluent limitation" means the highest allowable average of daily discharges over a calendar month.
- d. "Best management practices" or "BMP's" means schedules of activities, prohibitions of practices, maintenance procedures and other management practices or measures to prevent or reduce the

discharge of pollutants. BMP's include but are not limited to: structural and nonstructural controls; treatment requirements; operating procedures and practices to control spills or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs can be applied before, during and after pollution generating activities to reduce or eliminate the introduction of pollutants into receiving waters.

- e. "Biosolids" refers to the biomass or biological sludge generated or produced by biological wastewater treatment processes.
- f. "Bypass" means the intentional diversion of wastes from any portion of a treatment facility.
- g. "Composite sample" means a combination of individual samples obtained at specified intervals over a given time period, generally 24 hours.

In collecting a composite sample of a discharge other than a discharge of storm water or storm runoff (a non-storm water discharge), either: a) the volume of each individual sample is proportional to the discharge flow rate or b) the sampling interval is proportional to the discharge flow rate and the volume of each individual sample is constant. For a continuous non-storm water discharge, a minimum of 24 individual grab samples shall be collected and combined to constitute a 24 hour composite sample. For intermittent non-storm water discharges 4 hours or more in duration, the number of individual grab samples collected and combined to constitute a composite sample shall at a minimum be equal to the duration of the discharge in hours but not less than 12. For intermittent non-storm water discharges of less than 4 hours, the minimum number of individual grab samples collected and combined to constitute a composite sample shall be equal to the duration of the discharge in hours times 3 but not less than 3 samples.

- h. "Daily discharge" means the total discharge measured during a calendar day or any 24-hour period that reasonably represents the calendar day for sampling purposes. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of a pollutant discharged over a calendar day or the equivalent 24-hour period. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over a calendar day or the equivalent 24-hour period.
- i. "Daily maximum effluent limitation" is the highest total mass of a pollutant allowed to be discharged during a calendar day or, in the case of a pollutant limited in terms other than mass, the highest average concentration or other measurement of the pollutant specified during the calendar day, or any 24-hour period that reasonably represents the calendar day for sampling purposes.
- j. "Daily maximum temperature" is the highest arithmetic mean of the temperature observed for any two (2) consecutive hours during a 24-hour day, or during the operating day if flows are of shorter duration.
- k. "Direct Responsible Charge" or "DRC" means on-location accountability for, and on-location performance of, active daily operation (including Technical Supervision, Administrative Supervision, or Maintenance Supervision) for a Wastewater Facility, an operating shift of a system or a facility, or a major segment of a system or facility.
- l. "Estimate" is that based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.
- m. "Grab sample" is an individual sample collected in less than 15 minutes.
- n. "I/S" (immersion stabilization) means the immersion of a calibrated device in the effluent stream until the reading is stabilized.
- o. "Maximum instantaneous concentration" or "MIC" is the highest allowable measured

- concentration of a pollutant, obtained by analyzing a grab sample of the discharge.
- p. "Measured flow" is any method of liquid volume measurement the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.
 - q. "Method Detection Limit" or "MDL" means the lowest concentration of a substance which can be measured with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
 - r. "Minimum analytical level" or "MAL" means the lowest concentration of a substance that can be quantified within specified limits of interlaboratory precision and accuracy under routine laboratory operating conditions in the matrix of concern. When there is insufficient interlaboratory study data, the "MAL" may be determined through the use of a multiplier of 5 to 10 times the method detection level or "MDL".
 - s. "Monthly average temperature" is the arithmetic mean of temperature measurements made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month, or during the operating month if flows are of shorter duration.
 - t. "Non-contact cooling water" is that which is contained within a leak-free system, i.e. has no contact with any gas, liquid or solid other than the container used for transport.
 - u. "Nuisance condition" is any condition that, as a result of pollutant addition to a surface water, causes unreasonable interference with the designated uses of the waters or the uses of the adjoining land areas.
 - v. "Operator" means any person employed or appointed by any owner, and who is designated by such owner to be the person controlling the operations of the treatment works, including direct actions, decisions or evaluations which affect the quality of the discharge, and whose duties include testing or evaluation to control treatment works operations.
 - w. "Pollution prevention" means any practice which results in a lesser quantity of emissions released or discharged prior to out-of-process recycling, treatment or control, as measured on a per-unit-of-production basis.
 - x. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - y. "Sewage" means the water carried human or animal wastes from septic tanks, water closets, residences, buildings, industrial establishments or other places together with such groundwater infiltration, subsurface water, storm inflow, admixture of industrial wastes, or other wastes as may be present.
 - z. "Sewage sludge" means any solid, semi-solid or liquid residue removed during the treatment of municipal wastewater or domestic sewage, including but not limited to, solids removed during primary, secondary or advanced wastewater treatment, scum, septage, portable toilet pumpings and sewage sludge products.
 - aa. "Sludge" means the accumulated semi-liquid suspension, settled solids, or dried residue of these solids removed by any surface water or groundwater treatment facility or any liquid waste treatment facility or works, whether or not such solids have undergone treatment.
 - bb. "Upset" means an exceptional incident in which there is unintentional and temporary

noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. The basis for specific effluent limitations can be found in this permit's fact sheet. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

- cc. "Whole effluent toxicity" means the aggregate toxic effect of an effluent or discharge measured directly by a toxicity test.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to the applicable test procedures identified in 40 C.F.R., Part 136, unless otherwise specified in this permit.

5. Quality Assurance Practices

The permittee is required to show the validity of all data by requiring its laboratory to adhere to the following minimum quality assurance practices:

- a. Duplicate¹ and spiked² samples must be run for each constituent in the permit on 5% of the samples, or at least on one sample per month, whichever is greater. If the analysis frequency is less than one sample per month, duplicate and/or spiked samples must be run for each analysis.
- b. For spiked samples, a known amount of each constituent is to be added to the discharge sample. The amount of constituent added should be approximately the same amount present in the unspiked sample, or must be approximately that stated as maximum or average in the discharge permit.
- c. The data obtained in a and b shall be summarized in an annual report in terms of precision, percent recovery, and the number of duplicate and spiked samples run, date and laboratory log number of samples run, and name of analyst. The report shall cover the calendar year, January 1 through December 31, and shall be submitted to the Department, postmarked no later than the February 15 following the fourth quarter of reporting.
- d. Precision shall be calculated by the formula, standard deviation $s = (\sum d^2/k)^{1/2}$, where d is the difference between duplicate results, and k is the number of duplicate pairs used in the calculations.
- e. Percent recovery shall be reported on the basis of the formula $R = 100 (F-I)/A$, where F is the analytical result of the spiked sample, I is the result before spiking of the sample, and A is the amount of constituent added to the sample.
- f. The percent recovery, R, in e above shall be summarized yearly in terms of mean recovery and standard deviation from the mean. The formula, $s = (\sum (x-\bar{x})^2/(n-1))^{1/2}$, where s is the standard deviation around the mean \bar{x} , x is an individual recovery value, and n is the number of data points, shall be applied.
- g. The permittee or its contract laboratory is required to annually analyze an external quality control reference sample for each pollutant. These are available through the EPA regional quality assurance coordinator, or other EPA-approved supplier. Results shall be included in the Annual

1 Duplicate samples are not required for the following parameters: color, temperature, and turbidity.

2 Spiked samples are not required for the following parameters: acidity, alkalinity, bacteriological, benzidine, chlorine, color, dissolved oxygen, hardness, pH, oil & grease, radiological, residues, temperature, turbidity, BOD 5, and total suspended solids. Procedures for spiking samples are available through the Regional Quality Assurance Coordinator.

Report, required in paragraph c above.

- h. The permittee and/or its contract laboratory is required to maintain an up-to-date and continuous record of the method used, of any deviations from the method or options employed in the reference method, of reagent standardization, of equipment calibration and of the data obtained in a, b and f above.
- i. If a contract laboratory is utilized, the permittee shall report the name and address of the laboratory and the parameters analyzed together with the monitoring data required.

6. Records

- a. For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:
 - 1) The date, exact place and time of sampling or measurements;
 - 2) The person(s) who performed the sampling or measurements;
 - 3) The date(s) and time(s) analyses were performed;
 - 4) The individual(s) who performed each analysis;
 - 5) The analytical techniques or methods used;
 - 6) The results of each analysis; and
 - 7) The quality assurance information as stated above.
- b. An operator log must be kept on site at all times. This log should include time spent at the treatment facility on any date, and the nature of operation and maintenance performed.

7. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form (EPA No. 3320-1). Such increased frequency shall also be indicated.

8. Records Retention

All records and information resulting from the monitoring activities required by this permit including hard copies of any electronically generated Discharge Monitoring Reports, all records of analyses performed, records of calibration and maintenance of instrumentation, and recording from continuous monitoring instrumentation shall be retained for three (3) years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

Part II

A. MANAGEMENT REQUIREMENTS

1. Duty to Comply

- a. The permittee must comply with all the conditions of this permit. All discharges authorized herein shall be consistent with the terms and conditions of this permit.
- b. The discharge of any pollutant more frequently than, or at a level in excess of that identified and authorized herein shall constitute a violation of the terms and conditions of this permit. The violation of any effluent limitation or of any other condition specified in this permit is a violation of 7 Del. C., Chapter 60, and the Act and is grounds for enforcement as provided in 7 Del. C. §§6005, 6013, and 6018, for permit termination or loss of authorization to discharge pursuant to this permit, for permit revocation and reissuance, or permit modification, or denial of a permit renewal application. The Department may seek voluntary compliance by way of warning, notice or other educational means, pursuant to 7 Del. C. §6019, or any other means authorized by law. However, the Law does not require that such voluntary means be used before proceeding by way of compulsory enforcement.
- c. Any person violating Sections 301, 302, 306, 307, 318, or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative, and/or criminal penalties as set forth in 40 CFR 122.41(a)(2).

2. Notification

a. Notification of Planned Changes

The permittee shall notify the Department in writing of any anticipated expansion or alteration of this permitted facility, any production increases, process modifications, or other changes which could result in new, different or increased discharges of pollutants. Notice is required only when such alteration, addition or change:

- 1) may justify the application of permit conditions that are different from those specified in this permit, or
- 2) may justify the application of permit conditions that are absent from this permit, or
- 3) meets any one of the following criteria:
 - a) The alteration or addition to this permitted facility may meet one of the criteria for determining whether a facility is a new source, as defined in Section 2 of the Department's Regulations Governing the Control of Water Pollution, as amended May 14, 2003; or
 - b) As a result of the alteration or addition, the nature of the discharge is or could be substantially different from that represented in the application originally submitted for the discharge(s) authorized herein, upon which this permit is based; or
 - c) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, including any uses or disposal sites not identified in the application for this permit or during this permit's issuance process; or

- d) The planned change in permitted facility or activity may result in noncompliance with the requirements of this permit.

Upon notification of a planned change, the Department may require the submission of a new application. The permittee is encouraged to notify the Department and submit any application well in advance of the scheduled date for the anticipated alteration or addition to allow sufficient time to process any modifications of this permit necessitated by the change and to avoid any resultant project delays.

b. Notification of Noncompliance

The permittee shall report all instances of noncompliance with this permit to the Department as outlined herein:

- 1) If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation or maximum instantaneous concentration specified in this permit, the permittee shall report such incident within 24 hours and provide the Department with the following information, in writing, within five (5) days of becoming aware of such conditions:
 - a) A description of the discharge and cause of noncompliance;
 - b) The period of noncompliance, including exact dates and times and if the noncompliance has not been corrected, the anticipated time when the discharge will return to compliance; and
 - c) Actions taken or to be taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.
- 2) If, for any reason, the permittee does not comply with any daily average or average monthly effluent limitation or standard specified in this permit, the permittee shall provide the information outlined above in paragraph b.1) with the discharge monitoring report (DMR) submitted in accordance with Part I.D.2. of this permit.
- 3) In the case of any upset or unanticipated bypass that exceeds any permitted effluent or discharge limitation, the permittee shall notify the Department within 24 hours. If this notification is provided orally, a written report shall be submitted within 5 days.
- 4) In the case of any discharge subject to any toxic pollutant effluent standard under Section 307(a) of the Act, the permittee shall notify the Department within 24 hours from the time the permittee becomes aware of a noncomplying discharge. Notification shall include the information outlined above in paragraph b.1). If this information is provided orally, a written submission covering these points shall be provided within five days of the time the permittee becomes aware of the circumstances covered by this paragraph.
- 5) In the case of any other discharges which could constitute a threat to human health, welfare, or the environment, the information required above in paragraph b.1) shall be provided as quickly as possible upon discovery and after activating the appropriate emergency site plan, unless circumstances exist which make such a notification impossible. A delay in notification shall not be considered a violation of this permit when the act of reporting may delay the mitigation of the discharge and/or the protection of public health and the environment. A written submission covering these points must be provided within five days of the time the permittee becomes aware of the circumstances covered by this paragraph.

- 6) The permittee shall report all instances of noncompliance not otherwise reported under the preceding paragraphs at the time the discharge monitoring report (DMR) is submitted. The report shall contain the information outlined above in paragraph b.1).
- 7) The Department may waive the written report as required herein on a case-by-case basis, if an oral report was provided within 24 hours.

c. Reporting Discharge(s) of Pollutants Pursuant to 7 Del. C. §6028

Any person who causes or contributes to the discharge of a pollutant into waters of the State or the United States either in excess of any conditions specified in this permit or in absence of a specific permit condition shall report such an incident to the Department as required under 7 Del. C. §6028.

3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all collection and treatment facilities and systems (and related appurtenances) installed or used by the permittee for water pollution control and abatement to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes but is not limited to, effective performance (based upon the facilities' design), adequate funding, effective management, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, when necessary, to achieve compliance with the terms and conditions of this permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to State waters resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and extent of the noncomplying discharge.

5. Failure

The permittee, in order to maintain compliance with this permit, shall control production and all discharges as necessary upon reduction, loss, or failure of the treatment facility until the treatment facility is restored or an alternative method of treatment is provided. The need to halt or reduce the permitted activity in order to maintain compliance with this permit shall not be a defense for a permittee in any enforcement action.

6. Alternative Power Source

In order to ensure compliance with the terms and conditions of this permit, the Department may require that the permittee provide an alternative power supply which is sufficient to operate the permittee's wastewater collection, conveyance and treatment facilities.

7. Removed Substances

Any solids, sludges, filter backwash, or other pollutants removed in the collection, conveyance or treatment of wastewater shall be disposed of in such manner as to prevent any pollutant from such materials from entering surface waters or groundwaters.

8. Bypass

- a. The Secretary may prohibit the intentional diversion or bypass of waste streams from any portion of the facility regulated herein in consideration of the adverse effect of the proposed bypass or where the proposed bypass does not meet the conditions set forth below in Part II.A.8.b.
 - b. The intentional diversion or bypass of waste streams from any portion of the facility regulated herein is prohibited unless:
 - 1) The bypass is necessary to perform essential maintenance and auxiliary equipment, a redundant or back-up system or an alternate mode of operation is utilized to maintain treatment performance; or
 - 2) The following four conditions are met:
 - a) Bypass is unavoidable to prevent loss of human life, personal injury or severe property damage;
 - b) There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, plant shutdown or maintenance during normal periods of equipment down-time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent the bypass;
 - c) The permittee notifies the Department of the bypass or of the need to bypass as outlined below in paragraph 8.c below; and
 - d) The permittee is utilizing or will utilize all available alternative operating procedures or interim control measures to reduce the impact of the bypass on State waters.
 - c. Notice
 - 1) If the permittee knows in advance of the need for a bypass, the permittee shall notify the Secretary, in writing, at least ten days before the date of the bypass, if possible.
 - 2) In the event of an unanticipated or unintentional bypass, the permittee shall notify the Department within twenty-four hours of discovery. Notice may be provided orally, but shall be followed up with submission of a written report that provides the information outlined in Part II.A.2.b.1) within five (5) days.
 - 3) The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible.
9. Upset
- a. An upset shall constitute an affirmative defense to an action brought for noncompliance with any technology based permit effluent limitations established herein, if the requirements of Part II.A.9.b below are met.
 - b. To establish an affirmative defense for an upset, the permittee shall demonstrate, through properly signed and authenticated, contemporaneous operating logs, or by other relevant evidence that:
 - 1) An upset occurred and that the permittee can identify the specific cause(s) of the upset;
 - 2) The permitted facility was at the time being operated in a prudent and workman like

manner and in compliance with proper operation and maintenance procedures;

- 3) The permittee submitted notice of the upset as required in Part II.A.2.b.3) (i.e., within 24 hours of becoming aware of the upset); and
 - 4) The permittee took all reasonable measures necessary to minimize any adverse impact to State waters.
- c. Burden of proof. The permittee shall have the burden of proving an upset in any case where an upset is claimed as a defense.

B. RESPONSIBILITY

1. Right of Entry

The permittee shall allow the Secretary of the Department, the EPA Regional Administrator, or their authorized representatives, jointly and severally, upon the presentation of his or her credentials:

- a. To enter upon the permittee's premises where the regulated facility, treatment works, or discharge(s) is located or the regulated activity is conducted or where any records required to be kept under the terms and conditions of this permit are located;
- b. To have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;
- c. To inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
- d. To inspect at reasonable times any facilities, equipment, management or control practices, or operations regulated or required under this permit; and
- e. To sample at reasonable times any discharge or substance at any location for the purpose of assuring compliance with this permit or otherwise determine whether a violation of the Law or these regulations exists, as provided in 7 Del. C. §6024;

2. Duty to Provide Information Requested by the Department

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit or to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee shall also furnish, upon request, copies of records required to be kept by this permit.

3. Duty to Provide Information Found to be Missing or Inaccurate

When the permittee discovers that it failed to submit any relevant facts in a permit application or that it submitted any incorrect information in any permit application or in any report to the Department, it shall promptly submit such facts or information.

4. Availability of Reports

Except for any data and information that is deemed to be confidential and claimed as such when submitted, and that is entitled to protection as trade secrets under State law, all reports prepared in accordance with the terms and conditions of this permit shall be available for public inspection

at the Department's offices. This permit, the permit application and any information submitted to support the application (other than information entitled to protection as trade secrets pursuant to State law) and any effluent or discharge monitoring data shall not be deemed confidential and any claims of confidentiality will be denied. Knowingly making any false statement in any such report may result in the imposition of criminal penalties as provided under 7 Del. C., §6013.

5. Signatory Requirements

All applications, reports, or information submitted to the Department shall be signed and certified as outlined in Section 6.11 of the Department's Regulations Governing the Control of Water Pollution, as amended May 14, 2003.

6. Permit Transfer

- a. This permit is not transferable to any person, except after notice to and with the concurrence of the Secretary.
- b. In the event of a change in ownership or control of the facilities from which the authorized discharge(s) emanate(s), this permit may be transferred if the permittee:
 - 1) Notifies the Department, in writing, of the proposed transfer, in advance; and
 - 2) Submits to the Department a written agreement signed by all parties to the transfer, containing a specific date for transfer of permit responsibility, coverage and liability to the new permittee. The written agreement shall expressly acknowledge the current permittee is responsible and liable for compliance with the terms and conditions of this permit up to the date of transfer and the new permittee is responsible and liable for compliance from that date on; and
 - 3) The Department within thirty (30) days of receipt of the notification of the proposed transfer does not notify the current permittee and the new permittee of its intent to modify, to revoke and reissue or to terminate this permit and require that a new application be submitted.
- c. The permittee is encouraged to provide as much advance notice as possible of any proposed transfer, to allow sufficient time for the Department to modify this permit to identify the new permittee and to incorporate such other requirements as may be necessary under the Law or the Act.

7. Modification, Termination, or Revocation and Reissuance

This permit may be modified, terminated or revoked and reissued in whole or in part, during its term, for cause as provided in Section 6, Part V of the Department's Regulations Governing the Control of Water Pollution, as amended May 14, 2003. The filing of a request for permit modification, or revocation and reissuance, or termination, or a notification of any planned changes or anticipated noncompliance does not stay any permit condition.

8. Reapplication for a Permit

- a. The permittee must apply for and obtain a new permit if the permittee wishes to continue the activity regulated by this permit beyond its expiration date;
- b. At least 180 days before the expiration date of this permit, the permittee shall submit a new application or notify the Department of the permittee's intent to cease discharging by the expiration date;

Effective Date:
Expiration Date:

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- c. In the event that a timely and sufficient reapplication has been submitted and the Department is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit are continued and remain fully effective and enforceable;

9. Compliance With Effluent Standards for Toxic Pollutants

The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish such standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

10. Construction Authorization

This permit does not approve or authorize the construction, installation or modification of any wastewater/liquid waste collection, transmission or treatment facilities, system, or any other pollution control equipment or device necessary to achieve or to maintain compliance with the terms and conditions of this permit. Separate authorization for the construction, installation or modification of such pollution control facilities must be obtained from the Secretary.

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in navigable waters.

11. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privileges.

12. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under 7 Del. C., Chapter 60, or any other State law or regulation.

13. Severability

The provisions of this permit are severable. If any provision of this permit is held invalid, the remainder of this permit shall not be affected. If the application of any provision of this permit to any circumstance is held invalid, its application to other circumstances shall not be affected.

Part III

A. Special Conditions

1. Supersedes previous permit

This permit supersedes the State Permit No. WPCC 3089C/85 and NPDES Permit No. DE 0050962 issued on December 9, 1999.

2. Permit Reopener Clause

The Department or agencies under its supervision may perform or direct the performance of analyses or biosurveys on the receiving waters in the immediate vicinity of the permittee's discharge or further downstream, after the issuance of this permit. Such analyses or biosurveys may include evaluating impingement, entrainment, and thermal impacts the permittee's facility poses on its intake and receiving waters. If the results of these analyses or biosurveys suggest that the permittee's discharge is causing, or has the potential to cause, diminished attainment of designated protected uses (as defined by the State of Delaware's "Water Quality Standards for Streams") then this permit may be reopened and modified after notice and opportunity for a public hearing. At that time, additional effluent limitations, monitoring requirements and/or special conditions may be included in the permit. If it is determined that additional equipment is needed to meet the revised permit conditions, the permittee shall install the necessary equipment.

3. Oil & Grease Monitoring and Compliance

The permittee shall demonstrate compliance with the Oil and Grease limits using the 40 CFR 136 approved test procedure, EPA Method No. 1664. The Department may approve use of an alternative test method in writing, if that alternative method is approved under 40 CFR 136.

When more than one grab sample is taken per storm water discharge event, each grab sample shall be analyzed separately and the arithmetic mean shall represent the daily average concentration. Also, the arithmetic mean of all daily average concentrations in a monitoring period shall be the daily average concentration for that monitoring period. Lastly, the highest concentration of an individual grab sample analysis, taken during the monitoring period, shall be reported as the maximum instantaneous concentration. This condition is applicable to Oil & Grease monitoring.

4. Pollutant Minimization Plan (PMP) for PCBs

The permittee shall implement and maintain a Pollutant Minimization Plan (PMP) for PCBs.

- a. Purpose. Implementation of a comprehensive set of measures, including trackdown studies, process modifications, materials substitutions, treatment technologies, best management practices and/or procedures tailored to the facility or site may be necessary to achieve required pollutant loading reductions. The permittee shall perform a systematic analysis of the facility and site in order to locate pollutant sources and to design and implement measures to achieve the necessary reductions. The elements of a PMP are intended to ensure that similarly situated dischargers make comparable efforts, and that progress in implementing plans and reducing pollutant loadings is measured and reported. Within these constraints, creative approaches to pollutant trackdown and reduction are encouraged.
- b. Commencement of PMP Implementation. The discharger shall commence implementation of its PMP as submitted, within 60 days of receipt of a determination of completeness.

- c. Initial Term of PMP. Each PMP shall be designed for an initial term of five years.
- d. Annual Reports - Each year, commencing six months from the permit effective date, the permittee shall submit to the DRBC and the Department an Annual Report that:
 - 1) Describes any material modifications to the facility's operations, site boundary, service area, or waste streams in the course of the preceding year that might affect releases of the pollutant, along with appropriate revisions made to the PMP;
 - 2) Outlines measures under way and completed to achieve maximum practicable reduction of pollutant releases since the last report and since initiation of the PMP;
 - 3) Reports incremental and cumulative changes from the pollutant loading baseline, including biennial results of mass loadings using methods listed in Special Condition No. 5 below; and
 - 4) Describes progress toward achieving maximum practicable reduction of the pollutant.

5. PCB Congener Monitoring

The permittee shall monitor Outfalls for congeners of PCBs in accordance with the following.

- a. Samples shall be analyzed using referenced EPA draft Method 1668A with the modifications made by DRBC (See http://www.state.nj.us/drbc/PCB_info.htm) for all PCB congeners.

Note: Table 2 of draft method 1668A provides Estimated Method Detection Limits (EMDLs) and Estimated Minimum Levels (EMLs) for each congener for different matrices. The laboratory will use the method EMDLs and EMLs, unless the lab specific EMDL or EML is lower.

- b. Monitoring, analyses, and reporting shall be according to DRBC requirements at http://www.state.nj.us/drbc/PCB_info.htm as of the permit public notice date. If the DRBC updates the referenced requirements, the permittee may adopt those changes, if agreed upon by both the Department and the permittee. The Department will public notice the updates only if, in the judgment of the Department, the changes would result in less accurate or reliable results.
- c. PCB results shall be reported to both DRBC and the Department.
- d. Final deliverables, EDD and hardcopy report under this Special Condition must be submitted within 90 days of the sample collection.
- e. The permittee may rely upon analytical methods other than Methods 1668A¹ as required above, for purposes of screening or identification of pollutant sources.

6. Storm Water Plan

The permittee shall implement and maintain a Storm Water Plan (SWP) to minimize the discharge of contaminated storm water from its facility. The SWP shall be implemented and maintained to be in accordance with the requirements of the Delaware Regulations Governing the Control of Water Pollution (RGCWP), Section 9, "The General Permit Program", Subsection 1,

¹ From §4.30.0.E.6.C of DRBC's "Rule For Establishing Pollutant Minimization Plan (Pmp) Requirements For Point And Non-Point Source Dischargers Of Toxic Pollutants Following Issuance of a TMDL Or Assimilative Capacity Determination, 4.30.9 Pollutant Minimization Plans for Toxic Pollutants," adopted May 18, 2005. See <http://www.state.nj.us/drbc/PMPrule-May05.pdf>.

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“Regulations Governing Storm Water Discharges Associated With Industrial Activity”, Part 1, “Provisions Governing All Storm Water Discharges”. In particular, the SWP shall address practices including good housekeeping, inspections under wet and dry weather, sediment and erosion control, facility security, and managing runoff.

Further, the SWP shall specifically address total nitrogen, total phosphorus, and enterococci in runoff from the site. The permittee shall update and adjust BMPs as necessary to ensure that their performance is adequate to satisfy the requirements of the “Total Maximum Daily Load for Nutrients and Dissolved Oxygen Under High-Flow Conditions in the Christina River Basin, Pennsylvania, Delaware, and Maryland”, issued on April 8, 2005. If BMPs prove inadequate, the Department may, in accordance with Special Condition No. 2 above, reopen and modify this permit to include additional requirements for total nitrogen, total phosphorus, and enterococci.

APPENDIX C

TABLE C-1

Sediment and Surface Soil Sample Results
 November 8, 2007
 Outfall 002 Storm Sewer Drainage Area
 Surface Soil Sample Results
 Amtrak Wilmington Maintenance Shops

Sediment Samples		MH-4	MH-7	MH-7A	MH-9	Outfall 002	CB-10	Transfer Table Drain	Steam Bay (1)
Sample ID		11/08/07		11/08/07		11/08/07		11/08/07	
Sample Date		11/08/07		11/08/07		11/08/07		11/08/07	
Parameter	Units	MDL	Result	MDL	Result	MDL	Result	MDL	Result
PCB-1016	ug/kg	210	N.D.	2,300	N.D.	190	N.D.	220	N.D.
PCB-1221	ug/kg	320	N.D.	3,600	N.D.	300	N.D.	340	N.D.
PCB-1232	ug/kg	210	N.D.	2,300	N.D.	190	N.D.	220	N.D.
PCB-1242	ug/kg	210	N.D.	2,300	N.D.	190	N.D.	220	N.D.
PCB-1248	ug/kg	210	N.D.	2,300	N.D.	190	N.D.	220	N.D.
PCB-1254	ug/kg	750 J	1,200	9,900 J	12,000	4,600	190	590	43
PCB-1260	ug/kg	2,400	2,500	45,000	7,900	12,000	190	1,400	43
Total PCB Aroclors	ug/kg	3,150	3,700	54,900	19,900	16,600	12,900	1,990	139,000

Surface Soil Samples

Surface Soil Samples		TTS-1	TTS-2	TTS-3	TTS-4	TTS-5	TTS-6
Sample ID		11/08/07		11/08/07		11/08/07	
Sample Date		11/08/07		11/08/07		11/08/07	
Parameter	Units	MDL	Result	MDL	Result	MDL	Result
PCB-1016	ug/kg	180	N.D.	70	N.D.	170	N.D.
PCB-1221	ug/kg	280	N.D.	110	N.D.	280	N.D.
PCB-1232	ug/kg	180	N.D.	70	N.D.	170	N.D.
PCB-1242	ug/kg	180	N.D.	70	N.D.	170	N.D.
PCB-1248	ug/kg	180	N.D.	70	N.D.	170	N.D.
PCB-1254	ug/kg	2,100	1,200	570	73	2,400	170
PCB-1260	ug/kg	8,400	3,500	3,400	3,700	8,800	170
Total PCB Aroclors	ug/kg	10,500	4,700	3,970	3,700	11,200	30,900

NOTES

MDL = Method detection limit

ug/kg = micrograms per kilogram

ND = Not detected at or above the method detection limit

J = Estimated value

PCB Aroclors analyzed by Method 8082

(1) Steam Bay is connected to the Industrial Waste Sewer (refer to text)

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TABLE C-2

Sediment and Surface Soil Sample Results
 January 30, 2008
 Outfall 002 Storm Sewer Drainage Area
 Surface Soil Sample Results
 Amtrak Wilmington Maintenance Shops

Parameter	Sample ID	Sample Date	MH-B		MH-C		MH-H		MH-I		MH-J		TD-A	
			01/30/08	MDL										
			Result	MDL										
PCB-1016			N.D.	250	N.D.	220	N.D.	110	N.D.	110	N.D.	110	N.D.	28,000
PCB-1221			N.D.	250	N.D.	220	N.D.	110	N.D.	110	N.D.	110	N.D.	28,000
PCB-1232			N.D.	250	N.D.	220	N.D.	110	N.D.	110	N.D.	110	N.D.	28,000
PCB-1242			N.D.	250	N.D.	220	N.D.	110	N.D.	110	N.D.	110	N.D.	28,000
PCB-1248			N.D.	250	N.D.	220	N.D.	110	N.D.	110	N.D.	110	N.D.	28,000
PCB-1254			N.D.	250	N.D.	220	N.D.	110	N.D.	110	N.D.	110	N.D.	28,000
PCB-1260			3,000	250	1,200	220	730	110	730	110	1,600	110	79,000	28,000
Total PCB Aroclors			3,000	--	1,200	--	640	--	730	--	1,600	--	79,000	--

Surface Soil Samples

Parameter	Sample ID	Sample Date	SS-A		SS-B		SS-C		SS-D	
			01/30/08	MDL	01/30/08	MDL	01/30/08	MDL	01/30/08	MDL
			Result	MDL	Result	MDL	Result	MDL	Result	MDL
PCB-1016			N.D.	19,000	N.D.	19,000	N.D.	2,000	N.D.	200
PCB-1221			N.D.	19,000	N.D.	19,000	N.D.	2,000	N.D.	200
PCB-1232			N.D.	19,000	N.D.	19,000	N.D.	2,000	N.D.	200
PCB-1242			N.D.	19,000	N.D.	19,000	N.D.	2,000	N.D.	200
PCB-1248			N.D.	19,000	N.D.	19,000	N.D.	2,000	N.D.	200
PCB-1254			N.D.	19,000	N.D.	19,000	N.D.	2,000	N.D.	200
PCB-1260			160,000	19,000	110,000	19,000	14,000	2,000	N.D.	200
Total PCB Aroclors			160,000	--	110,000	--	14,000	2,000	1,800	200

NOTES:

MDL = Method detection limit

ug/kg = micrograms per kilogram

ND = Not detected at or above the method detection limit

J = Estimated value

PCB Aroclors analyzed by Method 8082

TABLE C-3

Outfall 007 Drainage Area Track Down Storm Water Sample Results
September 11, 2007

Amtrak Wilmington Maintenance Shops
4001 Vandever Avenue
Wilmington, Delaware

Aroclor	Units	Location					
		MH-4	MH-6	MH-14	C-11	Track Area MH	Outfall 007
Total Suspended Solids (TSS)	mg/l	31	9	34	17	81	NA
Total 64 Congeners (unfiltered)	ug/l	1.122	1.17083	5.8355	1.11311	6.82155	NA
Total 64 Congeners (filtered)	ug/l	1.1628	1.14784	5.62808	1.1264	6.20869	NA
Total 209 Congeners	ug/l	NA	NA	NA	NA	NA	1.00912296

NOTES:

ug/l = micrograms per liter

mg/l = milligrams per liter

Total Suspended Solids analyzed by USEPA Method 160.2

Total 64 congeners analyzed by Method 8082

PCB 209 congeners analyzed by USEPA Method 1668A

TABLE C-4

Industrial Water Sewer Track Down Liquids Sample Results
 October 15, 2007
 Amtrak Wilmington Maintenance Shops

Water Fraction		MH-1 10/15/08		MH-3 10/15/08		Steam Bay MH 10/15/08		Steam Bay MH (R) 10/15/08		Track Area MH 10/15/08		Track Area MH (R) 10/15/08		Deep Well 01/30/08	
Parameter	Units	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL
Total Suspended Solids	mg/l	27,800	80	279	4	37	4	N.D.	2	N.D.	2	36	4	310	40
PCB-1016	ug/l	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2
PCB-1221	ug/l	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2
PCB-1232	ug/l	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2
PCB-1242	ug/l	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2
PCB-1248	ug/l	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2	N.D.	2
PCB-1254	ug/l	2.58	2	N.D.	2	10.8	2	N.D.	2	0.571	2	N.D.	2	N.D.	2
PCB-1260	ug/l	2.4	2	N.D.	2	10.7	2	N.D.	2	0.705	2	0.473	2	N.D.	2
Total PCB Aroclors	ug/l	4.98	--	N.D.	--	21.5	--	1.276	--	0.473	--	0.296	--	N.D.	--

Oil Fraction

Sample ID Sample Date		MH-1 10/15/08		MH-3 10/15/08		Steam Bay MH 10/15/08		Steam Bay MH (R) 10/15/08		Deep Well 10/15/08	
Parameter	Units	Result	MDL	Result	MDL	Result	MDL	Result	MDL	Result	MDL
PCB-1016	ug/kg	N.D.	20,000	N.D.	10,000	N.D.	14,300	N.D.	10,000	N.D.	10,000
PCB-1221	ug/kg	N.D.	20,000	N.D.	10,000	N.D.	14,300	N.D.	10,000	N.D.	10,000
PCB-1232	ug/kg	N.D.	20,000	N.D.	10,000	N.D.	14,300	N.D.	10,000	N.D.	10,000
PCB-1242	ug/kg	N.D.	20,000	N.D.	10,000	N.D.	14,300	N.D.	10,000	N.D.	10,000
PCB-1248	ug/kg	N.D.	20,000	N.D.	10,000	N.D.	14,300	N.D.	10,000	N.D.	10,000
PCB-1254	ug/kg	83,600	20,000	N.D.	10,000	9,200	J	14300	5,790	J	10000
PCB-1260	ug/kg	79,100	20,000	N.D.	10,000	8,420	J	14300	5,200	J	10000
Total PCB Aroclors	ug/kg	162,700	--	N.D.	--	17,620	--	10,980	--	10,980	--

NOTES:

- MDL = Method detection limit
- ug/kg = micrograms per kilogram
- ug/l = micrograms per liter
- mg/l = milligrams per liter
- ND = Not detected at or above the method detection limit
- J = Estimated value
- PCB Aroclors analyzed by Method 8082
- (R) Sample was re-extracted and analyzed due to low surrogate recoveries as required by the method

TABLE C-5
Summary of 2005, 2006 and 2007 Wet Weather and Dry Weather PMP Sampling Event Results
Total PCB Congeners (pg/L)
Amtrak Wilmington Shops

Wet Weather Samples						
Date	Outfall 002	Outfall 006	Outfall 007	Precipitation (in)	Outfall 006 Estimated Flow (MGD)	
Sept. 26/27, 2005	152,579.480	160,773.595	NA	0.19	0.467	
Oct. 7/8, 2005	1,156,461.490	92,419.960	NA	0.72	0.026	
Oct. 21/22, 2005	427,556.890	77,365.600	NA	0.21/0.81	0.15	
Average (Outfalls 002 and 006)	578,865.953	110,186.385			0.214	
Dec 1/2, 2006	893,885.46	36,641.81	797,239.63	0.21	0.235	
July 11-12, 2007	807,375.20	109,384.99	161,433.43	0.23	0.11	
Sept. 11, 2007	NA	NA	1,009,122.96	0.19		
Average (Outfall 007)	NA	NA	655,932.007			

Dry Weather Samples						
Date	Outfall 002	Outfall 006	Outfall 007	Precipitation (in)	Outfall 006 Estimated Flow (MGD)	
Jun. 24, 2005	NA	12,351.900	NA	NA	0.665	
Aug. 23, 2005	NA	145,713.690	NA	NA	0.011	
Oct. 6, 2005	NA	51,174.820	NA	NA	0.0272	
Average		69,746.803			0.234	

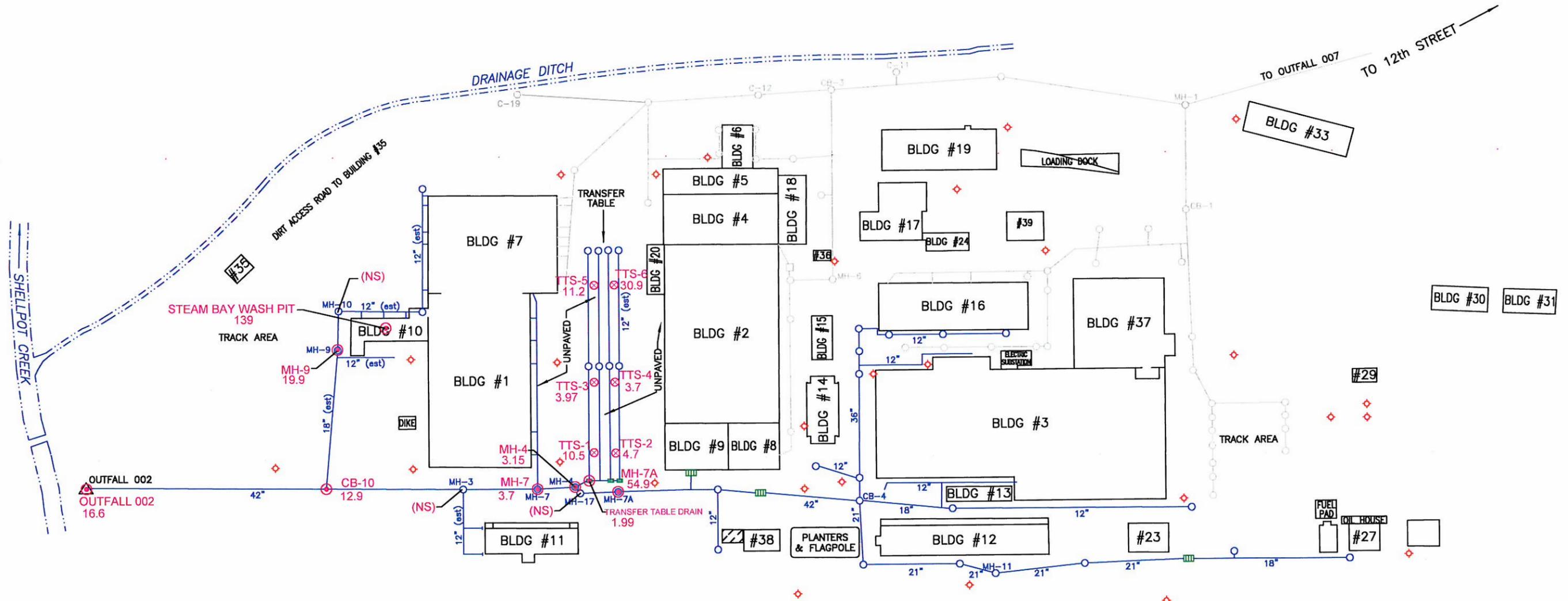
Notes:

MGD = million gallons per day

Outfall 002 and 007 samples were 24 hour time-weighted composites collected using an automated sampler

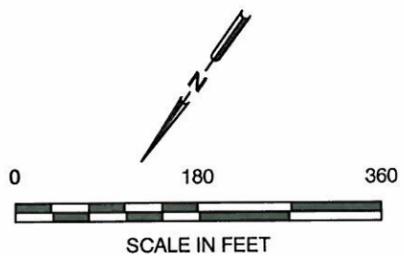
Outfall 006 samples were grab samples collected on out-going flow conditions

Outfall 006 flow measurements are an average of 12 hourly field measurements at the outfall piping



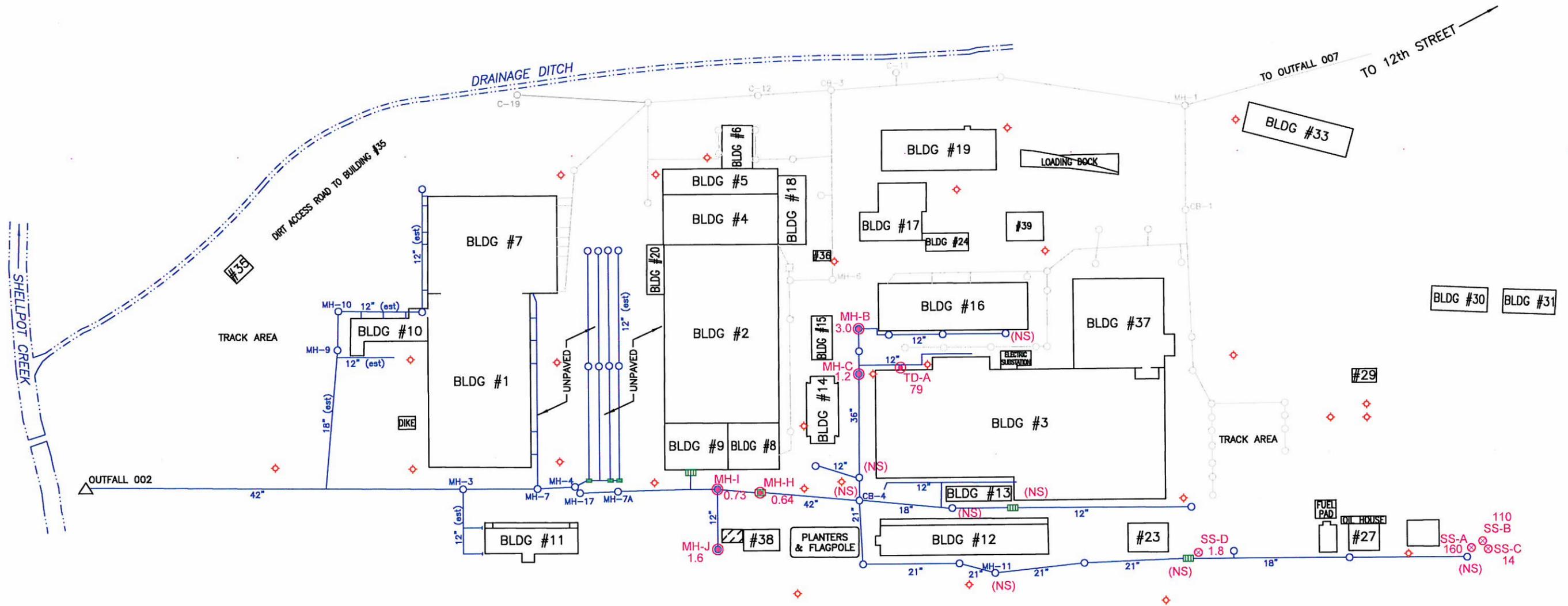
LEGEND

- STORM SEWER LINE TO OUTFALL 002
- STORM SEWER MANHOLE TO OUTFALL 002
- STORM SEWER LINE TO OUTFALL 007
- STORM SEWER MANHOLE TO OUTFALL 007
- FIRE HYDRANT
- PIPE DIAMETER
- (est) ESTIMATED PIPE DIAMETER
(PIPE DIAMETERS NOT SHOWN ON AVAILABLE AMTRAK DRAWINGS)
- SURFACE SOIL SAMPLE
- SEDIMENT SAMPLE
- NOT SAMPLED (NO SEDIMENT IN MANHOLE)



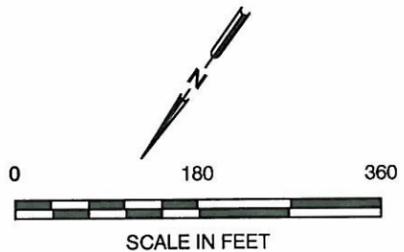
SOURCE: AMTRAK FILE #1010072
 AMTRAK DWG. NO. 35-1434, SHEETS C-1 AND C-3

 SECOR 102 PICKERING WAY, SUITE 200 EXTON, PENNSYLVANIA PHONE: (484) 875-3075/875-9286 (FAX)	FOR:		TOTAL PCB CONCENTRATIONS (mg/kg) IN SURFACE SOIL AND SEDIMENT SAMPLES NOVEMBER 8, 2007 OUTFALL 002 STORM SEWER SYSTEM DRAINAGE AREA		FIGURE: C-1	
	AMTRAK WILMINGTON MAINTENANCE YARD VANDEVER AVENUE WILMINGTON, DELAWARE					JOB NUMBER: 62OT.01101.05/0001



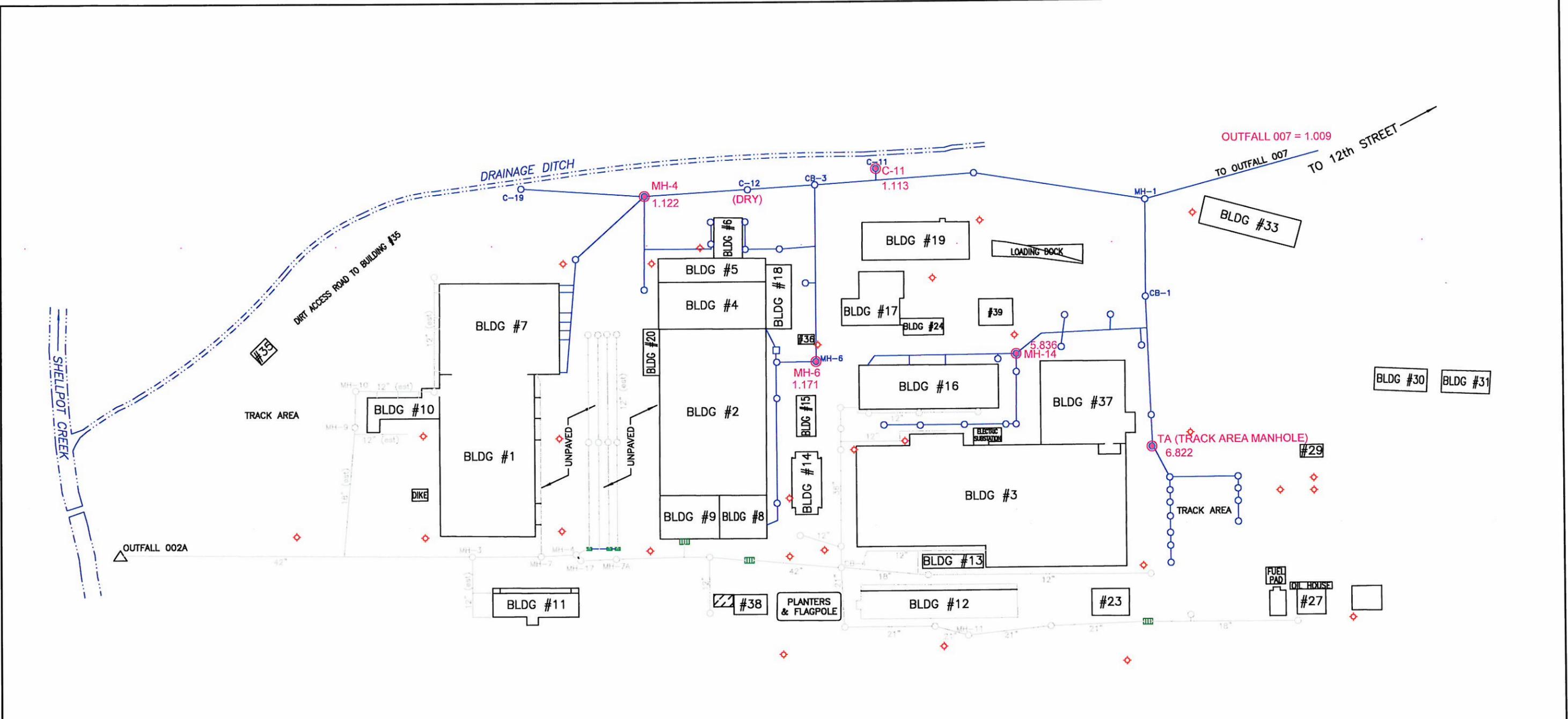
LEGEND

- STORM SEWER LINE TO OUTFALL 002
- STORM SEWER MANHOLE TO OUTFALL 002
- STORM SEWER LINE TO OUTFALL 007
- STORM SEWER MANHOLE TO OUTFALL 007
- FIRE HYDRANT
- 18" PIPE DIAMETER
- 12" (est) ESTIMATED PIPE DIAMETER (PIPE DIAMETERS NOT SHOWN ON AVAILABLE AMTRAK DRAWINGS)
- SURFACE SOIL SAMPLE
- SEDIMENT SAMPLE
- (NS) NOT SAMPLED (NO SEDIMENT IN MANHOLE)



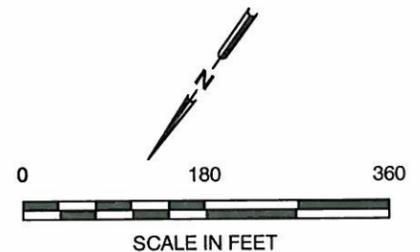
SOURCE: AMTRAK FILE #1010072
 AMTRAK DWG. NO. 35-1434, SHEETS C-1 AND C-3

 102 PICKERING WAY, SUITE 200 EXTON, PENNSYLVANIA PHONE: (484) 875-3075/875-9286 (FAX)	FOR:		TOTAL PCB CONCENTRATIONS (mg/kg) IN SURFACE SOIL AND SEDIMENT SAMPLES JANUARY 30, 2008 OUTFALL 002 STORM SEWER SYSTEM DRAINAGE AREA		FIGURE:
	AMTRAK WILMINGTON MAINTENANCE YARD VANDEVER AVENUE WILMINGTON, DELAWARE				C-2
JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE: 05/12/2008	
62OT.01101.05/0001	TFB				



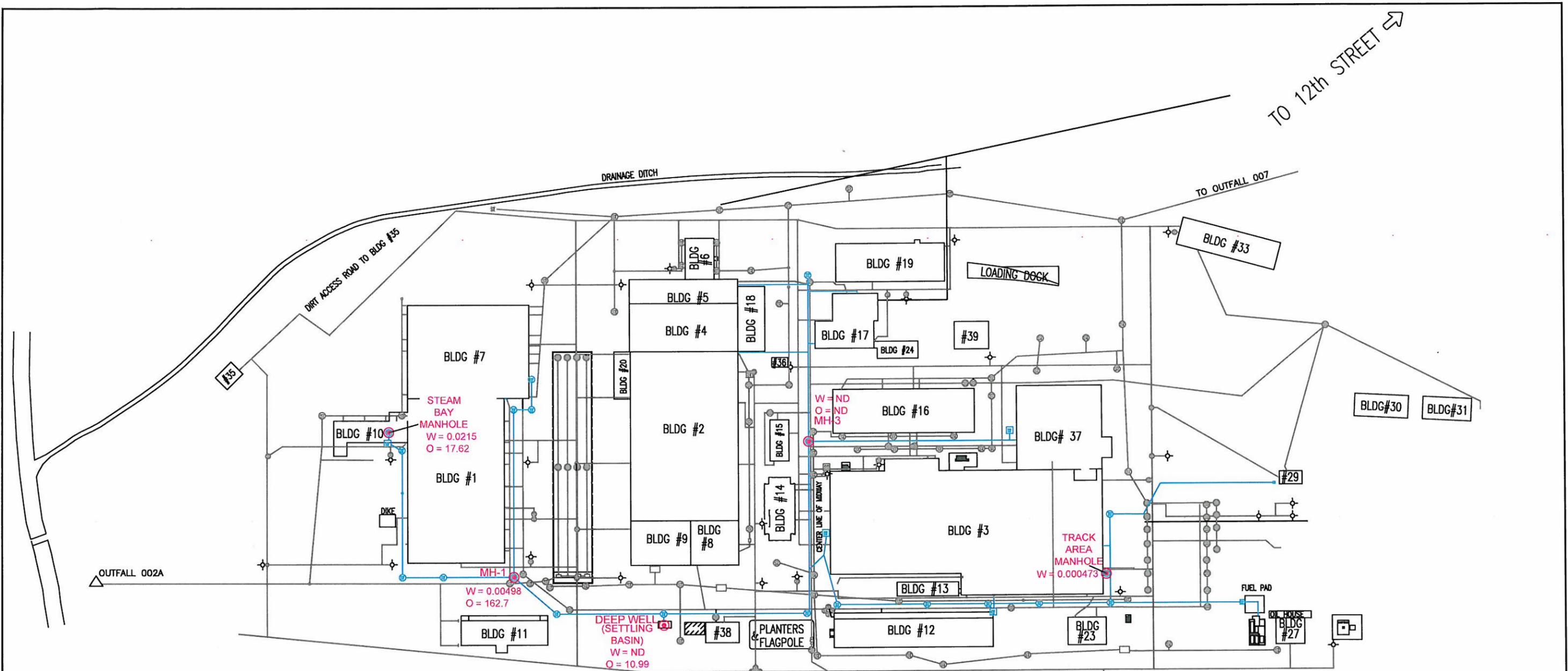
LEGEND

- STORM SEWER LINE TO OUTFALL 002
- STORM SEWER MANHOLE TO OUTFALL 002
- STORM SEWER LINE TO OUTFALL 007
- STORM SEWER MANHOLE TO OUTFALL 007
- ◆ FIRE HYDRANT
- 18" PIPE DIAMETER
- 12" (est) ESTIMATED PIPE DIAMETER
(PIPE DIAMETERS NOT SHOWN
ON AVAILABLE AMTRAK DRAWINGS)
- STORMWATER SAMPLE LOCATION



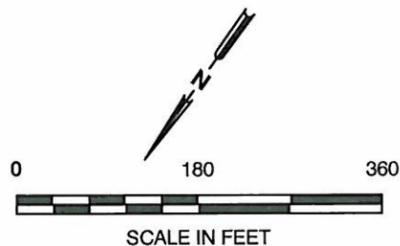
SOURCE: AMTRAK FILE #1010072
AMTRAK DWG. NO. 35-1434, SHEETS C-1 AND C-3

 SECOR 102 PICKERING WAY, SUITE 200 EXTON, PENNSYLVANIA PHONE: (484) 875-3075/875-9286 (FAX)	FOR: AMTRAK WILMINGTON MAINTENANCE YARD VANDEVER AVENUE WILMINGTON, DELAWARE		TOTAL PCB CONCENTRATIONS (ug/L) IN STORM WATER SAMPLING LOCATIONS - OUTFALL 007 STORM WATER SEWER SYSTEM TRACK DOWN INVESTIGATIONS - UNFILTERED SAMPLES		FIGURE: C-3
	JOB NUMBER: 62OT.01101.05/0001	DRAWN BY: TFB	CHECKED BY: SB	APPROVED BY:	DATE: 05/12/2008



LEGEND

- STORM SEWER LINE
- (ST) STORM SEWER MANHOLE
- IW INDUSTRIAL WASTE LINE
- (IW) INDUSTRIAL WASTE MANHOLE
- SS SANITARY SEWER LINE
- (SS) SANITARY SEWER MANHOLE
- W WATER LINE
- (W) WATER VALVE
- AIR LINE
- GAS LINE
- ◇ FIRE HYDRANT
- LIQUIDS SAMPLING LOCATION
- W WATER FRACTION (mg/l)
- O OIL FRACTION (mg/kg)
- ND NON-DETECT



SOURCE: AMTRAK FILE #1010072

 102 PICKERING WAY, SUITE 200 EXTON, PENNSYLVANIA PHONE: (484) 875-3075/875-9286 (FAX)	FOR:	AMTRAK WILMINGTON MAINTENANCE YARD VANDEVER AVENUE WILMINGTON, DELAWARE		FIGURE:	C-4
	JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	
		TFB	SB		05/12/2008

PCB Mass Loading
Amtrak Maintenance Facility
SIRB ID: DE-0170
Wilmington, Delaware



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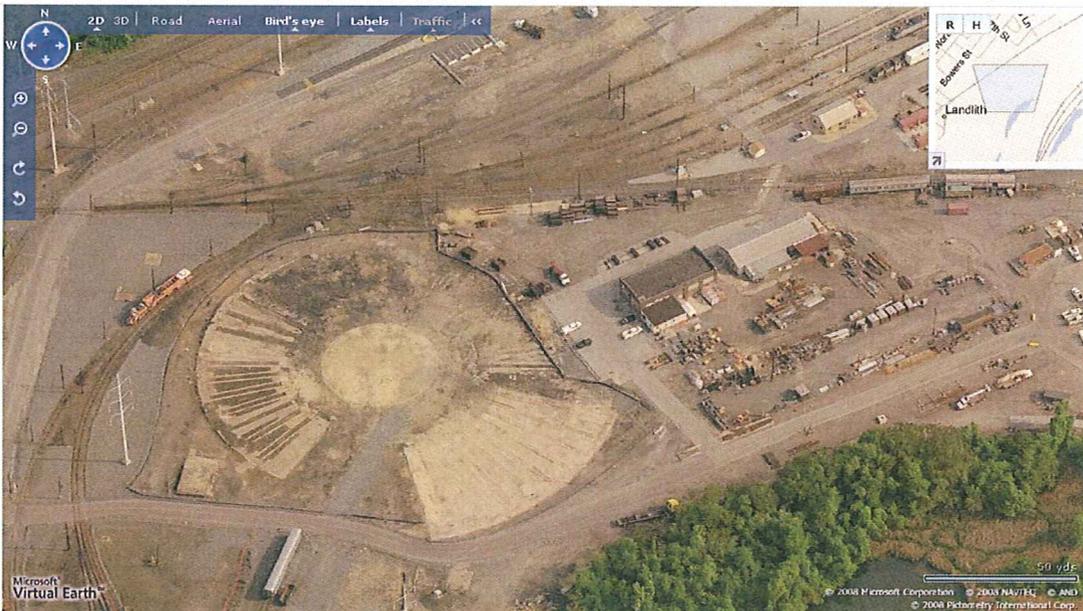
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