APPLICATION FOR NPDES PERMIT FOR WASTEWATER TREATMENT PLANT

TRI-COUNTY LANDFILL
PAR808328

SEPTEMBER 2019

Prepared For:

Tri-County Landfill, Inc.
159 TCI Park Drive
Grove City, PA 16127

Pine and Liberty Townships
Mercer County, Pennsylvania

Prepared By:

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NPDES PERMIT
WASTEWATER TREATMENT PLANT

Tri-County Landfill, Inc.
Tri-County Landfill

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NARRATIVE

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WASTEWATER TREATMENT PLANT

Tri-County Landfill, Inc.
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Narrative

1.0 Introduction

Tri-County Landfill, Inc. (Tri-County) is located at 159 TCI Park Drive, Grove City in Pine and Liberty Townships, Pennsylvania. Plans call for the existing landfill to be re-opened by constructing a municipal solid waste (MSW) landfill lined with a high density polyethylene (HDPE) liner. Waste in the existing landfill will be relocated to the new lined facility and new waste will also be received for disposal in the new facility. Tri-County has previously submitted a permit application to the Pennsylvania Department of Environmental Protection's (PaDEP) Waste Management Program for the proposed landfill facility. Please note this NPDES application was previously submitted in 2009. However, in accordance with the recent Settlement Agreement between Tri-County and PaDEP dated January 26, 2019, Tri-County is resubmitting an updated application following the submission of the Replacement Application to the Waste Management Program.

Through this application, Tri-County is applying for a discharge permit from a proposed wastewater (primarily leachate) treatment facility to an unnamed tributary of Black Run. This proposed discharge will be Outfall 006. Please note, that the applicant is concurrently considering alternatives for handling the facility's process wastewater such as a tie-in to an off-site POTW. If these plans materialize, Outfall 006 will not be necessary. However, in the event that these plans do not progress in a timely manner, Tri-County will construct a wastewater treatment facility onsite for discharge.

In conjunction with this application, Tri-County also proposes to incorporate other proposed stormwater discharges into the permit. There is an existing General NPDES No. PAR808328 permitting Outfalls 001, 002, and 003 which discharge stormwater from the area encompassing the Tri-County Landfill office buildings, Transfer Station, hauling and other municipal and residual waste activities area. As Outfalls 001, 002 and 003 are already established, Tri-County is proposing two (2) additional stormwater outfalls as Outfalls 004 and 005. These changes were previously proposed in a permit amendment application to existing NPDES Permit No. PAR808328 in 2009. However, since it was determined an Individual NPDES permit was required for the potential wastewater treatment plant discharge (Outfall 006), these proposed stormwater outfalls (Outfalls 004 and 005) were then incorporated into this permit application. The two proposed outfalls are needed for discharges from stormwater control structures associated with the proposed landfill.

Further details are provided below on leachate management, other sources of flow to Outfall 006, proposed treatment plant, and stormwater to provide additional background information for the permit. Please note only information regarding Outfalls 004, 005, and 006 has been included in the forms for this permit application as Outfall 001, 002 and 003 are existing and permitted for stormwater discharge under PAR808328.

2.0 Leachate Management

As the Department is aware, the proposed lined landfill will be constructed with a leachate collection system which collects leachate that has drained through the waste onto the bottom liner system. The liner system contains a piping network which directs leachate to one of several sumps. Leachate that is collected can be directed toward either the leachate recirculation network to recirculate leachate back through the waste mass or to the leachate storage and treatment facilities. Through the separate Waste Management Program permitting process, Tri-County has proposed to construct a minimum of 2,000,000 gallons of storage. The capacity of the storage facilities will be at least 2,000,000 gallons to accommodate the peak 30-day generation rate. Additional details on the various aspects of the leachate collection, storage and management system are located in Form 25 of the permit application to the Department's Waste Management Program.

Since the lined landfill has not been constructed and a collection system does not exist for the existing historic landfill at the site, leachate generation and quality estimates have been predicted for purposes of this application. Leachate quality from the proposed lined disposal area has been predicted using four (4) recent quarterly samples from Seneca Landfill, Inc. located in Mars, Pennsylvania and by using two (2) leachate samples obtained from Piezometer 29 located within the closed municipal waste disposal area at Tri-County Landfill. These results are located in Appendices E and F and were used to complete the pollutant analysis tables with respect to influent sampling. Where possible, data from Seneca Landfill was utilized. However, since the various modules indicate some parameters for which Seneca Landfill does not routinely analyze, supplementary data from Piezometer 29 was utilized. The Seneca Landfill is a municipal waste landfill owned by the same parent company and is expected to receive waste similar to that proposed for Tri-County Landfill. The existing Tri-County landfill utilizes natural attenuation, and leachate is not currently collected or treated. The modules are denoted to show which parameters were taken from Seneca Landfill and which are obtained from Piezometer 29.

Similarly, as the Tri-County Landfill is not currently operating and does not have a leachate treatment facility constructed yet, the pollutant analysis for effluent from Outfall 006 is not available. Therefore, the pollutant analysis results from Seneca Landfill's most recent NPDES renewal have been included in this application as comparable information from an existing similar facility. Seneca Landfill currently operates a Centralized Waste Treatment Facility, however at the time of their NPDES renewal sampling they did not accept any additional outside liquid waste streams. As indicated in the pollutant summary tables, the projected results are based on discharge from an Outfall comprised of effluent from a leachate treatment facility that will be comparable what is proposed for TCL. These laboratory results are included in Appendix G.

In addition to the leachate quality, leachate generation has been projected based on conditions realized at the Seneca Landfill as well as additional information contained within Form 25 of the permit application to the Department's Waste Management Program. Based on the data from the Seneca Landfill, leachate quantities are projected to average approximately 28,804 gpd. The total maximum acreage of the Tri-County Landfill that will be open at one time is 40 acres as proposed in Form 25 for leachate production estimate purposes. The average acreage open at the Seneca Landfill during the time frame of these analyses is approximately equivalent to 43.6 acres. Based on our professional judgment, 28,804 gallons per day (gpd) is considered to be a good estimate of the average flow predicted for the Tri-County Landfill. While 28,804 gpd is projected to be the average flow, actual leachate generation varies considerably. It is

conceivable that actual leachate generation could be much less when the site is initially opened and the actual area of the collection system is less. With respect to the maximum leachate production rate, it is projected to be 64,080 gpd [(1,922,400 gal/month$_{max}$)/(30 days/month)] based on Hydraulic Evaluation of Landfill Performance (HELP) Model estimates contained within Form 25. Supporting documentation is presented in Attachment 25-2 of the above-mentioned Waste Management Permit Application.

3.0 Other Sources of Flow to Outfall 006

While leachate is the most significant component of flow to the treatment plant that will discharge to Outfall 006, there are several smaller sources of flow proposed as well. The sources of wastewater at the site are;

- Leachate from the proposed MSW landfill,
- Leachate from an MSW transfer station,
- Sanitary wastewater from an administrative offices building,
- Sanitary wastewater from two existing truck maintenance buildings, and
- Wash water discharge from a proposed truck wash.

Therefore Landfill Wastewater consists of landfill leachate, transfer station leachate, and truck wash water. Sanitary wastewater consists of wastewater from the office and maintenance buildings.

In order to account for these additional sources, flow projections have been estimated. Further details are provided in the following paragraphs.

An approximate 12,550 square feet (sf) MSW transfer station operates on site. The primary wastewater source at the facility is generated from the floor drains. However, experience reveals that the most significant source of wastewater at the facility is floor wash-down water. Conservatively, we estimate that this facility generates approximately 150 gpd based on a spray nozzle operating at 2.5 gpm for 1 hour a day. Experience indicates that wastewater flow from the facility is typically less than this amount.

The approximate 5,125 sf office building is occupied by approximately 15 to 20 employees. The two truck maintenance facilities are 11,875 sf & 3,600 sf and employ 15 workers. The facilities onsite do not include showers. In addition, the maintenance facility does not have equipment producing significant wastewater quantities. The estimated flow generated from the office and maintenance facility for full time employees is estimated at 455 gpd based on 13 gallons/employee/day from Metcalf & Eddy's "Wastewater Engineering," (3rd Ed., 1991, Table 2-10, page 28).

A number of truck drivers are also based from this location. They are not present at the site other than to start and end their routes. There are approximately 80 to 120 truck drivers. For wastewater estimates, we propose 1 gallon per day for 120 individuals, or 120 gpd. Therefore the total estimated flow generated from the office and maintenance facility is estimated to be 575 gpd.

The proposed truck wash will generally recycle much of the water used. Make up water will be added to the truck wash facility as necessary. The most significant source of water from this facility to the proposed treatment plant is expected when the facility is periodically cleaned. The facility may need to be drained for cleaning. Therefore, to account for this occurrence 2,000 gallons is estimated for these events.

4.0 Proposed Treatment Plant

As discussed previously, the proposed wastewater treatment plant will service the proposed lined landfill as well as several existing sources at the site. An estimate of flow from the proposed wastewater treatment facility that will comprise Outfall 006 is:

Landfill Wastewater = 28,804 gpd + 2,000 gpd + 150 gpd = 30,954 gpd
Sanitary Wastewater= 455 gpd + 120 gpd = 575 gpd
Total= 31,529 gpd

In addition, Tri-County is proposing some additional capacity in the event that leachate is needed to be collected from the historic unlined waste mass. Note that relocation of historic waste at the site onto the new lined disposal area is proposed under the Waste Management permit application. In the event that significant pools of water are encountered in the historic waste mass during relocation, the pools will be pumped and potentially directed through the wastewater treatment facility. Based on the proceeding, a maximum daily discharge of 85,000 gpd is proposed for Outfall 006.

The average acreage open at the Seneca Landfill during the time frame of these analyses is approximately equivalent to 43.6 acres. The Seneca Landfill is slightly larger than the Tri-County Landfill. Based on our professional judgment; 28,804 gpd is considered to be a good estimate of the average flow predicted for the Tri-County Landfill. This flow rate was used to determine maximum daily mass concentrations and average mass concentrations of constituents in the Pollutant Analyses Results.

When reviewing this application, it is important to note previous correspondence Tri-County has had on the potential discharge. Specifically, the Pennsylvania Department of Environmental Protection (DEP) developed preliminary effluent limits for a proposed discharge of 0.085 MGD of treated, municipal landfill leachate to an unnamed tributary to Black Run. These results were provided by letter dated May 18, 2009. A copy of this correspondence follows the narrative.

With respect to the discharge location, a map is enclosed in Figure 1 and a site plan in Figure 2 which depict the proposed location of the direct discharge (Outfall 006) as well as the other outfall locations at the site. It is recognized that regardless of when the plant is constructed, a Part II Water Quality permit application will first be required to be submitted and approved.

5.0 Stormwater

Tri-County has an existing NPDES permit (Permit No. PAR808328) for storm water associated with Tri-County Industries. This permit contains three discharges identified as Outfalls

001, 002 and 003. In addition, two new stormwater discharges are associated with the proposed landfill. A permit amendment was previously submitted in February 2009 to include Outfalls 004 and 005 associated with sediment basin discharges related to the proposed lateral expansion of the existing landfill. However, in February 2010, the amendment to the general permit was withdrawn. In 2011, the NPDES Permit No. PAR808328 renewal application was submitted and approved in June of 2016 for stormwater discharge to Outfalls 001, 002 and 003. At this time, Tri-County requests to incorporate the existing outfalls under PAR808328 into an Individual NPDES Permit along with proposed stormwater Outfalls 004 and 005 indicated in this permit application.

FORMS

GENERAL INFORMATION FORM

0210-PM-PIO0001 4/2018
Form

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the Department.

Related ID#s (If Known)		DEP USE ONLY
Client ID#	APS ID#	Date Received & General Notes
Site ID#	Auth ID#	
Facility ID# 101678		

CLIENT INFORMATION

DEP Client ID#

Client Type / Code
PACOR (Pennsylvania Corporation)

Organization Name or Registered Fictitious Name
Tri-County Landfill, Inc.

Employer ID# (EIN) 25-1657391

Dun & Bradstreet ID#

Individual Last Name N/A | **First Name** | **MI** | **Suffix** | **SSN**

Additional Individual Last Name N/A | **First Name** | **MI** | **Suffix** | **SSN**

Mailing Address Line 1
159 TCI Park Drive

Mailing Address Line 2

Address Last Line – City
Grove City

State PA | **ZIP+4** 16127 | **Country** USA

Client Contact Last Name
Vogel

First Name Edward | **MI** R | **Suffix**

Client Contact Title
Vice President

Phone 724-625-9000 | **Ext**

Email Address
ervogel@vogeldisposal.com

FAX 724-625-3777

SITE INFORMATION

DEP Site ID# 101678

Site Name Tri-County Landfill

EPA ID#

Estimated Number of Employees to be Present at Site 15

Description of Site
Municipal Solid Waste Landfill

County Name	Municipality	City	Boro	Twp	State
Mercer	Pine	☐	☐	☒	
Mercer	Liberty	☐	☐	☒	

Site Location Line 1
159 TCI Park Drive

Site Location Line 2

Site Location Last Line – City
Grove City

State PA | **ZIP+4** 16127

Detailed Written Directions to Site
Travel I-79 to Grove City, PA Exit. Trvael SR 208 East for 1.5 miles. Turn right onto TCI Park Drive to enter site.

Site Contact Last Name
Vogel

First Name Edward | **MI** R | **Suffix**

Site Contact Title
Vice President

Site Contact Firm

Mailing Address Line 1
159 TCI Park Drive

Mailing Address Line 2

Mailing Address Last Line – City
Grove City

State PA | **ZIP+4** 16127

Phone	Ext	FAX	Email Address
724-625-9000		724-625-3777	ervogel@vogeldisposal.com

NAICS Codes (Two- & Three-Digit Codes – List All That Apply): 562

6-Digit Code (Optional): 562212

Client to Site Relationship
OWNOP (Owner / Operator)

FACILITY INFORMATION

Modification of Existing Facility

		Yes	No
1.	**Will this project modify an existing facility, system, or activity?**	☒	☐
2.	**Will this project involve an addition to an existing facility, system, or activity?**	☒	☐

If "Yes", check all relevant facility types and provide DEP facility identification numbers below.

	Facility Type	DEP Fac ID#		Facility Type	DEP Fac ID#
☒	Air Emission Plant	TBD	☐	Industrial Minerals Mining Operation	
☐	Beneficial Use (water)		☐	Laboratory Location	
☐	Blasting Operation		☐	Land Recycling Cleanup Location	
☐	Captive Hazardous Waste Operation		☐	Mine DrainageTrmt/LandRecyProjLocation	
☐	Coal Ash Beneficial Use Operation		☒	Municipal Waste Operation	101678
☒	Coal Mining Operation	TBD	☐	Oil & Gas Encroachment Location	
☐	Coal Pillar Location		☐	Oil & Gas Location	
☐	Commercial Hazardous Waste Operation		☐	Oil & Gas Water Poll Control Facility	
☐	Dam Location		☐	Oil & Gas Wastewater Storage Impoundment	
☐	Deep Mine Safety Operation -Anthracite		☐	Public Water Supply System	
☐	Deep Mine Safety Operation -Bituminous		☐	Radiation Facility	
☐	Deep Mine Safety Operation -Ind Minerals		☐	Residual Waste Operation	
☒	Encroachment Location (water, wetland)	TBD	☐	Storage Tank Location	
☒	Erosion & Sediment Control Facility	TBD	☒	Water Pollution Control Facility	TBD
☐	Explosive Storage Location		☐	Water Resource	
			☐	Other:	

Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
	41	08	35	80	08	02

Horizontal Accuracy Measure: Feet --or-- Meters

Horizontal Reference Datum Code
- ☒ North American Datum of 1927
- ☐ North American Datum of 1983
- ☐ World Geodetic System of 1984

Horizontal Collection Method Code: GISDR

Reference Point Code: CNTER

Altitude: Feet 1300 --or-- Meters

Altitude Datum Name
- ☒ The National Geodetic Vertical Datum of 1929
- ☐ The North American Vertical Datum of 1988 (NAVD88)

Altitude (Vertical) Location Datum Collection Method Code: TOPO

Geometric Type Code: POWT

Data Collection Date: PHOTOREVISED 1990

Source Map Scale Number: 1.0 Inch(es) = 2000 Feet
--or-- Centimeter(s) = Meters

PROJECT INFORMATION

Project Name
Tri-County Landfill Application for NPDES Permit to Discharge Industrial Wastewater

Project Description
This permit application proposes discharges associated with a leachate treatment facility and new stormwater outfalls at Tri-County Landfill.

Project Consultant Last Name	First Name	MI	Suffix
Echard	James	B.	P.E.

Project Consultant Title	Consulting Firm
Vice President	BAI Group, LLC

Mailing Address Line 1	Mailing Address Line 2
2525 Green Tech Drive	Suite D

Address Last Line – City		State	ZIP+4
State College		PA	16803
Phone	**Ext** **FAX**	**Email Address**	
814-238-2060	814-238-7123	jechard@baigroupllc.com	

Time Schedules	Project Milestone (Optional)
None Proposed	

1. **Have you informed the surrounding community and addressed any concerns prior to submitting the application to the Department?** ☒ Yes ☐ No

2. **Is your project funded by state or federal grants?** ☐ Yes ☒ No
   Note: If "Yes", specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date.
   Aspect of Project Related to Grant
   Grant Source: _____
   Grant Contact Person: _____
   Grant Expiration Date: _____

3. **Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions)** ☒ Yes ☐ No
   Note: If "No" to Question 3, the application is not subject to the Land Use Policy.
   If "Yes" to Question 3, the application is subject to this policy and the Applicant should answer the additional questions in the **Land Use Information** section.

LAND USE INFORMATION

Note: Applicants are encouraged to submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

1. **Is there an adopted county or multi-county comprehensive plan?** ☒ Yes ☐ No
2. **Is there an adopted municipal or multi-municipal comprehensive plan?** ☒ Yes ☐ No
3. **Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance?** ☒ Yes ☐ No
   Note: If the Applicant answers "No" to either Questions 1, 2 or 3, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 4 and 5 below.
   If the Applicant answers "Yes" to questions 1, 2 and 3, the Applicant should respond to questions 4 and 5 below.
4. **Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval?** If zoning approval has been received, attach documentation. ☒ Yes ☐ No
5. **Have you attached Municipal and County Land Use Letters for the project?** ☐ Yes ☒ No

Land Use Information Response: This NPDES permit application is being filed in conjunction with a previously filed application to the Department's Waste Management Program for the expansion of the Tri-County Landfill. General Information Forms have been filed previously for this project. Issues concerning whether the Land Use Policy is applicable to this project have been addressed in the context of the waste management application. Please refer to the various portions of the waste management application including Tri-County's responses to various technical deficiency letters issued by the Waste Management Program, including the Settlement Agreement dated January 26th 2019.

COORDINATION INFORMATION

Note: The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 and the accompanying Cultural Resource Notice Form.

If the activity will be a mining project (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

If the activity will not be a mining project, skip questions 1.0 through 2.5 and begin with question 3.0.

1.0	**Is this a coal mining project?** If "Yes", respond to 1.1-1.6. If "No", skip to Question 2.0.	☐	Yes	☒	No
1.1	**Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?**	☐	Yes	☐	No
1.2	**Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?**	☐	Yes	☐	No
1.3	**Will this coal mining project involve coal preparation/ processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?**	☐	Yes	☐	No
1.4	**For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?**	☐	Yes	☐	No
1.5	**Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?**	☐	Yes	☐	No
1.6	**Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?**	☐	Yes	☐	No
2.0	**Is this a non-coal (industrial minerals) mining project?** If "Yes", respond to 2.1-2.6. If "No", skip to Question 3.0.	☐	Yes	☒	No
2.1	**Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?**	☐	Yes	☐	No
2.2	**Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?**	☐	Yes	☐	No
2.3	**Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?**	☐	Yes	☐	No
2.4	**For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?**	☐	Yes	☐	No
2.5	**Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?**	☐	Yes	☐	No
3.0	**Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well?** If "Yes", respond to 3.1-3.3. If "No", skip to Question 4.0.	☐	Yes	☒	No

3.1	**Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?**	☐	Yes	☐	No
3.2	**Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system?** If "Yes", discuss in *Project Description.*	☐	Yes	☐	No
3.3	**Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?**	☐	Yes	☐	No
4.0	**Will the project involve a construction activity that results in earth disturbance?** If "Yes", specify the total disturbed acreage. **4.0.1 Total Disturbed Acreage** *See Waste Management Permit Application filed under separate cover.*	☒	Yes	☐	No
5.0	**Does the project involve any of the following?** If "Yes", respond to 5.1-5.3. If "No", skip to Question 6.0. *See both Waste Mgmt and Joint Applications for PA Water Obstruction & Encroachment Permit & US Army Corp of Engrs Sect. 404 Permit filed under separate cover in response to Questions 5.1 & 5.2 below.*	☒	Yes	☐	No
5.1	**Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?**	☐	Yes	☒	No
5.2	**Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?**	☒	Yes	☐	No
5.3	**Floodplain Projects by the commonwealth, a Political Subdivision of the commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?**	☐	Yes	☒	No
6.0	**Will the project involve discharge of stormwater or wastewater from an industrial activity to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?**	☒	Yes	☐	No
7.0	**Will the project involve the construction and operation of industrial waste treatment facilities?**	☒	Yes	☐	No
8.0	**Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations?** If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the *Project Description*, where applicable. **8.0.1 Estimated Proposed Flow (gal/day)** *See project narrative*	☐	Yes	☒	No
9.0	**Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system?**	☐	Yes	☒	No
	9.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP? If "Yes" attach the approval letter. Approval required prior to 105/NPDES approval.	☐	Yes	☐	No
10.0	**Is this project for the beneficial use of biosolids for land application within Pennsylvania?** If "Yes" indicate how much (i.e. gallons or dry tons per year). **10.0.1 Gallons Per Year (residential septage)** _____ **10.0.2 Dry Tons Per Year (biosolids)**	☐	Yes	☒	No
11.0	**Does the project involve construction, modification or removal of a dam?** If "Yes", identify the dam. **11.0.1 Dam Name**	☐	Yes	☒	No

12.0	**Will the project interfere with the flow from, or otherwise impact, a dam?** If "Yes", identify the dam.	☐	Yes	☒	No
	12.0.1 Dam Name				
13.0	**Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)?** If "Yes", identify each type of emission followed by the amount of that emission.	☒	Yes	☐	No
	13.0.1 Enter all types & amounts of emissions; separate each set with semicolons. *See Forms G(A) and G(B). Air Quality authorizations are being pursued.*				
14.0	**Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year?** If "Yes", check all proposed sub-facilities.	☐	Yes	☒	No
	14.0.1 Number of Persons Served _____				
	14.0.2 Number of Employee/Guests _____				
	14.0.3 Number of Connections _____				
	14.0.4 Sub-Fac: Distribution System	☐	Yes	☐	No
	14.0.5 Sub-Fac: Water Treatment Plant	☐	Yes	☐	No
	14.0.6 Sub-Fac: Source	☐	Yes	☐	No
	14.0.7 Sub-Fac: Pump Station	☐	Yes	☐	No
	14.0.8 Sub Fac: Transmission Main	☐	Yes	☐	No
	14.0.9 Sub-Fac: Storage Facility	☐	Yes	☐	No
15.0	**Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?**	☐	Yes	☒	No
16.0	**Is your project to be served by an existing public water supply?** If "Yes", indicate name of supplier and attach letter from supplier stating that it will serve the project.	☐	Yes	☒	No
	16.0.1 Supplier's Name				
	16.0.2 Letter of Approval from Supplier is Attached	☐	Yes	☐	No
17.0	**Will this project involve a new or increased drinking water withdrawal from a stream or other water body?** If "Yes", should reference both Water Supply and Watershed Management.	☐	Yes	☒	No
	17.0.1 Stream Name				
18.0	**Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste?** If "Yes", indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed.	☒	Yes	☐	No
	18.0.1 Type & Amount Disposal *of MSW, C&D and other approved wastes (4,000 TPD)*				
19.0	**Will your project involve the removal of coal, minerals, etc. as part of any earth disturbance activities?**	☐	Yes	☒	No
20.0	**Does your project involve installation of a field constructed underground storage tank?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.	☐	Yes	☒	No
	20.0.1 Enter all substances & capacity of each; separate each set with semicolons.				
21.0	**Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit.	☒	Yes	☐	No
	21.0.1 Enter all substances & capacity of each; separate each set with semicolons. *Leachate Storage tanks exceeding a 21,000 gallon capacity are proposed and are being handled separately through the Waste Management Landfill Permit Application.*				

22.0	**Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. **22.0.1 Enter all substances & capacity of each; separate each set with semicolons.**	☐	Yes	☒	No
23.0	**Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons?** If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. **23.0.1 Enter all substances & capacity of each; separate each set with semicolons.**	☐	Yes	☒	No
24.0	**Will the intended activity involve the use of a radiation source?**	☐	Yes	☒	No

CERTIFICATION

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

Type or Print Name Edward R. Vogel

Edward R Vogel	Vice President	9-9-19
Signature	**Title**	**Date**

APPLICANT CHECKLIST

3800-PM-BCW0008c Rev. 7/2019
Checklist

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
APPLICATION FOR INDIVIDUAL PERMIT TO DISCHARGE
INDUSTRIAL WASTEWATER

APPLICANT'S ✓ CHECKLIST

Applicant Name | Tri-County Landfill, Inc.

Check the following list to make sure you have included all the required information. Place a checkmark in the box provided for all items completed and/or provided.

ENCLOSE THIS CHECKLIST WITH YOUR COMPLETED APPLICATION. FAILURE TO SUBMIT ALL REQUIRED INFORMATION MAY RESULT IN DENIAL OF THE APPLICATION.

	REQUIREMENTS	Check ✓ If Included	DEP Use Only
1.	Application Fee. Amount Enclosed $ Already paid previously	☒	☐
2.	One signed original and 2 copies of the *completed* application with all applicable Analytical Results Tables.	☒	☐
3.	One additional copy of application for ECHD (if located in Erie County). **Not Applicable**	☐	☐
4.	One copy of application mailed to Delaware River Basin Commission (if discharge is in the Delaware River Basin) **Not Applicable**	☐	☐
5.	One copy of the General Information Form (0210-PM-PIO0001).	☒	☐
6.	Proper evidence of Act 14 municipal and county notifications.	☒	☐
7.	Evidence of newspaper publication for 4 consecutive weeks (new and modified discharges only)	☒	☐
8.	Copy of topographic map treatment facilities, intake structures, and outfalls.	☒	☐
9.	Site plan identifying significant site features.	☒	☐
10.	Line drawing / process flow diagram illustrating the flow of water and wastewater through the facility(ies), with a water balance.	☒	☐
11.	Chemical Additives Notification Form(s) (if applicable). **Not Applicable**	☐	☐
12.	Whole Effluent Toxicity Test Reports / WET Analysis Spreadsheet (if applicable). **N/A**	☐	☐
13.	Documentation supporting variance requests (if applicable) **Not Applicable**	☐	☐
14.	Preparedness, Prevention and Contingency (PPC) Plan (optional)	☐	☐
15.	Module 1 – Stormwater, and attachments (if applicable).	☒	☐
16.	Module 2 – Groundwater Remediation, and attachments (if applicable). **N/A**	☐	☐
17.	Module 3 – Aquatic Animal Production Facilities, and attachments (if applicable) **N/A**	☐	☐
18.	Module 4 – Anti-Degradation, and attachments (if applicable) **N/A**	☐	☐
19.	Module 5 – Cooling Water Intake Structures, and attachments (if applicable) **N/A**	☐	☐
20.	Optional site-specific data: _____	☐	☐

NPDES APPLICATION FOR PERMIT
TO DISCHARGE INDUSTRIAL WASTEWATER

3800-PM-BCW0008b Rev. 6/2019
Permit Application
pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

RECEIVED
SEP 18 2019
Department of Environmental Protection
Northwest Regional Office

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) APPLICATION FOR INDIVIDUAL PERMIT TO DISCHARGE INDUSTRIAL WASTEWATER

Before completing this form, please read the instructions (3800-PM-BCW0008a). FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN DENIAL OF THE APPLICATION.

Related ID#s (If Known)		DEP USE ONLY
Client ID# _____	APS ID# _____	Date Received:
Site ID# _____	Facility ID# _____	Permit No.:
		Auth ID: PDG?

GENERAL INFORMATION

Applicant/Operator Name	Tri-County Landfill, Inc.

☒ New Permit (Anticipated Discharge Date: see Narrative)
☐ Permit Renewal: NPDES No. PA _____
Permit Expiration Date: _____
Permit Renewal Application Due Date: _____
WQM Permit No(s).: _____
WQM Permit Issuance Date(s): _____
Currently Using eDMR System? ☐ Yes ☐ No Start Date: _____

25 Pa. Code § 92a.26 Fee Category
(See instructions for fees)
☐ Minor facility without ELG
☒ Minor facility with ELG
☐ Major facility < 250 MGD
☐ Major facility ≥ 250 MGD
☐ CAAP

Is applicant a "small business"?
☐ Yes ☒ No

Is there on-site sewage treatment facility? ☐ Yes ☒ No
If Yes, is the facility operated by operator(s) certified in compliance with the Operators Certification Act? ☐ Yes ☐ No

Describe the nature of the business or operations resulting in discharge(s): **Tri-County Landfill, Inc. is proposing to re-open the existing historic landfill to relocate the historic waste and accept new waste for disposal into a newly constructed lined municipal solid waste landfill expansion. Currently, the site has a waste-hauling operation and transfer station facility owned and operated by Tri-County Landfill Industries, Inc. (parent company of Tri-County Landfill, Inc.) These operations will continue to run in addition to the proposed landfill facility operations. The existing NPDES permit (PAR808328) is held by Tri-County Industries, Inc. for the stormwater discharges associated with runoff of the hauling and transfer station property (Outfalls 001, 002, 003). See Project Narrative for further details.**

SIC Code	Primary?	Description	NAICS Code	Primary?	Description
4953	X	Refuse systems - Landfill	562	X	Solid Waste Landfill

OTHER ENVIRONMENTAL PERMITS

Type of Permit	Agency That Issued Permit	Date Issued
NPDES Renewal Permit - PAR808328	Water Quality	6/6/2016
Solid Waste Operating Permit - 101678	Waste Management	Pending
Air Quality Operating Permit	Air Quality	Pending
Joint App. for Water Obstruction & Encroachment	Waterways Engineering and Wetlands	Pending

DISCHARGE INFORMATION

1. Attach a site plan, a line drawing with a water balance, and topographic map(s) that present the information requested in the instructions. Attached: ☒ Yes ☐ No

2. Total Hardness Upstream of Process Wastewater Outfall (mg/L): 270 Basis: Background Sample – See App D

3. List all discharge points (outfalls) and internal monitoring points (IMPs). If numbers were previously assigned in a permit, use those numbers. Order sequentially and use additional pages as necessary.

Outfall / IMP No.	LATITUDE			LONGITUDE			RECEIVING WATERS			
	Deg	Min	Sec	Deg	Min	Sec	Name of Receiving Waters	Ch. 93 Class.	Impaired?	TMDL?
004	N41	08	17	W80	14	42	Unnamed Tributary to Black Run	CWF	☒	☐
005	N41	08	12	W80	14	43	Replacement Wetlands that drain to unnamed Tributary to Black Run	CWF	☒	☐
006	N41	08	13	W80	08	20	Unnamed Tributary to Black Run	CWF	☒	☐
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4. List all outfalls and IMPs in the same order as in question 2, above, and provide the requested information. Attach additional pages as necessary. See instructions.

Outfall / IMP No.	DISCHARGE CHARACTERIZATION							Design Flow (MGD)	Average Flow During Production / Operation (MGD)	Maximum Flow During Production / Operation (MGD)
	Process	Non-Process	Stormwater	Sewage	Groundwater	AAPF	Combined			
004	☐	☐	☒	☐	☐	☐	☐	See Mod 1	N/A	N/A
005	☐	☐	☒	☐	☐	☐	☐	See Mod 1	N/A	N/A
006	☒	☐	☐	☒	☐	☐	☒	0.085	0.029	0.085
	☐	☐	☐	☐	☐	☐	☐			
	☐	☐	☐	☐	☐	☐	☐			
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	☐	☐	☐	☐	☐	☐	☐			

5. List all outfalls and IMPs in the same order as in questions 2 and 3, above, and provide the requested information. Attach additional pages as necessary. See instructions.

Outfall / IMP No.	Wastewater or Stormwater Description	Discharge Type	Frequency		Batch Discharges		
			Hours / Day	Days / Week	No. Discharge Cycles/Day	Length of Discharge Cycle (Hrs)	Batch Discharge Rate (MGD)
004	Stormwater	continuous	24	7	N/A	N/A	NA
005	Stormwater	continuous	24	7	N/A	N/A	N/A
006	Landfill Wastewater including, but not limited to, transfer station wastewater, truck wash, contaminated stormwater runoff and sanitary wastewater from onsite office and maintenance buildings.	continuous	24	7	N/A	N/A	N/A

Applicant Name:

TREATMENT FACILITY INFORMATION

Complete this sheet for each existing and proposed industrial waste, sewage and/or stormwater treatment facility (one sheet per facility).

Treatment Facility Name: Tri-County Landfill Leachate Treatment	Effluent Discharged To Outfall / IMP No.: 006

1. Provide a narrative description of the wastewater treatment process. Attach a line drawing or process flow diagram to the application.

   Specific leachate treatment to be determined.

2. List each treatment unit at the facility in sequential order of treatment.

Treatment Unit Description	Method for Handling and Disposal of Solid or Liquid Residue Resulting from Treatment
To be determined	Landfill

3. Describe any proposed upgrades to this treatment facility within the next five years.

   N/A

4. Identify all chemicals that have been used for wastewater treatment over the past two years.

Chemical Name	Purpose	Max Usage Rate	Units	Acrylamide?
TBD				☐
				☐
				☐
				☐
				☐
				☐
				☐

5. List any additional proposed wastewater treatment chemicals anticipated in the next five years.

Chemical Name	Purpose	Max Usage Rate	Units	Acrylamide?
TBD				☐
				☐
				☐
				☐

CHEMICAL ADDITIVES – Not applicable

1. Identify all chemical additives that have been introduced to any waste stream over the past two years.

Chemical Additive Name	Outfall / IMP No.	Purpose	Usage Frequency	Max Usage Rate	Units

2. List all chemical additives that the applicant is requesting approval to use upon issuance of the permit by DEP. Identify the point of introduction on a line or process diagram.

Chemical Additive Name	Outfall / IMP No.	Purpose	Proposed Usage Frequency	Proposed Max Usage Rate	Units

3. List all chemical additives in the same order as question 2, above, and provide the requested information. For chemical additives that are not on DEP's Approved List, submit New Chemical Additive Request Form(s) to DEP's Central Office. For chemical additives that are on DEP's Approved List but a Chemical Additives Notification Form was not previously submitted, attach a Chemical Additives Notification Form to the application.

Chemical Additive Name	On Approved List?	Notification Form Attached?	Notification Form Previously Submitted?	Notification Form Submission Date	Analytical Method
	☐	☐	☐		
	☐	☐	☐		
	☐	☐	☐		
	☐	☐	☐		
	☐	☐	☐		
	☐	☐	☐		

PRODUCTION DATA FOR EFFLUENT LIMITATION GUIDELINES (ELGs)

Complete this section for each production line with an applicable ELG. See instructions and use additional sheets as necessary.

1. Production line and process description: **Municipal Waste Landfill**
2. Applicable ELG: 40 CFR: **445** Subpart: **B**
3. Is this production considered a new source? ☒ Yes ☐ No
4. Outfall / IMP No. receiving wastewater: **006**
5. Units of production measurement for ELG: mg/L
6. Design production capacity: **4,000 tons/day; Maximum Daily Volume 4,000 tpd**
7. Complete the table below for the five last years of production. Report production data using the same units of measurement as reported in question 5.

Parameter	Production Years – Landfill not currently operating				
	20-TYPICAL	20	20	20	20
Total Annual Production	1,248,000 tons				
Max Monthly Production	108,000 tons				
Month of Max Production	Mar, May, Aug				
Avg Annual Production	1,248,000 tons				
Avg Production Hours/Day	24				
Avg Production Days/Month	26				
Avg Annual Water Usage (MGD)	N/A				
Avg Annual Wastewater Flow (MGD)	28,804 gpd based on sampling results from Seneca Landfil				

8. Average annual production over the past five years: **N/A** Units:
9. Anticipated average annual production for the next five years: **See above** Units:
10. Explain the basis for the anticipated average annual production for the next five years:

The average annual production is based on the average daily volume (ADV) of waste acceptance rate and days of operation proposed for the Tri-County Landfill as included in their Solid Waste Permit application. This ADV of 4,000 TPD and the anticipated days of operation are assumed to be typical production as the Landfill is not currently operating.

11. Attach any pertinent information from the applicable ELG in 40 CFR that would allow DEP to appropriately determine technology-based effluent limitations. ****Preliminary Effluent Limitations were provided for Tri-County Landfill in a Draft NPDES provided on October 27, 2011. A copy of the Draft NPDES permit is provided in Appendix A**

ANTI-DEGRADATION

If the applicant is proposing a new or increased discharge to High Quality (HQ) or Exceptional Value (EV) waters, Module 4 (Anti Degradation Module) must be attached to the application. In addition, for HQ waters only, if the analysis concludes that the new or increased discharge will produce a measurable change in water quality, a social or economic justification (SEJ) must be attached if the applicant desires approval for the discharge.

1. Is the Anti-Degradation Module (Module 4) attached to the application? ☐ Yes ☒ No
2. Is a social or economic justification (SEJ) (HQ waters only) attached to the application? ☐ Yes ☒ No

VARIANCES

If the applicant is requesting a variance authorized under federal regulations at 40 CFR 122.21(m), complete the section below and attach to this application documentation necessary under federal regulations to support the variance request.

1. Description of variance requested: N/A
2. Federal regulation authorizing the variance: _____
3. Supporting documentation attached to the application? ☐ Yes ☐ No

LABORATORY INFORMATION

Did an off-site laboratory perform any of the analyses required by this application? ☒ Yes ☐ No
If Yes, provide the information below.

Name	**Centre Analytical Laboratories, Inc.**	Analyses Performed: Analysis of sample of raw leachate obtained from Piezometer 29 at the Tri-County Landfill on May 25, 2000
Address	**3048 Research Drive, State College, PA 16801**	
Phone	**(814) 231-8032**	
Name	**Geochemical Testing**	Analyses Performed: Analysis of samples of raw leachate discharg from the Seneca Landfill, as well as Total Hardness from receiving stream.
Address	**2005 N Center Ave, Somerset, PA 15501**	
Phone	**(814)** 443-1671	
Name	**Pace Analytical Services, Inc.**	Analyses Performed: Seneca Landfill effluent sampling for NPDES renewal application parameters.
Address	**1638 Roseytown Rd., Greenburg, PA 15601**	
Phone	**(724) 850-5600**	
Name	**Environmental Service Laboratories, Inc..**	Analyses Performed: Seneca Landfill effluent sampling for NPDES renewal, BOD5, sulfide, sulfite
Address	**1803 Philadelphia St. Indiana, PA 15701**	
Phone	**(724) 463-8378**	
Name	**Pace Analytical Services, Inc.**	Analyses Performed: Seneca Landfill effluent sampling for NPDES renewal 2,3,7,8 TCDD.
Address	**1700 Elm St., Minneapolis, MN 55414**	
Phone	**(612) 607-1700**	
Name	**Pace Analytical Services, Inc.**	Analyses Performed: Seneca Landfill effluent sampling for NPDES renewal n-Decane, n-Octadecane, Pyridiene, a-Terpineol
Address	**1000 Riverbend Blvd. St. Rose, LA 70087**	
Phone	**(504) 469-0333**	
Name	**Zande Environmental Services, Inc.**	Analyses Performed: Analysis of sample of raw leachate obtained from Piezometer 29 at the Tri-County Landfill on Sept 19, 1994
Address	**1255 Dublin Rd., Columbus, OH 43215**	
Phone	**(814) 486-4585**	

COMPLIANCE HISTORY REVIEW

Is the facility owner or operator in violation of any DEP regulation, permit, order or schedule of compliance at this or any other facility?
☐ Yes ☒ No

If Yes, list each permit, order or schedule of compliance and provide compliance status. Use additional sheets as necessary.

Permit Program:		Permit No.:	
Permit Program:		Permit No.:	
Permit Program:		Permit No.:	

Brief Description of Non-Compliance:

Currently, Tri-County Landfill, Inc. and Tri-County Industries, Inc. are in compliance. A Complete Compliance History Review was completed with the Annual Operations Report submitted June 20, 2019.

Steps Taken to Achieve Compliance	Date(s) Compliance Achieved

Current Compliance Status: ☒ In Compliance ☐ In Non-Compliance

POLLUTANT IDENTIFICATION AND ANALYSIS

1. Summary of Required Analyses (see instructions):

Outfall / IMP No.	Pollutant Groups which must be sampled for and analyzed							Other Pollutants Analyzed
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	
006	☒	☒	☒	☒	☒	☒	☐	
	☐	☐	☐	☐	☐	☐	☐	
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2. Is screening for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) required? ☐ Yes ☐ No **TCL is not currently constructed, but it was completed for Seneca Landfill NPDES renewal, see App G for results**

Method used: **1613B**

Describe results: **No Detection for all three results completed in 2012 for Seneca Landfill's Outfall 001 process water effluent (assumed comparable to TCL Outfall 006 discharge)**

3. Other Potentially Toxic Pollutants Known or Expected to be Present in the Discharge.

a. GC/MS "Five Peaks" Pollutants (see instructions).

Outfall / IMP No.	Group Number (3 - 6)	Chemical or Compound Name	Quantitation Limit (µg/L)	Avg Effluent Concentration (µg/L)	Max Effluent Concentration (µg/L)	No. Samples Positive / No. Analyzed
						/
						/
						/
						/
						/

The Tri-County Landfill has not been constructed yet and the leachate qualities are unknown. It is unknown if any other constituents will be present in the leachate or discharged through Outfall 006. Please refer to Seneca Landfill's effluent discharge laboratory analysis for information from a comparable existing facility, Appendix G.

b. Other Potential Pollutants.

Outfall / IMP No.	Chemical Substance or Compound Name	Reason/Suspected Reason for Presence in Discharge	Avg Concentration (µg/L)	Indicate if Presence is Known (K) or Suspected (S)

☐ If additional peaks were not available for one or more groups with the method used check here and attach an explanation of why the method was selected.

4. Additional Analysis Results Tables may be attached to provide any of the optional site-specific information discussed in Appendix A of the instructions.
Optional site-specific data is attached to this application? ☐ Yes ☒ No

WHOLE EFFLUENT TOXICITY

1. Summarize the results of all Whole Effluent Toxicity (WET) tests completed in the last five years (or attach a separate sheet with these results). If required by the NPDES permit, attach a copy of DEP's WET Analysis Spreadsheet to the application (electronic transmission to DEP is acceptable) that provides replicate data for all species tested and for the most recent four consecutive tests.

   Outfall No. Tested: **N/A**

   Type of tests completed: ☐ Chronic ☐ Acute

   Dilution series used: %, %, %, %, and % effluent

   Target Instream Waste Concentration (TIWC): % effluent

Test Date	Ceriodaphnia Results (% Effluent)			Pimephales Results (% Effluent)			Pass or Fail
	Survival NOEC	Reproduction NOEC	LC50	Survival NOEC	Growth NOEC	LC50	

2. Describe the status of any Phase I or II Toxicity Reduction Evaluation (if applicable):

PREPAREDNESS, PREVENTION AND CONTINGENCY (PPC) PLAN

The applicant may optionally attach its PPC Plan or related plan to the application. This information may be useful to DEP in completing its review of the application. If the PPC Plan is not attached to the application, DEP may request submission of the Plan during the review. Electronic transmission of large PPC Plans is encouraged.

Type or Description of Plan (e.g., PPC, SPCC, etc.)	Attached?	Date of Latest Plan Update
PPC Plan – Included in Form L of the Waste Management Permit Application for Tri-County Landfill	☐	**November 2018**
	☐	
	☐	

COOLING WATER INTAKE STRUCTURES – Not Applicable

1. Does the facility use cooling water? ☐ Yes ☒ No If no, the rest of this section may remain blank

2. Identify the source(s) of cooling water: ☐ Surface water ☐ Groundwater ☐ Treated effluent
☐ Public water system (Potable): PWS ID: _____ ☐ Public water system (Raw): PWS ID: _____
☐ Independent supplier: _____ ☐ Other: _____

3. Facility Type: ☐ New Facility ☐ New Offshore O&G Facility ☐ Existing Facility ☐ Facility below 2 MGD or 25% cooling

4. Is Module 5 is attached to this application? ☐ Yes ☐ No

5. Number of CWISs at facility:

6. CWIS Flow Data:

CWIS ID No.	DIF (MGD)	AIF (MGD)	Max Screen Velocity (fps)	% Used for Cooling	% Mean Annual Flow

7. Type of CWIS Location:

CWIS ID No.	Type (check box):				
	☐ Intake Canal	☐ Embayment, Bank or Cove	☐ Submerged Offshore Intake	☐ Near-shore Submerged Intake	☐ Shoreline Submerged Intake
	☐ Intake Canal	☐ Embayment, Bank or Cove	☐ Submerged Offshore Intake	☐ Near-shore Submerged Intake	☐ Shoreline Submerged Intake
	☐ Intake Canal	☐ Embayment, Bank or Cove	☐ Submerged Offshore Intake	☐ Near-shore Submerged Intake	☐ Shoreline Submerged Intake

8. Describe all Impingement Control Technologies employed:

9. Describe all Entrainment Control Technologies employed:

10. Has the facility conducted any impingement or entrainment studies in the last 10 years? ☐ Yes ☐ No If yes, attach the results

11. Attach any information required by your current permit to the application (existing facilities only)

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 1

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50)

POLLUTANT GROUP 1 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
BOD_5 (mg/L)	135*	32.43	--	--	87.45*	21.0	2	0	1	405.1
COD (mg/L)	7,800	1,873	--	--	6475	1555	4	0	5	HACH 8000
TOC (mg/L)	2,590	622	--	--	1860	447	4	0	100	sM185310C
TSS (mg/L)	2,280*	548	--	--	1263.5*	303.5	2	0	1	160.2
Ammonia-Nitrogen (mg/L)	1480	355	--	--	1185	285	4	0	0.04	350.1
Temperature (Winter) (°F)	Not available	XXX	--	XXX	--	XXX	--	XXX	XXX	
Temperature (Summer) (°F)	Not available	XXX	--	XXX	--	XXX	--	XXX	XXX	
pH – Minimum (S.U.)	6.73	XXX	XXX	XXX	6.8	XXX	2	XXX	XXX	130.1
pH – Maximum (S.U.)	7.94	XXX	XXX	XXX	7.76	XXX	4	XXX	XXX	SM4500-H+B
Fecal Coliform (No./100 mL)	No Data	XXX	--	XXX	No Data	XXX	--	--	XXX	
Oil and Grease (mg/L)	No Data		--	--	No Data	--	--	--	--	
TRC (mg/L)	No Data	XXX	--	XXX	No Data	XXX	--	--	--	
Total Phosphorus (mg/L)	2.22*	0.53	--	--	1.43*	0.34	2	0	0.05	365.1
TKN (mg/L)	418*	100.4	--	--	316*	75.9	2	0	0.2	351.2
Nitrite + Nitrate-Nitrogen (mg/L)	0.15	0.04	--	--	<0.09	<0.02	4	1	0.05	353.2
Total Dissolved Solids (mg/L)	12,600	3026	--	--	11,685	2807	4	0	1	SM 2540C
Color (Pt-Co Units)	No Data	XXX	--	XXX	No Data	XXX	--	--	--	
Bromide (mg/L)	No Data	--	--	--	No Data	--	--	--	--	
Chloride (mg/L)	No Data	--	--	--	No Data	--	--	--	--	
Sulfate (mg/L)	53.6*	12.9	--	--	<31.8*	<7.64	2	1	1	375.4
Sulfide (mg/L)	No Data	--	--	--	No Data	--	--	--	--	
Surfactants (mg/L)	No Data	--	--	--	No Data	--	--	---	---	
Fluoride (mg/L)	79.4	19	--	--	41.1	9.9	4	2	0.1	300
Total Hardness (mg/L)	848*	203.7	--	--	746*	179.2	2		1	150.1

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 2

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50)

POLLUTANT GROUP 2 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Aluminum, Total (µg/L)	10300*	2.47	–	–	5553*	1.33	2		50	200.7
Antimony, Total (µg/L)	14.5*	0.003	–	–	8.41*	2.02	2		1	239.2
Arsenic, Total (µg/L)	310	0.07	–	–	260	0.06	4		1	200.7
Barium, Total (µg/L)	1910	0.46	–	–	1550	0.37	4		10	200.7
Beryllium, Total (µg/L)	6.2*	0.001	–	–	4.1*	0.98	2		1	200.7
Boron, Total (µg/L)	4250*	1.02	–	–	2900*	0.70	2		50	200.7
Cadmium, Total (µg/L)	12.2*	0.003	–	–	8.1*	1.95	2		1	200.7
Chromium, Total (µg/L)	300	0.07	–	–	245	0.06	4		1	200.7
Chromium, Hexavalent (µg/L)	<5*	–	–	–	<5*	–	2	2	5	210.5
Cobalt, Total (µg/L)	82	0.02	–	–	69.5	0.02	2		40	200.7
Copper, Total (µg/L)	70	0.02	–	–	55	0.01	4		10	200.7
Cyanide, Total (µg/L)	112*	0.03	–	–	58.5*	0.01	2	1	10	335.3
Iron, Total (µg/L)	93300	22	–	–	55825	13.41	4		40	200.7
Iron, Dissolved (µg/L)	20400*	5	–	–	–	–	1		40	200.7
Lead, Total (µg/L)	337*	0.081	–	–	168.7*	0.04	2	1	1	239.2
Manganese, Total (µg/L)	6730	1.62	–	–	5655	1.36	4		10	200.7
Mercury, Total (µg/L)	<0.40	–	–	–	<0.30	–	4	4	0.2	SM 3112B
Molybdenum, Total (µg/L)	No Data	No Data	–	–	No Data	No Data	–			
Nickel, Total (µg/L)	630	0.15	–	–	587.5	0.14	4		40	200.7
Phenols, Total (µg/L)	4800	1.153	–	–	2255	0.54	4		15	420.2
Selenium, Total (µg/L)	30	0.01	–	–	12.5	0.003	4	3	1	200.7
Silver, Total (µg/L)	<1.0*	–	–	–	<1.0*	–	2	2	1	272.2
Thallium, Total (µg/L)	2.2*	0.001	–	–	1.2*	0.0003	2	1	1	279.2
Zinc, Total (µg/L)	870	0.21	–	–	690	0.17	1		10	200.7

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 3 (PAGE 1 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50)

POLLUTANT GROUP 3 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Acrolein (µg/L)	ND	ND	--	--	ND	ND	ND	--	ND	ND
Acrylonitrile (µg/L)	<5	<0.0012	--	--	<5	<0.0012	4	4	5	8260B
Benzene (µg/L)	30*	0.007	--	--	22*	0.005	2	0	5	8260B
Bromoform (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
Carbon Tetrachloride (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
Chlorobenzene (µg/L)	15*	0.004	--	--	7.5*	0.002	2	1	5	8260B
Chlorodibromomethane (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
Chloroethane (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
2-Chloroethylvinyl Ether (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
Chloroform (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
Dichlorobromomethane (µg/L)	<5	<0.0012	--	--	<5	<0.0012	4	4	5	8260B
1,1-Dichloroethane (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
1,2-Dichloroethane (µg/L)	3.5	0.001	--	--	2.7	0.001	4	0	5	8260B
1,1-Dichloroethylene (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
1,2 Dichloropropane (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
1,3-Dichloropropylene (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
1,4-Dioxane (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
Ethylbenzene (µg/L)	215*	0.052	--	--	150*	0.036	2	0	5	8260
Methyl Bromide (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
Methyl Chloride (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
Methylene Chloride (µg/L)	10.8	0.003	--	--	6.1	0.001	4	0	5	8260B
1,1,2,2-Tetrachloroethane (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
Tetrachloroethylene (µg/L)	<1*	<0.0002	--	--	<1*	<0.002	1	1	1	8260

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 3 (PAGE 2 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50)

POLLUTANT GROUP 3 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Toluene (µg/L)	103*	0.025	--	--	73*	0.018	2	0	5	8260B
1,2-Trans-Dichloroethylene (µg/L)	<5	<0.0012	--	--	<5	<0.0012	4	4	5	8260B
1,1,1-Trichloroethane (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
1,1,2-Trichloroethane (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	1	8260B
Trichloroethylene (µg/L)	<1*	<0.0002	--	--	<1*	<0.0002	1	1	1	8260B
Vinyl Chloride (µg/L)	1.0	0.0002	--	--	0.3	<0.0001	4	3	1	8260B

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 4

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50

POLLUTANT GROUP 4 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
2-Chlorophenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270
2,4-Dichlorophenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270
2,4-Dimethylphenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270
4,6-Dinitro-o-Cresol (µg/L)	<26*	<0.0024	--	--	<26	<0.0024	1	1	26	8270
2,4-Dinitrophenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270
2-Nitrophenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270
4-Nitrophenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270
P-Chloro-m-Cresol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270
Pentachlorophenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270
Phenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
2,4,6-Trichlorophenol (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	1	1	10	8270

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 5 (PAGE 1 OF 3)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50)

POLLUTANT GROUP 5 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Acenaphthene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Acenaphthylene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Acrylamide (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
Anthracene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0023	2	2	10	8270
Benzidine (µg/L)	<26*	<0.0061	--	--	<26*	<0.0061	2	2	26	8270
Benzo(*a*)Anthracene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Benzo(*a*)Pyrene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
3,4-Benzo-fluoranthene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Benzo(*ghi*)Perylene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Benzo(*k*)Fluoranthene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Bis(2-*Chloro-ethoxy*)Methane (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Bis(2-*Chloroethyl*)Ether (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Bis(2-*Chloro-isopropyl*)Ether (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Bis(2-*Ethylhexyl*)Phthalate (µg/L)	59*	0.0138	--	--	59*	0.0138	1	-	10	8270
4-Bromophenyl Phenyl Ether (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Butyl Benzyl Phthalate (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
2-Chloronaphthalene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
4-Chlorophenyl Phenyl Ether (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Chrysene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 5 (PAGE 2 OF 3)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ **Outfall / IMP Number** 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50

POLLUTANT GROUP 5 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Dibenzo(*a,h*)Anthracene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
1,2-Dichlorobenzene (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	5	8260B
1,3- Dichlorobenzene (µg/L)	<1	<0.0002	--	--	<1	<0.0002	4	4	5	8260B
1,4- Dichlorobenzene (µg/L)	14.0	0.0034	--	--	12.4	0.0030	4	0	5	8260B
3,3'-Dichlorobenzidine (µg/L)	<26*	<0.0061	--	--	<26*	<0.0061	2	2	26	8270
Diethyl Phthalate (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Dimethyl Phthalate (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Di-n-Butyl Phthalate (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
2,4-Dinitrotoluene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
2,6-Dinitrotoluene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Di-n-Octyl Phthalate (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
1,2-Diphenylhydrazine (as *Azobenzene)* (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Fluoranthene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Fluorene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Hexachlorobenzene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Hexechlorobutadiene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Hexachlorocyclopentadiene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Hexachloroethane (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 5 (PAGE 3 OF 3)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ **Outfall / IMP Number** _____ (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50)

POLLUTANT GROUP 5 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Indeno(*1,2,3-cd*)Pyrene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Isophorone (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Naphthalene (µg/L)	28*	0.0065	--	--	14*	0.0033	2	1	10	8270
Nitrobenzene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
N-Nitroso-di-methylamine (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
N-Nitroso-di-n-propylamine (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
N-Nitroso-di-n-phenylamine (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Phenanthrene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
Pyrene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270
1,2,4-Trichlorobenzene (µg/L)	<10*	<0.0024	--	--	<10*	<0.0024	2	2	10	8270

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 6 (PAGE 1 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50)

POLLUTANT GROUP 6 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Aldrin (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Alpha BHC (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Beta BHC (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Gamma BHC (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Delta BHC (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Chlordane (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081
4,4'-DDT (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
4,4'-DDE (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
4,4'-DDD (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Dieldrin (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Alpha- Endosulfan (µg/L)	0.65	0.0002	--	--	0.65	0.0002	1	0	0.02	8081
Beta-Endosulfan (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Endosulfan Sulfate (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Endrin (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Endrin Aldehyde (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Heptachlor (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Heptachlor Epoxide (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
PCB -1242 (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
PCB -1254 (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 6 (PAGE 2 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50)

POLLUTANT GROUP 6 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
PCB-1221 (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
PCB-1232 (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
PCB-1248 (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
PCB-1260 (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
PCB-1016 (µg/L)	No Data	--	--	--	No Data	--	--	--	--	--
Toxaphene (µg/L)	<1.02*	<0.0002			<1.02*	<0.0002	1	1	1.02	8081

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 7

Please read instructions carefully before completing this form.

APPLICANT NAME	Not Applicable

☐ Outfall / IMP Number _____ (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☐ New Discharge (Basis for Information: _____)

POLLUTANT GROUP 7 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Gross Alpha (pCi/L)		XXX		XXX						
Beta, Total (pCi/L)		XXX		XXX						
Radium 226/228, Total (pCi/L)										
Strontium, Total (µg/L)										
Uranium, Total (µg/L)										
Osmotic Pressure (mOsm/kg)		XXX		XXX						
Additional Parameters										

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 1

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 1 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
BOD_5 (mg/L)	28	6.8	--	--	5.9	1.0	23	9	2.0	
COD (mg/L)	836	166	--	--	748	153	3	0		
TOC (mg/L)	2340	466			879	178	3	0	3.1 -- 15.7	SM 5310C
TSS (mg/L)	80	18.2	--	--	23	4.5	35	2	4.0	
Ammonia-Nitrogen (mg/L)	12.3	2.7	--	--	4.0	0.81	35	0		
Temperature (Winter) (°F)	87	XXX	--	XXX	76.9	XXX	60	XXX	XXX	
Temperature (Summer) (°F)	83.3	XXX	--	XXX	78.9	XXX	63	XXX	XXX	
pH – Minimum (S.U.)	6.3	XXX	XXX	XXX		XXX	continuous	XXX	XXX	
pH – Maximum (S.U.)	8.9	XXX	XXX	XXX		XXX	continuous	XXX	XXX	
Fecal Coliform (No./100 mL)	460	XXX		XXX	73	XXX	21	8	XXX	SM 9222D
Oil and Grease (mg/L)	10.9	2.07			0.5	0.099	21	20	4.8	1664A
TRC (mg/L)	ND	XXX		XXX	ND	XXX	3	3	.29	SM 4500-CL G
Total Phosphorus (mg/L)	0.38	0.072			0.24	0.047	3	0		
TKN (mg/L)	21.7	4.3			16.9	3.4	3	0		
Nitrite + Nitrate-Nitrogen (mg/L)	264	55.4			254	52.1	3	0		
Total Dissolved Solids (mg/L)	8670	1648	--	--	7900	1613	3	0		
Color (Pt-Co Units)	7000	XXX	--	XXX	3500	XXX	3	0	100	SM2120B
Bromide (mg/L)	37.4	8.5			34.1	7.05	3	0	12.5	300.0
Chloride (mg/L)	No Data	No Data			No Data	No Data	-	-	-	-
Sulfate (mg/L)	147	31.8			122	25.3	3	0	8.4	ASTM D516-9002
Sulfide (mg/L)	ND	ND			ND	ND	3	3	1.0	SM 4500-SO3B
Surfactants (mg/L)	ND	ND			ND	Nd	3	3	.29	SM 5540C
Fluoride (mg/L)	ND	ND			ND	ND	3	3	2.5	300.0
Total Hardness (mg/L)	767	171	--	--	757	155	3	0		

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 2

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 2 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Aluminum, Total (µg/L)	2600	59.1	-	-	1322	27.7	3	0	1300	200.7
Antimony, Total (µg/L)	21.4	0.0004	-	-	14.0	0.0003	3	0	3.3	200.7
Arsenic, Total (µg/L)	13.8	0.0003	-	-	10.9	0.0002	3	0	3.6	200.7
Barium, Total (µg/L)	125	2.7	-	-	111	2.3	3	0	320	200.7
Beryllium, Total (µg/L)	ND	ND	-	-	ND	ND	3	3	0.24	200.7
Boron, Total (µg/L)	25300	536	-	-	22900	470	3	0	3400	200.7
Cadmium, Total (µg/L)	ND	ND	-	-	ND	ND	3	3	1.3	200.7
Chromium, Total (µg/L)	14	0.00032	-	-	5	0.0001	3	2	10	Trivalent Cr calc
Chromium, Hexavalent (µg/L)	ND	ND	-	-	ND	ND	3	3	54	SM 3500 CrD
Cobalt, Total (µg/L)	807	15	-	-	295	5.7	3	0	1600	200.7
Copper, Total (µg/L)	30.7	0.0006	-	-	21.2	0.0004	3	0	2	200.7
Cyanide, Total (µg/L)	32	0.0064	-	-	24	0.0048	3	0	2.7	335.4
Iron, Total (µg/L)	5830	74	-	-	2030	29.9	4	0	38.1	200.7
Iron, Dissolved (µg/L)	230	5.22	-	-	213	4.4	3	0	38.1	200.7
Lead, Total (µg/L)	ND	ND	-	-	ND	ND	3	3	3.2	200.7
Manganese, Total (µg/L)	531	10.1	-	-	394	7.5	3	0	2.3	200.7
Mercury, Total (µg/L)	ND	ND	-	-	ND	ND	3	3	0.025	245.1
Molybdenum, Total (µg/L)	108	2.11	-	-	95.1	1.95	3	0	3.6	200.7
Nickel, Total (µg/L)	465	0.009	-	-	406	0.008	3	0	1.4	200.7
Phenols, Total (µg/L)	ND	ND	-	-	ND	ND	3	3	21	420.1
Selenium, Total (µg/L)	14.7	0.0003	-	-	4.9	0.0001	3	2	3.3	200.7
Silver, Total (µg/L)	ND	ND	-	-	ND	ND	3	3	1.6	200.7
Thallium, Total (µg/L)	ND	ND	-	-	ND	ND	3	3	3.9	200.7
Zinc, Total (µg/L)	133	0.0035	-	-	81.9	0.0016	9	0	1.4	200.7

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 3 (PAGE 1 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 3 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Acrolein (µg/L)	ND	ND	-	-	ND	ND	3	3	6.1	624
Acrylonitrile (µg/L)	ND	ND	-	-	ND	ND	3	3	13.3	624
Benzene (µg/L)	ND	ND	-	-	ND	ND	3	3	1.9	624
Bromoform (µg/L)	ND	ND	-	-	ND	ND	3	3	2.5	624
Carbon Tetrachloride (µg/L)	ND	ND	-	-	ND	ND	3	3	4.0	624
Chlorobenzene (µg/L)	ND	ND	-	-	ND	ND	3	3	1.7	624
Chlorodibromomethane (µg/L)	ND	ND	-	-	ND	ND	3	3	1.4	624
Chloroethane (µg/L)	ND	ND	-	-	ND	ND	3	3	8.0	624
2-Chloroethylvinyl Ether (µg/L)	ND	ND	-	-	ND	ND	3	3	2.1	624
Chloroform (µg/L)	ND	ND	-	-	ND	ND	3	3	1.7	624
Dichlorobromomethane (µg/L)	ND	ND	-	-	ND	ND	3	3	1.9	624
1,1-Dichloroethane (µg/L)	ND	ND	-	-	ND	ND	3	3	2.0	624
1,2-Dichloroethane (µg/L)	ND	ND	-	-	ND	ND	3	3	2.5	624
1,1-Dichloroethylene (µg/L)	ND	ND	-	-	ND	ND	3	3	2.3	624
1,2 Dichloropropane (µg/L)	ND	ND	-	-	ND	ND	3	3	1.8	624
1,3-Dichloropropylene (µg/L)	ND	ND	-	-	ND	ND	3	3	2.4	624
1,4-Dioxane (µg/L)	No data	No data	-	-	No data	No data	No data	-	-	-
Ethylbenzene (µg/L)	ND	ND	-	-	ND	ND	3	3	1.3	624
Methyl Bromide (µg/L)	ND	ND	-	-	ND	ND	3	3	3.5	624
Methyl Chloride (µg/L)	ND	ND	-	-	ND	ND	3	3	2.7	624
Methylene Chloride (µg/L)	ND	ND	-	-	ND	ND	3	3	3.2	624
1,1,2,2-Tetrachloroethane (µg/L)	ND	ND	-	-	ND	ND	3	3	1.6	624
Tetrachloroethylene (µg/L)	ND	ND	-	-	ND	ND	3	3	1.7	624

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 3 (PAGE 2 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ **Outfall / IMP Number** 006 (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 3 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Toluene (µg/L)	ND	ND	-	-	ND	ND	3	3	1.9	624
1,2-Trans-Dichloroethylene (µg/L)	ND	ND	-	-	ND	ND	3	3	1.9	624
1,1,1-Trichloroethane (µg/L)	ND	ND	-	-	ND	ND	3	3	1.3	624
1,1,2-Trichloroethane (µg/L)	ND	ND	-	-	ND	ND	3	3	2.2	624
Trichloroethylene (µg/L)	ND	ND	-	-	ND	ND	3	3	2.3	624
Vinyl Chloride (µg/L)	ND	ND	-	-	ND	ND	3	3	2.0	624

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 4

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 4 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
2-Chlorophenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.21	625 low level
2,4-Dichlorophenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.26	625 low level
2,4-Dimethylphenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.33	625 low level
4,6-Dinitro-o-Cresol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.26	625 low level
2,4-Dinitrophenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.34	625 low level
2-Nitrophenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.27	625 low level
4-Nitrophenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.40	625 low level
P-Chloro-m-Cresol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.24	625 low level
Pentachlorophenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.29	625 low level
Phenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.27	625 low level
2,4,6-Trichlorophenol (µg/L)	ND	ND	-	-	ND	ND	3	3	0.26	625 low level

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 5 (PAGE 1 OF 3)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 5 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Acenaphthene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.27	625 low level
Acenaphthylene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.21	625 low level
Acrylamide (µg/L)	No Data	No Data	-	-	No Data	No data	-	-	-	-
Anthracene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.21	625 low level
Benzidine (µg/L)	ND	ND	-	-	ND	ND	3	3	104	625 low level
Benzo(*a*)Anthracene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.24	625 low level
Benzo(*a*)Pyrene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.26	625 low level
3,4-Benzo-fluoranthene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.20	625 low level
Benzo(*ghi*)Perylene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.40	625 low level
Benzo(*k*)Fluoranthene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.26	625 low level
Bis(2-*Chloro-ethoxy*)Methane (µg/L)	ND	ND	-	-	ND	ND	3	3	0.23	625 low level
Bis(*2-Chloroethyl*)Ether (µg/L)	ND	ND	-	-	ND	ND	3	3	0.30	625 low level
Bis(*2-Chloro-isopropyl*)Ether (µg/L)	ND	ND	-	-	ND	ND	3	3	0.23	625 low level
Bis(*2-Ethylhexyl*)Phthalate (µg/L)	ND	ND	-	-	ND	ND	3	3	0.45	625 low level
4-Bromophenyl Phenyl Ether (µg/L)	ND	ND	-	-	ND	ND	3	3	0.27	625 low level
Butyl Benzyl Phthalate (µg/L)	ND	ND	-	-	ND	ND	3	3	0.29	625 low level
2-Chloronaphthalene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.25	625 low level
4-Chlorophenyl Phenyl Ether (µg/L)	ND	ND	-	-	ND	ND	3	3	0.23	625 low level
Chrysene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.24	625 low level

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 5 (PAGE 2 OF 3)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ **Outfall / IMP Number 006** (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: **Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G**)

POLLUTANT GROUP 5 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Dibenzo(*a,h*)Anthracene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.47	625 low level
1,2-Dichlorobenzene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.26	625 low level
1,3- Dichlorobenzene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.28	625 low level
1,4- Dichlorobenzene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.30	625 low level
3,3'-Dichlorobenzidine (µg/L)	ND	ND	-	-	ND	ND	3	3	0.18	625 low level
Diethyl Phthalate (µg/L)	ND	ND	-	-	ND	ND	3	3	0.25	625 low level
Dimethyl Phthalate (µg/L)	ND	ND	-	-	ND	ND	3	3	0.29	625 low level
Di-n-Butyl Phthalate (µg/L)	ND	ND	-	-	ND	ND	3	3	0.25	625 low level
2,4-Dinitrotoluene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.24	625 low level
2,6-Dinitrotoluene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.27	625 low level
Di-n-Octyl Phthalate (µg/L)	ND	ND	-	-	ND	ND	3	3	0.29	625 low level
1,2-Diphenylhydrazine (as *Azobenzene)* (µg/L)	ND	ND	-	-	ND	ND	3	3	1.0	625 low level
Fluoranthene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.22	625 low level
Fluorene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.21	625 low level
Hexachlorobenzene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.26	625 low level
Hexechlorobutadiene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.34	625 low level
Hexachlorocyclopentadiene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.19	625 low level
Hexachloroethane (µg/L)	ND	ND	-	-	ND	ND	3	3	0.32	625 low level

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 5 (PAGE 3 OF 3)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number _____ (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 5 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Indeno(*1,2,3-cd*)Pyrene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.50	625 low level
Isophorone (µg/L)	ND	ND	-	-	ND	ND	3	3	0.21	625 low level
Naphthalene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.24	625 low level
Nitrobenzene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.48	625 low level
N-Nitroso-di-methylamine (µg/L)	ND	ND	-	-	ND	ND	3	3	0.29	625 low level
N-Nitroso-di-n-propylamine (µg/L)	ND	ND	-	-	ND	ND	3	3	0.21	625 low level
N-Nitroso-di-n-phenylamine (µg/L)	ND	ND	-	-	ND	ND	3	3	0.21	625 low level
Phenanthrene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.23	625 low level
Pyrene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.28	625 low level
1,2,4-Trichlorobenzene (µg/L)	ND	ND	-	-	ND	ND	3	3	0.29	625 low level

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 6 (PAGE 1 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 6 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Aldrin (µg/L)	ND	ND	-	-	ND	ND	3	3	0.052	608
Alpha BHC (µg/L)	ND	ND	-	-	ND	ND	3	3	0.052	608
Beta BHC (µg/L)	ND	ND	-	-	ND	ND	3	3	0.052	608
Gamma BHC (µg/L)	ND	ND	-	-	ND	ND	3	3	0.052	608
Delta BHC (µg/L)	ND	ND	-	-	ND	ND	3	3	0.052	608
Chlordane (µg/L)	ND	ND	-	-	ND	ND	3	3	0.52	608
4,4'-DDT (µg/L)	ND	ND	-	-	ND	ND	3	3	0.10	608
4,4'-DDE (µg/L)	ND	ND	-	-	ND	ND	3	3	0.10	608
4,4'-DDD (µg/L)	ND	ND	-	-	ND	ND	3	3	0.10	608
Dieldrin (µg/L)	ND	ND	-	-	ND	ND	3	3	0.10	608
Alpha- Endosulfan (µg/L)	0.17	0.0	-	-	0.15	0.0	3	0	0.052	608
Beta-Endosulfan (µg/L)	ND	ND	-	-	ND	ND	3	3	0.052	608
Endosulfan Sulfate (µg/L)	ND	ND	-	-	ND	ND	3	3	0.10	608
Endrin (µg/L)	ND	ND	-	-	ND	ND	3	3	0.10	608
Endrin Aldehyde (µg/L)	ND	ND	-	-	ND	ND	3	3	0.10	608
Heptachlor (µg/L)	ND	ND	-	-	ND	ND	3	3	0.052	608
Heptachlor Epoxide (µg/L)	ND	ND	-	-	ND	ND	3	3	0.052	608
PCB -1242 (µg/L)	ND	ND	-	-	ND	ND	3	3	0.032	608
PCB -1254 (µg/L)	ND	ND	-	-	ND	ND	3	3	0.015	608

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 6 (PAGE 2 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ Outfall / IMP Number 006 (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: Sample Analyses based on effluent sampling from Seneca Landfill's NPDES renewal application, See App G)

POLLUTANT GROUP 6 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
PCB-1221 (µg/L)	ND	ND	-	-	ND	ND	3	3	0.030	608
PCB-1232 (µg/L)	ND	ND	-	-	ND	ND	3	3	0.051	608
PCB-1248 (µg/L)	ND	ND	-	-	ND	ND	3	3	0.061	608
PCB-1260 (µg/L)	ND	ND	-	-	ND	ND	3	3	0.031	608
PCB-1016 (µg/L)	ND	ND	-	-	ND	ND	3	3	0.032	608
Toxaphene (µg/L)	ND	ND	-	-	ND	ND	3	3	1.0	608

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 7

Please read instructions carefully before completing this form.

APPLICANT NAME	Not Applicable

☐ Outfall / IMP Number _____ (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☐ New Discharge (Basis for Information: _____)

POLLUTANT GROUP 7 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Gross Alpha (pCi/L)		XXX		XXX						
Beta, Total (pCi/L)		XXX		XXX						
Radium 226/228, Total (pCi/L)										
Strontium, Total (µg/L)										
Uranium, Total (µg/L)										
Osmotic Pressure (mOsm/kg)		XXX		XXX						
Additional Parameters										

OTHER TOXIC POLLUANTS AND HAZARDOUS SUBSTANCES TABLE

Other Pollutants Which Must Be Identified If Known Or Expected To Be Present in Discharges

Please read instructions carefully before completing this form

Outfall No.	Chemical Substance or Compound	Reason for Presence in Discharge	Avg Effluent Concentration (µg/L)	Max Effluent Concentration (µg/L)	No. of Analyses	Quantitation Limit (µg/L)

The Tri-County Landfill has not been constructed yet and the leachate qualities are unknown. It is unknown if any other constituents will be present in the leachate or discharged through Outfall 006. Please refer to Seneca Landfill's effluent discharge laboratory analysis for information from a comparable existing facility, Appendix G.

Is the applicant requesting a hazardous substance spill reporting requirement exemption for any of the substances listed in Attachment A, Table 3 of the instructions?

☐ Yes ☒ No (If Yes, attach the information specified in the instructions).

CERTIFICATION AND SIGNATURE OF APPLICANT

I certify under penalty of law that this document and all attachments and modules were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Edward R. Vogel	Vice President
Name (Type or Print Legibly)	**Official Title**
Edward R Vogel	9-9-19
Signature	**Date**

DOCUMENT REVISION HISTORY

Date	Revision Reason
March 2019	Added fourth row for SIC and NAICS codes; removed corporate/professional seal request; corrected typo in Production Data for Effluent Limitation Guidelines (ELGs) Section; updated Cooling Water Intake Structures section.
January 2019	Updated Cooling Water Intake Structures section; removed option for Stormwater only permits from fee category section on page 1.
August 2017	Corrected units for Osmotic Pressure
November 2016	Updated topographic map requirements; added requirement to report upstream hardness; changed sampling requirements for TCDD; Expanded 316(b) section to include information requirements for facilities below 2 MGD or 25% water used for cooling.
May 2016	Moved 1,4-Dioxane from Pollutant Group 5 Results Analysis Table to Group 3.

MODULE 1
STORMWATER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM APPLICATION FOR INDIVIDUAL PERMIT TO DISCHARGE INDUSTRIAL WASTEWATER

MODULE 1 – STORMWATER

1. **Applicant/Operator Name:** **Tri-County Landfill, Inc.**

2. List all outfalls receiving stormwater in whole or in part and provide the requested information.

Outfall No.	Entirely Stormwater?	Drainage Area (ft^2)	% Impervious	Description of Materials/Activities in Drainage Area Exposed to Precipitation	No Exposure?
004	☒	80.7 ac		runoff from construction of landfill cells and from earth berms	☐
005	☒	80.7 ac		runoff from construction of landfill cells and from earth berms	☐
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3. List all outfalls receiving stormwater in the same order as question 2, above, and provide the requested information.

Outfall No.	Sampling Completed?	Representative Outfall No.	Treatment?	Description of BMPs in Drainage Area to Control Pollutants in Stormwater	PCSM?
004	☐	004	☐	Sediment No. 1 designed to provide settling and controlled discharge	☐
005	☐	005	☐	Feeder pipe outlet from sediment basin No. 1 to wetlands	☐
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The Sediment Basin which contributes to both Outfalls 004 and 005 has not been built yet. Therefore no sampling was performed because there is no discharge.

4. All non-stormwater discharges from these outfall(s) are identified in the Discharge Information section of the application?
☒ Yes ☐ No ☐ There are no non-stormwater discharges associated with these outfalls (If No, attach an explanation)

5. If there have been leaks or spills on-site within the past five years that have reached stormwater outfall(s), identify the outfall(s) receiving the leaks or spills, the substance(s) released, measures taken to remediate the incident(s) and preventative measure(s) taken to reduce the possibility of future incidents. Attach additional sheets as necessary.

No leaks or spills

6. Describe how often stormwater outfalls are inspected and routine maintenance performed, if not identified in question 3.

The outfalls do not currently exist. As landfill and sedimentation basin are constructed, they will be inspected and maintained in accordance with the PCSM plan.

STORMWATER SAMPLING RESULTS

Complete the following tables for each stormwater outfall sampled for analysis.

OUTFALL NO.:	004, 005

1. You must provide the results of at least one analysis for every pollutant identified in the table below.

Pollutant	Average Concentration		Maximum Concentration		No. Storm Events Sampled	Quantitation Limit
	Grab Sample	Flow-Weighted Composite Sample	Grab Sample	Flow-Weighted Composite Sample		
Oil and Grease (mg/L)						
BOD5 (mg/L)						
COD (mg/L)						
TSS (mg/L)						
Total Nitrogen (mg/L)						
Total Phosphorus (mg/L)						
pH (S.U.)	Min:	Max:	Min:	Max:		XXX

The Sediment Basin which contributes to both Outfalls 004 and 005 has not been built yet. No samples are provided.

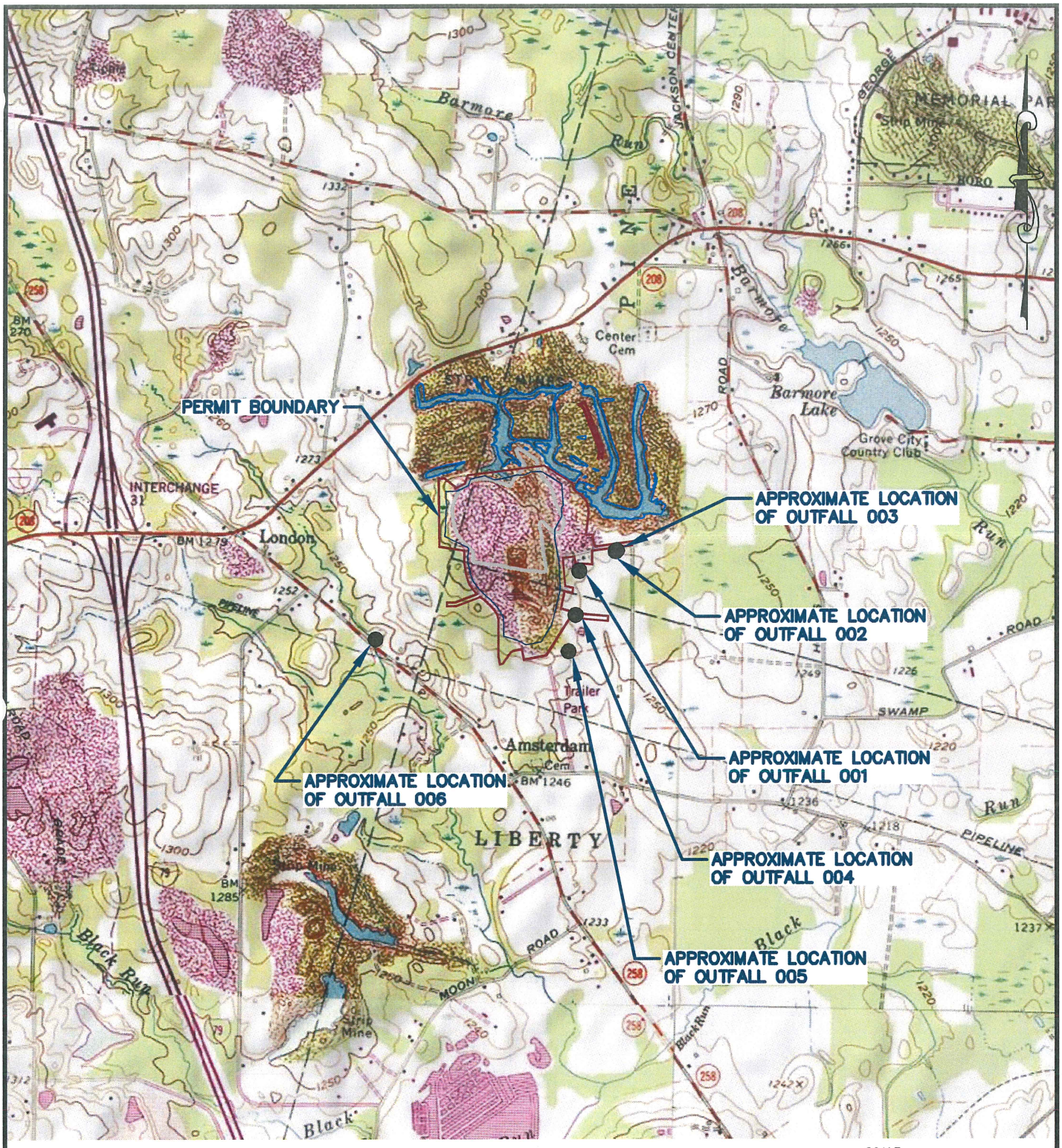
2. List all pollutants contained within an Effluent Limitation Guideline (ELG) that is applicable to the facility's production. Also list all pollutants listed in the facility's existing NPDES permit for the outfall identified above; process wastewater discharges; and any other pollutants that are considered the cause of impairment to waters receiving stormwater discharges from the outfall. Provide the results of at least one analysis for every pollutant listed. Specify the units with your results (e.g., mg/L).

The following effluent limitations were taken from 40 CFR Subchapter N. Title 40 – Protection of Environment, Part 445 – LANDFILLS POINT SOURCE CATEGORY, 445.21 – Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).

Pollutant	Average Concentration		Maximum Concentration		No. Storm Events Sampled	Quantitation Limit
	Grab Sample	Flow-Weighted Composite Sample	Grab Sample	Flow-Weighted Composite Sample		
BOD5			140 mg/L			
TSS			88 mg/L			
Ammonia (as N)			10 mg/L			
α –Terpineol			0.033 mg/L			
Benzoic acid			0.12 mg/L			
ρ – Cresol			0.025 mg/L			
Phenol			0.026 mg/L			
Zinc			0.20			
pH			6-9 pH units			

The Sediment Basin which contributes to both Outfalls 004 and 005 has not been built yet. No samples are provided.

FIGURES



MAP TAKEN FROM U.S.G.S. 7.5 MINUTE,
MERCER, PA QUADRANGLE

SCALE
2000 1000 0 2000
SCALE 1" =2000'

BAI GROUP

TRI-COUNTY LANDFILL, INC.

TRI-COUNTY LANDFILL
NPDES APPLICATION

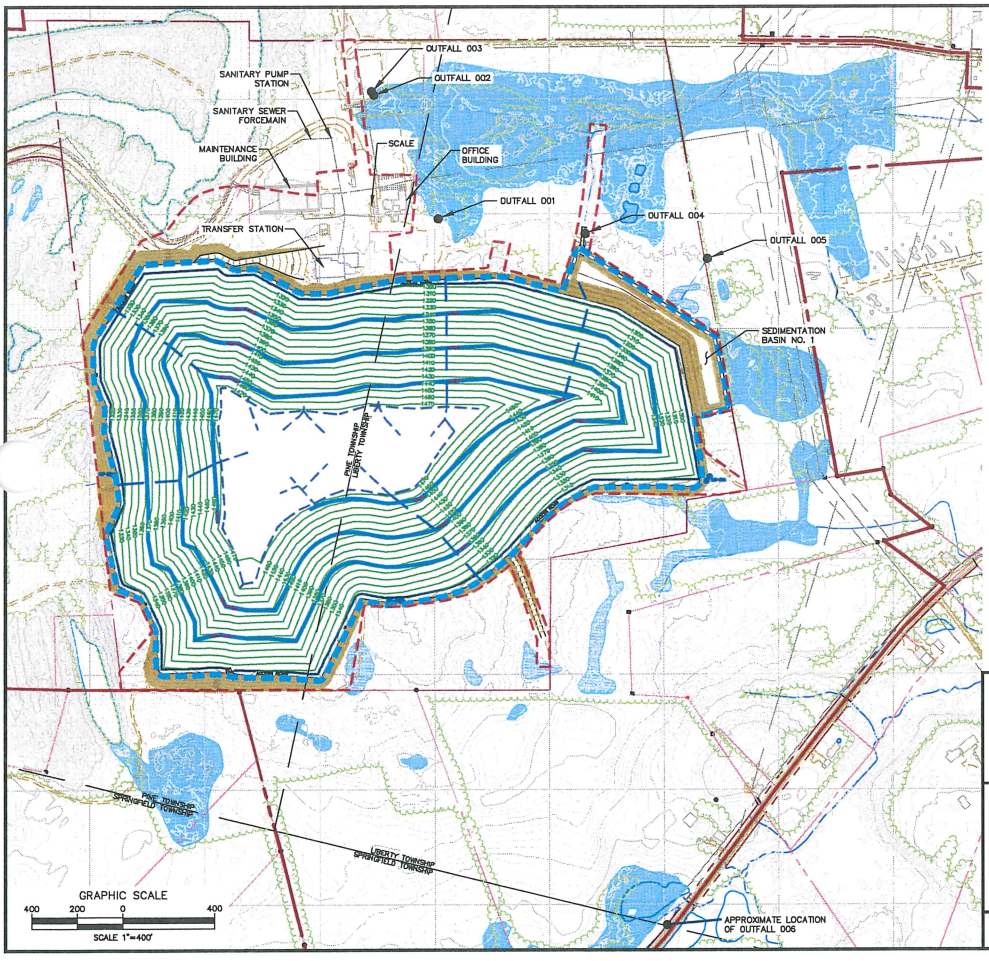
PINE/LIBERTY TOWNSHIPS MERCER COUNTY PENNSYLVANIA

TOPOGRAPHIC FACILITY AND OUTFALL LOCATION MAP

DATE:	8/22/19
DRAWN BY: SWH	CHECKED: LAV
BAI DRAWING NO:	VOG-094A003

State College Office (814) 238-2060 • Delaware Valley Office (610) 495-5585

FIGURE 1



NOTES

1. AERIAL TOPOGRAPHY RETRIEVED FROM EASTERN MAPPING COMPANY DATED JUNE, 1988 AND AMENDED BY J.D. NEWCOMER, PLS DATED JUNE, 1991 RELATIVE TO 1990 ANNUAL OPERATIONS REPORT DOCUMENT.
2. PROPOSED PERMIT BOUNDARY WAS TAKEN FROM THE TRI-COUNTY LANDFILL, INC. APPLICATION FOR PERMIT EXPANSION PHASE II DRAWING SET PREPARED BY YOUCHAK & YOUCHAK, INC. OF PITTSBURGH, PA. AUGUST, 2003, REVISED DECEMBER, 2004.
3. WHERE ONLY THE PERMIT BOUNDARY LINE IS PRESENTED ON THIS DRAWING, THE PERMIT BOUNDARY LINE AND THE PROPERTY LINES ARE IN FACT POSITIONED AT THE SAME LOCATION.

LEGEND

- PROJECT PROPERTY PROPERTY LINE
- ADJACENT PROPERTY LINE
- PROPOSED LANDFILL PERMIT BOUNDARY
- TOWNSHIP LINE
- EXISTING CONTOURS (C.I.=2')
- EXISTING ROADS
- 1470 PROPOSED FINAL GRADE CONTOUR (C.I.=2')
- PROPOSED TERRACE LOCATION
- LETDOWN PIPE
- DRAINAGE AREA

BAI GROUP

REVISIONS

TRI-COUNTY LANDFILL, INC.

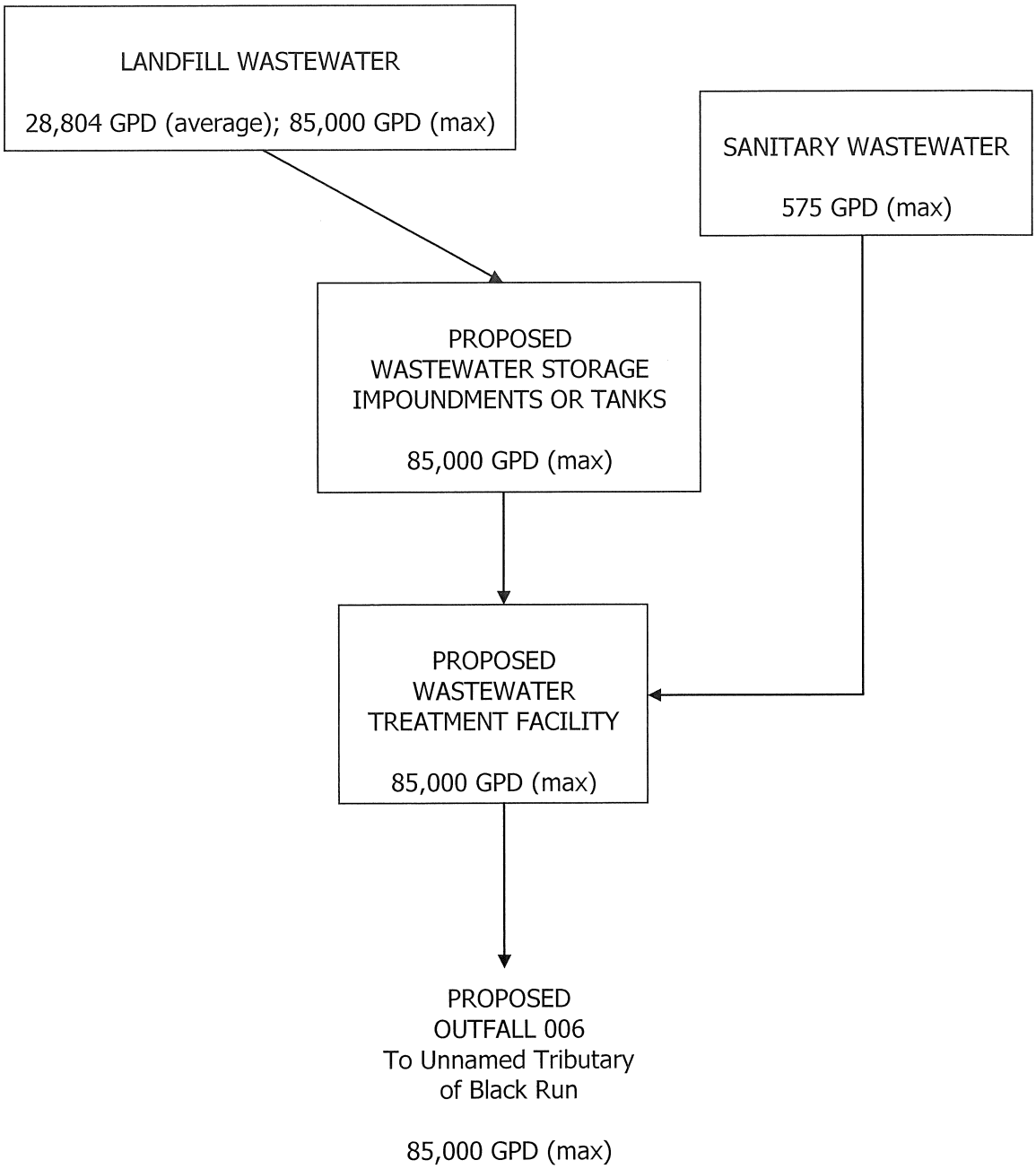
TRI-COUNTY LANDFILL
NPDES APPLICATION
PINE/LIBERTY TOWNSHIPS MERCER COUNTY PENNSYLVANIA

OUTFALL LOCATION AND DRAINAGE AREA

DATE:	08-22-19
DRAWN BY:	SWH
CHECKED:	LAV
BAI DRAWING NO:	VOGEL-094B007
SHEET NO.	FIGURE 2

State College Office (814) 238-2060 • Delaware Valley Office (610) 495-5585

Tri-County Landfill, Inc.
Schematic Flow Diagram for Outfall 006
NPDES Permit Application



APPENDICES

APPENDIX A

PA DEP INDUSTRIAL WASTE PRELIMINARY EFFLUENT LIMITS

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Northwest Regional Office

October 27, 2011

Edward Vogel
Vice President
Tri County Landfill Inc.
159 TCI Park Drive
Grove City, PA 16127

Re: Industrial Waste
Tri County Landfill
Application No. PA0263664
APS ID No. 710507
Liberty Township, Mercer County

Dear Mr. Vogel:

We have prepared the enclosed draft National Pollutant Discharge Elimination System (NPDES) permit for review and comment.

Also enclosed are copies of a public notice that we will publish in the Pennsylvania Bulletin. You are required, by Department regulations, to post copies of this notice near the entrance to your property and near the discharge site. These postings shall remain for 30 days.

Please note that on October 9, 2010, new NPDES regulations at 25 Pa. Code Chapter 92a became effective. These regulations represent an extensive reorganization of Chapter 92 such that it follows the organization of the corresponding Federal regulations set forth in 40 CFR Part 122. The regulations also set forth a new NPDES fee structure designed to cover the Commonwealth's share of administering the NPDES program and several new provisions incorporating recent requirements established under the Federal program have been added. Please review your permit closely so that you are familiar with the changes that resulted from these new regulations.

As you are aware, the Solid Waste Permit application for your landfill is contingent upon being able to meet the effluent limits and conditions included in this draft permit. Prior to the Waste Program completing their review of the landfill application, sufficient information must be provided to the Department to prove the applicant will have the ability to properly treat and discharge the landfill leachate. This may include preliminary design plans, bench scale testing, manufacturer's documentation, or any other additional information.

Please review the draft permit carefully. Your written comments on the draft permit, if received within 30 days of publication in the Pennsylvania Bulletin, will be considered during preparation of the final permit.

Sincerely,

Robert P. Hutchinson

Robert P. Hutchinson
Permits Section
Water Management Program

Enclosures

cc: James B. Echard, P.E., Blazosky Associates, Inc.
Monitoring & Compliance
Waste Management
NPDES File

NPDES PUBLIC NOTICE

Application for National Pollutant Discharge Elimination System (NPDES) Permit to Discharge to State Waters

Northwest Regional Office: Regional Water Management Program Manager, 230 Chestnut Street, Meadville, PA 16335-3481, Telephone: 814.332.6942.

PA0263664, Industrial Waste, SIC Code 4953, Tri County Landfill Inc., 159 TCI Park Drive, Grove City, PA 16127. Facility Name: Tri County Landfill. This proposed facility is located in Liberty & Pine Townships, Mercer County.

Description of Proposed Activity: The application is for a new NPDES permit for a new discharge of treated municipal landfill leachate, truck wash water, sanitary sewage and stormwater.

The receiving streams are unnamed tributaries to Black Run located in State Water Plan watershed 20-C and are classified for cold water fishes, aquatic life, water supply and recreation. The discharge is not expected to affect public water supplies.

The proposed effluent limits for Outfall 001 are based on a design flow of 0.085 MGD.

Parameters	Mass (lb/day)		Concentration (mg/l)			
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0
Dissolved Oxygen	XXX	XXX	6.0	XXX	XXX	XXX
Total Residual Chlorine	XXX	XXX	XXX	0.23	XXX	0.53
BOD5	Report	Report	XXX	37	140	140
Total Suspended Solids	Report	Report	XXX	27	88	88
Oil and Grease	XXX	XXX	XXX	15	XXX	30
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000
Ammonia-Nitrogen May 1 - Oct 31	1.06	2.13	XXX	1.5	3.0	3.8
Ammonia-Nitrogen Nov 1 - Apr 30	3.2	6.4	XXX	4.5	9.0	11
Total Aluminum	0.36	0.72	XXX	0.51	1.02	1.28
Total Antimony	0.004	0.01	XXX	0.006	0.012	0.015
Total Arsenic	0.01	0.02	XXX	0.011	0.022	0.028
Total Barium	1.84	3.69	XXX	2.6	5.2	6.5
Total Boron	1.21	2.41	XXX	1.7	3.4	4.2
Total Cadmium	0.01	0.02	XXX	0.012	0.024	0.03
Total Cobalt	0.01	0.03	XXX	0.02	0.04	0.05
Total Copper	0.04	0.08	XXX	0.053	0.106	0.13
Free Available Cyanide	0.004	0.01	XXX	0.0055	0.011	0.014
Total Iron	1.13	2.3	XXX	1.6	3.2	4.0
Total Mercury	0.00004	0.00008	XXX	0.000053	0.00011	0.00013
Total Nickel	0.01	0.02	XXX	0.015	0.03	0.038
Total Zinc	Report	Report	XXX	0.11	0.2	0.28
Phenol	Report	Report	XXX	0.015	0.026	0.038
a-Terpineol	Report	Report	XXX	0.016	0.033	0.040
Benzene	0.02	0.03	XXX	0.023	0.046	0.058
Benzoic Acid	Report	Report	XXX	0.071	0.12	0.18
1,2-Dichloroethane	0.0005	0.001	XXX	0.0007	0.0014	0.0018
Bis(2-Ethylhexyl)Phthalate	0.002	0.0033	XXX	0.0023	0.0046	0.0058
p-Cresol	Report	Report	XXX	0.014	0.025	0.035

In addition, the permit contains the following major special conditions:

- Chlorine Minimization
- Effective Disinfection
- Stormwater Best Management Practices

- Electronic DMR reporting requirement
- Land Use/Zoning

You may make an appointment to review the DEP files on this case by calling the File Review Coordinator at 814-332-6340.

The EPA Waiver is in effect.

APPENDIX B

COUNTY AND TOWNSHIP NOTIFICATION LETTERS

2525 Green Tech Drive Suite D, State College PA 16803 • 814.238.2060

Balanced Environmental Solutions

September 9, 2019

Liberty Township Supervisors
2873 Mercer Butler Pike
Grove City, PA 16127

RE: Application for NPDES Permit for Wastewater Treatment Plant Approval for Expansion of Tri-County Landfill, Inc. - Pine Township and Liberty Township, Mercer County, Pennsylvania

Dear Supervisors:

On behalf of Tri-County Landfill, Inc. (TCL), this letter hereby provides notification of submittal of an application to the Pennsylvania Department of Environmental Protection (PaDEP), Water Management Program. The application requests a Water Quality Management National Pollutant Discharge Elimination System (NPDES) Permit for stormwater and treated wastewater effluent from Tri-County Landfill.

TCL intends to submit an application, as required by the Pennsylvania Department of Environmental Protection (PADEP) for the discharge of treated wastewater from a proposed treatment facility at the Tri-County Landfill, Inc. Landfill in Pine and Liberty Townships, Mercer County, Pennsylvania. This letter hereby provides notification of that action. Discharges from stormwater facilities are also proposed. You have a 30-day period during which to submit comments to the PADEP.

Pursuant to Act 14, the local municipality and county have a 30-day period during which written or verbal comments can be made to the Pennsylvania Department of Environmental Protection. Comments should be submitted to:

Water Management
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335-3481
814/332-6940

Copies of the application will be available for public review and copying at the above PaDEP office. An appointment should be made with PaDEP to review the application.

Sincerely,

BAI Group

Laura A Vallett

Laura A Vallett, P.E.
Project Engineer

Cc: Dave Balog – PaDEP Water Management

UNITED STATES POSTAL SERVICE

September 13, 2019

Dear Sue Fox:

The following is in response to your request for proof of delivery on your item with the tracking number: **7016 3010 0001 0495 5389**.

Item Details

Status:	Delivered, Left with Individual
Status Date / Time:	September 11, 2019, 10:32 am
Location:	GROVE CITY, PA 16127
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Signature of Recipient:	Brenda Heck
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Sincerely,
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Balanced Environmental Solutions

September 9, 2019

Pine Township Supervisors
545 Barkeyville Road
Grove City, PA 16127

RE: Application for NPDES Permit for Wastewater Treatment Plant Approval for Expansion of Tri-County Landfill, Inc. - Pine Township and Liberty Township, Mercer County, Pennsylvania

Dear Supervisors:

On behalf of Tri-County Landfill, Inc. (TCL), this letter hereby provides notification of submittal of an application to the Pennsylvania Department of Environmental Protection (PaDEP), Water Management Program. The application requests a Water Quality Management National Pollutant Discharge Elimination System (NPDES) Permit for stormwater and treated wastewater effluent from Tri-County Landfill.

TCL intends to submit an application, as required by the Pennsylvania Department of Environmental Protection (PADEP) for the discharge of treated wastewater from a proposed treatment facility at the Tri-County Landfill, Inc. Landfill in Pine and Liberty Townships, Mercer County, Pennsylvania. This letter hereby provides notification of that action. Discharges from stormwater facilities are also proposed. You have a 30-day period during which to submit comments to the PADEP.

Pursuant to Act 14, the local municipality and county have a 30-day period during which written or verbal comments can be made to the Pennsylvania Department of Environmental Protection. Comments should be submitted to:

Water Management
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335-3481
814/332-6940

Copies of the application will be available for public review and copying at the above PaDEP office. An appointment should be made with PaDEP to review the application.

Sincerely,

BAI Group

Laura A Vallett, P.E.
Project Engineer

Cc: Dave Balog – PaDEP Water Management

UNITED STATES POSTAL SERVICE

September 11, 2019

Dear Sue Fox:

The following is in response to your request for proof of delivery on your item with the tracking number: **7016 3010 0001 0495 5372**.

Item Details

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Recipient Signature

Signature of Recipient:	T. Matthews
Address of Recipient:	545 Barkley

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2525 Green Tech Drive Suite D, State College PA 16803 • 814.238.2060

Balanced Environmental Solutions

September 9, 2019

Mercer County Commissioners
Mercer County Courthouse
Mercer, PA 16137

RE: Application for NPDES Permit for Wastewater Treatment Plant Approval for Expansion of Tri-County Landfill, Inc. - Pine Township and Liberty Township, Mercer County, Pennsylvania

Dear Commissioners:

On behalf of Tri-County Landfill, Inc. (TCL), this letter hereby provides notification of submittal of an application to the Pennsylvania Department of Environmental Protection (PaDEP), Water Management Program. The application requests a Water Quality Management National Pollutant Discharge Elimination System (NPDES) Permit for stormwater and treated wastewater effluent from Tri-County Landfill.

TCL intends to submit an application, as required by the Pennsylvania Department of Environmental Protection (PADEP) for the discharge of treated wastewater from a proposed treatment facility at the Tri-County Landfill, Inc. Landfill in Pine and Liberty Townships, Mercer County, Pennsylvania. This letter hereby provides notification of that action. Discharges from stormwater facilities are also proposed. You have a 30-day period during which to submit comments to the PADEP.

Pursuant to Act 14, the local municipality and county have a 30-day period during which written or verbal comments can be made to the Pennsylvania Department of Environmental Protection. Comments should be submitted to:

Water Management
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335-3481
814/332-6940

Copies of the application will be available for public review and copying at the above PaDEP office. An appointment should be made with PaDEP to review the application.

Sincerely,

BAI Group

Laura A Vallett, P.E.
Project Engineer

Cc: Dave Balog – PaDEP Water Management

UNITED STATES POSTAL SERVICE

September 11, 2019

Dear Sue Fox:

The following is in response to your request for proof of delivery on your item with the tracking number: **7016 3010 0001 0495 5365**.

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Shipment Details

Weight:	1.0oz

Recipient Signature

Signature of Recipient:	Betty J McCurdy BJ Curdy
Address of Recipient:	Court House

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Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
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Washington, D.C. 20260-0004

APPENDIX C
NEWSPAPER PUBLIC NOTICE

This newspaper notice will be published in The Herald, a newspaper of general circulation in Mercer County where the facility is located, once a week for four consecutive weeks. Proof of publication will be submitted to the Department upon receipt.

Display Advertisement

Tri-County Landfill, Inc. is providing notice that on or about August 23rd, 2019 a National Pollutant Discharge Elimination System (NPDES) Permit Application will be submitted to the Pennsylvania Department of Environmental Protection (PADEP). The application is a "replacement application" to revise previously submitted documents for the discharge of treated wastewater from a proposed treatment facility at the Tri-County Landfill facility and address modifications to the design and plans of the Landfill. The facility is located in Pine and Liberty Townships, Mercer County, Pennsylvania.

This application is made under the provisions of the Clean Streams Law, the Act of June 22, 1937, P.L. 1987, as amended. The application will be available for review and copying at the PaDEP Northwest Regional Office, 230 Chestnut Street, Meadville, PA 16335 between the hours of 8:00 A.M. to 4:00 P.M. Arrangements for reviewing the application can be made by telephoning the PaDEP Regional Office at (814) 332-6945. Fees for copying may be charged by the PaDEP. Copies of the application will also be submitted to Pine and Liberty Townships and the Mercer County Commissioners. Persons who wish to comment on this application should contact the PaDEP at the address noted.

APPENDIX D

TRI-COUNTY LANDFILL TOTAL HARDNESS BACKGROUND SAMPLING RESULTS

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Tuesday, September 3, 2019

Elizabeth Bertha
SENECA LANDFILL INC.
421 HARTMANN ROAD
EVANS CITY, PA 16033

Order No.: G1908F83

Dear Elizabeth Bertha:

Geochemical Testing received 1 sample(s) on 8/27/2019 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *03-Sep-19*

CLIENT: SENECA LANDFILL INC.
Project:
Lab Order: G1908F83

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative ND - Not Detected
MCL - Contaminant Limit J - Indicates an estimated value.
Q - Qualifier QL -Quantitation Limit DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
E - Value above quantitation range
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *03-Sep-19*

CLIENT:	SENECA LANDFILL INC.	**Client Sample ID:**	006-I
Lab Order:	G1908F83		
Project:		**Sampled By:**	BAI Group
Lab ID:	G1908F83-001	**Collection Date:**	8/26/2019 9:30:00 AM
Matrix:	SURFACE WATER	**Received Date:**	8/27/2019 10:47:30 AM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
INORGANIC METALS		Analyst: **AVH**				**EPA 200.2**	**EPA 200.7**
Calcium	82.4	0.1		mg/L	1	08/28/19 11:40 AM	08/29/19 11:08 PM
Magnesium	15.6	0.1		mg/L	1	08/28/19 11:40 AM	08/29/19 11:08 PM
Hardness (SM 2340B)	270	1.0		mg/L CaCO3	1	08/28/19 11:40 AM	08/29/19 11:08 PM

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

APPENDIX E

SENECA LANDFILL LEACHATE ANALYSIS
(FORM 50S)

2540-FM-BWM0158 Rev. 10/2010

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
01/05/2017
DEP USE ONLY
Date Received

FORM 50
MUNICIPAL WASTE LANDFILL
LEACHATE ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 50, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.255(d) and (e) and 273.276(a)
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. SITE IDENTIFIER

Applicant/permittee Seneca Landfill, Inc.

Site Name Seneca Landfill

Facility ID (as issued by DEP) 100403

SECTION B. FACILITY INFORMATION

Facility Name: Seneca Landfill

Sampling Point Identification Pump House, Pump House

Location: County Butler Municipality: Jackson Township

Sampling Point: Latitude: 80 ° 04 ' 32 . 0 " Longitude: 40 ° 48 ' 36 . 0 "

Sampling Method: ☐ Pumped ☐ Bailed ☑ Grab

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☑ No

Sample Date (mm/dd/yy) 12/12/16 Sample Collection Time: 11:00

Sample Collector's Name: Scott

Sample Collector's Affiliation: Seneca Landfill

Laboratory(ies) Performing Analysis: Geochemical Testing

Laboratory Certification Number(s): 56-00306

Lab Sample Number(s): G1612615-001, G1612615-001 Final Lab Analysis Completion Date: 01/03/2017

Were Any Holding Times Exceeded? ☐ Yes ☑ No If Yes, please explain in comments field.

Name/Affiliation of Person Who Filled Out Form Geochemical Testing

Comments:

2540-FM-BWM0158 Rev. 10/2010

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 50
QUARTERLY MUNICIPAL WASTE LANDFILL LEACHATE ANALYSES

Monitoring Point No. Pump House, Pump H
Sample Date 12/12/16
I.D. No. 100403

For new facilities and cells as well as existing facilities which were permitted and which received waste after April 9, 1988, discharge flow volume from leachate collection shall be measured daily [273.276(a)(1)]. Discharge flow volume from the detection zone shall be estimated weekly [273.255(d)(2)]. Form 50 is due quarterly after the flow of leachate from the collection system has started. For facilities or cells which have received no waste since April 9, 1988, detection zone monitoring will meet permit/closure requirements.

Cell 2A-11-12 Cell 2B-3A-3B Cell 1A-1B-4-5-6-7-8-9A-9B-10A-10B

FLOW FACTOR	LEACHATE DISCHARGE	DETECTION ZONE DISCHARGE		
Volume (average gpd)	20,220.30	14.95	37.46	9.38
Area Drained (acres)	72.71	72.71	72.71	72.71
Ratio (gallons/acre/day)	278.10	0.21	0.52	0.13

Once leachate flow begins from a leachate collection system, leachate discharge will be analyzed quarterly for all analytes listed below. In the leachate detection zone, any fluid found in any detection zone monitoring point must be sampled during the initial four quarters for the leachate indicator parameters (designated by *, below) to establish a baseline fluid composition. Thereafter, any fluid detected in each monitoring point in the leachate detection zone must be sampled annually for the leachate indicator parameters. Quarterly sampling of the fluid in any detection zone monitoring point for leachate indicator parameters is required only when the quarterly flow at that monitoring point exceeds 10 gallons per acre per day (weekly average for the quarter) for the cell(s) served by that monitoring point. If the indicator analytes confirm leachate contamination in the detection zone, the fluid will be analyzed initially within 30 days and thereafter annually for all analytes listed below. When MCL's (where established) of any detection zone analytes on this form are exceeded, annual groundwater monitoring must include the Subtitle D detection zone add-on list analytes found on Form 19.

ANALYTE (mg/l unless otherwise indicated)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
1.* Alkalinity, Total	p	6460	6460	ASTM D 1067-06
2.* Ammonia-Nitrogen	p	1000	1000	EPA 350.1
3.* Bicarbonate (as $CaCO_3$)	p	6400	6400	SM 4500-CO2 D
4.* Calcium, Total	p	94.0	94.0	EPA 200.7
5.* Chemical Oxygen Demand	p	3800	3800	HACH 8000
6.* Chloride (Cl)	p	612	612	EPA 300.0
7.* Magnesium, Total	p	172	172	EPA 200.7
8.* pH, Field, (Standard Units)	p			
9.* pH, Laboratory, (Standard Units)	p	7.94	7.94	SM 4500-H+ B
10.* Potassium, Total	p	633	633	EPA 200.7
11.* Specific Conductance, Field (micromhos/cm)	p			
12.* Specific Conductance, Laboratory (micromhos/cm)	p	21100	21100	EPA 120.1
13.* Sodium, Total	p	3060	3060	EPA 200.7
14.* Sulfate, Total	p	< 20	< 20	EPA 300.0
15.* Total Organic Carbon (TOC)	p	1020	1020	SM 5310 C
16. Fluoride	p	2.8	2.8	EPA 300.0
17. Iron, Total	p	17.5	17.5	EPA 200.7
18. Manganese, Total	p	1.03	1.03	EPA 200.7
19. Nitrate-Nitrogen	p	0.15	0.15	EPA 353.2

† Please indicate detection limit if analyte is not detected.

FORM 50

Monitoring Point No. Pump House, Pump H
Sample Date 12/12/16
I.D. No. 100403

	ANALYTE		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
20.	Phenolics, Total (mg/l)	p	0.5	0.5	EPA 420.1
21.	Total Dissolved Solids (mg/l)	p	9840	9840	SM 2540 C
22.	Tritium (pCi/L)#		57500+/-5300	N/A	EPA 906.0
23.	Turbidity (mg/l)	p	50.0	50.0	EPA 180.1
24.	Antimony, Total (µg/l)	d	20	20	EPA 200.7
25.	Arsenic, Total (µg/l)		230	230	EPA 200.7
26.	Barium, Total (µg/l)		1300	1300	EPA 200.7
27.	Beryllium, Total (µg/l)	d	< 1	< 1	EPA 200.7
28.	Cadmium, Total (µg/l)		< 2	< 2	EPA 200.7
29.	Chromium, Total (µg/l)		230	230	EPA 200.7
30.	Cobalt, Total (µg/l)	d	59	59	EPA 200.7
31.	Copper, Total (µg/l)		40	40	EPA 200.7
32.	Lead, Total (µg/l)		30	30	EPA 200.7
33.	Mercury, Total (µg/l)	p	< 0.40	< 0.40	SM 3112 B
34.	Nickel, Total (µg/l)	d	550	550	EPA 200.7
35.	Selenium, Total (µg/l)		< 20	< 20	EPA 200.7
36.	Silver, Total (µg/l)		< 5	< 5	EPA 200.7
37.	Thallium, Total (µg/l)	d	< 20	< 20	EPA 200.7
38.	Vanadium, Total (µg/l)	d	60	60	EPA 200.7
39.	Zinc, Total (µg/l)		870	870	EPA 200.7
40.	Acetone (µg/l)	d	4950	4950	EPA 8260
41.	Acrylonitrile (µg/l)	d	< 5.0	< 5.0	EPA 8260
42.	Benzene (µg/l)		5.7	5.7	EPA 8260
43.	Bromochloromethane (µg/l)	d	< 1.0	< 1.0	EPA 8260
44.	Bromodichloromethane (µg/l)	d	< 1.0	< 1.0	EPA 8260
45.	Bromoform (Tribromomethane) (µg/l)		< 1.0	< 1.0	EPA 8260
46.	Carbon Disulfide (µg/l)	d	< 1.0	< 1.0	EPA 8260
47.	Carbon Tetrachloride (µg/l)		< 1.0	< 1.0	EPA 8260
48.	Chlorobenzene (µg/l)		1.4	1.4	EPA 8260
49.	Chloroethane (Ethyl Chloride) (µg/l)		< 1.0	< 1.0	EPA 8260
50.	Chloroform (Trichloromethane) (µg/l)	d	< 1.0	< 1.0	EPA 8260
51.	3-Chloro-1-propene (µg/l)	p	< 1.0	< 1.0	EPA 8260
52.	Dibromochloromethane (µg/l) (Chlorodibromomethane)		< 1.0	< 1.0	EPA 8260
53.	1,2-Dibromo-3-chloropropane (µg/l) (DBCP)	d	< 5.0	< 5.0	EPA 8260
54.	1,2-Dibromoethane (µg/l) (Ethylene dibromide; EDB)		< 1.0	< 1.0	EPA 8260
55.	1,2-Dichlorobenzene (µg/l) (o-Dichlorobenzene)		< 1.0	< 1.0	EPA 8260
56.	1,3-Dichlorobenzene (µg/l) (m-Dichlorobenzene)	p	< 1.0	< 1.0	EPA 8260

† Please indicate detection limit if analyte is not detected.

FORM 50

Monitoring Point No. Pump House, Pump H
Sample Date 12/12/16
I.D. No. 100403

	ANALYTE (µg/l)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
57.	1,4-Dichclorobenzene (p-Dichlorobenzene)		17.6	17.6	EPA 8260
58.	trans-1,4-Dichloro-2-butene	d	< 2.0	< 2.0	EPA 8260
59.	Dichlorodifluoromethane	p	< 1.0	< 1.0	EPA 8260
60.	1,1-Dichloroethane (Ethylidene chloride)		< 1.0	< 1.0	EPA 8260
61.	1,2-Dichloroethane (Ethylene dichloride)		3.5	3.5	EPA 8260
62.	1,1-Dichloroethene (Vinylidene chloride)		< 1.0	< 1.0	EPA 8260
63.	cis-1,2-Dichloroethene		< 1.0	< 1.0	EPA 8260
64.	trans-1,2-Dichloroethene		< 1.0	< 1.0	EPA 8260
65.	1,2-Dichloropropane (Propylene dichloride)		< 1.0	< 1.0	EPA 8260
66.	cis-1,3-Dichloropropene		< 1.0	< 1.0	EPA 8260
67.	trans-1,3-Dichloropropene		< 1.0	< 1.0	EPA 8260
68.	Ethyl Benzene		34.6	34.6	EPA 8260
69.	Methyl butyl ketone (2-Hexanone)	d	13.2	13.2	EPA 8260
70.	Methyl bromide (Bromomethane)		< 1.0	< 1.0	EPA 8260
71.	Methyl chloride (Chloromethane)		< 1.0	< 1.0	EPA 8260
72.	Methylene bromide (Dibromomethane)	d	< 1.0	< 1.0	EPA 8260
73.	Methylene chloride (Dichloromethane)		2.8	2.8	EPA 8260
74.	Methyl ethyl ketone (MEK; 2-Butanone)		940	940	EPA 8260
75.	Methyl iodide (Iodomethane)	d	< 5.0	< 5.0	EPA 8260
76.	4-Methyl-2-pentanone (Methyl isobutyl ketone)		98.5	98.5	EPA 8260
77.	Styrene	d	6.0	6.0	EPA 8260
78.	1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	EPA 8260
79.	1,1,1,2-Tetrachloroethane		< 1.0	< 1.0	EPA 8260
80.	Tetrachloroethene (Perchloroethylene)		< 1.0	< 1.0	EPA 8260
81.	Toluene		85.5	85.5	EPA 8260
82.	1,1,1-Trichloroethane (Methylchloroform)		< 1.0	< 1.0	EPA 8260
83.	1,1,2-Trichloroethane		< 1.0	< 1.0	EPA 8260
84.	Trichloroethene		< 1.0	< 1.0	EPA 8260

† Please indicate detection limit if analyte is not detected.

Monitoring Point No. Pump House, Pump Ho
Sample Date 12/12/16
I.D. No. 100403

FORM 50

ANALYTE (µg/l unless otherwise indicated)	LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
85. Trichlorofluoromethane (CFC-11)	< 1.0	< 1.0	EPA 8260
86. 1,2,3-Trichloropropane	< 1.0	< 1.0	EPA 8260
87. Vinyl acetate d	< 1.0	< 1.0	EPA 8260
88. Vinyl chloride	1.0	1.0	EPA 8260
89. Xylenes	98.7	98.7	EPA 8260

p = PADEP 273.284 analyte exclusively
d = Subtitle D. Appendix I analyte exclusively
All other analytes are common to both lists.
† Please indicate detection limit if analyte is not detected.

Analyzed in the 4th calendar quarter only

FORM 50

Monitoring Point No. Pump House, Pump House
Sample Date 12/12/16
I.D. No. 100403

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number
G1612615-001 TIC: 1,2,4-Trimethylbenzene	
G1612615-001 TIC: 1-Propanol	
G1612615-001 TIC: 2-Methyl-1-propanol	
G1612615-001 TIC: 2-Propanol	
G1612615-001 TIC: 4-Isopropyltoluene	
G1612615-001 TIC: Acetonitrile	
G1612615-001 TIC: Dichlorofluoromethane	
G1612615-001 TIC: Diethyl Ether	
G1612615-001 TIC: Naphthalene	
G1612615-001 TIC: Tetrahydrofuran	

2540-FM-BWM0158 Rev. 10/2010

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
04/10/2017
DEP USE ONLY
Date Received

FORM 50
MUNICIPAL WASTE LANDFILL
LEACHATE ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 50, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.255(d) and (e) and 273.276(a)
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. SITE IDENTIFIER

Applicant/permittee Seneca Landfill, Inc.

Site Name Seneca Landfill

Facility ID (as issued by DEP) 100403

SECTION B. FACILITY INFORMATION

Facility Name: Seneca Landfill

Sampling Point Identification Pump House

Location: County Butler Municipality: Jackson Township

Sampling Point: Latitude: 80 ° 04 ' 32 . 0 " Longitude: 40 ° 48 ' 36 . 0 "

Sampling Method: ☐ Pumped ☐ Bailed ☑ Grab

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☑ No

Sample Date (mm/dd/yy) 03/24/17 Sample Collection Time: 14:55

Sample Collector's Name: Scott

Sample Collector's Affiliation: Seneca Landfill

Laboratory(ies) Performing Analysis: Geochemical Testing

Laboratory Certification Number(s): 56-00306

Lab Sample Number(s): G1703C45-001 Final Lab Analysis Completion Date: 04/05/2017

Were Any Holding Times Exceeded? ☐ Yes ☑ No If Yes, please explain in comments field.

Name/Affiliation of Person Who Filled Out Form Geochemical Testing

Comments:

2540-FM-BWM0158 Rev. 10/2010

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 50
QUARTERLY MUNICIPAL WASTE LANDFILL LEACHATE ANALYSES

Monitoring Point No. Pump House
Sample Date 03/24/17
I.D. No. 100403

For new facilities and cells as well as existing facilities which were permitted and which received waste after April 9, 1988, discharge flow volume from leachate collection shall be measured daily [273.276(a)(1)]. Discharge flow volume from the detection zone shall be estimated weekly [273.255(d)(2)]. Form 50 is due quarterly after the flow of leachate from the collection system has started. For facilities or cells which have received no waste since April 9, 1988, detection zone monitoring will meet permit/closure requirements.

Cell 2A-11-12 Cell 2B-3A-3B Cell 1A-1B-4-5-6-7-8-9A-9B-10A-10B

FLOW FACTOR	LEACHATE DISCHARGE	DETECTION ZONE DISCHARGE		
Volume (average gpd)	17,850.66	118.65	31.08	10.65
Area Drained (acres)	75.51	75.51	75.51	75.51
Ratio (gallons/acre/day)	236.40	1.57	0.412	0.141

Once leachate flow begins from a leachate collection system, leachate discharge will be analyzed quarterly for all analytes listed below. In the leachate detection zone, any fluid found in any detection zone monitoring point must be sampled during the initial four quarters for the leachate indicator parameters (designated by *, below) to establish a baseline fluid composition. Thereafter, any fluid detected in each monitoring point in the leachate detection zone must be sampled annually for the leachate indicator parameters. Quarterly sampling of the fluid in any detection zone monitoring point for leachate indicator parameters is required only when the quarterly flow at that monitoring point exceeds 10 gallons per acre per day (weekly average for the quarter) for the cell(s) served by that monitoring point. If the indicator analytes confirm leachate contamination in the detection zone, the fluid will be analyzed initially within 30 days and thereafter annually for all analytes listed below. When MCL's (where established) of any detection zone analytes on this form are exceeded, annual groundwater monitoring must include the Subtitle D detection zone add-on list analytes found on Form 19.

ANALYTE (mg/l unless otherwise indicated)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
1.* Alkalinity, Total	p	7240		ASTM D 1067-06
2.* Ammonia-Nitrogen	p	1480		EPA 350.1
3.* Bicarbonate (as $CaCO_3$)	p	7200		SM 4500-CO2 D
4.* Calcium, Total	p	208		EPA 200.7
5.* Chemical Oxygen Demand	p	7100		HACH 8000
6.* Chloride (Cl)	p	3020		EPA 300.0
7.* Magnesium, Total	p	166		EPA 200.7
8.* pH, Field, (Standard Units)	p			
9.* pH, Laboratory, (Standard Units)	p	7.79		SM 4500-H+ B
10.* Potassium, Total	p	663		EPA 200.7
11.* Specific Conductance, Field (micromhos/cm)	p			
12.* Specific Conductance, Laboratory (micromhos/cm)	p	23400		EPA 120.1
13.* Sodium, Total	p	3180		EPA 200.7
14.* Sulfate, Total	p	50		EPA 300.0
15.* Total Organic Carbon (TOC)	p	1920		SM 5310 C
16. Fluoride	p	< 0.5		EPA 300.0
17. Iron, Total	p	47.3		EPA 200.7
18. Manganese, Total	p	7.12		EPA 200.7
19. Nitrate-Nitrogen	p	0.07		EPA 353.2

† Please indicate detection limit if analyte is not detected.

FORM 50

Monitoring Point No. Pump House
Sample Date 03/24/17
I.D. No. 100403

	ANALYTE		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
20.	Phenolics, Total (mg/l)	p	1.6		EPA 420.4
21.	Total Dissolved Solids (mg/l)	p	12400		SM 2540 C
22.	Tritium (pCi/L)#			N/A	EPA 906.0
23.	Turbidity (mg/l)	p	240		EPA 180.1
24.	Antimony, Total (µg/l)	d	20		EPA 200.7
25.	Arsenic, Total (µg/l)		310		EPA 200.7
26.	Barium, Total (µg/l)		1910		EPA 200.7
27.	Beryllium, Total (µg/l)	d	< 1		EPA 200.7
28.	Cadmium, Total (µg/l)		< 2		EPA 200.7
29.	Chromium, Total (µg/l)		300		EPA 200.7
30.	Cobalt, Total (µg/l)	d	66		EPA 200.7
31.	Copper, Total (µg/l)		70		EPA 200.7
32.	Lead, Total (µg/l)		60		EPA 200.7
33.	Mercury, Total (µg/l)	p	< 0.40		SM 3112 B
34.	Nickel, Total (µg/l)	d	630		EPA 200.7
35.	Selenium, Total (µg/l)		< 20		EPA 200.7
36.	Silver, Total (µg/l)		< 5		EPA 200.7
37.	Thallium, Total (µg/l)	d	< 20		EPA 200.7
38.	Vanadium, Total (µg/l)	d	78		EPA 200.7
39.	Zinc, Total (µg/l)		590		EPA 200.7
40.	Acetone (µg/l)	d	3240		EPA 8260
41.	Acrylonitrile (µg/l)	d	< 5.0		EPA 8260
42.	Benzene (µg/l)		5.2		EPA 8260
43.	Bromochloromethane (µg/l)	d	< 1.0		EPA 8260
44.	Bromodichloromethane (µg/l)	d	< 1.0		EPA 8260
45.	Bromoform (Tribromomethane) (µg/l)		< 1.0		EPA 8260
46.	Carbon Disulfide (µg/l)	d	4.2		EPA 8260
47.	Carbon Tetrachloride (µg/l)		< 1.0		EPA 8260
48.	Chlorobenzene (µg/l)		< 1.0		EPA 8260
49.	Chloroethane (Ethyl Chloride) (µg/l)		< 1.0		EPA 8260
50.	Chloroform (Trichloromethane) (µg/l)	d	< 1.0		EPA 8260
51.	3-Chloro-1-propene (µg/l)	p	< 1.0		EPA 8260
52.	Dibromochloromethane (µg/l) (Chlorodibromomethane)		< 1.0		EPA 8260
53.	1,2-Dibromo-3-chloropropane (µg/l) (DBCP)	d	< 5.0		EPA 8260
54.	1,2-Dibromoethane (µg/l) (Ethylene dibromide; EDB)		< 1.0		EPA 8260
55.	1,2-Dichlorobenzene (µg/l) (o-Dichlorobenzene)		< 1.0		EPA 8260
56.	1,3-Dichlorobenzene (µg/l) (m-Dichlorobenzene)	p	< 1.0		EPA 8260

† Please indicate detection limit if analyte is not detected.

FORM 50

Monitoring Point No. Pump House
Sample Date 03/24/17
I.D. No. 100403

	ANALYTE (µg/l)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
57.	1,4-Dichclorobenzene (p-Dichlorobenzene)		14.0		EPA 8260
58.	trans-1,4-Dichloro-2-butene	d	< 2.0		EPA 8260
59.	Dichlorodifluoromethane	p	< 1.0		EPA 8260
60.	1,1-Dichloroethane (Ethylidene chloride)		< 1.0		EPA 8260
61.	1,2-Dichloroethane (Ethylene dichloride)		2.8		EPA 8260
62.	1,1-Dichloroethene (Vinylidene chloride)		< 1.0		EPA 8260
63.	cis-1,2-Dichloroethene		4.1		EPA 8260
64.	trans-1,2-Dichloroethene		< 1.0		EPA 8260
65.	1,2-Dichloropropane (Propylene dichloride)		< 1.0		EPA 8260
66.	cis-1,3-Dichloropropene		< 1.0		EPA 8260
67.	trans-1,3-Dichloropropene		< 1.0		EPA 8260
68.	Ethyl Benzene		31.3		EPA 8260
69.	Methyl butyl ketone (2-Hexanone)	d	14.0		EPA 8260
70.	Methyl bromide (Bromomethane)		< 1.0		EPA 8260
71.	Methyl chloride (Chloromethane)		< 1.0		EPA 8260
72.	Methylene bromide (Dibromomethane)	d	< 1.0		EPA 8260
73.	Methylene chloride (Dichloromethane)		10.8		EPA 8260
74.	Methyl ethyl ketone (MEK; 2-Butanone)		4240		EPA 8260
75.	Methyl iodide (Iodomethane)	d	< 5.0		EPA 8260
76.	4-Methyl-2-pentanone (Methyl isobutyl ketone)		190		EPA 8260
77.	Styrene	d	6.3		EPA 8260
78.	1,1,2,2-Tetrachloroethane		< 1.0		EPA 8260
79.	1,1,1,2-Tetrachloroethane		< 1.0		EPA 8260
80.	Tetrachloroethene (Perchloroethylene)		< 1.0		EPA 8260
81.	Toluene		87.2		EPA 8260
82.	1,1,1-Trichloroethane (Methylchloroform)		< 1.0		EPA 8260
83.	1,1,2-Trichloroethane		< 1.0		EPA 8260
84.	Trichloroethene		< 1.0		EPA 8260

† Please indicate detection limit if analyte is not detected.

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FORM 50

Monitoring Point No. Pump House
Sample Date 03/24/17
I.D. No. 100403

ANALYTE (µg/l unless otherwise indicated)	LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
85. Trichlorofluoromethane (CFC-11)	1.5		EPA 8260
86. 1,2,3-Trichloropropane	< 1.0		EPA 8260
87. Vinyl acetate d	< 1.0		EPA 8260
88. Vinyl chloride	< 1.0		EPA 8260
89. Xylenes	82.7		EPA 8260

p = PADEP 273.284 analyte exclusively
d = Subtitle D. Appendix I analyte exclusively
All other analytes are common to both lists.
† Please indicate detection limit if analyte is not detected.

Analyzed in the 4th calendar quarter only

FORM 50

Monitoring Point No. Pump House
Sample Date 03/24/17
I.D. No. 100403

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number
TIC: 1,2,4-Trimethylbenzene	
TIC: 1,4-Dioxane	
TIC: 1-Propanol	
TIC: 2-Methyl-1-propanol	
TIC: 2-Propanol	
TIC: 4-Isopropyltoluene	
TIC: Acetonitrile	
TIC: Diethyl Ether	
TIC: n-Butanol	
TIC: Tetrahydrofuran	

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pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
06/30/2017
DEP USE ONLY
Date Received

FORM 50
MUNICIPAL WASTE LANDFILL
LEACHATE ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 50, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.255(d) and (e) and 273.276(a)
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. SITE IDENTIFIER

Applicant/permittee Seneca Landfill, Inc.

Site Name Seneca Landfill

Facility ID (as issued by DEP) 100403

SECTION B. FACILITY INFORMATION

Facility Name: Seneca Landfill

Sampling Point Identification: Pump House

Location: County: Butler Municipality: Jackson Township

Sampling Point: Latitude: 80 ° 04 ' 32 . 0 " Longitude: 40 ° 48 ' 36 . 0 "

Sampling Method: ☐ Pumped ☐ Bailed ☑ Grab

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☑ No

Sample Date (mm/dd/yy): 06/06/17 Sample Collection Time: 14:07

Sample Collector's Name: John Ott

Sample Collector's Affiliation: Seneca Landfill

Laboratory(ies) Performing Analysis: Geochemical Testing

Laboratory Certification Number(s): 56-00306

Lab Sample Number(s): G1706538-004 Final Lab Analysis Completion Date: 06/22/2017

Were Any Holding Times Exceeded? ☐ Yes ☑ No If Yes, please explain in comments field.

Name/Affiliation of Person Who Filled Out Form: Geochemical Testing

Comments:

2540-FM-BWM0158 Rev. 10/2010

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 50
QUARTERLY MUNICIPAL WASTE LANDFILL LEACHATE ANALYSES

Monitoring Point No. Pump House
Sample Date 06/06/17
I.D. No. 100403

For new facilities and cells as well as existing facilities which were permitted and which received waste after April 9, 1988, discharge flow volume from leachate collection shall be measured daily [273.276(a)(1)]. Discharge flow volume from the detection zone shall be estimated weekly [273.255(d)(2)]. Form 50 is due quarterly after the flow of leachate from the collection system has started. For facilities or cells which have received no waste since April 9, 1988, detection zone monitoring will meet permit/closure requirements.

Cell 2A-11-12 Cell 2B-3A-3B Cell 1A-1B-4-5-6-7-8-9A-9B-10A-10B

FLOW FACTOR	LEACHATE DISCHARGE	DETECTION ZONE DISCHARGE		
Volume (average gpd)	37,393.75	133.38	10.25	0.74
Area Drained (acres)	75.51	75.51	75.51	75.51
Ratio (gallons/acre/day)	495.22	1.77	0.14	0.01

Once leachate flow begins from a leachate collection system, leachate discharge will be analyzed quarterly for all analytes listed below. In the leachate detection zone, any fluid found in any detection zone monitoring point must be sampled during the initial four quarters for the leachate indicator parameters (designated by *, below) to establish a baseline fluid composition. Thereafter, any fluid detected in each monitoring point in the leachate detection zone must be sampled annually for the leachate indicator parameters. Quarterly sampling of the fluid in any detection zone monitoring point for leachate indicator parameters is required only when the quarterly flow at that monitoring point exceeds 10 gallons per acre per day (weekly average for the quarter) for the cell(s) served by that monitoring point. If the indicator analytes confirm leachate contamination in the detection zone, the fluid will be analyzed initially within 30 days and thereafter annually for all analytes listed below. When MCL's (where established) of any detection zone analytes on this form are exceeded, annual groundwater monitoring must include the Subtitle D detection zone add-on list analytes found on Form 19.

ANALYTE (mg/l unless otherwise indicated)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
1.* Alkalinity, Total	p	7010		ASTM D 1067-06
2.* Ammonia-Nitrogen	p	1010		EPA 350.1
3.* Bicarbonate (as $CaCO_3$)	p	6980		SM 4500-CO2 D
4.* Calcium, Total	p	217		EPA 200.7
5.* Chemical Oxygen Demand	p	7200		HACH 8000
6.* Chloride (Cl)	p	2680		EPA 300.0
7.* Magnesium, Total	p	193		EPA 200.7
8.* pH, Field, (Standard Units)	p			
9.* pH, Laboratory, (Standard Units)	p	7.67		SM 4500-H+ B
10.* Potassium, Total	p	635		EPA 200.7
11.* Specific Conductance, Field (micromhos/cm)	p			
12.* Specific Conductance, Laboratory (micromhos/cm)	p	22300		EPA 120.1
13.* Sodium, Total	p	3040		EPA 200.7
14.* Sulfate, Total	p	40		EPA 300.0
15.* Total Organic Carbon (TOC)	p	1910		SM 5310 C
16. Fluoride	p	< 0.5		EPA 300.0
17. Iron, Total	p	65.2		EPA 200.7
18. Manganese, Total	p	7.74		EPA 200.7
19. Nitrate-Nitrogen	p	< 0.50		EPA 353.2

† Please indicate detection limit if analyte is not detected.

FORM 50

Monitoring Point No. Pump House
Sample Date 06/06/17
I.D. No. 100403

	ANALYTE		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
20.	Phenolics, Total (mg/l)	p	4.8		EPA 420.1
21.	Total Dissolved Solids (mg/l)	p	11900		SM 2540 C
22.	Tritium (pCi/L)#			N/A	EPA 906.0
23.	Turbidity (mg/l)	p	600		EPA 180.1
24.	Antimony, Total (µg/l)	d	< 20		EPA 200.7
25.	Arsenic, Total (µg/l)		230		EPA 200.7
26.	Barium, Total (µg/l)		1410		EPA 200.7
27.	Beryllium, Total (µg/l)	d	< 1		EPA 200.7
28.	Cadmium, Total (µg/l)		< 2		EPA 200.7
29.	Chromium, Total (µg/l)		220		EPA 200.7
30.	Cobalt, Total (µg/l)	d	71		EPA 200.7
31.	Copper, Total (µg/l)		40		EPA 200.7
32.	Lead, Total (µg/l)		30		EPA 200.7
33.	Mercury, Total (µg/l)	p	< 0.20		SM 3112 B
34.	Nickel, Total (µg/l)	d	600		EPA 200.7
35.	Selenium, Total (µg/l)		< 20		EPA 200.7
36.	Silver, Total (µg/l)		< 5		EPA 200.7
37.	Thallium, Total (µg/l)	d	< 20		EPA 200.7
38.	Vanadium, Total (µg/l)	d	63		EPA 200.7
39.	Zinc, Total (µg/l)		560		EPA 200.7
40.	Acetone (µg/l)	d	2180		EPA 8260
41.	Acrylonitrile (µg/l)	d	< 5.0		EPA 8260
42.	Benzene (µg/l)		3.5		EPA 8260
43.	Bromochloromethane (µg/l)	d	< 1.0		EPA 8260
44.	Bromodichloromethane (µg/l)	d	< 1.0		EPA 8260
45.	Bromoform (Tribromomethane) (µg/l)		< 1.0		EPA 8260
46.	Carbon Disulfide (µg/l)	d	1.1		EPA 8260
47.	Carbon Tetrachloride (µg/l)		< 1.0		EPA 8260
48.	Chlorobenzene (µg/l)		< 1.0		EPA 8260
49.	Chloroethane (Ethyl Chloride) (µg/l)		< 1.0		EPA 8260
50.	Chloroform (Trichloromethane) (µg/l)	d	< 1.0		EPA 8260
51.	3-Chloro-1-propene (µg/l)	p	< 1.0		EPA 8260
52.	Dibromochloromethane (µg/l) (Chlorodibromomethane)		< 1.0		EPA 8260
53.	1,2-Dibromo-3-chloropropane (µg/l) (DBCP)	d	< 5.0		EPA 8260
54.	1,2-Dibromoethane (µg/l) (Ethylene dibromide; EDB)		< 1.0		EPA 8260
55.	1,2-Dichlorobenzene (µg/l) (o-Dichlorobenzene)		< 1.0		EPA 8260
56.	1,3-Dichlorobenzene (µg/l) (m-Dichlorobenzene)	p	< 1.0		EPA 8260

† Please indicate detection limit if analyte is not detected.

FORM 50

Monitoring Point No. Pump House
Sample Date 06/06/17
I.D. No. 100403

	ANALYTE (µg/l)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
57.	1,4-Dichclorobenzene (p-Dichlorobenzene)		9.3		EPA 8260
58.	trans-1,4-Dichloro-2-butene	d	< 2.0		EPA 8260
59.	Dichlorodifluoromethane	p	< 1.0		EPA 8260
60.	1,1-Dichloroethane (Ethylidene chloride)		< 1.0		EPA 8260
61.	1,2-Dichloroethane (Ethylene dichloride)		2.2		EPA 8260
62.	1,1-Dichloroethene (Vinylidene chloride)		< 1.0		EPA 8260
63.	cis-1,2-Dichloroethene		3.4		EPA 8260
64.	trans-1,2-Dichloroethene		< 1.0		EPA 8260
65.	1,2-Dichloropropane (Propylene dichloride)		< 1.0		EPA 8260
66.	cis-1,3-Dichloropropene		< 1.0		EPA 8260
67.	trans-1,3-Dichloropropene		< 1.0		EPA 8260
68.	Ethyl Benzene		16.4		EPA 8260
69.	Methyl butyl ketone (2-Hexanone)	d	9.8		EPA 8260
70.	Methyl bromide (Bromomethane)		< 1.0		EPA 8260
71.	Methyl chloride (Chloromethane)		< 1.0		EPA 8260
72.	Methylene bromide (Dibromomethane)	d	< 1.0		EPA 8260
73.	Methylene chloride (Dichloromethane)		8.7		EPA 8260
74.	Methyl ethyl ketone (MEK; 2-Butanone)		3120		EPA 8260
75.	Methyl iodide (Iodomethane)	d	< 5.0		EPA 8260
76.	4-Methyl-2-pentanone (Methyl isobutyl ketone)		85.7		EPA 8260
77.	Styrene	d	2.3		EPA 8260
78.	1,1,2,2-Tetrachloroethane		< 1.0		EPA 8260
79.	1,1,1,2-Tetrachloroethane		< 1.0		EPA 8260
80.	Tetrachloroethene (Perchloroethylene)		< 1.0		EPA 8260
81.	Toluene		57.6		EPA 8260
82.	1,1,1-Trichloroethane (Methylchloroform)		< 1.0		EPA 8260
83.	1,1,2-Trichloroethane		< 1.0		EPA 8260
84.	Trichloroethene		< 1.0		EPA 8260

† Please indicate detection limit if analyte is not detected.

Monitoring Point No. Pump House
Sample Date 06/06/17
I.D. No. 100403

FORM 50

ANALYTE (µg/l unless otherwise indicated)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
85. Trichlorofluoromethane (CFC-11)		< 1.0		EPA 8260
86. 1,2,3-Trichloropropane		< 1.0		EPA 8260
87. Vinyl acetate	d	< 1.0		EPA 8260
88. Vinyl chloride		< 1.0		EPA 8260
89. Xylenes		48.1		EPA 8260

p = PADEP 273.284 analyte exclusively
d = Subtitle D. Appendix I analyte exclusively
All other analytes are common to both lists.
† Please indicate detection limit if analyte is not detected.

Analyzed in the 4th calendar quarter only

FORM 50

Monitoring Point No. Pump House
Sample Date 06/06/17
I.D. No. 100403

Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number
TIC: 1,2,4-Trimethylbenzene	
TIC: 1,4-Dioxane	
TIC: 2-Methyl-1-propanol	
TIC: 4-Isopropyltoluene	
TIC: Acetonitrile	
TIC: Dichlorofluoromethane	
TIC: Diethyl Ether	
TIC: Naphthalene	
TIC: n-Butanol	
TIC: Tetrahydrofuran	

2540-FM-BWM0158 Rev. 10/2010

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
09/29/2017
DEP USE ONLY
Date Received

FORM 50
MUNICIPAL WASTE LANDFILL
LEACHATE ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 50, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.255(d) and (e) and 273.276(a)
Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

SECTION A. SITE IDENTIFIER

Applicant/permittee Seneca Landfill, Inc.

Site Name Seneca Landfill

Facility ID (as issued by DEP) 100403

SECTION B. FACILITY INFORMATION

Facility Name: Seneca Landfill

Sampling Point Identification: Pump House

Location: County: Butler Municipality: Jackson Township

Sampling Point: Latitude: 80 ° 04 ' 32 . 0 " Longitude: 40 ° 48 ' 36 . 0 "

Sampling Method: ☐ Pumped ☐ Bailed ☑ Grab

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☑ No

Sample Date (mm/dd/yy): 09/06/17 Sample Collection Time: 11:06

Sample Collector's Name: John Ott

Sample Collector's Affiliation: Seneca Landfill

Laboratory(ies) Performing Analysis: Geochemical Testing

Laboratory Certification Number(s): 56-00306

Lab Sample Number(s): G1709272-004 Final Lab Analysis Completion Date: 09/21/2017

Were Any Holding Times Exceeded? ☐ Yes ☑ No If Yes, please explain in comments field.

Name/Affiliation of Person Who Filled Out Form: Geochemical Testing

Comments:

2540-FM-BWM0158 Rev. 10/2010

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM 50
QUARTERLY MUNICIPAL WASTE LANDFILL LEACHATE ANALYSES

Monitoring Point No. Pump House
Sample Date 09/06/17
I.D. No. 100403

For new facilities and cells as well as existing facilities which were permitted and which received waste after April 9, 1988, discharge flow volume from leachate collection shall be measured daily [273.276(a)(1)]. Discharge flow volume from the detection zone shall be estimated weekly [273.255(d)(2)]. Form 50 is due quarterly after the flow of leachate from the collection system has started. For facilities or cells which have received no waste since April 9, 1988, detection zone monitoring will meet permit/closure requirements. Cell 2A-11-12 Cell 2B-3A-3B Cell 1A-1B-4-5-6-7-8-9A-9B-10A-10B

FLOW FACTOR	LEACHATE DISCHARGE	DETECTION ZONE DISCHARGE		
Volume (average gpd)	24,179.15	93.22	12.60	8.96
Area Drained (acres)	75.51	75.51	75.51	75.51
Ratio (gallons/acre/day)	320.21	1.23	0.167	0.119

Once leachate flow begins from a leachate collection system, leachate discharge will be analyzed quarterly for all analytes listed below. In the leachate detection zone, any fluid found in any detection zone monitoring point must be sampled during the initial four quarters for the leachate indicator parameters (designated by *, below) to establish a baseline fluid composition. Thereafter, any fluid detected in each monitoring point in the leachate detection zone must be sampled annually for the leachate indicator parameters. Quarterly sampling of the fluid in any detection zone monitoring point for leachate indicator parameters is required only when the quarterly flow at that monitoring point exceeds 10 gallons per acre per day (weekly average for the quarter) for the cell(s) served by that monitoring point. If the indicator analytes confirm leachate contamination in the detection zone, the fluid will be analyzed initially within 30 days and thereafter annually for all analytes listed below. When MCL's (where established) of any detection zone analytes on this form are exceeded, annual groundwater monitoring must include the Subtitle D detection zone add-on list analytes found on Form 19.

ANALYTE (mg/l unless otherwise indicated)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
1.* Alkalinity, Total	p	7360		ASTM D 1067-06
2.* Ammonia-Nitrogen	p	1250		EPA 350.1
3.* Bicarbonate (as $CaCO_3$)	p	7330		SM 4500-CO2 D
4.* Calcium, Total	p	287		EPA 200.7
5.* Chemical Oxygen Demand	p	7800		HACH 8000
6.* Chloride (Cl)	p	3640		EPA 300.0
7.* Magnesium, Total	p	233		EPA 200.7
8.* pH, Field, (Standard Units)	p			
9.* pH, Laboratory, (Standard Units)	p	7.65		SM 4500-H+ B
10.* Potassium, Total	p	726		EPA 200.7
11.* Specific Conductance, Field (micromhos/cm)	p			
12.* Specific Conductance, Laboratory (micromhos/cm)	p	23300		EPA 120.1
13.* Sodium, Total	p	3190		EPA 200.7
14.* Sulfate, Total	p	50		EPA 300.0
15.* Total Organic Carbon (TOC)	p	2590		SM 5310 C
16. Fluoride	p	79.4		EPA 300.0
17. Iron, Total	p	93.3		EPA 200.7
18. Manganese, Total	p	6.73		EPA 200.7
19. Nitrate-Nitrogen	p	0.06		EPA 353.2

† Please indicate detection limit if analyte is not detected.

FORM 50

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	ANALYTE		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
20.	Phenolics, Total (mg/l)	p	2.12		EPA 420.4
21.	Total Dissolved Solids (mg/l)	p	12600		SM 2540 C
22.	Tritium (pCi/L)#			N/A	EPA 906.0
23.	Turbidity (mg/l)	p	700		EPA 180.1
24.	Antimony, Total (µg/l)	d	< 20		EPA 200.7
25.	Arsenic, Total (µg/l)		270		EPA 200.7
26.	Barium, Total (µg/l)		1580		EPA 200.7
27.	Beryllium, Total (µg/l)	d	< 1		EPA 200.7
28.	Cadmium, Total (µg/l)		< 2		EPA 200.7
29.	Chromium, Total (µg/l)		230		EPA 200.7
30.	Cobalt, Total (µg/l)	d	82		EPA 200.7
31.	Copper, Total (µg/l)		70		EPA 200.7
32.	Lead, Total (µg/l)		50		EPA 200.7
33.	Mercury, Total (µg/l)	p	< 0.20		SM 3112 B
34.	Nickel, Total (µg/l)	d	570		EPA 200.7
35.	Selenium, Total (µg/l)		30		EPA 200.7
36.	Silver, Total (µg/l)		< 5		EPA 200.7
37.	Thallium, Total (µg/l)	d	< 20		EPA 200.7
38.	Vanadium, Total (µg/l)	d	67		EPA 200.7
39.	Zinc, Total (µg/l)		740		EPA 200.7
40.	Acetone (µg/l)	d	2560		EPA 8260
41.	Acrylonitrile (µg/l)	d	< 5.0		EPA 8260
42.	Benzene (µg/l)		3.0		EPA 8260
43.	Bromochloromethane (µg/l)	d	< 1.0		EPA 8260
44.	Bromodichloromethane (µg/l)	d	< 1.0		EPA 8260
45.	Bromoform (Tribromomethane) (µg/l)		< 1.0		EPA 8260
46.	Carbon Disulfide (µg/l)	d	< 1.0		EPA 8260
47.	Carbon Tetrachloride (µg/l)		< 1.0		EPA 8260
48.	Chlorobenzene (µg/l)		< 1.0		EPA 8260
49.	Chloroethane (Ethyl Chloride) (µg/l)		< 1.0		EPA 8260
50.	Chloroform (Trichloromethane) (µg/l)	d	< 1.0		EPA 8260
51.	3-Chloro-1-propene (µg/l)	p	< 1.0		EPA 8260
52.	Dibromochloromethane (µg/l) (Chlorodibromomethane)		< 1.0		EPA 8260
53.	1,2-Dibromo-3-chloropropane (µg/l) (DBCP)	d	< 5.0		EPA 8260
54.	1,2-Dibromoethane (µg/l) (Ethylene dibromide; EDB)		< 1.0		EPA 8260
55.	1,2-Dichlorobenzene (µg/l) (o-Dichlorobenzene)		< 1.0		EPA 8260
56.	1,3-Dichlorobenzene (µg/l) (m-Dichlorobenzene)	p	< 1.0		EPA 8260

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FORM 50

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Sample Date 09/06/17
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	ANALYTE (µg/l)		LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
57.	1,4-Dichclorobenzene (p-Dichlorobenzene)		8.7		EPA 8260
58.	trans-1,4-Dichloro-2-butene	d	< 2.0		EPA 8260
59.	Dichlorodifluoromethane	p	< 1.0		EPA 8260
60.	1,1-Dichloroethane (Ethylidene chloride)		< 1.0		EPA 8260
61.	1,2-Dichloroethane (Ethylene dichloride)		2.4		EPA 8260
62.	1,1-Dichloroethene (Vinylidene chloride)		< 1.0		EPA 8260
63.	cis-1,2-Dichloroethene		< 1.0		EPA 8260
64.	trans-1,2-Dichloroethene		< 1.0		EPA 8260
65.	1,2-Dichloropropane (Propylene dichloride)		< 1.0		EPA 8260
66.	cis-1,3-Dichloropropene		< 1.0		EPA 8260
67.	trans-1,3-Dichloropropene		< 1.0		EPA 8260
68.	Ethyl Benzene		14.9		EPA 8260
69.	Methyl butyl ketone (2-Hexanone)	d	16.6		EPA 8260
70.	Methyl bromide (Bromomethane)		< 1.0		EPA 8260
71.	Methyl chloride (Chloromethane)		< 1.0		EPA 8260
72.	Methylene bromide (Dibromomethane)	d	< 1.0		EPA 8260
73.	Methylene chloride (Dichloromethane)		1.9		EPA 8260
74.	Methyl ethyl ketone (MEK; 2-Butanone)		4720		EPA 8260
75.	Methyl iodide (Iodomethane)	d	< 5.0		EPA 8260
76.	4-Methyl-2-pentanone (Methyl isobutyl ketone)		94.1		EPA 8260
77.	Styrene	d	1.8		EPA 8260
78.	1,1,2,2-Tetrachloroethane		< 1.0		EPA 8260
79.	1,1,1,2-Tetrachloroethane		< 1.0		EPA 8260
80.	Tetrachloroethene (Perchloroethylene)		< 1.0		EPA 8260
81.	Toluene		39.0		EPA 8260
82.	1,1,1-Trichloroethane (Methylchloroform)		< 1.0		EPA 8260
83.	1,1,2-Trichloroethane		< 1.0		EPA 8260
84.	Trichloroethene		< 1.0		EPA 8260

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ANALYTE (µg/l unless otherwise indicated)			LEACHATE DISCHARGE†	DETECTION ZONE DISCHARGE†	ANALYSIS METHOD NUMBER
85.	Trichlorofluoromethane (CFC-11)		< 1.0		EPA 8260
86.	1,2,3-Trichloropropane		< 1.0		EPA 8260
87.	Vinyl acetate	d	< 1.0		EPA 8260
88.	Vinyl chloride		< 1.0		EPA 8260
89.	Xylenes		38.5		EPA 8260

p = PADEP 273.284 analyte exclusively
d = Subtitle D. Appendix I analyte exclusively
All other analytes are common to both lists.
† Please indicate detection limit if analyte is not detected.

Analyzed in the 4th calendar quarter only

FORM 50

Monitoring Point No. Pump House
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Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

Constituent	CAS Number
TIC: 1,2,4-Trimethylbenzene	
TIC: 1,4-Dioxane	
TIC: 2-Methyl-1-propanol	
TIC: 2-Propanol	
TIC: Acetonitrile	
TIC: Cyclohexanone	
TIC: Diethyl Ether	
TIC: Naphthalene	
TIC: n-Butanol	
TIC: Tetrahydrofuran	

APPENDIX F

TRI-COUNTY LANDFILL PIEZOMETER 29 ANALYSIS

EXHIBIT 25-2.1

TRI-COUNTY LANDFILL
LEACHATE SAMPLING ANALYSIS

TRI-COUNTY LANDFILL
LEACHATE ANALYSIS
CENTRE ANALYTICAL
LABORATORIES, INC.
MAY 25, 2000

Centre Analytical Laboratories, Inc.

3048 Research Drive, State College PA 16801 814-231-8032 FAX 814-231-1253

TRICOUNTY INDUSTRIES
159 TCI Park Drive
Grove City , PA 16127
Account Number: 2039

Contact: TRICOUNTY LANDFILL

Date Received: 25-MAY-00
Date Reported: 13-JUL-00

Invoice Number:

Date Collected: 24-MAY-00

Client ID: PZ-29

Lab ID: L27485-10

PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
SILVER-LOW LEVEL	mg/L	< .0003	.0003	EPA 200.8	14-JUN-00	JWH
SILVER-DISSOLVED-LOW LEVEL	mg/L	< .0003	.0003	EPA 200.8	14-JUN-00	JWH
ALUMINUM-TOTAL	mg/L	.805	.2	EPA 200.7	02-JUN-00	DEH
ALUMINUM-DISSOLVED	mg/L	< .2	.2	EPA 200.7	02-JUN-00	DEH
ALKALINITY	mg CaCO3/L	1520	1	EPA 310.1	30-MAY-00	GHD
ARSENIC-LOW LEVEL	mg/L	.0133	.0003	EPA 200.8	14-JUN-00	JWH
ARSENIC-DISSOLVED-LOW LEVEL	mg/L	.0066	.0003	EPA 200.8	14-JUN-00	JWH
BORON-TOTAL	mg/L	1.55	.1	EPA 200.7	02-JUN-00	DEH
BORON-DISSOLVED	mg/L	1.48	.1	EPA 200.7	02-JUN-00	DEH
BARIUM-TOTAL	mg/L	.13	.01	EPA 200.7	02-JUN-00	DEH
BARIUM-DISSOLVED	mg/L	.0778	.01	EPA 200.7	02-JUN-00	DEH
BERYLLIUM-TOTAL	mg/L	< .002	.002	EPA 200.7	02-JUN-00	DEH
BERYLLIUM-DISSOLVED	mg/L	< .002	.002	EPA 200.7	02-JUN-00	DEH
BOD-5 DAY	mg/L	39.9	1	EPA 405.1	26-MAY-00	GHD
CALCIUM-TOTAL	mg/L	130	.06	EPA 200.7	02-JUN-00	DEH
CALCIUM-DISSOLVED	mg/L	123	.06	EPA 200.7	02-JUN-00	DEH
CADMIUM-TOTAL	mg/L	.0122	.01	EPA 200.7	02-JUN-00	DEH
CADMIUM-DISSOLVED	mg/L	< .01	.01	EPA 200.7	02-JUN-00	DEH

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PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
CHLORIDE	mg/L	222	10	EPA 300.0	31-MAY-00	GMD
CYANIDE-TOTAL	mg/L	< .005	.005	EPA 335.4	31-MAY-00	JCA
CYANIDE-FREE	mg/L	< .005	.005	EPA 335.2	06-JUN-00	JCA
COBALT-TOTAL	mg/L	.0116	.005	EPA 200.7	02-JUN-00	DEH
COBALT-DISSOLVED	mg/L	.0074	.005	EPA 200.7	02-JUN-00	DEH
	mg/L	304	5	SM 5220D	09-JUN-00	GMD
CONDUCTIVITY-FIELD	umhos/cm	3310	0	Field Determined	22-MAY-00	FIELD
CHROMIUM-LOW LEVEL	mg/L	.00555	.0006	EPA 200.8	14-JUN-00	JWH
CHROMIUM-DISSOLVED-LOW LEVE	mg/L	.00514	.0006	EPA 200.8	14-JUN-00	JWH
HEXAVALENT CHROMIUM	mg/L	< .05	.05	EPA 7196	25-MAY-00	DEH
COPPER-TOTAL	mg/L	< .01	.01	EPA 200.7	02-JUN-00	DEH
COPPER-DISSOLVED	mg/L	< .01	.01	EPA 200.7	02-JUN-00	DEH
IRON-TOTAL	mg/L	69.8	.03	EPA 200.7	02-JUN-00	DEH
IRON-DISSOLVED	mg/L	40	.03	EPA 200.7	02-JUN-00	DEH
TOTAL HARDNESS	mg CaCO3/L	644	1	SM 2340B	22-MAY-00	FIELD
MERCURY	mg/L	< .0002	.0002	EPA 200.8	14-JUN-00	JWH
MERCURY-DISSOLVED	mg/L	< .0002	.0002	EPA 200.8	14-JUN-00	JWH
POTASSIUM-TOTAL	mg/L	134	.2	EPA 200.7	02-JUN-00	DEH

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Account Number: 2039

Contact: TRICOUNTY LANDFILL

Date Received: 25-MAY-00
Date Reported: 13-JUL-00

Invoice Number:

Date Collected: 24-MAY-00

Client ID: PZ-29

Lab ID: L27486-10

PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
POTASSIUM-DISSOLVED	mg/L	.120	.2	EPA 200.7	02-JUN-00	DEH
MAGNESIUM-TOTAL	mg/L	77.6	.05	EPA 200.7	02-JUN-00	DEH
MAGNESIUM-DISSOLVED	mg/L	73.7	.05	EPA 200.7	02-JUN-00	DEH
MANGANESE-TOTAL	mg/L	.933	.01	EPA 200.7	02-JUN-00	DEH
NGANESE-DISSOLVED	mg/L	.76	.01	EPA 200.7	02-JUN-00	DEH
DIUM-TOTAL	mg/L	269	.7	EPA 200.7	02-JUN-00	DEH
SODIUM-DISSOLVED	mg/L	259	.7	EPA 200.7	02-JUN-00	DEH
AMMONIA	mg/L	103	.2	EPA 350.3	12-JUN-00	GHD
NICKEL-TOTAL	mg/L	.0498	.01	EPA 200.7	02-JUN-00	DEH
NICKEL-DISSOLVED	mg/L	.0359	.01	EPA 200.7	02-JUN-00	DEH
LEAD-LOW LEVEL	mg/L	< .0003	.0003	EPA 200.8	14-JUN-00	JWH
LEAD-DISSOLVED-LOW LEVEL	mg/L	< .0003	.0003	EPA 200.8	14-JUN-00	JWH
PESTICIDE/PCB ANALYSIS						
ALPHA-BHC	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL
GAMMA-BHC	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL
BETA-BHC	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL
HEPTACHLOR	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL
DELTA-BHC	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL
ALDRIN	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL
HEPTACHLOR EPOXIDE	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL
ENDOSULFAN I	ug/L	.065	.02	EPA 8081	06-JUN-00	RCL
DIELDRIN	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL
4,4'-DDE	ug/L	< .02	.02	EPA 8081	06-JUN-00	RCL

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TRICOUNTY INDUSTRIES
159 TCI Park Drive
Grove City , PA 16127
Account Number: 2019

Contact: TRICOUNTY LANDFILL

Date Received: 25-MAY-00
Date Reported: 13-JUL-00

Invoice Number:

Date Collected: 24-MAY-00

Client ID: FZ-39

Lab ID: L27485-10

PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
ENDRIN	ug/L	< .02	.02	EPA 8081	06-JUN-00	RJL
ENDOSULFAN II	ug/L	< .02	.02	EPA 8081	06-JUN-00	RJL
4,4'-DDD	ug/L	< .02	.02	EPA 8081	06-JUN-00	RJL
ENDRIN ALDEHYDE	ug/L	< .02	.02	EPA 8081	06-JUN-00	RJL
4,4'-DDT	ug/L	< .02	.02	EPA 8081	06-JUN-00	RJL
ENDOSULFAN SULFATE	ug/L	< .02	.02	EPA 8081	06-JUN-00	RJL
ENDRIN KETONE	ug/L	< .02	.02	EPA 8081	06-JUN-00	RJL
METHOXYCHLOR	ug/L	< .02	.02	EPA 8081	06-JUN-00	RJL
AROCLOR-1016/1242	ug/L	< 1.02	1.02	EPA 8081	06-JUN-00	RJL
T[illegible]NE	ug/L	< 1.02	1.02	EPA 8081	06-JUN-00	RJL
C[illegible]E	ug/L	< 1.02	1.02	EPA 8081	06-JUN-00	RJL
ARO[illegible]1221	ug/L	< 1.02	1.02	EPA 8081	06-JUN-00	RJL
AROCLOR-1232	ug/L	< 1.02	1.02	EPA 8081	06-JUN-00	RJL
AROCLOR-1248	ug/L	< 1.02	1.02	EPA 8081	06-JUN-00	RJL
AROCLOR-1254	ug/L	< 1.02	1.02	EPA 8081	06-JUN-00	RJL
AROCLOR-1260	ug/L	< 1.02	1.02	EPA 8081	06-JUN-00	RJL
PH	PH UNITS	6.73	0	EPA 9040	25-MAY-00	CHD
PH-FIELD	PH UNITS	6.85	0	Field Determined	22-MAY-00	FIELD
TOTAL PHENOLICS	mg/L	< .1	.1	EPA 420.1	09-JUN-00	JCA
PHOSPHORUS	mg/L	.646	.05	EPA 200.8	31-MAY-00	MMW
ANTIMONY-LOW LEVEL	mg/L	.00231	.0004	EPA 200.8	14-JUN-00	JWH
ANTIMONY-DISSOLVED-LOW LEVEL	mg/L	.00171	.0004	EPA 200.8	14-JUN-00	JWH
SELENIUM-LOW LEVEL	mg/L	.0086	.0003	EPA 200.8	14-JUN-00	JWH
SELENIUM-DISSOLVED-LOW LEVEL	mg/L	.00602	.0003	EPA 200.8	14-JUN-00	JWH
TIN-TOTAL	mg/L	.145	.1	EPA 200.7	02-JUN-00	DEH
TIN-DISSOLVED	mg/L	< .1	.1	EPA 200.7	02-JUN-00	DEH

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TRICOUNTY INDUSTRIES
159 TCI Park Drive
Crove City , PA 16127
Account Number: 2039

Contact: TRICOUNTY LANDFILL

Date Received: 25-MAY-00
Date Reported: 11-JUL-00

Invoice Number:

Date Collected: 24-MAY-00

Client ID: PZ-29

Lab ID: L27485-10

PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
SULFATE	mg/L	< 10	10	EPA 300.0	31-MAY-00	GRD
SEMI-VOLATILE ANALYSIS						
N-NITROSODIMETHYLAMINE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
PHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
ANILINE	ug/L	< 20	20	EPA 8270	03-JUN-00	CS
BIS(2-CHLOROETHYL)ETHER	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2-CHLOROPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
1,3-DICHLOROBENZENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
1,4-DICHLOROBENZENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BENZYL ALCOHOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
1,2-DICHLOROBENZENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2-METHYLPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BIS(2-CHLOROISOPROPYL)ETHER	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
3&4-METHYLPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
N-NITROSO-DI-N-PROPYLAMINE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
HEXACHLOROETHANE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
NITROBENZENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
ISOPHORONE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2-NITROPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2,4-DIMETHYLPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BIS(2-CHLOROETHOXY)METHANE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2,4-DICHLOROPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
1,2,4-TRICHLOROBENZENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
NAPHTHALENE	ug/L	28	10	EPA 8270	03-JUN-00	CS
4-CHLOROANILINE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
HEXACHLOROBUTADIENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BENZOIC ACID	ug/L	< 20	20	EPA 8270	03-JUN-00	CS
4-CHLORO-3-METHYLPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2-METHYLNAPHTHALENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
HEXACHLOROCYCLOPENTADIENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2,4,6-TRICHLOROPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2,4,5-TRICHLOROPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2-CHLORONAPHTHALENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2-NITROANILINE	ug/L	< 20	20	EPA 8270		

Centre Analytical Laboratories, Inc.
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TRICOUNTY INDUSTRIES
159 TCI Park Drive
Grove City , PA 16127
Account Number: 2039

Contact: TRICOUNTY LANDFILL

Date Received: 25-MAY-00
Date Reported: 13-JUL-00

Invoice Number:

Date Collected: 24-MAY-00

Client ID: PZ-29

Lab ID: L27485-10

PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
DIMETHYL PHTHALATE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2,6-DINITROTOLUENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
ACENAPHTHYLENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
3-NITROANILINE	ug/L	< 20	20	EPA 8270	03-JUN-00	CS
ACENAPHTHENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
4-NITROPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
DIBENZOFURAN	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2,4-DINITROTOLUENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
DIETHYL PHTHALATE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
[illegible]HLOROPHENYL PHENYL ETHER	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
[illegible]RENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
[illegible]ITROANILINE	ug/L	< 20	20	EPA 8270	03-JUN-00	CS
2-METHYL-4,6-DINITROPHENOL	ug/L	< 26	26	EPA 8270	03-JUN-00	CS
N-NITROSODIPHENYLAMINE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
1,2-DIPHENYLHYDRAZINE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
4-BROMOPHENYL PHENYL ETHER	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
HEXACHLOROBENZENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
PENTACHLOROPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2,4-DINITROPHENOL	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
PHENANTHRENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
ANTHRACENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
CARBAZOLE	ug/L	< 26	26	EPA 8270	03-JUN-00	CS
DI-N-BUTYL PHTHALATE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
FLUORANTHENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
PYRENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BENZIDINE	ug/L	< 26	26	EPA 8270	03-JUN-00	CS
BUTYLBENZYL PHTHALATE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
3,3'-DICHLOROBENZIDINE	ug/L	< 26	26	EPA 8270	03-JUN-00	CS
BENZO(A)ANTHRACENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BIS(2-ETHYLHEXYL) PHTHALATE	ug/L	56	10	EPA 8270	03-JUN-00	CS
CHRYSENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
DI-N-OCTYL PHTHALATE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BENZO(B)FLUORANTHENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BENZO(K)FLUORANTHENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BENZO(A)PYRENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
INDENO(1,2,3-CD)PYRENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS

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Grove City , PA 16127
Account Number: 2039

Contact: TRICOUNTY LANDFILL

Date Received: 25-MAY-00
Date Reported: 13-JUL-00

Invoice Number:

Date Collected: 24-MAY-00

Client ID: PZ-29

Lab ID: L27485-10

PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
DIBENZ(A,H)ANTHRACENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
BENZO(G,H,I)PERYLENE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
PYRIDINE	ug/L	< 10	10	EPA 8270	03-JUN-00	CS
2,3,5,6-TETRACHLOROPHENOL	ug/L	< 10	10	EPA 8270	02-JUN-00	CS
TOTAL DISSOLVED SOLIDS	mg/L	1520	1	EPA 160.1	30-MAY-00	ESM
TOTAL KJELDAHL NITROGEN	mg/L	213	2	EPA 351.2	13-JUN-00	JWH
THALLIUM-LOW LEVEL	mg/L	< .0002	.0002	EPA 200.8	14-JUN-00	JWH
THALLIUM-DISSOLVED-LOW LEVEL	mg/L	< .0002	.0002	EPA 200.8	14-JUN-00	JWH
TOTAL SUSPENDED SOLIDS	mg/L	247	1	EPA 160.2	26-MAY-00	ESM
VANADIUM-TOTAL	mg/L	< .01	.01	EPA 200.7	02-JUN-00	DEH
VANADIUM-DISSOLVED	mg/L	< .01	.01	EPA 200.7	02-JUN-00	DEH
VOLATILE ANALYSIS						
BENZENE	ug/L	14	5	EPA 8260	25-MAY-00	JB
1,2-DIBROMOETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
1,1-DICHLOROETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
1,1-DICHLOROETHENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
1,2-DICHLOROETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
CIS-1,2-DICHLOROETHENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
TRANS-1,2-DICHLOROETHENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
ETHYLBENZENE	ug/L	215	5	EPA 8260	25-MAY-00	JB
DICHLOROMETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
TETRACHLOROETHENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
TOLUENE	ug/L	43	5	EPA 8260	25-MAY-00	JB
1,1,1-TRICHLOROETHANE	ug/L	< 5	5	EPA 8260	26-MAY-00	JB
TRICHLOROETHENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
VINYL CHLORIDE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
M,P-XYLENE	ug/L	377	5	EPA 8260	25-MAY-00	JB
O-XYLENE	ug/L	102	5	EPA 8260		

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Date Received: 25-MAY-00
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Date Collected: 24-MAY-00

Client ID: PZ-29

Lab ID: L27405-10

PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
BROMOFORM	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
BROMOMETHANE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
CARBON TETRACHLORIDE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
CHLOROBENZENE	ug/L	15	5	EPA 8260	25-MAY-00	JB
CHLOROETHANE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
DIBROMOCHLOROMETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
CHLOROMETHANE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
ALLYL CHLORIDE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
DICHLOROBENZENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
CHLOROBENZENE	ug/L	15	5	EPA 8260	25-MAY-00	JB
1, CHLOROBENZENE	ug/L	15	5	EPA 8260	25-MAY-00	JB
DICHLORODIFLUOROMETHANE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
1,2-DICHLOROPROPANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
CIS-1,3-DICHLOROPROPENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
TRANS-1,3-DICHLOROPROPENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
2-BUTANONE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
4-METHYL-2-PENTANONE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
1,1,1,2-TETRACHLOROETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
1,1,2,2-TETRACHLOROETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
1,1,2-TRICHLOROETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
TRICHLOROFLUOROMETHANE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
1,2,3-TRICHLOROPROPANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
ACETONE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
ACRYLONITRILE	ug/L	< 100	100	EPA 8260	25-MAY-00	JB
BROMOCHLOROMETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
BROMODICHLOROMETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
CARBON DISULFIDE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
CHLOROFORM	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
1,2-DIBROMO-3-CHLOROPROPANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
TRANS-1,4-DICHLORO-2-BUTENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
2-HEXANONE	ug/L	< 10	10	EPA 8260	25-MAY-00	JB
DIBROMOMETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
IODOMETHANE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
STYRENE	ug/L	< 5	5	EPA 8260	25-MAY-00	JB
VINYL ACETATE	ug/L	< 10	10	EPA 8260		

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Contact: TRICOUNTY LANDFILL

Date Received: 25-MAY-00
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Invoice Number:

Date Collected: 24-MAY-00

Client ID: PZ-29

Lab ID: L37485-10

PARAMETER	UNITS	RESULT	LIMIT OF QUANTITATION	TEST METHOD	TEST DATE	ANALYST
ZINC-TOTAL	mg/L	.144	.005	EPA 200.7	02-JUN-00	DEH
ZINC-DISSOLVED	mg/L	< .005	.005	EPA 200.7	02-JUN-00	DEH

Comments: <none>

Submitted by:
Centre Analytical Labs, Inc.
Reviewed and Approved by:

Charles Simons
Laboratory Manager

TRI-COUNTY LANDFILL
LEACHATE ANALYSIS
ZANDE ENVIRONMENTAL SERVICE, INC.
SEPTEMBER 19, 1994

Analytical Results
from Leachate Sample
taken from PZ-29

OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/15/94

YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136

ATTN: MR. MICHAEL T. YOUCHAK
PROJECT #:
SAMPLED BY: WSH

CUSTOMER #: YOUCH1
SAMPLE ID: 52652
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE PZ
SAMPLE TYPE: WATER

TEST	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST
GENERAL INDICATORS / PHYSICAL PARAMETERS						
ALKALINITY	310.1	5510	1.0	mg/L	09/28/94	DKV/MRH
BIOCHEMICAL OXYGEN DEMAND (BOD5)	405.1	155	1	mg/L	09/26/94	JRV/DKV
DUPLICATE DETERMINATION: 155 mg/L						
CHEMICAL OXYGEN DEMAND (COD)	410.4	836	5.0	mg/L	10/05/94	JRV/DKV
HARDNESS, TOTAL	130.1	848	1.0	mg/L	10/10/94	DKV/MRH
PHENOLS	420.2	179	15	ug/L	09/27/94	JRV/DKV
pH, LAB	150.1/9045	8.87	0.01	S.U.	09/20/94	DKV/MRH/JRV
TOTAL DISSOLVED SOLIDS (TDS)	160.1	4990	1	mg/L	09/26/94	JRV/MRH
TOTAL SUSPENDED SOLIDS (TSS)	160.2	2280	1	mg/L	09/26/94	JRV/MRH
ANIONS / NUTRIENTS						
CHLORIDE	325.2	648	1.8	mg/L	09/29/94	JRV/DKV
CYANIDE, FREE	335.3	42	10	ug/L	10/04/94	JV

ZANDE ENVIRONMENTAL SERVICE, INC.
1255 DUBLIN RD.
COLUMBUS, OH 43215
(614)486-4585

Page: 2

OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/13/94

AK & YOUCHAK
STEUBENVILLE PIKE
ROCKS, PA 15136

MR. MICHAEL T. YOUCHAK
CT #:
ED BY: WSH

CUSTOMER # : YOUCH1
SAMPLE ID : 52652
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE P2
SAMPLE TYPE: WATER

	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST
OTAL	335.3	112	10	ug/L	10/04/94	JRW/DKW
ITROGEN	350.1	378	0.04	mg/L	09/23/94	JRW/DKW
SPHORUS	365.1	2.22	0.05	mg/L	10/05/94	JRW/DKW
	375.4	55.6	1.0	mg/L	10/12/94	DKW/MRH
...HAL NITROGEN (TKN)	351.2	418	0.20	mg/L	09/28/94	JRW/DKW

METALS

	272.2/7760	<1.0	1.0	ug/L	09/26/94	WJB/DKW
ER, DISSOLVED	272.2/7760	<1.0	1.0	ug/L	10/06/94	WJB/DKW
INUM	200.7/6010	10300	50	ug/L	09/26/94	WJB/DKW
SPIKE RECOVERY: 89.0%						
DUPLICATE DETERMINATION: 9900 ug/L						
DUPLICATE MATRIX SPIKE RECOVERY: 91.7%						
INUM, DISSOLVED	200.7/6010	1200	50	ug/L	10/04/94	WJB/DKW
SPIKE RECOVERY: 86.5%						
DUPLICATE DETERMINATION: 1240 ug/L						
DUPLICATE MATRIX SPIKE RECOVERY: 84.5%						
NIC	206.2/7060	7.6	1.0	ug/L	09/29/94	WJB/DKW

ZANDE ENVIRONMENTAL SERVICE, INC.
1255 DUBLIN RD.
COLUMBUS, OH 43215
(614)486-4583

Page: 5

OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/13/94

OUCHAK & YOUCHAK
996-I STEUBENVILLE PIKE
CKEES ROCKS, PA 15136

CUSTOMER #: YOUCH1
SAMPLE ID: 52652
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE PZ-2
SAMPLE TYPE: WATER

TTN: MR. MICHAEL T. YOUCHAK
ROJECT #:
AMPLED BY: WSH

EST	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST
s, ARSENIC, DISSOLVED	206.2/7060	<1.0	1.0	ug/L	09/29/94	WJB/DKW
a, BARIUM	200.7/6010	0.19	0.01	mg/L	09/21/94	WJB/DKW
a, BARIUM, DISSOLVED	200.7/6010	0.10	0.01	mg/L	09/28/94	WJB/DKW
ITUM RE RECOVERY: 88.7% NOTE: DUPLICATE DETERMINATION: 6.2 ug/L DUPLICATE MATRIX SPIKE RECOVERY: 87.9%	200.7/6010	6.2	1.0	ug/L	09/26/94	WJB/DKW
e, BERYLLIUM, DISSOLVED MATRIX SPIKE RECOVERY: 85.4% NOTE: DUPLICATE DETERMINATION: 5.8 ug/L DUPLICATE MATRIX SPIKE RECOVERY: 83.7%	200.7/6010	5.7	1.0	ug/L	10/04/94	WJB/DKW
, BORON MATRIX SPIKE RECOVERY: 89.5% NOTE: DUPLICATE DETERMINATION: 4960 ug/L DUPLICATE MATRIX SPIKE RECOVERY: 86.1%	200.7/6010	4250	50	ug/L	09/26/94	WJB/DKW
, BORON, DISSOLVED MATRIX SPIKE RECOVERY: 90.6% NOTE: DUPLICATE DETERMINATION: 4790 ug/L DUPLICATE MATRIX SPIKE RECOVERY: 89.2%	6010	4640	50	ug/L	10/04/94	WJB/DKW
a, CALCIUM	200.7/6010	82.0	0.04	mg/L	09/27/94	WJB/DKW
a, CALCIUM, DISSOLVED	200.7/6010	85.0	0.04	mg/L	09/27/94	WJB/DKW

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1255 DUBLIN RD.
COLUMBUS, OH 43215
(614)486-4585

OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/15/94

JCHAK & YOUCHAK
)6-I STEUBENVILLE PIKE
KEES ROCKS, PA 15136

CUSTOMER # : YOUCH1
SAMPLE ID : 52632
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE
SAMPLE TYPE: WATER

TN: MR. MICHAEL T. YOUCHAK
OJECT #:
MPLED BY: WSH

	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST
CADMIUM	200.7/6010	4	1	ug/L	09/21/94	WJB/DKW
CADMIUM, DISSOLVED	200.7/6010	1	1	ug/L	09/28/94	WJB/DKW
COBALT	200.7/6010	101	40	ug/L	09/28/94	WJB/DKW
SPIKE RECOVERY: 106.9%						
LICATE DETERMINATION: 104 ug/L						
LICATE MATRIX SPIKE-RECOVERY: 86.3%						
COBALT, DISSOLVED	200.7/6010	56	40	ug/L	10/04/94	WJB/DKW
TRIX SPIKE RECOVERY: 85.6%						
TE: DUPLICATE DETERMINATION: 57 ug/L						
DUPLICATE MATRIX SPIKE RECOVERY: 89.6%						
ALENT-CHROMIUM	218.5	<5	5	ug/L	09/20/94	DKW
, CHROMIUM	218.2/7191	61.3	1.0	ug/L	10/03/94	WJB/DKW
, CHROMIUM, DISSOLVED	218.2/7191	12.1	1.0	ug/L	10/03/94	WJB/DKW
, COPPER	200.7/6010	63	10	ug/L	09/22/94	WJB/DKW
, COPPER, DISSOLVED	200.7/6010	17	10	ug/L	10/03/94	WJB/DKW
MATRIX SPIKE RECOVERY: 96.6%						
NOTE: DUPLICATE DETERMINATION: 17 ug/L						
DUPLICATE MATRIX SPIKE RECOVERY: 97.2%						
, IRON	200.7/6010	75.6	0.04	mg/L	09/22/94	WJB/DKW

P2-29

ZANDE ENVIRONMENTAL SERVICE, INC.
1255 DUBLIN RD.
COLUMBUS, OH 43215
(614)486-4583

OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/13/94

YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136

ATTN: MR. MICHAEL T. YOUCHAK
PROJECT #:
SAMPLED BY: WSH

CUSTOMER #: YOUCHI
SAMPLE ID: 52652
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE PZ-3A
SAMPLE TYPE: WATER

TEST	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST
Fe, IRON, DISSOLVED	200.7/6010	20.4	0.04	mg/L	10/05/94	WJB/DKW
MATRIX SPIKE RECOVERY: 101.7%						
NOTE: DUPLICATE DETERMINATION: 20.6 mg/L						
DUPLICATE MATRIX SPIKE RECOVERY: 94.5%						
Hg, MERCURY	245.2/7470	<0.2	0.2	ug/L	09/22/94	WJB/DKW
Hg, , DISSOLVED	245.2/7470	<0.2	0.2	ug/L	09/28/94	WJB/DKW
K, POTASSIUM	200.7/6010	419	0.04	mg/L	09/27/94	WJB/DKW
K, POTASSIUM, DISSOLVED	200.7/6010	430	0.04	mg/L	09/27/94	WJB/DKW
Mg, MAGNESIUM	200.7/6010	115	0.04	mg/L	09/27/94	WJB/DKW
Mg, MAGNESIUM, DISSOLVED	200.7/6010	146	0.04	mg/L	09/27/94	WJB/DKW
Mn, MANGANESE	200.7/6010	0.76	0.01	mg/L	09/22/94	WJB/DKW
Mn, MANGANESE, DISSOLVED	200.7/6010	0.17	0.01	mg/L	10/05/94	WJB/DKW
MATRIX SPIKE RECOVERY: 84.5%						
NOTE: DUPLICATE DETERMINATION: 0.16 mg/L						
DUPLICATE MATRIX SPIKE RECOVERY: 86.1%						
Na, SODIUM	200.7/6010	626	0.04	mg/L	09/27/94	WJB/DKW
Na, SODIUM, DISSOLVED	200.7/6010	664	0.04	mg/L	09/27/94	WJB/DKW

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OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/15/94

AK & YOUCHAK
I STEUBENVILLE PIKE
S ROCKS, PA 15136

MR. MICHAEL T. YOUCHAK

CUSTOMER # : YOUCHI
SAMPLE ID : 52632
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE PZ-29
SAMPLE TYPE: WATER

CT #:
ED BY: WSH

	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST

REVIEWED BY: Daniel P. Smith
CHEMIST

OCT 14 1994
DATE

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Page: 1

OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/15/94

YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136

CUSTOMER #: YOUCH1
SAMPLE ID: 52652A
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE PZ-2A
SAMPLE TYPE: WATER

ATTN: MR. MICHAEL T. YOUCHAK
PROJECT #:
SAMPLED BY: WSH

TEST	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST
METALS						
Ni, NICKEL	200.7/6010	142	40	ug/L	09/22/94	WJB/DKW
Ni, NICKEL, DISSOLVED	200.7/6010	118	40	ug/L	10/05/94	WJB/DKW
MATRIX SPIKE RECOVERY: 84.4%						
DUPLICATE DETERMINATION: 118 ug/L						
DUPLICATE MATRIX SPIKE RECOVERY: 83.7%						
Pb, LEAD	239.2/7421	537	1.0	ug/L	10/04/94	WJB/DKW
Pb, LEAD, DISSOLVED	239.2/7421	141	1.0	ug/L	10/04/94	WJB/DKW
Sb, ANTIMONY	204.2/7041	14.5	5.0	ug/L	10/02/94	WJB/DKW
Sb, ANTIMONY, DISSOLVED	204.2/7041	6.4	5.0	ug/L	10/02/94	WJB/DKW
Se, SELENIUM	270.2/7740	3.1	1.0	ug/L	09/30/94	WJB/DKW
Se, SELENIUM, DISSOLVED	270.2/7740	<1.0	1.0	ug/L	09/30/94	WJB/DKW
Sn, TIN	200.7/6010	0.12	0.10	mg/L	09/26/94	WJB/DKW
MATRIX SPIKE RECOVERY: 86.9%						
NOTE: DUPLICATE DETERMINATION: 0.16 mg/L						
DUPLICATE MATRIX SPIKE RECOVERY: 80.2%						

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Page: 2

OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/15/94

OUCHAK & YOUCHAK
996-I STEUBENVILLE PIKE
ICKEES ROCKS, PA 15156

ITTN: MR. MICHAEL T. YOUCHAK
ROJECT #:
AMPLED BY: WSH

CUSTOMER #: YOUCHI
SAMPLE ID #: 52652A
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE PZ-19
SAMPLE TYPE: WATER

EST	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST
, TIN, DISSOLVED	200.7/6010	0.12	0.10	mg/L	10/04/94	WJB/DKW
MATRIX SPIKE RECOVERY: 89.9%						
NOTE: DUPLICATE DETERMINATION: 0.10 mg/L						
DUPLICATE MATRIX SPIKE RECOVERY: 87.8%						
1, THALLIUM	279.2/7841	2.2	1.0	ug/L	10/02/94	WJB/DKW
, DISSOLVED	279.2/7841	2.2	1.0	ug/L	10/02/94	WJB/DKW
, VANADIUM	200.7/6010	656	50	ug/L	09/26/94	WJB/DKW
MATRIX SPIKE RECOVERY: 105.8%						
NOTE: DUPLICATE DETERMINATION: 657 ug/L						
DUPLICATE MATRIX SPIKE RECOVERY: 107.3%						
ANADIUM, DISSOLVED	200.7/6010	185	50	ug/L	10/04/94	WJB/DKW
MATRIX SPIKE RECOVERY: 86.0%						
NOTE: DUPLICATE DETERMINATION: 193 ug/L						
DUPLICATE MATRIX SPIKE RECOVERY: 85.2%						
Zn, ZINC	200.7/6010	657	10	ug/L	09/22/94	WJB/DKW
Zn, ZINC, DISSOLVED	200.7/6010	74	10	ug/L	10/05/94	WJB/DKW
MATRIX SPIKE RECOVERY: 86.4%						
NOTE: DUPLICATE DETERMINATION: 74 ug/L						
DUPLICATE MATRIX SPIKE RECOVERY: 88.5%						

EXTRACTIONS

ACID DIGEST. FOR TOTAL METALS BY ICP	3010				09/27/94	WJB/DKW

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Page: 5

OHIO EPA APPROVAL #1050
SAMPLE ANALYSIS REPORT

Date: 10/13/94

OUCHAK & YOUCHAK
996-I STEUBENVILLE PIKE
CKEES ROCKS, PA 15136

CUSTOMER # : YOUCH1
SAMPLE ID : 52652A
SAMPLE DATE: 09/19/94
SAMPLE TIME: 15:15
DATE RECEIVED: 09/20/94
SITE LOCATION: TRI-COUNTY LANDFILL
SITE ID: LEACHATE P2
SAMPLE TYPE: WATER

TTN: MR. MICHAEL T. YOUCHAK
ROJECT #:
AMPLED BY: WSH

EST	EPA METHOD #	RESULT	DETECTION LIMIT	UNITS	COMPLETION DATE	ANALYST
CID DIGEST. FOR TOTAL METALS BY GFAA	3020				09/22/94	WJB/DKW
ONTINUOUS LIQUID/LIQUID EXTRACTION NOTE: APPLIES TO METHODS 608,625,8080,8270, FOR WATER SAMPLES, (PESTICIDES/PCB's/BNA's).	3520				09/22/94	JH
AND TRAP CONCENTRATION LIES TO METHODS 624, 8240, FOR VOC ANALYSIS OF ERS AND SOILS.	5030				09/29/94	JEW
ORGANICS						
OLATILE ORGANIC COMPOUNDS NOTE: SEE ATTACHED REPORT.	8260				09/29/94	JEW
NTIVOLATILE ORGANIC COMPOUNDS (BNA'S) NOTE: SEE ATTACHED REPORT.	8270				10/11/94	JEW
ESTICIDES IN WATER NOTE: SEE ATTACHED REPORT.	8080				09/26/94	KAR

REVIEWED BY: Daniel P. Smith
CHEMIST

OCT. 14 1994
DATE

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/CHAK & YOUCHAK
)6-I STEUBENVILLE PIKE
:ES ROCKS, PA 15136
'N: MR. MICHAEL T. YOUCHAK

)JECT #:
(PLED BY: WSH
METHOD #: 8260 (VOLATILE ORGANIC COMPOUNDS)
(PLE TYPE: WATER

DATE : 09/30/94
CUSTOMER # : YOUCH1
SAMPLE ID : 32632
SAMPLE DATE : 09/19/94
SAMPLE TIME : 15:15
DATE REC'D : 09/20/94
SITE LOCATION : TRI-COUNTY LANDFILL
SITE ID : LEACHATE PZ-29

ANALYTE	RESULT	UNITS
OMETHANES		
METHYLENE CHLORIDE	<5	ug/L
CHLOROFORM	<0.5	ug/L
TRICHLOROFLUOROMETHANE	<5	ug/L
OETHANES		
CHLOROETHANE	<5	ug/L
1,1-DICHLOROETHANE	<1	ug/L
1,1-TRICHLOROETHANE	<1	ug/L
NYL CHLORIDE	<2	ug/L
trans-1,2-DICHLOROETHENE	<1	ug/L
TRICHLOROETHENE	<1	ug/L
TETRACHLOROETHENE	<1	ug/L
OMATICS		
BENZENE	30	ug/L
CHLOROBENZENE	<5	ug/L
TOLUENE	103	ug/L
ETHYLBENZENE	85	ug/L
meta/para XYLENES	179	ug/L
ortho XYLENE	66	ug/L
TONES		
ACETONE	<50	ug/L
2-BUTANONE (MEK)	<10	ug/L
4-METHYL-2-PENTANONE	<5	ug/L
2-HEXANONE	<5	ug/L

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YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136
ATT'N: MR. MICHAEL T. YOUCHAK

PROJECT #:
SAMPLED BY: WSH
EPA METHOD #: 8260 (VOLATILE ORGANIC COMPOUNDS)
SAMPLE TYPE: WATER

DATE : 09/30/94
CUSTOMER # : YOUCH1
SAMPLE ID : 32632
SAMPLE DATE : 09/19/94
SAMPLE TIME : 15:15
DATE REC'D : 09/20/94
SITE LOCATION : TRI-COUNTY LANDFILL
SITE ID : LEACHATE P2-29

QUALITY CONTROL SECTION
(1) SURROGATE STANDARD RECOVERIES

SURROGATE	% REC.	CONTROL LIMITS (%)
1,2-DICHLOROETHANE-d4	130	76-114
TOLUENE-d8	108	88-110
4-BROMOFLUOROBENZENE	109	86-115

AS REQUIRED BY THE METHOD, WHEN ONE OR MORE SURROGATES IS OUT-OF-BOUNDS, THE SAMPLE RESULTS MUST BE FLAGGED AS 'ESTIMATES'.

(2) ANALYSIS INFORMATION

FRACTION	ANALYST	ANALYSIS DATE	INSTRUMENT
VOLATILES	JEW	09-29-94	MD-801

SAMPLE VOLUME: 25 mLs
ANALYSIS FILE #: 5804208
SURROGATE LOT: 2910517

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YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136
ATT'N: MR. MICHAEL T. YOUCHAK
PROJECT #:
SAMPLED BY: WSH
EPA METHOD #: 8270 (SEMIVOLATILE ORGANICS)
SAMPLE TYPE: WATER

DATE : 10/14/94
CUSTOMER # : YOUCH1
SAMPLE ID : 32632
SAMPLE DATE : 09/19/94
SAMPLE TIME : 15:15
DATE REC'D : 09/20/94
SITE LOCATION : TRI-COUNTY LANDFILL
SITE ID : LEACHATE PZ-29

BASE/NEUTRAL EXTRACTABLE COMPOUNDS	RESULT	UNITS
PHTHALATES		
DIETHYL PHTHALATE	25	ug/L
DI-n-BUTYL PHTHALATE	<1	ug/L
BUTYL BENZYL PHTHALATE	<1	ug/L
BIS (2-ETHYLHEXYL) PHTHALATE	9	ug/L
CHLORO/NITRO-AROMATICS		
1,2-DICHLOROBENZENE	<10	ug/L
1,4-DICHLOROBENZENE	<10	ug/L
COMPOUNDS		
ISOPHORONE	<10	ug/L
POLYNUCLEAR AROMATICS (PAH's)		
NAPHTHALENE	<10	ug/L

ACID EXTRACTABLE COMPOUNDS	RESULT	UNITS
ACIDS/PHENOLS		
PHENOL	<10	ug/L

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YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136
ATT'N: MR. MICHAEL T. YOUCHAK
PROJECT #:
SAMPLED BY: WSH
EPA METHOD #: 8270 (SEMIVOLATILE ORGANICS)
SAMPLE TYPE: WATER

DATE : 10/14/94
CUSTOMER # : YOUCH1
SAMPLE ID : 32632
SAMPLE DATE : 09/19/94
SAMPLE TIME : 15:15
DATE REC'D : 09/20/94
SITE LOCATION : TRI-COUNTY LANDFILL
SITE ID : LEACHATE PZ-29

QUALITY CONTROL SECTION

(1) SURROGATE STANDARD RECOVERIES

		CONTROL LIMITS (% RECOVERY)
TERPHENYL-d14	44	33-141%
PHENOL-d6	31	10-94%
2,4,6-TRIBROMOPHENOL	69	10-123%
2-FLUOROBIPHENYL	45	43-116%
NITROBENZENE-d5	29	35-114%
2-FLUOROPHENOL	34	21-100%

AS REQUIRED BY THE METHOD, WHEN ONE OR MORE SURROGATES IS OUT-OF-BOUNDS, THE SAMPLE RESULTS MUST BE FLAGGED 'ESTIMATED'.

(2) EXTRACTION INFORMATION

FRACTION	ANALYST	EXTRACTION TECHNICIANS	EXTRACTION DATE	ANALYSIS DATE
SEMIVOLATILE	JEW	JH	09/22/94	10/11/94

EXTRACTION INFORMATION
SAMPLE VOLUME EXTRACTED: 500 mLs
ANALYSIS FILE: 6202013 INSTRUMENT: MD-801

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YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136
ATT'N: MR. MICHAEL T. YOUCHAK
PROJECT #:
SAMPLED BY: WSH
EPA METHOD #: 8270 (SEMIVOLATILE ORGANICS)
SAMPLE TYPE: WATER

DATE : 10/14/94
CUSTOMER # : YOUCH1
SAMPLE ID : 32632 LAB DUPLICATE
SAMPLE DATE : 09/19/94
SAMPLE TIME : 15:15
DATE REC'D : 09/20/94
SITE LOCATION : TRI-COUNTY LANDFILL
SITE ID : LEACHATE P2-29

BASE/NEUTRAL EXTRACTABLE COMPOUNDS	RESULT	UNITS
PHTHALATES		
DIETHYL PHTHALATE	34	ug/L
DI-n-BUTYL PHTHALATE	<1	ug/L
BUTYL BENZYL PHTHALATE	<1	ug/L
BIS (2-ETHYLHEXYL) PHTHALATE	6	ug/L
CHLORO/NITRO-AROMATICS		
1,2-DICHLOROBENZENE	<10	ug/L
1,4-DICHLOROBENZENE	<10	ug/L
COMPOUNDS		
ISOPHORONE	<10	ug/L
POLYNUCLEAR AROMATICS (PAH's)		
NAPHTHALENE	<10	ug/L

ACID EXTRACTABLE COMPOUNDS	RESULT	UNITS
ACIDS/PHENOLS		
PHENOL	<10	ug/L

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YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136
ATT'N: MR. MICHAEL T. YOUCHAK
PROJECT #:
SAMPLED BY: WSH
EPA METHOD #: 8270 (SEMIVOLATILE ORGANICS)
SAMPLE TYPE: WATER

DATE : 10/14/94
CUSTOMER # : YOUCH1
SAMPLE ID : 32632 LAB DUPLICATE
SAMPLE DATE : 09/19/94
SAMPLE TIME : 15:15
DATE REC'D : 09/20/94
SITE LOCATION : TRI-COUNTY LANDFILL
SITE ID : LEACHATE P2-29

QUALITY CONTROL SECTION

(1) SURROGATE STANDARD RECOVERIES — CONTROL LIMITS (% RECOVERY)

TERPHENYL-d14	46	33-141%
PHENOL-d6	40	10-94%
2,4,6-TRIBROMOPHENOL	68	10-123%
2-FLUOROBIPHENYL	50	43-116%
NITROBENZENE-d5	29	35-114%
2-FLUOROPHENOL	33	21-100%

AS REQUIRED BY THE METHOD, WHEN ONE OR MORE SURROGATES IS OUT-OF-BOUNDS, THE SAMPLE RESULTS MUST BE FLAGGED 'ESTIMATED'.

(2) EXTRACTION INFORMATION

FRACTION	ANALYST	EXTRACTION TECHNICIANS	EXTRACTION DATE	ANALYSIS DATE
SEMIVOLATILE	JEW	JH	09/22/94	10/11/94

EXTRACTION INFORMATION
SAMPLE VOLUME EXTRACTED: 500 mLs
ANALYSIS FILE: 6202014 INSTRUMENT: MD-801

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YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136
ATT'N: MR. MICHAEL YOUCHAK

PROJECT #:
SAMPLED BY: WSH
EPA METHOD #: 8080 (ORGANOCHLORINE PESTICIDES)
SAMPLE TYPE : WATER

DATE : 09/28/94
CUSTOMER # : YOUCH1
SAMPLE ID : 32632
SAMPLE DATE : 09/19/94
SAMPLE TIME : 15:15
DATE REC'D : 09/20/94
SITE LOCATION : TRI-COUNTY LANDFILL
SITE ID : LEACHATE PZ-29

ORGANOCHLORINE PESTICIDES	RESULT	UNITS
GAMMA-BHC (LINDANE)	<0.02	ug/L
4,4'-DDT	<0.10	ug/L

QUALITY CONTROL SECTION

(1) SURROGATE RECOVERY

		(CONTROL LIMITS, % RECOVERY)
TETRACHLORO-m-XYLENE	40.8%	24-154% RECOVERY

(2) EXTRACTION INFORMATION

FRACTION	ANALYST	EXTRACTION TECHNICIANS	EXTRACTION DATE	ANALYSIS DATE
PESTICIDE	RAR	JH	09-22-94	09-26-94

VOLUME EXTRACTED: 750 mLs
SURROGATE LOT: 298506
ANALYSIS FILE #: 09264PST.14R

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YOUCHAK & YOUCHAK
5996-I STEUBENVILLE PIKE
MCKEES ROCKS, PA 15136
ATT'N: MR. MICHAEL YOUCHAK

PROJECT #:
SAMPLED BY: WSH
EPA METHOD #: 8080 (ORGANOCHLORINE PESTICIDES)
SAMPLE TYPE : WATER

DATE : 09/28/94
CUSTOMER # : YOUCH1
SAMPLE ID : 32632 LAB DUPLICATE
SAMPLE DATE : 09/19/94
SAMPLE TIME : 15:15
DATE REC'D : 09/20/94
SITE LOCATION : TRI-COUNTY LANDFILL
SITE ID : LEACHATE PZ-29

ORGANOCHLORINE PESTICIDES	RESULT	UNITS
GAMMA-BHC (LINDANE)	<0.02	ug/L
4,4'-DDT	<0.10	ug/L

QUALITY CONTROL SECTION

(1) SURROGATE RECOVERY

		(CONTROL LIMITS, % RECOVERY)
TETRACHLORO-m-XYLENE	68.1%	24-154% RECOVERY

(2) EXTRACTION INFORMATION

FRACTION	ANALYST	EXTRACTION TECHNICIANS	EXTRACTION DATE	ANALYSIS DATE
PESTICIDE	RAR	JH	09-22-94	09-26-94

VOLUME EXTRACTED: 750 mLs
SURROGATE LOT: 298506
ANALYSIS FILE #: 09264PST.15R

APPENDIX G

SENECA LANDFILL NPDES RENEWAL POLLUTANT SAMPLING LABORATORY ANALYSIS

(PLEASE FIND ON ENCLOSED DVD DUE TO LARGE NUMBER OF PAGES)

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1803 Philadelphia St.
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F: (724) 465-4209
PADEP: 32-00382

1276 Bentleyville Rd.
Van Voorhis, PA 15366
P: (724) 258-TEST
F: (724) 258-8376
PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

14 November 2012

Work Order: 2110054

Project: Wastewater

Seneca Landfill
Attn: Joanne Clarkson
421 Hartman Road
Evans City, PA 16033

Report of Analysis

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
Effluent (1)	2110054-01	Waste Water	10/30/2012 13:00	11/01/2012 15:00
Effluent (2)	2110054-02	Waste Water	10/31/2012 13:00	11/01/2012 15:00
Effluent (3)	2110054-03	Waste Water	11/01/2012 13:00	11/01/2012 15:00

Report Narrative

The results contained in this report are only representative of the samples received. Environmental Service Laboratories, Inc. is not responsible for use or interpretation of the data included herein.

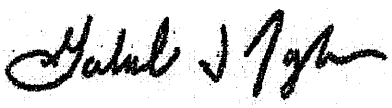
Definitions

R	Received out of recommended hold time.
ND	Less than reporting limit
RL	Reporting Limit
CFU	Colony Forming Units

Certifications

Analyses performed by Environmental Service Laboratories, Inc., Indiana PA unless otherwise specified.

Approved By



Gabe Taylor For Tricia Lefko
Manager

ENVIRONMENTAL SERVICE LABORATORIES, INC.

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Williamsport, PA 17701
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F: (570) 321-1957
PADEP: 41-04880

Seneca Landfill
421 Hartman Road
Evans City, PA 16033

Reported: 11/14/2012 13:21

Lab Sample ID#: 2110054-01
Sample Type: Waste Water
Sample Source: Composite
Sampler: client
Client Sample ID: Effluent (1)

Sample Begin Date: 10/29/2012 13:00
Sample End Date: 10/30/2012 13:00
Receipt Date: 11/01/2012 15:00

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/ Certification	Analysis Date/Time
General Chemistry							
Sulfide	ND	mg/L		1.00	SM4500S F	SER	11/02 16:49
Sulfite	ND	mg/L	R	2.00	SM4500-SO3B	SR	11/01 15:34

ENVIRONMENTAL SERVICE LABORATORIES, INC.

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PADEP: 32-00382

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PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

Seneca Landfill
421 Hartman Road
Evans City, PA 16033

Reported: 11/14/2012 13:21

Lab Sample ID#: 2110054-02
Sample Type: Waste Water
Sample Source: Composite
Sampler: client
Client Sample ID: Effluent (2)

Sample Begin Date: 10/30/2012 13:00
Sample End Date: 10/31/2012 13:00
Receipt Date: 11/01/2012 15:00

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/ Certification	Analysis Date/Time
General Chemistry							
Sulfide	ND	mg/L		1.00	SM4500S F	SER	11/02 16:49
Sulfite	ND	mg/L	R	2.00	SM4500-SO3B	SR	11/01 15:34

ENVIRONMENTAL SERVICE LABORATORIES, INC.

1803 Philadelphia St.
Indiana, PA 15701
P: (724) 463-TEST
F: (724) 465-4209
PADEP: 32-00382

1276 Bentleyville Rd.
Van Voorhis, PA 15366
P: (724) 258-TEST
F: (724) 258-8376
PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

Seneca Landfill
421 Hartman Road
Evans City, PA 16033

Reported: 11/14/2012 13:21

Lab Sample ID#: 2110054-03
Sample Type: Waste Water
Sample Source: Composite
Sampler: client
Client Sample ID: Effluent (3)

Sample Begin Date: 10/31/2012 13:00
Sample End Date: 11/01/2012 13:00
Receipt Date: 11/01/2012 15:00

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/ Certification	Analysis Date/Time
General Chemistry							
Sulfide	ND	mg/L		1.00	SM4500S F	SER	11/02 16:49
Sulfite	ND	mg/L	R	2.00	SM4500-SO3B	SR	11/01 15:34

ENVIRONMENTAL SERVICE LABORATORIES, INC.

☑ 1803 Philadelphia St. Indiana, PA 15701 P: 724-463-TEST F: 724-465-4209

☐ 1276 Bentleyville Rd. Van Voorhis, PA 15366 P: 724-258-TEST F: 724-258-8376

☐ 1200 River Avenue Williamsport, PA 17701 P: 570-321-9002 F: 570-321-1957

SAMPLE REQUEST & CHAIN OF CUSTODY

PAGE _____ OF _____

Sample Identification	ESL#	Sample Type: Composite Date on/off	Composite Time on/off	Grab Date	Grab Time	Matrix	# of Bottles	Container Type / Preservative	Analysis Requested
EFFLUENT (1)	2100554 -01	10-24	1:00-1:00			WW	1 ✓	Plastic Liter NONE	Sulfite ✓
		10-30	1:00-1:00						
EFFLUENT (2)	-02	10-30	1:00-1:00			WW	1 ✓	Plastic Liter NONE	Sulfite ✓
		10-31	1:00 1:00						
EFFLUENT (3)	-03	10-31	1:00			WW	1 ✓	Plastic Liter NONE	Sulfite ✓
		11-1	1:00						
EFFLUENT (1)	-01	10-29	1:00			WW	1 ✓	Plastic Liter Zinc Acetate	Sulfide ✓ 4/12
		10-30	1:00						
EFFLUENT (2)	-02	10-30	1:00			WW	1 ✓	Plastic Liter Zinc Acetate	Sulfide ✓ 3/12
		10-31	1:00						
EFFLUENT (3)	-03	10-31	1:00			WW	1 ✓	Plastic Liter Zinc Acetate	Sulfide ✓ 5/12
		11-1	1:00						

2110054

THE UNDERSIGNED PURCHASER HEREBY AGREES TO PAY SERVICE CHARGES ON ACCOUNTS OVER 31 DAYS OLD.
1. THESE SERVICE CHARGES WILL ACCRUE AT THE RATE OF 1 1/2% PER MONTH (18% PER ANNUM OR THE MAXIMUM ALLOWED BY LAW.)
2. THE UNDERSIGNED PURCHASER AGREES TO PAY, IN THE EVENT HIS ACCOUNT BECOMES DELINQUENT AND IS TURNED OVER TO ANY ATTORNEY FOR COLLECTION, REASONABLE ATTORNEY'S FEES PLUS ALL COURT AND ATTENDANT COLLECTION COSTS.

Notes/Special Instructions:

Sulfite & Sulfide for NPDES Permit Renewal

	Signature	Date/ Time	Signature	Date/ Time
Sampled By:	Joanne Clarkson	11-1-12 1:30		
Relinquished By:			Received By:	11-1-12 1335
Relinquished By:	11-1-12 1500		Received By:	11/1/12 1513
Relinquished By:			Received By:	
Relinquished By:			Received By:	

LAB USE ONLY

Correct Preservations Y / N / NA Correct Containers Y / N / NA Receipt Temperature 1.2

Company/Name:	SENECA LANDFILL
Address:	421 Hartmann Road Evans City, PA 16033
Contact Person:	Ms. Joanne Clarkson
Phone Number:	(724) 452-0899
Fax Number:	
Email Address:	joannec@senecalandfill.com
Billing Address:	421 Hartmann Road Evans City, PA 16033
Purchase Order:	

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:

Company:	Seneca Landfill, Inc.
Address:	PO Box 1080
	Mars, PA 16046
Email To:	mpavelek@senecalandfill.com
Phone: 724-452-0899	Fax: 724-453-0915
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Mike Pavelek
Copy To:	Mick Palmer
Purchase Order No.:	
Project Name:	NPDES Permit Renewal
Project Number:	Outfall 001 - Sample 1

Section C Invoice Information:

Attention:	Beth Hanz
Company Name:	Seneca Landfill, Inc.
Address:	PO Box 1080, Mars, PA 16046
Pace Quote Reference:	
Pace Project Manager:	Rachel Christner
Pace Profile #:	3915 - Line 1

REGULATORY AGENCY

☒ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: PA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Pollutant Group 1	Pollutant Group 2	Pollutant Group 3	Pollutant Group 4	Pollutant Group 5	Module 11 (TICs)	Pollutant Group 6	a-Terpineol, p-Cresol, o-Cresol	Benzoic Acid, Pyridine, Acetone	Acetophenone, 2-Butanone	2,4,6-Trichlorophenol	Vanadium	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Outfall 001 - Sample 1	WT	G	10-3	9:30	10-9	9:30		4	4	4	1	1			X	X	X	X	X	X	X	X	X	X	X	X	X	X		92
2			G			10-9	9:30		2	1		3				2															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
BOD - Subout to ESL	Mick Palmer	10/9/12		Ryan Lalor	10-9	1:00				
Phenolics - Subout to Geochemical Testing	Ryan Pace	10/9	4:30	Ryan Lalor	10-9-12	1630	2.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Mick Palmer

SIGNATURE of SAMPLER: Mick Palmer

DATE Signed (MM/DD/YY): 10/9/2012

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any ~~invoices not paid within 30 days~~.

F-ALL-Q-020rev.06, 4-Feb

Sample Condition Upon Receipt

Pace Analytical

Client Name: Seneca   Project # 3574288

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other ______

Tracking #: ______

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no   Seals intact: ☐ yes ☐ no

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other ______

Thermometer Used 5 (6) 7   Type of Ice: (Wet) Blue None   ☑ Samples on ice, cooling process has begun

Cooler Temperature 2.2   Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: RTL 10-9-12

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time: RTL 10-9-12	☒Yes	☑No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes	☐No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: (VOA), coliform, (TOC), (O&G), WI-DRO (water)	☑Yes	☐No		Initial when completed RTL / Lot # of added preservative
Samples checked for dechlorination:	☑Yes	☐No	☐N/A	14.
Headspace in VOA Vials (>6mm):	☑Yes	☐No	☐N/A	15. VOAS + TOC'S ALL
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): ______				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ______ Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: [signature]   **Date:** 10/10/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 3079283

Client Name: Seneca

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			4-1L 1-250	6		1	2		1		1		3	1	1	1		3					

SCURF Back (C016-4 15May2012).xls

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MB

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 3079283

Matrix: (soil/water) WATER Lab Sample ID: 499255

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 21012009

Level: (low/med) LOW Date Received: 10/12/12

% Moisture: not dec. _____ Date Analyzed: 10/12/12

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
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19.					
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21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

OUTFALL 0
01 - SAMPL

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 3079283

Matrix: (soil/water) WATER Lab Sample ID: 3079283001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 21012053

Level: (low/med) LOW Date Received: 10/09/12

% Moisture: not dec. _____ Date Analyzed: 10/12/12

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	1.18	55.8	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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24.					
25.					
26.					
27.					
28.					
29.					
30.					

ENVIRONMENTAL SERVICE LABORATORIES, INC.

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Williamsport, PA 17701
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F: (570) 321-1957
PADEP: 41-04880

22 October 2012

Work Order: 2100774

Project: Wastewater

Pace Analytical Services, Inc.
Attn: Penny Westrick
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Report of Analysis

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
3079283001	2100774-01	Waste Water	10/09/2012 09:30	10/10/2012 10:02

Report Narrative

The results contained in this report are only representative of the samples received. Environmental Service Laboratories, Inc. is not responsible for use or interpretation of the data included herein.

Definitions

C	CBOD/ BOD dilutions did not meet laboratory acceptance criteria of 2.0 mg/L final DO and/or 1.0 mg/L loss (depletion); results are estimated.
ND	Less than reporting limit
RL	Reporting Limit
CFU	Colony Forming Units

Certifications

Analyses performed by Environmental Service Laboratories, Inc., Indiana PA unless otherwise specified.

Environmental Service Laboratories, Inc., Indiana, PA DEP lab ID #32-32382

Approved By

Gabe Taylor
Manager

ENVIRONMENTAL SERVICE LABORATORIES, INC.

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F: (570) 321-1957
PADEP: 41-04880

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Reported: 10/22/2012 11:48

Lab Sample ID#: 2100774-01
Sample Type: Waste Water
Sample Source: Grab
Sampler: client
Client Sample ID: 3079283001

Sample Date: 10/09/2012 09:30
Receipt Date: 10/10/2012 10:02

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/ Certification	Analysis Date/Time
General Chemistry							
Biochemical Oxygen Demand	3.3	mg/L	C	2.0	SM5210B	KAR	10/10 12:30

Chain of Custody

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601
Phone: (724) 850-5600
FAX: (724) 850-5601

Subcontractor Project No.:
P.O. No: ASR- 3079283

Request Date: 10/10/12 Analysis Due Date: 10/23/2012
Shipped By:

Certification Required:

Pace Project No.: 3079283
Report/Invoice to: Rachel Christner

Page 1 of 1

	Pace Sample ID:	Matrix:	Collection Date:	Time:	Analysis Requested:	Analytical Method:	Detection Limits:	Units Requested:
1	3079283001	WT	10/9/12	9:30	BOD v I L 2100774-01			
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

Special Requirements: Please e-mail final report to Rachel.Christner@pacelabs.com.

Subcontract Lab: Environmental Services Laboratories, Inc.
Address: 1803 Philadelphia Street
Indiana, PA 15701
Phone:

Analysis Authorized By: Rachel D Christner — Project Manager
Pace Agent Name — Title

Acceptance of Terms By:
Subcontract Lab Agent — Title

Relinquised By: T Trenchard 10/10/12 1000
(Signature & Affiliation) (Date) (Time)

Relinquised By:
(Signature & Affiliation) (Date) (Time)

Received By: [illegible] 10/10/12 10:02
(Signature & Affiliation) (Date) (Time)

Received By: [illegible] 10/10/12 1024
(Signature & Affiliation) (Date) (Time)

Cor

2100774

ASR (C015-0 31July2007)

1.1 I

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10208500
Sample Receipt Date: 10/12/2012
Client Project #: 3079283
Client Sub PO #: N/A
State Cert #: 68-00563

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Norman Hoffa, your Pace Project Manager.

This report has been reviewed by:

Norman C. Hoffa

October 23, 2012

Norman Hoffa, Project Manager
(919) 596-1935
(612) 607-6444 (fax)
norm.hoffa@pacelabs.com

ACCREDITED IN ACCORDANCE WITH nelac

Report of Laboratory Analysis

The results relate only to the samples included in this report.

Report Prepared Date:
October 23, 2012

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of PASI Pittsburgh. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration point and a nominal 1-Liter sample amount.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 98%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that 2,3,7,8-TCDD was not detected, indicating that the sample processing steps were free of background levels of this congener.

Laboratory spike samples were also prepared using clean water that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 91-97%, with a relative percent difference of 6.4%. These results indicate high degrees of accuracy and precision for these determinations. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Montana	92
Alaska	MN00064	Nebraska	
Arizona	AZ0014	Nevada	MN_00064_200
Arkansas	88-0680	New Jersey (NE	MN002
California	01155CA	New Mexico	MN00064
Colorado	MN00064	New York (NEL	11647
Connecticut	PH-0256	North Carolina	27700
EPA Region 5	WD-15J	North Dakota	R-036
EPA Region 8	8TMS-Q	Ohio	4150
Florida (NELAP	E87605	Ohio VAP	CL101 9507
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennesee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

Appendix A

Sample Management

1131

10208500

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 3079283 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/9/2012 **Results Requested By:** 10/30/2012

Report To	Subcontract To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: 1613 - 2,3,7,8-TCDD	LAB USE ONLY
1	Outfall 001 - Sample 1	PS	10/9/2012 09:30	3079283001	Water	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Calor	10-10-12 1345	JN Pace	10/11/12 843
2				
3				

Comments:

Cooler Temperature on Receipt 4.0 °C **Custody Seal** Y or (N) **Received on Ice** (Y) or N **Samples Intact** (Y) or N

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Pace PA

Project #: WO# : 10208500

10208500

Courier: ☒Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☐Pace ☐Other:

Tracking Number: 5348 2680 6431

Custody Seal on Cooler/Box Present? ☐Yes ☒No **Seals Intact?** ☐Yes ☒No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☒Bubble Bags ☐None ☐Other: **Temp Blank?** ☐Yes ☒No

Thermometer Used: ☐888A912167504 ☐80512447 **Type of Ice:** ☒Wet ☐Blue ☐None ☐Samples on ice, cooling process has begun

Cooler Temperature: 4.0 **Biological Tissue Frozen?** ☐Yes ☐No **Date and Initials of Person Examining Contents:** 10 11 12 TN

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out?	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished?	☒Yes	☐No	☐N/A	3.
Sampler Name and/or Signature on COC?	☐Yes	☒No	☐N/A	4.
Samples Arrived within Hold Time?	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested?	☐Yes	☒No	☐N/A	7.
Sufficient Volume?	☒Yes	☐No	☐N/A	8.
Correct Containers Used?	☒Yes	☐No	☐N/A	9.
-Pace Containers Used?	☒Yes	☐No	☐N/A	
Containers Intact?	☒Yes	☐No	☐N/A	10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☒N/A	11.
Sample Labels Match COC?	☒Yes	☐No	☐N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐Yes	☐No	☒N/A	13. ☐HNO_3 ☐H_2SO_4 ☐NaOH ☐HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐Yes	☐No	☒N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐Yes	☒No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐Yes	☐No	☒N/A	14.
Trip Blank Present?	☐Yes	☐No	☒N/A	15.
Trip Blank Custody Seals Present?	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Norman Hoffa Digitally signed by Norman Hoffa DN: cn=Norman Hoffa, o=Pace Analytical Services Inc, ou=Project Manager, email=norm.hoffa@pacelabs.com, c=US Date: 2012.10.12 12:48:40 -04'00' **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out c hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PASI Pittsburgh

Client's Sample ID	OUTFALL 001-SAMPLE 1		
Lab Sample ID	3079283001		
Filename	F121021A_09		
Injected By	BAL		
Total Amount Extracted	1000 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/09/2012 09:30
ICAL ID	F121011	Received	10/12/2012 10:40
CCal Filename(s)	F121021A_03	Extracted	10/18/2012 14:00
Method Blank ID	BLANK-34233	Analyzed	10/22/2012 00:23

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	98
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	123

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-34233	Matrix	Water
Filename	F121020B_06	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	10/18/2012 14:00
ICAL ID	F121011	Analyzed	10/21/2012 08:05
CCal Filename(s)	F121020B_01	Injected By	BAL

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	100
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	98

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-34234		
Filename	F121020B_02	Matrix	Water
Total Amount Extracted	1050 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 04:59
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.1	7.3	14.6	91
2,3,7,8-TCDD-37Cl4	10	9.6	3.7	15.8	96
2,3,7,8-TCDD-13C	100	98	25.0	141.0	98

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-34245		
Filename	F121020B_03	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 05:46
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.7	7.3	14.6	97
2,3,7,8-TCDD-37Cl4	10	9.8	3.7	15.8	98
2,3,7,8-TCDD-13C	100	97	25.0	141.0	97

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Pittsburgh		
Spike 1 ID	LCS-34234	Spike 2 ID	LCSD-34245
Spike 1 Filename	F121020B_02	Spike 2 Filename	F121020B_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	91	97	6.4

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

October 17, 2012

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Grensburg, PA 15601

RE: Project 20145315
Project ID: 3079283/SENECA LANDFILL

Dear Rachel Christner:

Enclosed are the analytical results for sample(s) received by the laboratory on October 11, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerly,

Karen Brown
karen.brown@pacelabs.com

REPORT OF LABORATORY ANALYSIS

Cover No Results 10/17/2012 15:2

Laboratory Certifications

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145315

Client: PASI Pittsburgh

Project ID: 3079283/SENECA LANDFILL

Washington Department of Ecology C2078
Oregon Environmental Laboratory Accreditation - LA200001
U.S. Dept. of Agriculture Foreign Soil Import P330-10-00119
Pennsylvania Dept. of Env Protection (NELAC) 68-04202
Texas Commission on Env. Quality (NELAC) T104704405-09-TX
Kansas Department of Health and Environment (NELAC) E-10266
Florida Department of Health (NELAC) E87595
Oklahoma Department of Environmental Quality - 2010-139
Illinois Environmental Protection Agency - 0025721
California Env. Lab Accreditation Program Branch - 11277CA
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

10/17/2012 15:25:20

Sample Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145315

Client: PASI Pittsburgh

Project ID: 3079283/SENECA LANDFILL

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
OUTFALL 001 - SAMPLE 1	201031258	Water	09-Oct-12 09:30	11-Oct-12 10:15

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Project Narrative

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145315

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Surrogates:

All surrogate recoveries were within QC limits.

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Sample Results

Client: PASI Pittsburgh

Client ID: OUTFALL 001 - SAMPLE 1
Project ID: 3079283/SENECA LANDFILL
Lab ID: 201031258
Description: None
Method: EPA 625
GCMS SVOAs Dual pH

Project: 20145315
Site: None
Matrix: Water
% Moisture: n/a
Prep Level: Water
Batch: 194629
Collected: 09-Oct-12
Received: 11-Oct-12
Prepared: 12-Oct-12

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
124-18-5	n-Decane	1	ND		10.1		16-Oct-12 19:16 JAM
593-45-3	n-Octadecane	1	ND		10.1		16-Oct-12 19:16 JAM
110-86-1	Pyridine	1	ND		10.1		16-Oct-12 19:16 JAM
98-55-5	alpha-Terpineol	1	ND		10.1		16-Oct-12 19:16 JAM

4 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 10/17/2012 15:26:16
Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 194629 **Project:** 20145315

Method: Water GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
201031274	194629 BLANK 1		89	86	54	99	87	101		
201031275	194629 LCS 1		90	82	48	78	69	86		
201031258	OUTFALL 001 - SAMPLE 1		94	75	69	82	78	68		
	QC limits:		25-145	34-117	10-118	33-120	15-134	24-133		

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

*** denotes surrogate recovery outside of QC limits.**
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

Surrogates 10/17/2012 15:26:17

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 194629 **Project:** 20145315 **LCS:** 20103127 16-Oct-12 18:27

Method: Water GC/MS Semivolatile Organics **MS:**

Units: ug/L **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
n-Decane	50.0	34.6	69								22-110			Q5
n-Octadecane	50.0	47.3	95								27-115			Q5
Pyridine	50.0	40.6	81								24-113			Q5

3 compound(s) reported

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

QC Protocol 10/17/2012 15:26:18

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank Results

Blank ID: 194629 BLANK 1 **Project:** 20145315

Lab ID: 201031274

Prep Level: Water **Batch:** 194629

Method: Water GC/MS Semivolatile Organics

Prepared: 12-Oct-12

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	Analysis
124-18-5	n-Decane	1	ND		10.0	16-Oct-12 18:03 JAM
593-45-3	n-Octadecane	1	ND		10.0	16-Oct-12 18:03 JAM
110-86-1	Pyridine	1	ND		10.0	16-Oct-12 18:03 JAM
98-55-5	alpha-Terpineol	1	ND		10.0	16-Oct-12 18:03 JAM

4 compound(s) reported

Protocol Blank 10/17/2012 15:26:2

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Definitions/Qualifiers

Project: 20145315

Value	Description
Q5	Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
LCS	Laboratory Control Sample.
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

Pace Analytical Services, In
1000 Riverbend Blvd. Suite F
St. Rose, LA 7008
(504) 469-033

Chains of Custody

20145315 PASI-PIT

Chain of

20145315

Pace Analytical
www.pacelabs.com

Workorder: 3079283 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/9/2012 **Results Requested By:** 10/23/2012

Report To	Submitted To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical New Orleans 1000 Riverbend Blvd Suite F St. Rose, LA 70087 Phone 1(504)469-0333

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preservatives: Unpreserved						Requested Analysis: 625 - a-Terpineol;	n-Decane; n-Octadecane;	Pyridine												LAB USE ONLY
1	Outfall 001 - Sample 1	PS	10/9/2012 09:30	3079283001	Water	1						X													20130966
2																									
3																									
4																									
5																									

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Lalor	10-10-12 1400		
2	FedEx	10-11-12 1015	[signature]	10-11-12
3				

Comments: 1015

Cooler Temperature on Receipt 2 - 7 °C **Custody Seal** Y or N **Received on Ice** Y or N **Samples Intact** Y or N

Pace Analytical

1000 Riverbend, Blvd., Suite F
St. Rose, LA 70087

Sample Co[redacted]

Project #: 20

Courier: ☐ Pace Courier ☐ Hackbarth ☑ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☑Yes ☐No

Therometer Used:	☑ Therm Fisher IR 1 ☐ Therm Fisher IR 2 ☐ Therm Fisher IR 4

Type of Ice: (Wet) Blue None

Samples on ice: [see COC]

Date and initials of person examining contents: 10-11-12

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Temp must be measured from Temperature blank when present

				Comments:
Temperature Blank Present"?	☑Yes	☐No	☐N/A	1
Chain of Custody Present:	☑Yes	☐No	☐N/A	2
Chain of Custody Complete:	☑Yes	☐No	☐N/A	3
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	4
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	5
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	6
Sufficient Volume:	☑Yes	☐No	☐N/A	7
Correct Containers Used:	☑Yes	☐No	☐N/A	8
Filtered vol. Rec. for Diss. tests	☐Yes	☑No	☐N/A	9
Sample Labels match COC:	☑Yes	☐No	☐N/A	10
All containers received within manafacture's precautionary and/or expiration dates.	☑Yes	☐No	☐N/A	11
All containers needing preservation have been checked (except VOA, coliform, & O&G).	☐Yes	☐No	☑N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	13 If No, was preservative added? ☐Yes ☐No If added record lot no.: HNO3 ______ H2SO4 ______
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	14
Trip Blank Present:	☐Yes	☐No	☑N/A	16
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	17
Pace Trip Blank Lot # (if purchased): N/A				18

Client Notification/ Resolution:

Person Contacted: ______________________ Date/Time: ____________

Comments/ Resolution: ______________________

ALLC003rev.06, 28Jul2010 - mod

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www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 15, 2012

Mr. Mike Pavelek
Seneca Landfill
421 Hartmann Rd.
Evans City, PA 16033

RE: Project: NPDES Permit Renewal
Pace Project No.: 3079283

Dear Mr. Pavelek:
Enclosed are the analytical results for sample(s) received by the laboratory on October 09, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

The samples were subcontracted to Environmental Services Laboratories, Inc., 1803 Philadelphia Street, Indiana, PA 15701 for BOD analysis. The results of this analysis are reported on the ESL data tables attached.

The samples were subcontracted to Pace Analytical Services, Inc., 1000 Riverbend Blvd., Suite F, St. Rose, LA 70087 for a-Terpineol, n-Decane, n-Octadecane, and Pyridine analysis. Results of the analysis are reported on the Pace Analytical, New Orleans data tables.

The samples were subcontracted to Pace Analytical Services, Inc., 1700 Elm Street, Suite 200, Minneapolis, MN 55414 for Dioxin analysis. Results of the analysis are reported on the Pace Analytical, Minnesota data tables.

This report was reissued on November 15, 2012 to include MDLs per client's request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

Rachel D Christner

Rachel Christner

rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. John Ott, Seneca Landfill
Mr. Mick Palmer, Seneca Landfill, Inc.
Mr. Chris Peightl, Seneca Landfill
Jamie Swayne, Seneca Landfill

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Virgin Island/PADEP Certification
Virginia Certification #: 00112
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3079283001	**Outfall 001 - Sample 1**	Water	10/09/12 09:30	10/09/12 16:30

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3079283001	**Outfall 001 - Sample 1**	EPA 608	SJG	9	PASI-PA
		EPA 608	CWB	20	PASI-PA
		EPA 200.7	CTS	23	PASI-PA
		EPA 200.7	CTS	1	PASI-PA
		SM 2340B	RTW	1	PASI-PA
		SM 9222D	PAS	1	PASI-PA
		EPA 245.1	RTW	1	PASI-PA
		EPA 625 Low Level	SPL	68	PASI-PA
		EPA 624	RES	34	PASI-PA
		SM 7110C	JC2	1	PASI-PA
		EPA 900.0m	JC2	1	PASI-PA
		EPA 903.1	SLA	1	PASI-PA
		EPA 904.0	MAW	1	PASI-PA
		EPA 1664A	DLH	1	PASI-PA
		SM 2120B	JLS	1	PASI-PA
		SM 2540C	PAS	1	PASI-PA
		SM 2540D	PAS	1	PASI-PA
		SM 4500-Cl G	JLS	1	PASI-PA
		SM 4500-H+B	JLS	1	PASI-PA
		SM 5540C	PM1	1	PASI-PA
		Trivalent Chromium Calculation	BKH	1	PASI-PA
		EPA 300.0	BKH	2	PASI-PA
		EPA 335.4	PM1	1	PASI-PA
		SM 3500-Cr D	JLS	1	PASI-PA
		EPA 350.1	AMS	1	PASI-PA
		EPA 351.2	AMS	1	PASI-PA
		EPA 410.4	DLH	1	PASI-PA
		EPA 420.1	JLS	1	PASI-PA
		SM 4500-CN-E	PM1	1	PASI-PA
		SM 4500-NO3 F	AMS	1	PASI-PA
		SM 4500-P E	AMS	1	PASI-PA
		SM 5310C	CLP	1	PASI-PA
		ASTM D516-90,02	CLP	1	PASI-PA

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 608**
Description: 608 GCS PCBs
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 608. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 608 SF with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

Analyte Comments:

QC Batch: OEXT/13092

4c: Recovery of the surrogate DCB is low. Sample results accepted based upon the recovery of the TCMX surrogate.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)
  - Decachlorobiphenyl (S)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 608**
Description: 608 GCS Pesticides
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 608. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 608 SF with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: GCSV/4936

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

Batch Comments:

The following samples were diluted due to the presence of high levels of non-target analytes or other matrix interference, resulting in elevated reporting limits for all analytes: 5070699-005 and 5070699-008.
- QC Batch: GCSV / 4936

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 608**
Description: 608 GCS Pesticides
Client: Seneca Landfill, Inc.
Date: November 15, 2012

Analyte Comments:

QC Batch: OEXT/13091

6c: The recovery of the surrogate DCB is low. The sample is accepted based upon the recovery of the surrogate TCMX.

- Outfall 001 - Sample 1 (Lab ID: 3079283001)
  - Decachlorobiphenyl (S)

7c: The result for Endosulfan I is reported from the front analytical column due to a high response for Endosulfan I on the rear analytical column.

- Outfall 001 - Sample 1 (Lab ID: 3079283001)
  - Endosulfan I

8c: The result for TCMX is reported from the rear analytical column due to a high response for TCMX on the front analytical column.

- BLANK (Lab ID: 499706)
  - Tetrachloro-m-xylene (S)
- LCS (Lab ID: 499707)
  - Tetrachloro-m-xylene (S)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/9289

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079277003,3079319001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 498428)
  - Aluminum
  - Antimony
  - Arsenic
  - Boron
  - Copper
  - Molybdenum
  - Selenium
  - Silver
  - Tin
- MS (Lab ID: 498431)
  - Iron
  - Manganese
- MSD (Lab ID: 498429)
  - Aluminum
  - Arsenic
  - Boron

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Seneca Landfill, Inc.
Date: November 15, 2012

QC Batch: MPRP/9289

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079277003,3079319001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Copper
- Selenium
- Silver
- Tin

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: MPRP/9289

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 498427)
  - Antimony

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 200.7**
Description: 200.7 Metals, Dissolved (LF)
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 2340B**
Description: 2340B Hardness, Total (Calc.)
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 2340B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 9222D**
Description: 9222D MICRO Fecal Coli by MF
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 9222D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

Sample Preparation:
The samples were prepared in accordance with SM 9222D with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 625 Low Level**
Description: 625 MSSV Low Level
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 625 Low Level. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 625 Low Level with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: OEXT/13062

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 498339)
  - Benzidine

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSSV/4495

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 625 Low Level**
Description: 625 MSSV Low Level
Client: Seneca Landfill, Inc.
Date: November 15, 2012

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

Analyte Comments:

QC Batch: OEXT/13062

N2: The lab does not hold TNI accreditation for this parameter.
- BLANK (Lab ID: 498338)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine
- LCS (Lab ID: 498339)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine
- Outfall 001 - Sample 1 (Lab ID: 3079283001)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 624**
Description: 624 Volatile Organics
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 624. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/14270

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079133001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 499257)
  - Acetone
- MSD (Lab ID: 499258)
  - Acetone

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 624**
Description: 624 Volatile Organics
Client: Seneca Landfill, Inc.
Date: November 15, 2012

Analyte Comments:

QC Batch: MSV/14270

1c: Analyte not present in the LCS spiking standards.
- LCS (Lab ID: 499256)
  - 2-Chloroethylvinyl ether

2c: Analyte not present in the spiking standards.
- MS (Lab ID: 499257)
  - 2-Chloroethylvinyl ether
- MSD (Lab ID: 499258)
  - 2-Chloroethylvinyl ether

5c: Sample was diluted due to matrix.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)
  - Chloromethane

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 7110C**
Description: 7110C Gross Alpha
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 7110C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 900.0m**
Description: 900.0 Gross Alpha/Beta
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 900.0m. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 1664A**
Description: HEM, Oil and Grease
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 1664A. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 2120B**
Description: 2120B W Apparent Color
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 2120B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 2540D**
Description: 2540D Total Suspended Solids
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 4500-Cl G**
Description: 4500CL G Chlorine, Residual
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 4500-Cl G. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 5540C**
Description: 5540C MBAS Surfactants
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 5540C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

Analyte Comments:

QC Batch: WET/15487

3c: MBAS, calculated as LAS, Mol wt 340 g/mol
- BLANK (Lab ID: 497661)
  - Surfactants
- DUP (Lab ID: 497663)
  - Surfactants
- LCS (Lab ID: 497662)
  - Surfactants
- MS (Lab ID: 497664)
  - Surfactants
- Outfall 001 - Sample 1 (Lab ID: 3079283001)
  - Surfactants

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **Trivalent Chromium Calculation**
Description: Trivalent Chromium Calculation
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for Trivalent Chromium Calculation. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 335.4**
Description: 335.4 Cyanide, Total
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 335.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 3500-Cr D**
Description: Chromium, Hexavalent
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 3500-Cr D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/10919

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079220001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 497632)
  - Chromium, Hexavalent

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 350.1**
Description: 350.1 Ammonia, Distilled
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: WETA/10999

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 500605)
  - Ammonia, Distilled

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/10975

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3078812002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 499682)
  - Nitrogen, Kjeldahl, Total

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 410.4**
Description: 410.4 COD
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/11025

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079862005

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 501564)
  - Chemical Oxygen Demand

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for EPA 420.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 4500-CN-E**
Description: 4500CNE Cyanide, Free
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 4500-NO3 F**
Description: SM4500NO3-F, NO3-NO2
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 4500-NO3 F. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 4500-P E**
Description: 4500PB5E Total Phosphorus
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **SM 5310C**
Description: 5310C TOC
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Method: **ASTM D516-90,02**
Description: ASTM D516-9002 Sulfate Water
Client: Seneca Landfill, Inc.
Date: November 15, 2012

General Information:
1 sample was analyzed for ASTM D516-90,02. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Workorder Comments:

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 1 (Lab ID: 3079283001)

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Sample: Outfall 001 - Sample 1 **Lab ID: 3079283001** Collected: 10/09/12 09:30 Received: 10/09/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
608 GCS PCBs	Analytical Method: EPA 608 Preparation Method: EPA 608 SF								
PCB-1016 (Aroclor 1016)	ND	ug/L	1.0	0.032	1	10/15/12 13:00	10/22/12 16:14	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	1.0	0.030	1	10/15/12 13:00	10/22/12 16:14	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	1.0	0.051	1	10/15/12 13:00	10/22/12 16:14	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	1.0	0.032	1	10/15/12 13:00	10/22/12 16:14	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	1.0	0.061	1	10/15/12 13:00	10/22/12 16:14	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	1.0	0.015	1	10/15/12 13:00	10/22/12 16:14	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	1.0	0.031	1	10/15/12 13:00	10/22/12 16:14	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	87	%	24-116		1	10/15/12 13:00	10/22/12 16:14	877-09-8	
Decachlorobiphenyl (S)	20	%	36-118		1	10/15/12 13:00	10/22/12 16:14	2051-24-3	4c
608 GCS Pesticides	Analytical Method: EPA 608 Preparation Method: EPA 608 SF								
Aldrin	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 21:10	309-00-2	CU
alpha-BHC	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 21:10	319-84-6	
beta-BHC	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 21:10	319-85-7	
delta-BHC	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 21:10	319-86-8	
gamma-BHC (Lindane)	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 21:10	58-89-9	
Chlordane (Technical)	ND	ug/L	0.52		1	10/15/12 13:00	10/23/12 21:10	57-74-9	
4,4'-DDD	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 21:10	72-54-8	
4,4'-DDE	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 21:10	72-55-9	
4,4'-DDT	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 21:10	50-29-3	
Dieldrin	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 21:10	60-57-1	CU
Endosulfan I	**0.15**	ug/L	0.052		1	10/15/12 13:00	10/23/12 21:10	959-98-8	7c
Endosulfan II	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 21:10	33213-65-9	
Endosulfan sulfate	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 21:10	1031-07-8	
Endrin	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 21:10	72-20-8	
Endrin aldehyde	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 21:10	7421-93-4	
Heptachlor	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 21:10	76-44-8	
Heptachlor epoxide	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 21:10	1024-57-3	
Toxaphene	ND	ug/L	1.0		1	10/15/12 13:00	10/23/12 21:10	8001-35-2	
Surrogates									
Tetrachloro-m-xylene (S)	82	%	24-116		1	10/15/12 13:00	10/23/12 21:10	877-09-8	
Decachlorobiphenyl (S)	21	%	36-118		1	10/15/12 13:00	10/23/12 21:10	2051-24-3	6c
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Aluminum	**2600**	ug/L	50.0	8.7	1	10/11/12 10:43	10/12/12 11:41	7429-90-5	
Antimony	**9.4**	ug/L	6.0	3.3	1	10/11/12 10:43	10/12/12 11:41	7440-36-0	
Arsenic	**13.8**	ug/L	5.0	3.6	1	10/11/12 10:43	10/12/12 11:41	7440-38-2	
Barium	**120**	ug/L	10.0	0.32	1	10/11/12 10:43	10/12/12 11:41	7440-39-3	
Beryllium	ND	ug/L	1.0	0.24	1	10/11/12 10:43	10/12/12 11:41	7440-41-7	
Boron	**23600**	ug/L	50.0	3.4	1	10/11/12 10:43	10/12/12 11:41	7440-42-8	
Cadmium	ND	ug/L	3.0	1.3	1	10/11/12 10:43	10/12/12 11:41	7440-43-9	
Chromium	**45.2**	ug/L	5.0	0.90	1	10/11/12 10:43	10/12/12 11:41	7440-47-3	
Cobalt	**37.0**	ug/L	5.0	1.6	1	10/11/12 10:43	10/12/12 11:41	7440-48-4	
Copper	**20.8**	ug/L	5.0	2.0	1	10/11/12 10:43	10/12/12 11:41	7440-50-8	
Iron	**418**	ug/L	70.0	38.1	1	10/11/12 10:43	10/12/12 11:41	7439-89-6	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Sample: Outfall 001 - Sample 1 **Lab ID: 3079283001** Collected: 10/09/12 09:30 Received: 10/09/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Lead	ND	ug/L	5.0	3.2	1	10/11/12 10:43	10/12/12 11:41	7439-92-1	
Magnesium	**141000**	ug/L	200	37.4	1	10/11/12 10:43	10/12/12 11:41	7439-95-4	
Manganese	**362**	ug/L	5.0	2.3	1	10/11/12 10:43	10/12/12 11:41	7439-96-5	
Molybdenum	**92.7**	ug/L	20.0	3.6	1	10/11/12 10:43	10/12/12 11:41	7439-98-7	
Nickel	**398**	ug/L	10.0	1.4	1	10/11/12 10:43	10/12/12 11:41	7440-02-0	
Selenium	ND	ug/L	8.0	3.3	1	10/11/12 10:43	10/12/12 11:41	7782-49-2	
Silver	ND	ug/L	6.0	1.6	1	10/11/12 10:43	10/12/12 11:41	7440-22-4	
Thallium	ND	ug/L	10.0	3.9	1	10/11/12 10:43	10/12/12 11:41	7440-28-0	
Tin	ND	ug/L	50.0	24.5	1	10/11/12 10:43	10/12/12 11:41	7440-31-5	
Titanium	ND	ug/L	5.0	0.83	1	10/11/12 10:43	10/12/12 11:41	7440-32-6	
Vanadium	ND	ug/L	5.0	1.8	1	10/11/12 10:43	10/12/12 11:41	7440-62-2	
Zinc	**59.2**	ug/L	10.0	1.4	1	10/11/12 10:43	10/12/12 11:41	7440-66-6	
200.7 Metals, Dissolved (LF)	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Iron, Dissolved	**230**	ug/L	70.0	38.1	1	10/10/12 14:21	10/11/12 08:30	7439-89-6	
2340B Hardness, Total (Calc.)	Analytical Method: SM 2340B								
Total Hardness	**753**	mg/L	2.1	2.1	1		10/12/12 11:41		
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**<3**	CFU/100 mL			1	10/09/12 18:30	10/10/12 16:45		H3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.20	0.025	1	10/10/12 14:27	10/11/12 10:15	7439-97-6	
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
Acenaphthene	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 10:56	83-32-9	
Acenaphthylene	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 10:56	208-96-8	
Acetophenone	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 10:56	98-86-2	N2
Anthracene	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 10:56	120-12-7	
Benzidine	ND	ug/L	104	104	1	10/11/12 11:30	10/18/12 10:56	92-87-5	
Benzo(a)anthracene	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 10:56	56-55-3	
Benzo(a)pyrene	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 10:56	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	1.0	0.20	1	10/11/12 11:30	10/18/12 10:56	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	1.0	0.40	1	10/11/12 11:30	10/18/12 10:56	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 10:56	207-08-9	
Benzoic acid	ND	ug/L	2.6	0.28	1	10/11/12 11:30	10/18/12 10:56	65-85-0	N2
4-Bromophenylphenyl ether	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 10:56	101-55-3	
Butylbenzylphthalate	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 10:56	85-68-7	
Carbazole	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 10:56	86-74-8	N2
4-Chloro-3-methylphenol	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 10:56	59-50-7	
bis(2-Chloroethoxy)methane	ND	ug/L	1.0	0.23	1	10/11/12 11:30	10/18/12 10:56	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	1.0	0.30	1	10/11/12 11:30	10/18/12 10:56	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	1.0	0.23	1	10/11/12 11:30	10/18/12 10:56	108-60-1	
2-Chloronaphthalene	ND	ug/L	1.0	0.25	1	10/11/12 11:30	10/18/12 10:56	91-58-7	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Sample: Outfall 001 - Sample 1 **Lab ID: 3079283001** Collected: 10/09/12 09:30 Received: 10/09/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
2-Chlorophenol	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 10:56	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	1.0	0.23	1	10/11/12 11:30	10/18/12 10:56	7005-72-3	
Chrysene	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 10:56	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	1.0	0.47	1	10/11/12 11:30	10/18/12 10:56	53-70-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 10:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.28	1	10/11/12 11:30	10/18/12 10:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.30	1	10/11/12 11:30	10/18/12 10:56	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	1.0	0.18	1	10/11/12 11:30	10/18/12 10:56	91-94-1	
2,4-Dichlorophenol	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 10:56	120-83-2	
Diethylphthalate	ND	ug/L	1.0	0.25	1	10/11/12 11:30	10/18/12 10:56	84-66-2	
2,4-Dimethylphenol	ND	ug/L	1.0	0.33	1	10/11/12 11:30	10/18/12 10:56	105-67-9	
Dimethylphthalate	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 10:56	131-11-3	
Di-n-butylphthalate	ND	ug/L	1.0	0.25	1	10/11/12 11:30	10/18/12 10:56	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	2.6	0.26	1	10/11/12 11:30	10/18/12 10:56	534-52-1	
2,4-Dinitrophenol	ND	ug/L	2.6	0.34	1	10/11/12 11:30	10/18/12 10:56	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 10:56	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 10:56	606-20-2	
Di-n-octylphthalate	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 10:56	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	1.0		1	10/11/12 11:30	10/18/12 10:56	122-66-7	N2
bis(2-Ethylhexyl)phthalate	ND	ug/L	1.0	0.45	1	10/11/12 11:30	10/18/12 10:56	117-81-7	
Fluoranthene	ND	ug/L	1.0	0.22	1	10/11/12 11:30	10/18/12 10:56	206-44-0	
Fluorene	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 10:56	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.34	1	10/11/12 11:30	10/18/12 10:56	87-68-3	
Hexachlorobenzene	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 10:56	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	1.0	0.19	1	10/11/12 11:30	10/18/12 10:56	77-47-4	
Hexachloroethane	ND	ug/L	1.0	0.32	1	10/11/12 11:30	10/18/12 10:56	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	0.50	1	10/11/12 11:30	10/18/12 10:56	193-39-5	
Isophorone	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 10:56	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 10:56	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2.1	0.73	1	10/11/12 11:30	10/18/12 10:56		
Naphthalene	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 10:56	91-20-3	
Nitrobenzene	ND	ug/L	1.0	0.48	1	10/11/12 11:30	10/18/12 10:56	98-95-3	
2-Nitrophenol	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 10:56	88-75-5	
4-Nitrophenol	ND	ug/L	1.0	0.40	1	10/11/12 11:30	10/18/12 10:56	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 10:56	62-75-9	N2
N-Nitroso-di-n-propylamine	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 10:56	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 10:56	86-30-6	
Pentachlorophenol	ND	ug/L	2.6	0.29	1	10/11/12 11:30	10/18/12 10:56	87-86-5	
Phenanthrene	ND	ug/L	1.0	0.23	1	10/11/12 11:30	10/18/12 10:56	85-01-8	
Phenol	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 10:56	108-95-2	
Pyrene	ND	ug/L	1.0	0.28	1	10/11/12 11:30	10/18/12 10:56	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 10:56	120-82-1	
2,4,6-Trichlorophenol	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 10:56	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	76	%	35-114		1	10/11/12 11:30	10/18/12 10:56	4165-60-0	
2-Fluorobiphenyl (S)	77	%	43-116		1	10/11/12 11:30	10/18/12 10:56	321-60-8	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Sample: Outfall 001 - Sample 1 **Lab ID: 3079283001** Collected: 10/09/12 09:30 Received: 10/09/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
Surrogates									
Terphenyl-d14 (S)	141	%	33-141		1	10/11/12 11:30	10/18/12 10:56	1718-51-0	
Phenol-d6 (S)	45	%	10-110		1	10/11/12 11:30	10/18/12 10:56	13127-88-3	
2-Fluorophenol (S)	62	%	21-110		1	10/11/12 11:30	10/18/12 10:56	367-12-4	
2,4,6-Tribromophenol (S)	110	%	10-123		1	10/11/12 11:30	10/18/12 10:56	118-79-6	
624 Volatile Organics	Analytical Method: EPA 624								
Acetone	ND	ug/L	100	9.1	10		10/12/12 21:29	67-64-1	
Acrolein	ND	ug/L	20.0	6.1	10		10/12/12 21:29	107-02-8	
Acrylonitrile	ND	ug/L	20.0	13.3	10		10/12/12 21:29	107-13-1	
Benzene	ND	ug/L	10.0	1.9	10		10/12/12 21:29	71-43-2	
Bromodichloromethane	ND	ug/L	10.0	1.9	10		10/12/12 21:29	75-27-4	
Bromoform	ND	ug/L	10.0	2.5	10		10/12/12 21:29	75-25-2	
Bromomethane	ND	ug/L	10.0	3.5	10		10/12/12 21:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	22.7	10		10/12/12 21:29	78-93-3	
Carbon tetrachloride	ND	ug/L	10.0	4.0	10		10/12/12 21:29	56-23-5	
Chlorobenzene	ND	ug/L	10.0	1.7	10		10/12/12 21:29	108-90-7	
Chloroethane	ND	ug/L	10.0	8.0	10		10/12/12 21:29	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	20.0	2.1	10		10/12/12 21:29	110-75-8	
Chloroform	ND	ug/L	10.0	1.7	10		10/12/12 21:29	67-66-3	
Chloromethane	ND	ug/L	10.0	2.7	10		10/12/12 21:29	74-87-3	5c
Dibromochloromethane	ND	ug/L	10.0	1.4	10		10/12/12 21:29	124-48-1	
1,1-Dichloroethane	ND	ug/L	10.0	2.0	10		10/12/12 21:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	10.0	2.5	10		10/12/12 21:29	107-06-2	
1,1-Dichloroethene	ND	ug/L	10.0	2.3	10		10/12/12 21:29	75-35-4	
trans-1,2-Dichloroethene	ND	ug/L	10.0	1.9	10		10/12/12 21:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	10.0	1.8	10		10/12/12 21:29	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	10.0	2.3	10		10/12/12 21:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	10.0	2.4	10		10/12/12 21:29	10061-02-6	
Ethylbenzene	ND	ug/L	10.0	1.3	10		10/12/12 21:29	100-41-4	
Methylene Chloride	ND	ug/L	10.0	3.2	10		10/12/12 21:29	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	10.0	1.6	10		10/12/12 21:29	79-34-5	
Tetrachloroethene	ND	ug/L	10.0	1.7	10		10/12/12 21:29	127-18-4	
Toluene	ND	ug/L	10.0	1.9	10		10/12/12 21:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	10.0	1.3	10		10/12/12 21:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	10.0	2.2	10		10/12/12 21:29	79-00-5	
Trichloroethene	ND	ug/L	10.0	2.3	10		10/12/12 21:29	79-01-6	
Vinyl chloride	ND	ug/L	10.0	2.0	10		10/12/12 21:29	75-01-4	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		10		10/12/12 21:29	460-00-4	
Toluene-d8 (S)	99	%	70-130		10		10/12/12 21:29	2037-26-5	
1,2-Dichloroethane-d4 (S)	92	%	70-130		10		10/12/12 21:29	17060-07-0	
HEM, Oil and Grease	Analytical Method: EPA 1664A								
Oil and Grease	ND	mg/L	4.8	1.3	1		10/18/12 12:12		

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Sample: Outfall 001 - Sample 1 **Lab ID: 3079283001** Collected: 10/09/12 09:30 Received: 10/09/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2120B W Apparent Color	Analytical Method: SM 2120B								
Apparent Color	**7000**	units	100	100	100		10/09/12 20:40		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**7020**	mg/L	10.0	10.0	1		10/10/12 17:30		
2540D Total Suspended Solids	Analytical Method: SM 2540D								
Total Suspended Solids	**80.0**	mg/L	4.0	4.0	1		10/10/12 16:00		
4500CL G Chlorine, Residual	Analytical Method: SM 4500-Cl G								
Chlorine, Total Residual	ND	mg/L	1.0	0.29	10		10/09/12 20:16	7782-50-5	H6
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**8.0**	Std. Units	1.0	1.0	1		10/09/12 19:30		H6
5540C MBAS Surfactants	Analytical Method: SM 5540C								
Surfactants	ND	mg/L	1.0	0.29	10		10/09/12 22:13		3c
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation								
Chromium, Trivalent	**0.014**	mg/L	0.010	0.010	1		10/23/12 16:59	16065-83-1	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Bromide	**37.4**	mg/L	12.5	12.5	200		10/18/12 16:22	24959-67-9	
Fluoride	ND	mg/L	2.5	2.5	200		10/18/12 16:22	16984-48-8	
335.4 Cyanide, Total	Analytical Method: EPA 335.4								
Cyanide	**0.019**	mg/L	0.0050	0.0027	1		10/15/12 19:27	57-12-5	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr D								
Chromium, Hexavalent	ND	mg/L	0.10	0.054	10		10/09/12 22:49	18540-29-9	
350.1 Ammonia, Distilled	Analytical Method: EPA 350.1								
Ammonia, Distilled	**4.3**	mg/L	0.10	0.068	1		10/17/12 11:56		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**9.9**	mg/L	5.0	2.1	5		10/15/12 13:09	7727-37-9	
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	**732**	mg/L	25.0	10.4	1		10/18/12 09:45		
Phenolics, Total Recoverable	Analytical Method: EPA 420.1								
Phenol	ND	mg/L	0.050	0.021	1		10/17/12 14:27	108-95-2	
4500CNE Cyanide, Free	Analytical Method: SM 4500-CN-E								
Cyanide	**0.050**	mg/L	0.0050	0.0027	1		10/11/12 03:22	57-12-5	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Sample: Outfall 001 - Sample 1 **Lab ID: 3079283001** Collected: 10/09/12 09:30 Received: 10/09/12 16:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SM4500NO3-F, NO3-NO2	Analytical Method: SM 4500-NO3 F								
Nitrogen,NO2 plus NO3	**244**	mg/L	2.0	0.56	20		10/16/12 09:15		
4500PB5E Total Phosphorus	Analytical Method: SM 4500-P E								
Phosphorus	**0.16**	mg/L	0.030	0.014	1		10/18/12 09:58	7723-14-0	
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**267**	mg/L	20.0	3.1	20		10/23/12 11:29	7440-44-0	
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02								
Sulfate	**140**	mg/L	50.0	8.4	5		10/22/12 12:55	14808-79-8	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: MBIO/2665
QC Batch Method: SM 9222D
Associated Lab Samples: 3079283001

Analysis Method: SM 9222D
Analysis Description: 9222D MICRO Fecal Coliform by MF

METHOD BLANK: 497622 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	0		10/10/12 16:45	

SAMPLE DUPLICATE: 497623

Parameter	Units	3079281002 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	<3	<3			H3

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: MERP/3927
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Associated Lab Samples: 3079283001

METHOD BLANK: 497934 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/11/12 10:03	

LABORATORY CONTROL SAMPLE: 497935

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.0	104	85-115	

MATRIX SPIKE SAMPLE: 497937

Parameter	Units	3079162001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.4	96	75-125	

SAMPLE DUPLICATE: 497936

Parameter	Units	3079162001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: MPRP/9289
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 3079283001

METHOD BLANK: 498425
Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	50.0	10/12/12 12:31	
Antimony	ug/L	ND	6.0	10/12/12 12:31	
Arsenic	ug/L	ND	5.0	10/12/12 12:31	
Barium	ug/L	ND	10.0	10/12/12 12:31	
Beryllium	ug/L	ND	1.0	10/12/12 12:31	
Boron	ug/L	ND	50.0	10/12/12 12:31	
Cadmium	ug/L	ND	3.0	10/12/12 12:31	
Chromium	ug/L	ND	5.0	10/12/12 12:31	
Cobalt	ug/L	ND	5.0	10/12/12 12:31	
Copper	ug/L	ND	5.0	10/12/12 12:31	
Iron	ug/L	ND	70.0	10/12/12 12:31	
Lead	ug/L	ND	5.0	10/12/12 12:31	
Magnesium	ug/L	ND	200	10/12/12 12:31	
Manganese	ug/L	ND	5.0	10/12/12 12:31	
Molybdenum	ug/L	ND	20.0	10/12/12 12:31	
Nickel	ug/L	ND	10.0	10/12/12 12:31	
Selenium	ug/L	ND	8.0	10/12/12 12:31	
Silver	ug/L	ND	6.0	10/12/12 12:31	
Thallium	ug/L	ND	10.0	10/12/12 12:31	
Tin	ug/L	ND	50.0	10/12/12 12:31	
Titanium	ug/L	ND	5.0	10/12/12 12:31	
Vanadium	ug/L	ND	5.0	10/12/12 12:31	
Zinc	ug/L	ND	10.0	10/12/12 12:31	

LABORATORY CONTROL SAMPLE: 498426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5110	102	85-115	
Antimony	ug/L	500	516	103	85-115	
Arsenic	ug/L	500	526	105	85-115	
Barium	ug/L	500	522	104	85-115	
Beryllium	ug/L	500	523	105	85-115	
Boron	ug/L	500	507	101	85-115	
Cadmium	ug/L	500	522	104	85-115	
Chromium	ug/L	500	515	103	85-115	
Cobalt	ug/L	500	510	102	85-115	
Copper	ug/L	500	526	105	85-115	
Iron	ug/L	5000	5220	104	85-115	
Lead	ug/L	500	510	102	85-115	
Magnesium	ug/L	5000	5150	103	85-115	
Manganese	ug/L	500	515	103	85-115	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

LABORATORY CONTROL SAMPLE: 498426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	ug/L	500	525	105	85-115	
Nickel	ug/L	500	521	104	85-115	
Selenium	ug/L	500	514	103	85-115	
Silver	ug/L	250	256	102	85-115	
Thallium	ug/L	500	517	103	85-115	
Tin	ug/L	500	535	107	85-115	
Titanium	ug/L	500	529	106	85-115	
Vanadium	ug/L	500	516	103	85-115	
Zinc	ug/L	500	524	105	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 498428 498429

Parameter	Units	3079319001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	1870	5000	5000	8410	8130	131	125	80-120	3	20	M1
Antimony	ug/L	9.9	500	500	619	596	122	117	80-120	4	20	M1
Arsenic	ug/L	ND	500	500	661	638	132	128	80-120	3	20	M1
Barium	ug/L	ND	500	500	535	517	106	103	80-120	3	20	
Beryllium	ug/L	ND	500	500	509	494	102	99	80-120	3	20	
Boron	ug/L	712	500	500	1370	1330	131	124	80-120	3	20	M1
Cadmium	ug/L	ND	500	500	542	528	108	105	80-120	3	20	
Chromium	ug/L	342	500	500	892	871	110	106	80-120	2	20	
Cobalt	ug/L	ND	500	500	531	516	106	103	80-120	3	20	
Copper	ug/L	6580	500	500	7540	7360	193	156	80-120	2	20	M1
Iron	ug/L	86.0	5000	5000	5320	5170	105	102	80-120	3	20	
Lead	ug/L	ND	500	500	576	554	114	110	80-120	4	20	
Magnesium	ug/L	6400	5000	5000	11700	11400	107	101	80-120	3	20	
Manganese	ug/L	8.3	500	500	541	526	107	104	80-120	3	20	
Molybdenum	ug/L	ND	500	500	632	614	123	119	80-120	3	20	M1
Nickel	ug/L	ND	500	500	531	520	106	104	80-120	2	20	
Selenium	ug/L	ND	500	500	698	658	139	131	80-120	6	20	M1
Silver	ug/L	ND	250	250	324	311	129	124	80-120	4	20	M1
Thallium	ug/L	ND	500	500	605	595	120	118	80-120	2	20	
Tin	ug/L	ND	500	500	681	644	133	126	80-120	5	20	M1
Titanium	ug/L	ND	500	500	564	543	113	109	80-120	4	20	
Vanadium	ug/L	ND	500	500	559	544	112	109	80-120	3	20	
Zinc	ug/L	262	500	500	849	831	117	114	80-120	2	20	

MATRIX SPIKE SAMPLE: 498431

Parameter	Units	3079277003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	ND	5000	5290	106	80-120	
Antimony	ug/L	ND	500	512	102	80-120	
Arsenic	ug/L	ND	500	542	108	80-120	
Barium	ug/L	2000	500	2470	94	80-120	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

MATRIX SPIKE SAMPLE: 498431

Parameter	Units	3079277003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	ND	500	524	105	80-120	
Boron	ug/L	ND	500	536	104	80-120	
Cadmium	ug/L	ND	500	509	102	80-120	
Chromium	ug/L	5.9	500	519	103	80-120	
Cobalt	ug/L	10.9	500	514	101	80-120	
Copper	ug/L	ND	500	533	106	80-120	
Iron	ug/L	63.1 mg/L	5000	66200	61	80-120	M1
Lead	ug/L	17.4	500	529	102	80-120	
Magnesium	ug/L	34900	5000	39200	85	80-120	
Manganese	ug/L	5.0 mg/L	500	5310	70	80-120	M1
Molybdenum	ug/L	ND	500	529	106	80-120	
Nickel	ug/L	710	500	1200	99	80-120	
Selenium	ug/L	ND	500	520	104	80-120	
Silver	ug/L	ND	250	261	104	80-120	
Thallium	ug/L	ND	500	514	103	80-120	
Tin	ug/L	ND	500	534	107	80-120	
Titanium	ug/L	ND	500	527	105	80-120	
Vanadium	ug/L	ND	500	522	104	80-120	
Zinc	ug/L	116	500	622	101	80-120	

SAMPLE DUPLICATE: 498427

Parameter	Units	3079319001 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	1870	1880	.6	20	
Antimony	ug/L	9.9	7.7	24	20	D6
Arsenic	ug/L	ND	4J		20	
Barium	ug/L	ND	3.4J		20	
Beryllium	ug/L	ND	ND		20	
Boron	ug/L	712	728	2	20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	342	342	.06	20	
Cobalt	ug/L	ND	ND		20	
Copper	ug/L	6580	6570	.1	20	
Iron	ug/L	86.0	90.7	5	20	
Lead	ug/L	ND	4.9J		20	
Magnesium	ug/L	6400	6410	.1	20	
Manganese	ug/L	8.3	8.2	1	20	
Molybdenum	ug/L	ND	11.4J		20	
Nickel	ug/L	ND	ND		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	ND	2.7J		20	
Thallium	ug/L	ND	ND		20	
Tin	ug/L	ND	ND		20	
Titanium	ug/L	ND	ND		20	
Vanadium	ug/L	ND	ND		20	
Zinc	ug/L	262	261	.2	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

SAMPLE DUPLICATE: 498430

Parameter	Units	3079277003 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	ND	ND		20	
Antimony	ug/L	ND	ND		20	
Arsenic	ug/L	ND	4.8J		20	
Barium	ug/L	2000	1960	2	20	
Beryllium	ug/L	ND	ND		20	
Boron	ug/L	ND	14.6J		20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	5.9	4.3J		20	
Cobalt	ug/L	10.9	10.7	2	20	
Copper	ug/L	ND	3.5J		20	
Iron	ug/L	63.1 mg/L	61500	3	20	
Lead	ug/L	17.4	19.2	10	20	
Magnesium	ug/L	34900	34100	3	20	
Manganese	ug/L	5.0 mg/L	4840	2	20	
Molybdenum	ug/L	ND	ND		20	
Nickel	ug/L	710	690	3	20	
Selenium	ug/L	ND	4J		20	
Silver	ug/L	ND	2.1J		20	
Thallium	ug/L	ND	ND		20	
Tin	ug/L	ND	ND		20	
Titanium	ug/L	ND	ND		20	
Vanadium	ug/L	ND	ND		20	
Zinc	ug/L	116	111	4	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: MPRP/9283
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Dissolved
Associated Lab Samples: 3079283001

METHOD BLANK: 497924 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	70.0	10/11/12 07:43	

LABORATORY CONTROL SAMPLE: 497925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	5000	5220	104	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 497927 497928

Parameter	Units	3079272001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Iron, Dissolved	ug/L	ND	5000	5000	5180	5140	103	102	80-120	.8	20	

SAMPLE DUPLICATE: 497926

Parameter	Units	3079272001 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Dissolved	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: MSV/14270
QC Batch Method: EPA 624
Analysis Method: EPA 624
Analysis Description: 624 MSV
Associated Lab Samples: 3079283001

METHOD BLANK: 499255
Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,1-Dichloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,1-Dichloroethene	ug/L	ND	1.0	10/12/12 12:06	
1,2-Dichloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,2-Dichloropropane	ug/L	ND	1.0	10/12/12 12:06	
2-Butanone (MEK)	ug/L	ND	10.0	10/12/12 12:06	
2-Chloroethylvinyl ether	ug/L	ND	2.0	10/12/12 12:06	
Acetone	ug/L	ND	10.0	10/12/12 12:06	
Acrolein	ug/L	ND	2.0	10/12/12 12:06	
Acrylonitrile	ug/L	ND	2.0	10/12/12 12:06	
Benzene	ug/L	ND	1.0	10/12/12 12:06	
Bromodichloromethane	ug/L	ND	1.0	10/12/12 12:06	
Bromoform	ug/L	ND	1.0	10/12/12 12:06	
Bromomethane	ug/L	ND	1.0	10/12/12 12:06	
Carbon tetrachloride	ug/L	ND	1.0	10/12/12 12:06	
Chlorobenzene	ug/L	ND	1.0	10/12/12 12:06	
Chloroethane	ug/L	ND	1.0	10/12/12 12:06	
Chloroform	ug/L	ND	1.0	10/12/12 12:06	
Chloromethane	ug/L	ND	1.0	10/12/12 12:06	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/12/12 12:06	
Dibromochloromethane	ug/L	ND	1.0	10/12/12 12:06	
Ethylbenzene	ug/L	ND	1.0	10/12/12 12:06	
Methylene Chloride	ug/L	ND	1.0	10/12/12 12:06	
Tetrachloroethene	ug/L	ND	1.0	10/12/12 12:06	
Toluene	ug/L	ND	1.0	10/12/12 12:06	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/12/12 12:06	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/12/12 12:06	
Trichloroethene	ug/L	ND	1.0	10/12/12 12:06	
Vinyl chloride	ug/L	ND	1.0	10/12/12 12:06	
1,2-Dichloroethane-d4 (S)	%	95	70-130	10/12/12 12:06	
4-Bromofluorobenzene (S)	%	97	70-130	10/12/12 12:06	
Toluene-d8 (S)	%	99	70-130	10/12/12 12:06	

LABORATORY CONTROL SAMPLE: 499256

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	18.0	90	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	18.4	92	64.6-121	
1,1,2-Trichloroethane	ug/L	20	19.1	96	75.6-120	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

LABORATORY CONTROL SAMPLE: 499256

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethane	ug/L	20	19.2	96	68.5-122	
1,1-Dichloroethene	ug/L	20	19.7	99	57.1-120	
1,2-Dichloroethane	ug/L	20	17.8	89	60.5-133	
1,2-Dichloropropane	ug/L	20	20.0	100	71-120	
2-Butanone (MEK)	ug/L	20	19.3	96	55.7-138	
2-Chloroethylvinyl ether	ug/L	20	ND	0	70-130	1c
Acetone	ug/L	20	18.8	94	70-130	
Acrolein	ug/L		ND			
Acrylonitrile	ug/L	20	18.3	92	70-130	
Benzene	ug/L	20	20.3	101	69.8-120	
Bromodichloromethane	ug/L	20	16.6	83	66.5-120	
Bromoform	ug/L	20	17.6	88	61.1-120	
Bromomethane	ug/L	20	29.7	148	10.6-240	
Carbon tetrachloride	ug/L	20	16.1	81	60.1-127	
Chlorobenzene	ug/L	20	19.4	97	70-130	
Chloroethane	ug/L	20	24.6	123	36.8-142	
Chloroform	ug/L	20	18.0	90	70-130	
Chloromethane	ug/L	20	19.1	96	37.2-129	
cis-1,3-Dichloropropene	ug/L	20	19.0	95	74.3-120	
Dibromochloromethane	ug/L	20	16.4	82	66.1-120	
Ethylbenzene	ug/L	20	19.2	96	70.9-124	
Methylene Chloride	ug/L	20	20.8	104	70-130	
Tetrachloroethene	ug/L	20	20.1	101	63.4-121	
Toluene	ug/L	20	19.7	98	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	19.9	99	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	18.7	94	71-120	
Trichloroethene	ug/L	20	18.9	94	65.9-120	
Vinyl chloride	ug/L	20	22.9	115	51-127	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			93	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 499257 499258

Parameter	Units	3079133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	17.1	17.8	86	89	75-125	4	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.5	17.5	88	87	70-130	.2	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	18.1	18.2	90	91	71-129	.7	30	
1,1-Dichloroethane	ug/L	ND	20	20	18.4	19.5	92	97	72.5-127	6	30	
1,1-Dichloroethene	ug/L	ND	20	20	19.5	20.4	98	102	70-130	4	30	
1,2-Dichloroethane	ug/L	ND	20	20	16.5	17.2	82	86	70-130	4	30	
1,2-Dichloropropane	ug/L	ND	20	20	18.5	18.8	92	94	70-130	2	30	
2-Butanone (MEK)	ug/L	ND	20	20	18.6	17.6	93	88	70-130	5	30	
2-Chloroethylvinyl ether	ug/L	ND	20	20	ND	ND	0	0	70-130		30	2c
Acetone	ug/L	ND	20	20	17.2	16.7	61	58	70-130	3	30	M0
Acrolein	ug/L	ND			ND	ND					30	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 499257 499258

Parameter	Units	3079133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acrylonitrile	ug/L	ND	20	20	18.2	17.3	91	86	70-130	5	30	
Benzene	ug/L	ND	20	20	18.9	19.2	95	96	70-130	2	30	
Bromodichloromethane	ug/L	ND	20	20	14.9	15.7	75	78	70-130	5	30	
Bromoform	ug/L	ND	20	20	16.4	16.7	82	84	71-129	2	30	
Bromomethane	ug/L	ND	20	20	23.7	28.3	119	141	50-150	18	30	
Carbon tetrachloride	ug/L	ND	20	20	14.8	15.2	74	76	73-127	3	30	
Chlorobenzene	ug/L	ND	20	20	18.9	19.1	94	96	70-130	1	30	
Chloroethane	ug/L	ND	20	20	23.6	24.6	118	123	50-150	4	30	
Chloroform	ug/L	ND	20	20	16.8	16.9	84	85	70-130	1	30	
Chloromethane	ug/L	ND	20	20	19.9	21.3	99	106	50-150	7	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.6	18.3	88	92	70-130	4	30	
Dibromochloromethane	ug/L	ND	20	20	14.7	15.0	74	75	70-130	2	30	
Ethylbenzene	ug/L	ND	20	20	18.6	18.9	93	94	70-130	2	30	
Methylene Chloride	ug/L	ND	20	20	19.0	19.5	95	98	70-130	3	30	
Tetrachloroethene	ug/L	ND	20	20	19.6	20.4	98	102	73.5-126	4	30	
Toluene	ug/L	ND	20	20	18.6	19.2	93	96	74.5-125	3	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.9	19.6	94	98	70-130	4	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.3	17.7	87	89	70-130	2	30	
Trichloroethene	ug/L	ND	20	20	17.6	18.5	88	92	70-130	5	30	
Vinyl chloride	ug/L	ND	20	20	23.1	24.8	116	124	50-150	7	30	
1,2-Dichloroethane-d4 (S)	%						93	93	70-130			
4-Bromofluorobenzene (S)	%						96	95	70-130			
Toluene-d8 (S)	%						96	95	70-130			

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: OEXT/13092
QC Batch Method: EPA 608 SF
Analysis Method: EPA 608
Analysis Description: 608 GCS PCB
Associated Lab Samples: 3079283001

METHOD BLANK: 499708
Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1221 (Aroclor 1221)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1232 (Aroclor 1232)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1242 (Aroclor 1242)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1248 (Aroclor 1248)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1254 (Aroclor 1254)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1260 (Aroclor 1260)	ug/L	ND	1.0	10/15/12 19:30	
Decachlorobiphenyl (S)	%	47	36-118	10/15/12 19:30	
Tetrachloro-m-xylene (S)	%	85	24-116	10/15/12 19:30	

LABORATORY CONTROL SAMPLE: 499709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	1.2	1.0	84	52-108	
PCB-1260 (Aroclor 1260)	ug/L	1.2	.99J	79	58-107	
Decachlorobiphenyl (S)	%			55	36-118	
Tetrachloro-m-xylene (S)	%			87	24-116	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: OEXT/13091
QC Batch Method: EPA 608 SF
Analysis Method: EPA 608
Analysis Description: 608 GCS Pesticide
Associated Lab Samples: 3079283001

METHOD BLANK: 499706 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/L	ND	0.10	10/16/12 04:16	
4,4'-DDE	ug/L	ND	0.10	10/16/12 04:16	
4,4'-DDT	ug/L	ND	0.10	10/16/12 04:16	
Aldrin	ug/L	ND	0.050	10/16/12 04:16	
alpha-BHC	ug/L	ND	0.050	10/16/12 04:16	
beta-BHC	ug/L	ND	0.050	10/16/12 04:16	
Chlordane (Technical)	ug/L	ND	0.50	10/16/12 04:16	
delta-BHC	ug/L	ND	0.050	10/16/12 04:16	
Dieldrin	ug/L	ND	0.10	10/16/12 04:16	
Endosulfan I	ug/L	ND	0.050	10/16/12 04:16	
Endosulfan II	ug/L	ND	0.10	10/16/12 04:16	
Endosulfan sulfate	ug/L	ND	0.10	10/16/12 04:16	
Endrin	ug/L	ND	0.10	10/16/12 04:16	
Endrin aldehyde	ug/L	ND	0.10	10/16/12 04:16	
gamma-BHC (Lindane)	ug/L	ND	0.050	10/16/12 04:16	
Heptachlor	ug/L	ND	0.050	10/16/12 04:16	
Heptachlor epoxide	ug/L	ND	0.050	10/16/12 04:16	
Toxaphene	ug/L	ND	1.0	10/16/12 04:16	
Decachlorobiphenyl (S)	%	62	36-118	10/16/12 04:16	
Tetrachloro-m-xylene (S)	%	79	24-116	10/16/12 04:16	8c

LABORATORY CONTROL SAMPLE: 499707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/L	.4	0.37	93	68-114	
4,4'-DDE	ug/L	.4	0.35	87	64-108	
4,4'-DDT	ug/L	.4	0.37	92	69-112	
Aldrin	ug/L	.2	0.17	84	59-104	
alpha-BHC	ug/L	.2	0.18	88	60-114	
beta-BHC	ug/L	.2	0.18	90	62-104	
delta-BHC	ug/L	.2	0.18	92	59-113	
Dieldrin	ug/L	.4	0.37	92	71-110	
Endosulfan I	ug/L	.2	0.18	92	54-100	
Endosulfan II	ug/L	.4	0.35	87	64-101	
Endosulfan sulfate	ug/L	.4	0.35	87	66-106	
Endrin	ug/L	.4	0.37	92	67-118	
Endrin aldehyde	ug/L	.4	0.40	101	70-132	
gamma-BHC (Lindane)	ug/L	.2	0.18	92	68-123	
Heptachlor	ug/L	.2	0.18	90	59-109	
Heptachlor epoxide	ug/L	.2	0.18	89	66-100	
Decachlorobiphenyl (S)	%			65	36-118	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

LABORATORY CONTROL SAMPLE: 499707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloro-m-xylene (S)	%			84	24-116	8c

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: OEXT/13062
QC Batch Method: EPA 625 Low Level
Analysis Method: EPA 625 Low Level
Analysis Description: 625 MSS Low Level
Associated Lab Samples: 3079283001

METHOD BLANK: 498338
Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
1,2-Diphenylhydrazine	ug/L	ND	1.0	10/18/12 08:50	N2
1,3-Dichlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
2,4,6-Trichlorophenol	ug/L	ND	1.0	10/18/12 08:50	
2,4-Dichlorophenol	ug/L	ND	1.0	10/18/12 08:50	
2,4-Dimethylphenol	ug/L	ND	1.0	10/18/12 08:50	
2,4-Dinitrophenol	ug/L	ND	2.5	10/18/12 08:50	
2,4-Dinitrotoluene	ug/L	ND	1.0	10/18/12 08:50	
2,6-Dinitrotoluene	ug/L	ND	1.0	10/18/12 08:50	
2-Chloronaphthalene	ug/L	ND	1.0	10/18/12 08:50	
2-Chlorophenol	ug/L	ND	1.0	10/18/12 08:50	
2-Methylphenol(o-Cresol)	ug/L	ND	1.0	10/18/12 08:50	
2-Nitrophenol	ug/L	ND	1.0	10/18/12 08:50	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2.0	10/18/12 08:50	
3,3'-Dichlorobenzidine	ug/L	ND	1.0	10/18/12 08:50	
4,6-Dinitro-2-methylphenol	ug/L	ND	2.5	10/18/12 08:50	
4-Bromophenylphenyl ether	ug/L	ND	1.0	10/18/12 08:50	
4-Chloro-3-methylphenol	ug/L	ND	1.0	10/18/12 08:50	
4-Chlorophenylphenyl ether	ug/L	ND	1.0	10/18/12 08:50	
4-Nitrophenol	ug/L	ND	1.0	10/18/12 08:50	
Acenaphthene	ug/L	ND	1.0	10/18/12 08:50	
Acenaphthylene	ug/L	ND	1.0	10/18/12 08:50	
Acetophenone	ug/L	ND	1.0	10/18/12 08:50	N2
Anthracene	ug/L	ND	1.0	10/18/12 08:50	
Benzidine	ug/L	ND	100	10/18/12 08:50	
Benzo(a)anthracene	ug/L	ND	1.0	10/18/12 08:50	
Benzo(a)pyrene	ug/L	ND	1.0	10/18/12 08:50	
Benzo(b)fluoranthene	ug/L	ND	1.0	10/18/12 08:50	
Benzo(g,h,i)perylene	ug/L	ND	1.0	10/18/12 08:50	
Benzo(k)fluoranthene	ug/L	ND	1.0	10/18/12 08:50	
Benzoic acid	ug/L	ND	2.5	10/18/12 08:50	N2
bis(2-Chloroethoxy)methane	ug/L	ND	1.0	10/18/12 08:50	
bis(2-Chloroethyl) ether	ug/L	ND	1.0	10/18/12 08:50	
bis(2-Chloroisopropyl) ether	ug/L	ND	1.0	10/18/12 08:50	
bis(2-Ethylhexyl)phthalate	ug/L	ND	1.0	10/18/12 08:50	
Butylbenzylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Carbazole	ug/L	ND	1.0	10/18/12 08:50	N2
Chrysene	ug/L	ND	1.0	10/18/12 08:50	
Di-n-butylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Di-n-octylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Dibenz(a,h)anthracene	ug/L	ND	1.0	10/18/12 08:50	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

METHOD BLANK: 498338 Matrix: Water

Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diethylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Dimethylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Fluoranthene	ug/L	ND	1.0	10/18/12 08:50	
Fluorene	ug/L	ND	1.0	10/18/12 08:50	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/18/12 08:50	
Hexachlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
Hexachlorocyclopentadiene	ug/L	ND	1.0	10/18/12 08:50	
Hexachloroethane	ug/L	ND	1.0	10/18/12 08:50	
Indeno(1,2,3-cd)pyrene	ug/L	ND	1.0	10/18/12 08:50	
Isophorone	ug/L	ND	1.0	10/18/12 08:50	
N-Nitroso-di-n-propylamine	ug/L	ND	1.0	10/18/12 08:50	
N-Nitrosodimethylamine	ug/L	ND	1.0	10/18/12 08:50	N2
N-Nitrosodiphenylamine	ug/L	ND	1.0	10/18/12 08:50	
Naphthalene	ug/L	ND	1.0	10/18/12 08:50	
Nitrobenzene	ug/L	ND	1.0	10/18/12 08:50	
Pentachlorophenol	ug/L	ND	2.5	10/18/12 08:50	
Phenanthrene	ug/L	ND	1.0	10/18/12 08:50	
Phenol	ug/L	ND	1.0	10/18/12 08:50	
Pyrene	ug/L	ND	1.0	10/18/12 08:50	
2,4,6-Tribromophenol (S)	%	71	10-123	10/18/12 08:50	
2-Fluorobiphenyl (S)	%	73	43-116	10/18/12 08:50	
2-Fluorophenol (S)	%	39	21-110	10/18/12 08:50	
Nitrobenzene-d5 (S)	%	74	35-114	10/18/12 08:50	
Phenol-d6 (S)	%	26	10-110	10/18/12 08:50	
Terphenyl-d14 (S)	%	135	33-141	10/18/12 08:50	

LABORATORY CONTROL SAMPLE: 498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	10	6.3	63	39-98	
1,2-Dichlorobenzene	ug/L	10	5.8	58	32-129	
1,2-Diphenylhydrazine	ug/L		ND			N2
1,3-Dichlorobenzene	ug/L	10	5.3	53	1-172	
1,4-Dichlorobenzene	ug/L	10	5.5	55	20-124	
2,4,6-Trichlorophenol	ug/L	10	9.1	91	37-144	
2,4-Dichlorophenol	ug/L	10	6.4	64	39-135	
2,4-Dimethylphenol	ug/L	10	7.5	75	32-119	
2,4-Dinitrophenol	ug/L	10	10.3	103	1-191	
2,4-Dinitrotoluene	ug/L	10	9.6	96	39-139	
2,6-Dinitrotoluene	ug/L	10	9.2	92	50-158	
2-Chloronaphthalene	ug/L	10	7.7	77	60-118	
2-Chlorophenol	ug/L	10	6.9	69	23-134	
2-Methylphenol(o-Cresol)	ug/L		ND			
2-Nitrophenol	ug/L	10	8.3	83	29-182	
3&4-Methylphenol(m&p Cresol)	ug/L		ND			

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

LABORATORY CONTROL SAMPLE: 498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3'-Dichlorobenzidine	ug/L	10	8.1	81	1-262	
4,6-Dinitro-2-methylphenol	ug/L	10	9.0	90	1-181	
4-Bromophenylphenyl ether	ug/L	10	8.3	83	53-127	
4-Chloro-3-methylphenol	ug/L	10	6.2	62	22-147	
4-Chlorophenylphenyl ether	ug/L	10	8.4	84	25-158	
4-Nitrophenol	ug/L	10	3.0	30	1-132	
Acenaphthene	ug/L	10	8.1	81	27-133	
Acenaphthylene	ug/L	10	8.2	82	33-145	
Acetophenone	ug/L	10	7.5	75	40-140	N2
Anthracene	ug/L	10	9.5	95	27-133	
Benzidine	ug/L	10	ND	0	40-140	L0
Benzo(a)anthracene	ug/L	10	9.6	96	33-142	
Benzo(a)pyrene	ug/L	10	10.6	106	17-163	
Benzo(b)fluoranthene	ug/L	10	10.2	102	24-159	
Benzo(g,h,i)perylene	ug/L	10	6.9	69	1-219	
Benzo(k)fluoranthene	ug/L	10	12.5	125	11-162	
Benzoic acid	ug/L		ND			N2
bis(2-Chloroethoxy)methane	ug/L	10	8.3	83	33-184	
bis(2-Chloroethyl) ether	ug/L	10	6.6	66	12-158	
bis(2-Chloroisopropyl) ether	ug/L	10	6.9	69	36-166	
bis(2-Ethylhexyl)phthalate	ug/L	10	10.9	109	8-158	
Butylbenzylphthalate	ug/L	10	11.6	116	1-152	
Carbazole	ug/L	10	8.7	87	40-140	N2
Chrysene	ug/L	10	11.0	110	17-168	
Di-n-butylphthalate	ug/L	10	9.4	94	1-118	
Di-n-octylphthalate	ug/L	10	10.2	102	4-146	
Dibenz(a,h)anthracene	ug/L	10	9.6	96	1-227	
Diethylphthalate	ug/L	10	10	100	1-114	
Dimethylphthalate	ug/L	10	9.3	93	1-112	
Fluoranthene	ug/L	10	8.8	88	26-137	
Fluorene	ug/L	10	9.0	90	59-121	
Hexachloro-1,3-butadiene	ug/L	10	6.6	66	24-116	
Hexachlorobenzene	ug/L	10	9.4	94	1-152	
Hexachlorocyclopentadiene	ug/L	10	4.4	44	40-140	
Hexachloroethane	ug/L	10	5.3	53	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	10	9.0	90	1-171	
Isophorone	ug/L	10	7.9	79	21-196	
N-Nitroso-di-n-propylamine	ug/L	10	7.9	79	1-230	
N-Nitrosodimethylamine	ug/L	10	4.8	48	1-230	N2
N-Nitrosodiphenylamine	ug/L	10	8.1	81	40-140	
Naphthalene	ug/L	10	7.1	71	21-133	
Nitrobenzene	ug/L	10	7.7	77	35-118	
Pentachlorophenol	ug/L	10	8.3	83	14-176	
Phenanthrene	ug/L	10	9.7	97	54-120	
Phenol	ug/L	10	2.8	28	5-112	
Pyrene	ug/L	10	12.1	121	26-127	
2,4,6-Tribromophenol (S)	%			96	10-123	
2-Fluorobiphenyl (S)	%			81	43-116	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

LABORATORY CONTROL SAMPLE: 498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorophenol (S)	%			42	21-110	
Nitrobenzene-d5 (S)	%			78	35-114	
Phenol-d6 (S)	%			29	10-110	
Terphenyl-d14 (S)	%			124	33-141	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WET/15613 Analysis Method: EPA 1664A
QC Batch Method: EPA 1664A Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 3079283001

METHOD BLANK: 501000 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/18/12 12:12	

METHOD BLANK: 501002 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/18/12 12:12	

METHOD BLANK: 501005 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	15.8	10/18/12 12:12	

LABORATORY CONTROL SAMPLE: 501001

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	38.5	91	78-114	

LABORATORY CONTROL SAMPLE: 501003

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	39.4	94	78-114	

SAMPLE DUPLICATE: 501004

Parameter	Units	3079479001 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	4.8 U	ND		34	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WET/15483
QC Batch Method: SM 2120B
Analysis Method: SM 2120B
Analysis Description: 2120B Color
Associated Lab Samples: 3079283001

METHOD BLANK: 497586 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	ND	1.0	10/09/12 20:40	

LABORATORY CONTROL SAMPLE: 497587

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Apparent Color	units	25	25.0	100	80-120	

SAMPLE DUPLICATE: 497588

Parameter	Units	3079235002 Result	Dup Result	RPD	Max RPD	Qualifiers
Apparent Color	units	15.0	15.0	0		

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WET/15495
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 3079283001

METHOD BLANK: 497863
Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10/10/12 17:30	

LABORATORY CONTROL SAMPLE: 497864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	957	96	85-115	

SAMPLE DUPLICATE: 497865

Parameter	Units	3079283001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	7020	7140	2	5	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WET/15494
QC Batch Method: SM 2540D
Analysis Method: SM 2540D
Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 3079283001

METHOD BLANK: 497861
Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	4.0	10/10/12 16:00	

SAMPLE DUPLICATE: 497862

Parameter	Units	3079290001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		5	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WET/15476
QC Batch Method: SM 4500-Cl G
Analysis Method: SM 4500-Cl G
Analysis Description: 4500CL G Chlorine, Total Residual
Associated Lab Samples: 3079283001

METHOD BLANK: 497346 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.10	10/09/12 20:16	H6

LABORATORY CONTROL SAMPLE: 497347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	.5	0.45	90	85-115	H6

MATRIX SPIKE SAMPLE: 497348

Parameter	Units	3079209001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	ND	.5	0.52	96	85-115	H6

SAMPLE DUPLICATE: 497349

Parameter	Units	3079209001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorine, Total Residual	mg/L	ND	.056J		20	H6

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WET/15484
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 3079283001

SAMPLE DUPLICATE: 497589

Parameter	Units	3079283001 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.0	8.0	.1	10	H6

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WET/15487 Analysis Method: SM 5540C
QC Batch Method: SM 5540C Analysis Description: 5540C MBAS Surfactants
Associated Lab Samples: 3079283001

METHOD BLANK: 497661 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Surfactants	mg/L	ND	0.10	10/09/12 22:13	3c

LABORATORY CONTROL SAMPLE: 497662

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Surfactants	mg/L	1	1.0	101	85-115	3c

MATRIX SPIKE SAMPLE: 497664

Parameter	Units	3079235002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Surfactants	mg/L	ND	1	0.96	95	85-115	3c

SAMPLE DUPLICATE: 497663

Parameter	Units	3079235001 Result	Dup Result	RPD	Max RPD	Qualifiers
Surfactants	mg/L	ND	ND		20	3c

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/11020
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions 28day
Associated Lab Samples: 3079283001

METHOD BLANK: 501311 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	ND	0.062	10/18/12 14:29	
Fluoride	mg/L	ND	0.012	10/18/12 14:29	

LABORATORY CONTROL SAMPLE: 501312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	2	1.9	93	80-120	
Fluoride	mg/L	.4	0.38	96	80-120	

MATRIX SPIKE SAMPLE: 501313

Parameter	Units	3079578009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	18.5	200	202	92	80-120	
Fluoride	mg/L	ND	40	40.0	100	80-120	

SAMPLE DUPLICATE: 501314

Parameter	Units	3079578009 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromide	mg/L	18.5	18.6	.5	20	
Fluoride	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/10984
QC Batch Method: EPA 335.4
Analysis Method: EPA 335.4
Analysis Description: 335.4 Cyanide, Total
Associated Lab Samples: 3079283001

METHOD BLANK: 499879 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	10/15/12 19:13	

LABORATORY CONTROL SAMPLE: 499880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.2	0.21	103	90-110	

MATRIX SPIKE SAMPLE: 499882

Parameter	Units	3079650001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	22.9 ug/L	.1	0.13	106	90-110	

SAMPLE DUPLICATE: 499881

Parameter	Units	3079650001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	22.9 ug/L	0.021	9	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/10919
QC Batch Method: SM 3500-Cr D
Analysis Method: SM 3500-Cr D
Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 3079283001

METHOD BLANK: 497630 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.010	10/09/12 22:49	

LABORATORY CONTROL SAMPLE: 497631

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.25	0.23	93	80-120	

MATRIX SPIKE SAMPLE: 497632

Parameter	Units	3079220001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	ND	.25	0.085	16	75-125	H1,M1

SAMPLE DUPLICATE: 497633

Parameter	Units	3079220001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	ND	.057J		20	H1

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/10999
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia, Distilled
Associated Lab Samples: 3079283001

METHOD BLANK: 500602 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ammonia, Distilled	mg/L	ND	0.10	10/17/12 11:56	

LABORATORY CONTROL SAMPLE: 500603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ammonia, Distilled	mg/L	4	3.9	97	85-115	

MATRIX SPIKE SAMPLE: 500604

Parameter	Units	3079477001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Ammonia, Distilled	mg/L	0.30	4	4.1	96	85-115	

SAMPLE DUPLICATE: 500605

Parameter	Units	3079477001 Result	Dup Result	RPD	Max RPD	Qualifiers
Ammonia, Distilled	mg/L	0.30	0.21	35	20	D6

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/10975 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 3079283001

METHOD BLANK: 499680 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	1.0	10/15/12 13:09	

LABORATORY CONTROL SAMPLE: 499681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.0	100	90-110	

MATRIX SPIKE SAMPLE: 499682

Parameter	Units	3078812002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	13.6	4	21.0	184	90-110	M1

SAMPLE DUPLICATE: 499683

Parameter	Units	3078812002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	13.6	16.4	19	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/11025
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Associated Lab Samples: 3079283001

METHOD BLANK: 501561 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/18/12 09:45	

METHOD BLANK: 501563 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/18/12 09:45	

LABORATORY CONTROL SAMPLE: 501562

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	300	287	96	90-110	

MATRIX SPIKE SAMPLE: 501564

Parameter	Units	3079862005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	94.2	150	192	66	90-110	M1

SAMPLE DUPLICATE: 501565

Parameter	Units	3079862005 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	94.2	92.2	2	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/10993 Analysis Method: EPA 420.1
QC Batch Method: EPA 420.1 Analysis Description: 420.1 Phenolics
Associated Lab Samples: 3079283001

METHOD BLANK: 500270 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenol	mg/L	ND	0.050	10/17/12 14:27	

LABORATORY CONTROL SAMPLE: 500271

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenol	mg/L	.25	0.24	96	85-115	

MATRIX SPIKE SAMPLE: 500272

Parameter	Units	3079733001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenol	mg/L	ND	.25	0.23	86	85-115	H3

SAMPLE DUPLICATE: 500273

Parameter	Units	3079733001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phenol	mg/L	ND	ND		20	H3

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/10936
QC Batch Method: SM 4500-CN-E
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide, Free
Associated Lab Samples: 3079283001

METHOD BLANK: 498081 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	10/11/12 02:53	

LABORATORY CONTROL SAMPLE: 498082

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.2	0.21	105	90-110	

MATRIX SPIKE SAMPLE: 498084

Parameter	Units	3079290001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.11	110	90-110	

SAMPLE DUPLICATE: 498083

Parameter	Units	3079290001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/10990
QC Batch Method: SM 4500-NO3 F
Analysis Method: SM 4500-NO3 F
Analysis Description: SM4500NO3-F, Nitrate, Preserved
Associated Lab Samples: 3079283001

METHOD BLANK: 500148 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	ND	0.10	10/16/12 09:15	

LABORATORY CONTROL SAMPLE: 500149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	4	4.0	99	85-115	

MATRIX SPIKE SAMPLE: 500150

Parameter	Units	3079088001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	5	7.0	100	85-115	

SAMPLE DUPLICATE: 500151

Parameter	Units	3079088001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	2.0	.5	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/11001
QC Batch Method: SM 4500-P E
Analysis Method: SM 4500-P E
Analysis Description: 4500PB5E Phosphorus
Associated Lab Samples: 3079283001

METHOD BLANK: 500612 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	10/18/12 09:44	

LABORATORY CONTROL SAMPLE: 500613

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	.4	0.41	104	85-115	

MATRIX SPIKE SAMPLE: 500614

Parameter	Units	3079235002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	.4	0.44	108	90-110	

SAMPLE DUPLICATE: 500615

Parameter	Units	3079235002 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/11069
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 3079283001

METHOD BLANK: 503234 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	10/23/12 11:08	

LABORATORY CONTROL SAMPLE: 503235

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	11.2	112	85-115	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: WETA/11047
QC Batch Method: ASTM D516-90,02
Analysis Method: ASTM D516-90,02
Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 3079283001

METHOD BLANK: 502638 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	10.0	10/22/12 10:46	

LABORATORY CONTROL SAMPLE: 502639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	30	29.0	97	85-115	

MATRIX SPIKE SAMPLE: 502640

Parameter	Units	3079166001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	42.7	20	61.8	95	85-115	

SAMPLE DUPLICATE: 502641

Parameter	Units	3079166001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	42.7	42.3	1	20	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Sample: Outfall 001 - Sample 1 **Lab ID: 3079283001** Collected: 10/09/12 09:30 Received: 10/09/12 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	SM 7110C	**-0.0481 ± 1.55 (2.91)**	pCi/L	10/19/12 16:43	12587-46-1	
Gross Beta	EPA 900.0m	**267 ± 52.8 (22.7)**	pCi/L	10/17/12 15:26	12587-47-2	
Radium-226	EPA 903.1	**0.619 ± 0.704 (0.958)**	pCi/L	10/17/12 16:21	13982-63-3	
Radium-228	EPA 904.0	**0.169 ± 1.40 (2.65)**	pCi/L	10/17/12 14:59	15262-20-1	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: RADC/13460 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 3079283001

METHOD BLANK: 498299 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-226	-0.247 ± 0.384 (0.929)	pCi/L	10/17/12 15:01	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: RADC/13474
QC Batch Method: EPA 900.0m
Analysis Method: EPA 900.0m
Analysis Description: 900.0 Gross Alpha/Beta
Associated Lab Samples: 3079283001

METHOD BLANK: 498628
Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Gross Beta	1.40 ± 0.987 (1.83)	pCi/L	10/18/12 06:43	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: RADC/13488 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 3079283001

METHOD BLANK: 499023 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-228	-0.0176 ± 0.353 (0.846)	pCi/L	10/17/12 12:21	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079283

QC Batch: RADC/13560 Analysis Method: SM 7110C
QC Batch Method: SM 7110C Analysis Description: 7110C Gross Alpha
Associated Lab Samples: 3079283001

METHOD BLANK: 501265 Matrix: Water
Associated Lab Samples: 3079283001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Gross Alpha	0.899 ± 0.766 (1.41)	pCi/L	10/19/12 11:11	

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PRL - Pace Reporting Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Act - Activity
Unc - Uncertainty
(MDC) - Minimum Detectable Concentration
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

WORKORDER QUALIFIERS

WO: 3079283
[4] This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

SAMPLE QUALIFIERS

Sample: 3079283001
[1] Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

BATCH QUALIFIERS

Batch: OEXT/13062
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
Batch: OEXT/13091
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
Batch: GCSV/4936
[1] The following samples were diluted due to the presence of high levels of non-target analytes or other matrix interference, resulting in elevated reporting limits for all analytes: 5070699-005 and 5070699-008.

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QUALIFIERS

Project: NPDES Permit Renewal
Pace Project No.: 3079283

ANALYTE QUALIFIERS

1c	Analyte not present in the LCS spiking standards.
2c	Analyte not present in the spiking standards.
3c	MBAS, calculated as LAS, Mol wt 340 g/mol
4c	Recovery of the surrogate DCB is low. Sample results accepted based upon the recovery of the TCMX surrogate.
5c	Sample was diluted due to matrix.
6c	The recovery of the surrogate DCB is low. The sample is accepted based upon the recovery of the surrogate TCMX.
7c	The result for Endosulfan I is reported from the front analytical column due to a high response for Endosulfan I on the rear analytical column.
8c	The result for TCMX is reported from the rear analytical column due to a high response for TCMX on the front analytical column.
CU	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
H1	Analysis conducted outside the EPA method holding time.
H3	Sample was received or analysis requested beyond the recognized method holding time.
H6	Analysis initiated outside of the 15 minute EPA recommended holding time.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3079283001	Outfall 001 - Sample 1	EPA 608 SF	OEXT/13092	EPA 608	GCSV/4935
3079283001	Outfall 001 - Sample 1	EPA 608 SF	OEXT/13091	EPA 608	GCSV/4936
3079283001	Outfall 001 - Sample 1	EPA 200.7	MPRP/9289	EPA 200.7	ICP/8708
3079283001	Outfall 001 - Sample 1	EPA 200.7	MPRP/9283	EPA 200.7	ICP/8702
3079283001	Outfall 001 - Sample 1	SM 2340B	ICP/8766		
3079283001	Outfall 001 - Sample 1	SM 9222D	MBIO/2654	SM 9222D	MBIO/2665
3079283001	Outfall 001 - Sample 1	EPA 245.1	MERP/3927	EPA 245.1	MERC/3777
3079283001	Outfall 001 - Sample 1	EPA 625 Low Level	OEXT/13062	EPA 625 Low Level	MSSV/4495
3079283001	Outfall 001 - Sample 1	EPA 624	MSV/14270		
3079283001	Outfall 001 - Sample 1	SM 7110C	RADC/13560		
3079283001	Outfall 001 - Sample 1	EPA 900.0m	RADC/13474		
3079283001	Outfall 001 - Sample 1	EPA 903.1	RADC/13460		
3079283001	Outfall 001 - Sample 1	EPA 904.0	RADC/13488		
3079283001	Outfall 001 - Sample 1	EPA 1664A	WET/15613		
3079283001	Outfall 001 - Sample 1	SM 2120B	WET/15483		
3079283001	Outfall 001 - Sample 1	SM 2540C	WET/15495		
3079283001	Outfall 001 - Sample 1	SM 2540D	WET/15494		
3079283001	Outfall 001 - Sample 1	SM 4500-Cl G	WET/15476		
3079283001	Outfall 001 - Sample 1	SM 4500-H+B	WET/15484		
3079283001	Outfall 001 - Sample 1	SM 5540C	WET/15487		
3079283001	Outfall 001 - Sample 1	Trivalent Chromium Calculation	WET/15702		
3079283001	Outfall 001 - Sample 1	EPA 300.0	WETA/11020		
3079283001	Outfall 001 - Sample 1	EPA 335.4	WETA/10984		
3079283001	Outfall 001 - Sample 1	SM 3500-Cr D	WETA/10919		
3079283001	Outfall 001 - Sample 1	EPA 350.1	WETA/10999		
3079283001	Outfall 001 - Sample 1	EPA 351.2	WETA/10975		
3079283001	Outfall 001 - Sample 1	EPA 410.4	WETA/11025		
3079283001	Outfall 001 - Sample 1	EPA 420.1	WETA/10993		
3079283001	Outfall 001 - Sample 1	SM 4500-CN-E	WETA/10936		
3079283001	Outfall 001 - Sample 1	SM 4500-NO3 F	WETA/10990		
3079283001	Outfall 001 - Sample 1	SM 4500-P E	WETA/11001		
3079283001	Outfall 001 - Sample 1	SM 5310C	WETA/11069		

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(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES Permit Renewal
Pace Project No.: 3079283

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3079283001	**Outfall 001 - Sample 1**	ASTM D516-90,02	WETA/11047		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:

Company:	Seneca Landfill, Inc.
Address:	PO Box 1080
	Mars, PA 16046
Email To:	mpavelek@senecalandfill.com
Phone: 724-452-0899	Fax: 724-453-0915
Requested Due Date/TAT:	Standard

Section B Required Project Information:

Report To:	Mike Pavelek
Copy To:	Mick Palmer
Purchase Order No.:	
Project Name:	NPDES Permit Renewal
Project Number:	Outfall 001 - Sample 2

Section C Invoice Information:

Attention:	Beth Hanz
Company Name:	Seneca Landfill, Inc.
Address:	PO Box 1080, Mars, PA 16046
Pace Quote Reference:	
Pace Project Manager:	Rachel Christner
Pace Profile #:	3915 - Line 1

REGULATORY AGENCY

☒ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: PA

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

Requested Analysis Filtered (Y/N)

ITEM #	Sample ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Pollutant Group 1	Pollutant Group 2	Pollutant Group 3	Pollutant Group 4	Pollutant Group 5	Module 11 (TICs)	Pollutant Group 6	a-Terpineol, p-Cresol, o-Cresol	Benzoic Acid, Pyridine, Acetone	Acetophenone, 2-Butanone	2,4,6-Trichlorophenol	Vanadium	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 3079403
1	Outfall 001 - Sample 2	WT	C	10-9	9:30	10-10	9:30		[illegible]	[illegible]	4	4	[illegible]	1	1		[illegible]		X	X	X	X	X	X	X	X	X	X	X		001
2			G			10-10	9:30		3	11			3				2														
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
BOD - Subout to ESL	Mick Palmer			[illegible] Pace	10/10	12:45	
Phenolics - Subout to Geochemical Testing	Mary Pace	10/10	5:45	[illegible]	10/10/12	1715	2.2 0.2 Y N Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICK PALMER

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/10/2012

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important: By signing this form you are accepting Pace's NET 30 day payment terms and ~~agreeing to late charges of 1.5% per month for~~ ~~is not paid within 30 days.~~

Sample Condition Upon Receipt

Pace Analytical

Client Name: Seneca Project # 30794403

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 5 6 (7) **Type of Ice:** (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature 22.0.7 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C **Comments:**

Date and Initials of person examining contents: SmB 10/10/12

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☑No ☐N/A	5. Fecal out before arriving at lab
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☑No ☐N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: (VOA, coliform, TOC, O&G, WI-DRO (water))	☑Yes ☐No	Initial when completed SmB / Lot # of added preservative
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☑No ☐N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Dorothy Chambers **Date:** 10/11/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30794403

Client Name:

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y / N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WT			4	6	1	1	2		1	1	1		3	1	1	1		3					

SCURF Back (C016-4 15May2012).xls

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MB

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 3079403

Matrix: (soil/water) WATER Lab Sample ID: 499255

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 21012009

Level: (low/med) LOW Date Received: 10/12/12

% Moisture: not dec. _____ Date Analyzed: 10/12/12

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

OUTFALL 0
01 - SAMPL

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 3079403

Matrix: (soil/water) WATER Lab Sample ID: 3079403001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 21012055

Level: (low/med) LOW Date Received: 10/10/12

% Moisture: not dec. _____ Date Analyzed: 10/12/12

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	1.18	54.3	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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18.					
19.					
20.					
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22.					
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25.					
26.					
27.					
28.					
29.					
30.					

ENVIRONMENTAL SERVICE LABORATORIES, INC.

1803 Philadelphia St.
Indiana, PA 15701
P: (724) 463-TEST
F: (724) 465-4209
PADEP: 32-00382

1276 Bentleyville Rd.
Van Voorhis, PA 15366
P: (724) 258-TEST
F: (724) 258-8376
PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

19 October 2012

Work Order: 2100924

Project: Wastewater

Pace Analytical Services, Inc.
Attn: Penny Westrick
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Report of Analysis

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
3079403001	2100924-01	Waste Water	10/10/2012 09:30	10/11/2012 09:46

Report Narrative

The results contained in this report are only representative of the samples received. Environmental Service Laboratories, Inc. is not responsible for use or interpretation of the data included herein.

Definitions

ND	Less than reporting limit
RL	Reporting Limit
CFU	Colony Forming Units

Certifications

Analyses performed by Environmental Service Laboratories, Inc., Indiana PA unless otherwise specified.

Environmental Service Laboratories, Inc., Indiana, PA DEP lab ID #32-32382

Approved By

Gabe Taylor
Manager

ENVIRONMENTAL SERVICE LABORATORIES, INC.

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Indiana, PA 15701
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Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Reported: 10/19/2012 07:51

Lab Sample ID#: 2100924-01
Sample Type: Waste Water
Sample Source: Grab
Sampler: Client
Client Sample ID: 3079403001

Sample Date: 10/10/2012 09:30
Receipt Date: 10/11/2012 09:46

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/ Certification	Analysis Date/Time
General Chemistry							
Biochemical Oxygen Demand	7.0	mg/L		2.0	SM5210B	KAR	10/11 18:00

Chain of Custody

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601
Phone: (724) 850-5600
FAX: (724) 850-5601

2100924

Page 1 of 1

Subcontractor Project No.:
P.O. No: ASR- 3079403

Request Date: 10/11/12 Analysis Due Date: 10/24/2012
Shipped By: Pace Courier

Certification Required:

Pace Project No.: 3079403
Report/Invoice to: Rachel Christner

	Pace Sample ID:	Matrix:	Collection Date:	Time:	Analysis Requested:	Analytical Method:	Detection Limits:	Units Requested:
1	3079403001	WT	10/10/12	9:30	BOD ✓ 2100924-01			
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

Special Requirements: Please e-mail final report to Rachel.Christner@pacelabs.com.

Subcontract Lab: Environmental Services Laboratories, Inc.
Address: 1803 Philadelphia Street
Indiana, PA 15701
Phone:

Analysis Authorized By: Rachel D Christner — Project Manager
Pace Agent Name — Title

Acceptance of Terms By:
Subcontract Lab Agent — Title

Relinquised By: Z Brown 10/11/12 946
(Signature & Affiliation) (Date) (Time)

Relinquised By:
(Signature & Affiliation) (Date) (Time)

Comments:

Received By: 10/11/12 0946
(Signature & Affiliation) (Date) (Time)

Received By: 10/11/12 1041
(Signature & Affiliation) (Date) (Time)

ASR (C015-0 31July2007)

0.7°C

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10208529
Sample Receipt Date: 10/12/2012
Client Project #: 3079403
Client Sub PO #: N/A
State Cert #: 68-00563

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Norman Hoffa, your Pace Project Manager.

This report has been reviewed by:

Norman C. Hoffa

October 23, 2012
Norman Hoffa, Project Manager
(919) 596-1935
(612) 607-6444 (fax)
norm.hoffa@pacelabs.com

Report Prepared Date:
October 23, 2012

ACCREDITED IN ACCORDANCE WITH nelac

Report of Laboratory Analysis

The results relate only to the samples included in this report.

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of PASI Pittsburgh. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration point and a nominal 1-Liter sample amount.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 95%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that 2,3,7,8-TCDD was not detected, indicating that the sample processing steps were free of background levels of this congener.

Laboratory spike samples were also prepared using clean water that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 91-97%, with a relative percent difference of 6.4%. These results indicate high degrees of accuracy and precision for these determinations. Matrix spikes were not prepared with the sample batch.

1137

Chain of Custody

10208529

Pace Analytical
www.pacelabs.com

Workorder: 3079403 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/10/2012 **Results Requested By:** 11/1/2012

Report To	Subcontract To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Item	Sample Id	Sample Type	Collect Date/Time	Lab ID	Matrix	Preservatives: Unpreserved	Requested Analysis: 1613 - 2,3,7,8-TCDD	LAB USE ONLY
1	Outfall 001 - Sample 2	PS	10/10/2012 09:30	3079403001	Water	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Falor	10-11-12 1515	OC PACE	10-12-12 0945
2				
3				

Comments:

Cooler Temperature on Receipt 6.3 °C | Custody Seal Y or (N) | Received on Ice (Y) or N | Samples Intact (Y) or N

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: pace pa

Project #: WO#: 10208529

10208529

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 534926807728

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☐ Yes ☑ No

Thermometer Used: ☑ 888A912167504 ☐ 80512447 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.3 **Biological Tissue Frozen?** ☐ Yes ☐ No **Date and Initials of Person Examining Contents:** CSC 10-12-12

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☑ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☑ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☑ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: **Date/Time:**

Comments/Resolution:

Project Manager Review: Norman Hoffa Digitally signed by Norman Hoffa DN: cn=Norman Hoffa, o=Pace Analytical Services Inc, ou=Project Manager, email=norm.hoffa@pacelabs.com, c=US Date: 2012.10.12 16:03:15 -04'00' **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PASI Pittsburgh

Client's Sample ID	Outfall 001 - Sample 2		
Lab Sample ID	3079403001		
Filename	F121021A_10		
Injected By	BAL		
Total Amount Extracted	995 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2012 09:30
ICAL ID	F121011	Received	10/12/2012 08:45
CCal Filename(s)	F121021A_03	Extracted	10/18/2012 14:00
Method Blank ID	BLANK-34233	Analyzed	10/22/2012 01:10

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	95
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	98

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-34233	Matrix	Water
Filename	F121020B_06	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	10/18/2012 14:00
ICAL ID	F121011	Analyzed	10/21/2012 08:05
CCal Filename(s)	F121020B_01	Injected By	BAL

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	---	10	2,3,7,8-TCDD-13C	2.00	100
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	98

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-34234		
Filename	F121020B_02	Matrix	Water
Total Amount Extracted	1050 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 04:59
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.1	7.3	14.6	91
2,3,7,8-TCDD-37Cl4	10	9.6	3.7	15.8	96
2,3,7,8-TCDD-13C	100	98	25.0	141.0	98

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-34245		
Filename	F121020B_03	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 05:46
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.7	7.3	14.6	97
2,3,7,8-TCDD-37Cl4	10	9.8	3.7	15.8	98
2,3,7,8-TCDD-13C	100	97	25.0	141.0	97

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Pittsburgh		
Spike 1 ID	LCS-34234	Spike 2 ID	LCSD-34245
Spike 1 Filename	F121020B_02	Spike 2 Filename	F121020B_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	91	97	6.4

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

October 17, 2012

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Grensburg, PA 15601

RE: Project 20145359
Project ID: 3079403/SENECA LANDFILL, INC

Dear Rachel Christner:

Enclosed are the analytical results for sample(s) received by the laboratory on October 12, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Karen Brown
karen.brown@pacelabs.com

REPORT OF LABORATORY ANALYSIS

Cover No Results 10/17/2012 15:2

Laboratory Certifications

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145359

Client: PASI Pittsburgh

Project ID: 3079403/SENECA LANDFILL, INC

Washington Department of Ecology C2078
Oregon Environmental Laboratory Accreditation - LA200001
U.S. Dept. of Agriculture Foreign Soil Import P330-10-00119
Pennsylvania Dept. of Env Protection (NELAC) 68-04202
Texas Commission on Env. Quality (NELAC) T104704405-09-TX
Kansas Department of Health and Environment (NELAC) E-10266
Florida Department of Health (NELAC) E87595
Oklahoma Department of Environmental Quality - 2010-139
Illinois Environmental Protection Agency - 0025721
California Env. Lab Accreditation Program Branch - 11277CA
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

10/17/2012 15:27:17

Sample Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145359

Client: PASI Pittsburgh

Project ID: 3079403/SENECA LANDFILL, INC

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
OUTFALL 001-SAMPLE 2	201031331	Water	10-Oct-12 09:30	12-Oct-12 10:20

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project Narrative

Project: 20145359

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Surrogates:

All surrogate recoveries were within QC limits.

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Sample Results

Client: PASI Pittsburgh

Client ID: OUTFALL 001-SAMPLE 2
Project: 20145359
Project ID: 3079403/SENECA LANDFILL, INC
Site: None
Lab ID: 201031331
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 194629
Method: EPA 625
GCMS SVOAs Dual pH
Collected: 10-Oct-12
Received: 12-Oct-12
Prepared: 12-Oct-12

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
124-18-5	n-Decane	1	ND		10.2		16-Oct-12 19:41 JAM
593-45-3	n-Octadecane	1	ND		10.2		16-Oct-12 19:41 JAM
110-86-1	Pyridine	1	ND		10.2		16-Oct-12 19:41 JAM
98-55-5	alpha-Terpineol	1	ND		10.2		16-Oct-12 19:41 JAM

4 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 10/17/2012 15:27:52
Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

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Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 194629 **Project:** 20145359

Method: Water GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
201031274	194629 BLANK 1		89	86	54	99	87	101		
201031275	194629 LCS 1		90	82	48	78	69	86		
201031331	OUTFALL 001-SAMPLE 2		96	74	73	81	83	65		
	QC limits:		25-145	34-117	10-118	33-120	15-134	24-133		

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Quality Control

Batch: 194629 **Project:** 20145359 **LCS:** 20103127 16-Oct-12 18:27

Method: Water GC/MS Semivolatile Organics **MS:**

Units: ug/L **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
n-Decane	50.0	34.6	69								22-110			Q5
n-Octadecane	50.0	47.3	95								27-115			Q5
Pyridine	50.0	40.6	81								24-113			Q5

3 compound(s) reported

QC Protocol 10/17/2012 15:27:55

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

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Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank Results

Blank ID: 194629 BLANK 1 **Project:** 20145359

Lab ID: 201031274

Prep Level: Water **Batch:** 194629

Method: Water GC/MS Semivolatile Organics

Prepared: 12-Oct-12

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	Analysis
124-18-5	n-Decane	1	ND		10.0	16-Oct-12 18:03 JAM
593-45-3	n-Octadecane	1	ND		10.0	16-Oct-12 18:03 JAM
110-86-1	Pyridine	1	ND		10.0	16-Oct-12 18:03 JAM
98-55-5	alpha-Terpineol	1	ND		10.0	16-Oct-12 18:03 JAM

4 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Definitions/Qualifiers

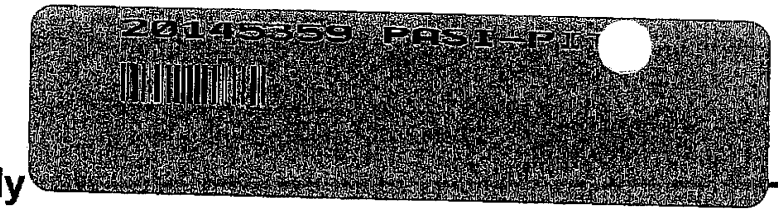
Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145359

Value	Description
Q5	Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
LCS	Laboratory Control Sample.
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

Pace Analytical Services, In
1000 Riverbend Blvd. Suite F
St. Rose, LA 7008
(504) 469-033

Chains of Custody



20145351

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 3079403 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/10/2012 **Results Requested By:** 10/25/2012

Report To	Subcontract To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical New Orleans 1000 Riverbend Blvd Suite F St. Rose, LA 70087 Phone 1(504)469-0333

Item	Sample ID	Sample Type	Collected Date/Time	Lab ID	Matrix	Res/# of Containers: Unpreserved	Requested Analysis: 625-a-Terpineol, Pyridine	n-Decane, n-Octadecane	LAB USE ONLY
1	Outfall 001 - Sample 2	PS	10/10/2012 09:30	3079403001	Water	1	X		20103133
2									
3									
4									
5									

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Talor	10-11-12 1530		
2	FedEx	10-12-12	1020	10/12/12
3				

Comments: 1020

Cooler Temperature on Receipt 2-2C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

page 11 of 12

Pace Analytical

1000 Riverbend, Blvd., Suite F
St. Rose, LA 70087

Sample Condit

20145359: PASI-PITT

Courier: ☐ Pace Courier ☐ Hackbarth ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC] Custody Seals Intact: ☒ Yes ☐ No

Therometer Used: ☐ Therm Fisher IR 1 ☐ Therm Fisher IR 2 ☒ Therm Fisher IR 4

Type of ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10-12-12

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present"?	☐Yes	☐No	☒N/A	1	
Chain of Custody Present:	☒Yes	☐No	☐N/A	2	
Chain of Custody Complete:	☒Yes	☐No	☐N/A	3	
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	4	
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	5	
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	6	
Sufficient Volume:	☒Yes	☐No	☐N/A	7	
Correct Containers Used:	☒Yes	☐No	☐N/A	8	
Filtered vol. Rec. for Diss. tests	☐Yes	☐No	☒N/A	9	
Sample Labels match COC:	☒Yes	☐No	☐N/A	10	
All containers received within manafacture's precautionary and/or expiration dates.	☒Yes	☐No	☐N/A	11	
All containers needing preservation have been checked (except VOA, coliform, & O&G).	☐Yes	☐No	☒N/A	12	
All containers preservation checked found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	13	If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO3 _____ H2SO4 _____
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14	
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14	
Trip Blank Present:	☐Yes	☐No	☒N/A	16	
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	17	
Pace Trip Blank Lot # (if purchased): N/A				18	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

ALLC003rev.06, 26Jul2010 - mod

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 19, 2012

Mr. Mike Pavelek
Seneca Landfill
421 Hartmann Rd.
Evans City, PA 16033

RE: Project: NPDES Permit Renewal
Pace Project No.: 3079403

Dear Mr. Pavelek:
Enclosed are the analytical results for sample(s) received by the laboratory on October 10, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

The samples were subcontracted to Environmental Services Laboratories, Inc., 1803 Philadelphia Street, Indiana, PA 15701 for BOD analysis. The results of this analysis are reported on the ESL data tables attached.

The samples were subcontracted to Pace Analytical Services, Inc., 1700 Elm Street, Suite 200, Minneapolis, MN 55414 for Dioxin analysis. Results of the analysis are reported on the Pace Analytical, Minnesota data tables.

The samples were subcontracted to Pace Analytical Services, Inc., 1000 Riverbend Blvd., Suite F, St. Rose, LA 70087 for a-Terpineol, n-Decane, n-Octadecane, and Pyridine analysis. Results of the analysis are reported on the Pace Analytical, New Orleans data tables.

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

This report was reissued on November 19, 2012 to include MDLs per client's request.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner

rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. John Ott, Seneca Landfill
Mr. Mick Palmer, Seneca Landfill, Inc.
Mr. Chris Peightl, Seneca Landfill
Jamie Swayne, Seneca Landfill

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Virgin Island/PADEP Certification
Virginia Certification #: 00112
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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SAMPLE SUMMARY

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3079403001	**Outfall 001 - Sample 2**	Water	10/10/12 09:30	10/10/12 17:15

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SAMPLE ANALYTE COUNT

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3079403001	**Outfall 001 - Sample 2**	EPA 608	SJG	9	PASI-PA
		EPA 608	CWB	20	PASI-PA
		EPA 200.7	CTS	23	PASI-PA
		EPA 200.7	CTS	1	PASI-PA
		SM 2340B	RTW	1	PASI-PA
		SM 9222D	PAS	1	PASI-PA
		EPA 245.1	RTW	1	PASI-PA
		EPA 625 Low Level	SPL	68	PASI-PA
		EPA 624	RES	34	PASI-PA
		SM 7110C	JC2	1	PASI-PA
		EPA 900.0m	JC2	1	PASI-PA
		EPA 903.1	SLA	1	PASI-PA
		EPA 904.0	MAW	1	PASI-PA
		EPA 1664A	DLH	1	PASI-PA
		SM 2120B	JLS	1	PASI-PA
		SM 2540C	PAS	1	PASI-PA
		SM 2540D	PAS	1	PASI-PA
		SM 4500-Cl G	CLP	1	PASI-PA
		SM 4500-H+B	JLS	1	PASI-PA
		SM 5540C	PM1	1	PASI-PA
		Trivalent Chromium Calculation	BKH	1	PASI-PA
		EPA 300.0	BKH	2	PASI-PA
		EPA 335.4	PM1	1	PASI-PA
		SM 3500-Cr D	JLS	1	PASI-PA
		EPA 350.1	AMS	1	PASI-PA
		EPA 351.2	AMS	1	PASI-PA
		EPA 410.4	DLH	1	PASI-PA
		EPA 420.1	JLS	1	PASI-PA
		SM 4500-CN-E	PM1	1	PASI-PA
		SM 4500-NO3 F	AMS	1	PASI-PA
		SM 4500-P E	AMS	1	PASI-PA
		SM 5310C	CLP	1	PASI-PA
		ASTM D516-90,02	CLP	1	PASI-PA

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 608**
Description: 608 GCS PCBs
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 608. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 608 SF with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

Analyte Comments:

QC Batch: OEXT/13092

4c: Recovery of the surrogate DCB is low. Sample results accepted based upon the recovery of the TCMX surrogate.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)
  - Decachlorobiphenyl (S)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 608**
Description: 608 GCS Pesticides
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 608. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 608 SF with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: GCSV/4936

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

Batch Comments:

The following samples were diluted due to the presence of high levels of non-target analytes or other matrix interference, resulting in elevated reporting limits for all analytes: 5070699-005 and 5070699-008.
- QC Batch: GCSV / 4936

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 608**
Description: 608 GCS Pesticides
Client: Seneca Landfill, Inc.
Date: November 19, 2012

Analyte Comments:

QC Batch: OEXT/13091

6c: The recovery of the surrogate DCB is low. The sample is accepted based upon the recovery of the surrogate TCMX.

- Outfall 001 - Sample 2 (Lab ID: 3079403001)
  - Decachlorobiphenyl (S)

7c: The result for Endosulfan I is reported from the front analytical column due to a high response for Endosulfan I on the rear analytical column.

- Outfall 001 - Sample 2 (Lab ID: 3079403001)
  - Endosulfan I

8c: The result for TCMX is reported from the rear analytical column due to a high response for TCMX on the front analytical column.

- BLANK (Lab ID: 499706)
  - Tetrachloro-m-xylene (S)
- LCS (Lab ID: 499707)
  - Tetrachloro-m-xylene (S)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/9289

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079277003,3079319001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 498428)
  - Aluminum
  - Antimony
  - Arsenic
  - Boron
  - Copper
  - Molybdenum
  - Selenium
  - Silver
  - Tin
- MS (Lab ID: 498431)
  - Iron
  - Manganese
- MSD (Lab ID: 498429)
  - Aluminum
  - Arsenic
  - Boron

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Seneca Landfill, Inc.
Date: November 19, 2012

QC Batch: MPRP/9289

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079277003,3079319001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- Copper
- Selenium
- Silver
- Tin

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: MPRP/9289

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 498427)
  - Antimony

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 200.7**
Description: 200.7 Metals, Dissolved (LF)
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 2340B**
Description: 2340B Hardness, Total (Calc.)
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2340B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 9222D**
Description: 9222D MICRO Fecal Coli by MF
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 9222D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

Sample Preparation:
The samples were prepared in accordance with SM 9222D with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 625 Low Level**
Description: 625 MSSV Low Level
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 625 Low Level. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 625 Low Level with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: OEXT/13062

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 498339)
  - Benzidine

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSSV/4495

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 625 Low Level**
Description: 625 MSSV Low Level
Client: Seneca Landfill, Inc.
Date: November 19, 2012

Analyte Comments:

QC Batch: OEXT/13062

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 498338)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine
- LCS (Lab ID: 498339)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine
- Outfall 001 - Sample 2 (Lab ID: 3079403001)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 624**
Description: 624 Volatile Organics
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 624. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/14270

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079133001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 499257)
  - Acetone
- MSD (Lab ID: 499258)
  - Acetone

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 624**
Description: 624 Volatile Organics
Client: Seneca Landfill, Inc.
Date: November 19, 2012

Analyte Comments:

QC Batch: MSV/14270

1c: Analyte not present in the LCS spiking standards.
- LCS (Lab ID: 499256)
  - 2-Chloroethylvinyl ether

2c: Analyte not present in the spiking standards.
- MS (Lab ID: 499257)
  - 2-Chloroethylvinyl ether
- MSD (Lab ID: 499258)
  - 2-Chloroethylvinyl ether

5c: Sample was diluted due to matrix.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)
  - Chloromethane

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 7110C**
Description: 7110C Gross Alpha
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 7110C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 900.0m**
Description: 900.0 Gross Alpha/Beta
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 900.0m. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 1664A**
Description: HEM, Oil and Grease
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 1664A. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 2120B**
Description: 2120B W Apparent Color
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2120B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 2540D**
Description: 2540D Total Suspended Solids
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 4500-Cl G**
Description: 4500CL G Chlorine, Residual
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-Cl G. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WET/15514

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079403001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- MS (Lab ID: 498343)
  - Chlorine, Total Residual

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 5540C**
Description: 5540C MBAS Surfactants
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 5540C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

Analyte Comments:

QC Batch: WET/15540

3c: MBAS, calculated as LAS, Mol wt 340 g/mol
- BLANK (Lab ID: 498884)
  - Surfactants
- DUP (Lab ID: 498886)
  - Surfactants
- LCS (Lab ID: 498885)
  - Surfactants
- MS (Lab ID: 498887)
  - Surfactants
- Outfall 001 - Sample 2 (Lab ID: 3079403001)
  - Surfactants

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **Trivalent Chromium Calculation**
Description: Trivalent Chromium Calculation
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for Trivalent Chromium Calculation. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 335.4**
Description: 335.4 Cyanide, Total
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 335.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 3500-Cr D**
Description: Chromium, Hexavalent
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 3500-Cr D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 350.1**
Description: 350.1 Ammonia, Distilled
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: WETA/10999

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 500605)
  - Ammonia, Distilled

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 410.4**
Description: 410.4 COD
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 420.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 4500-CN-E**
Description: 4500CNE Cyanide, Free
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 4500-NO3 F**
Description: SM4500NO3-F, NO3-NO2
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-NO3 F. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 4500-P E**
Description: 4500PB5E Total Phosphorus
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/11022

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079340002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 501324)
  - Phosphorus

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **SM 5310C**
Description: 5310C TOC
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Method: **ASTM D516-90,02**
Description: ASTM D516-9002 Sulfate Water
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for ASTM D516-90,02. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 2 (Lab ID: 3079403001)

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Sample: Outfall 001 - Sample 2 **Lab ID: 3079403001** Collected: 10/10/12 09:30 Received: 10/10/12 17:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
608 GCS PCBs	Analytical Method: EPA 608 Preparation Method: EPA 608 SF								
PCB-1016 (Aroclor 1016)	ND	ug/L	1.1	0.033	1	10/15/12 13:00	10/22/12 16:23	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	1.1	0.031	1	10/15/12 13:00	10/22/12 16:23	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	1.1	0.052	1	10/15/12 13:00	10/22/12 16:23	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	1.1	0.033	1	10/15/12 13:00	10/22/12 16:23	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	1.1	0.062	1	10/15/12 13:00	10/22/12 16:23	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	1.1	0.016	1	10/15/12 13:00	10/22/12 16:23	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	1.1	0.032	1	10/15/12 13:00	10/22/12 16:23	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	92	%	24-116		1	10/15/12 13:00	10/22/12 16:23	877-09-8	
Decachlorobiphenyl (S)	34	%	36-118		1	10/15/12 13:00	10/22/12 16:23	2051-24-3	4c
608 GCS Pesticides	Analytical Method: EPA 608 Preparation Method: EPA 608 SF								
Aldrin	ND	ug/L	0.053		1	10/15/12 13:00	10/23/12 22:05	309-00-2	
alpha-BHC	ND	ug/L	0.053		1	10/15/12 13:00	10/23/12 22:05	319-84-6	
beta-BHC	ND	ug/L	0.053		1	10/15/12 13:00	10/23/12 22:05	319-85-7	CU
delta-BHC	ND	ug/L	0.053		1	10/15/12 13:00	10/23/12 22:05	319-86-8	
gamma-BHC (Lindane)	ND	ug/L	0.053		1	10/15/12 13:00	10/23/12 22:05	58-89-9	
Chlordane (Technical)	ND	ug/L	0.53		1	10/15/12 13:00	10/23/12 22:05	57-74-9	
4,4'-DDD	ND	ug/L	0.11		1	10/15/12 13:00	10/23/12 22:05	72-54-8	
4,4'-DDE	ND	ug/L	0.11		1	10/15/12 13:00	10/23/12 22:05	72-55-9	
4,4'-DDT	ND	ug/L	0.11		1	10/15/12 13:00	10/23/12 22:05	50-29-3	
Dieldrin	ND	ug/L	0.11		1	10/15/12 13:00	10/23/12 22:05	60-57-1	
Endosulfan I	**0.12**	ug/L	0.053		1	10/15/12 13:00	10/23/12 22:05	959-98-8	7c
Endosulfan II	ND	ug/L	0.11		1	10/15/12 13:00	10/23/12 22:05	33213-65-9	
Endosulfan sulfate	ND	ug/L	0.11		1	10/15/12 13:00	10/23/12 22:05	1031-07-8	
Endrin	ND	ug/L	0.11		1	10/15/12 13:00	10/23/12 22:05	72-20-8	
Endrin aldehyde	ND	ug/L	0.11		1	10/15/12 13:00	10/23/12 22:05	7421-93-4	
Heptachlor	ND	ug/L	0.053		1	10/15/12 13:00	10/23/12 22:05	76-44-8	
Heptachlor epoxide	ND	ug/L	0.053		1	10/15/12 13:00	10/23/12 22:05	1024-57-3	CU
Toxaphene	ND	ug/L	1.1		1	10/15/12 13:00	10/23/12 22:05	8001-35-2	
Surrogates									
Tetrachloro-m-xylene (S)	107	%	24-116		1	10/15/12 13:00	10/23/12 22:05	877-09-8	
Decachlorobiphenyl (S)	35	%	36-118		1	10/15/12 13:00	10/23/12 22:05	2051-24-3	6c
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Aluminum	**896**	ug/L	50.0	8.7	1	10/11/12 10:43	10/12/12 11:47	7429-90-5	
Antimony	**21.4**	ug/L	6.0	3.3	1	10/11/12 10:43	10/12/12 11:47	7440-36-0	
Arsenic	**8.7**	ug/L	5.0	3.6	1	10/11/12 10:43	10/12/12 11:47	7440-38-2	
Barium	**88.8**	ug/L	10.0	0.32	1	10/11/12 10:43	10/12/12 11:47	7440-39-3	
Beryllium	ND	ug/L	1.0	0.24	1	10/11/12 10:43	10/12/12 11:47	7440-41-7	
Boron	**25300**	ug/L	50.0	3.4	1	10/11/12 10:43	10/12/12 11:47	7440-42-8	
Cadmium	ND	ug/L	3.0	1.3	1	10/11/12 10:43	10/12/12 11:47	7440-43-9	
Chromium	**57.1**	ug/L	5.0	0.90	1	10/11/12 10:43	10/12/12 11:47	7440-47-3	
Cobalt	**807**	ug/L	5.0	1.6	1	10/11/12 10:43	10/12/12 11:47	7440-48-4	
Copper	**30.7**	ug/L	5.0	2.0	1	10/11/12 10:43	10/12/12 11:47	7440-50-8	
Iron	**1500**	ug/L	70.0	38.1	1	10/11/12 10:43	10/12/12 11:47	7439-89-6	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Sample: Outfall 001 - Sample 2 **Lab ID: 3079403001** Collected: 10/10/12 09:30 Received: 10/10/12 17:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Lead	ND	ug/L	5.0	3.2	1	10/11/12 10:43	10/12/12 11:47	7439-92-1	
Magnesium	**149000**	ug/L	200	37.4	1	10/11/12 10:43	10/12/12 11:47	7439-95-4	
Manganese	**531**	ug/L	5.0	2.3	1	10/11/12 10:43	10/12/12 11:47	7439-96-5	
Molybdenum	**108**	ug/L	20.0	3.6	1	10/11/12 10:43	10/12/12 11:47	7439-98-7	
Nickel	**465**	ug/L	10.0	1.4	1	10/11/12 10:43	10/12/12 11:47	7440-02-0	
Selenium	**14.7**	ug/L	8.0	3.3	1	10/11/12 10:43	10/12/12 11:47	7782-49-2	
Silver	ND	ug/L	6.0	1.6	1	10/11/12 10:43	10/12/12 11:47	7440-22-4	
Thallium	ND	ug/L	10.0	3.9	1	10/11/12 10:43	10/12/12 11:47	7440-28-0	
Tin	ND	ug/L	50.0	24.5	1	10/11/12 10:43	10/12/12 11:47	7440-31-5	
Titanium	ND	ug/L	5.0	0.83	1	10/11/12 10:43	10/12/12 11:47	7440-32-6	
Vanadium	**5.9**	ug/L	5.0	1.8	1	10/11/12 10:43	10/12/12 11:47	7440-62-2	
Zinc	**71.2**	ug/L	10.0	1.4	1	10/11/12 10:43	10/12/12 11:47	7440-66-6	
200.7 Metals, Dissolved (LF)	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Iron, Dissolved	**214**	ug/L	70.0	38.1	1	10/11/12 16:23	10/15/12 11:43	7439-89-6	
2340B Hardness, Total (Calc.)	Analytical Method: SM 2340B								
Total Hardness	**767**	mg/L	2.1	2.1	1		10/12/12 11:47		
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**<3**	CFU/100 mL			1	10/10/12 19:30	10/11/12 18:15		H3
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.20	0.025	1	10/15/12 14:37	10/16/12 10:24	7439-97-6	
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
Acenaphthene	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 11:17	83-32-9	
Acenaphthylene	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 11:17	208-96-8	
Acetophenone	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 11:17	98-86-2	N2
Anthracene	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 11:17	120-12-7	
Benzidine	ND	ug/L	104	104	1	10/11/12 11:30	10/18/12 11:17	92-87-5	
Benzo(a)anthracene	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 11:17	56-55-3	
Benzo(a)pyrene	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 11:17	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	1.0	0.20	1	10/11/12 11:30	10/18/12 11:17	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	1.0	0.41	1	10/11/12 11:30	10/18/12 11:17	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 11:17	207-08-9	
Benzoic acid	ND	ug/L	2.6	0.29	1	10/11/12 11:30	10/18/12 11:17	65-85-0	N2
4-Bromophenylphenyl ether	ND	ug/L	1.0	0.28	1	10/11/12 11:30	10/18/12 11:17	101-55-3	
Butylbenzylphthalate	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 11:17	85-68-7	
Carbazole	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 11:17	86-74-8	N2
4-Chloro-3-methylphenol	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 11:17	59-50-7	
bis(2-Chloroethoxy)methane	ND	ug/L	1.0	0.23	1	10/11/12 11:30	10/18/12 11:17	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	1.0	0.30	1	10/11/12 11:30	10/18/12 11:17	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	1.0	0.23	1	10/11/12 11:30	10/18/12 11:17	108-60-1	
2-Chloronaphthalene	ND	ug/L	1.0	0.25	1	10/11/12 11:30	10/18/12 11:17	91-58-7	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Sample: Outfall 001 - Sample 2 **Lab ID: 3079403001** Collected: 10/10/12 09:30 Received: 10/10/12 17:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
2-Chlorophenol	ND	ug/L	1.0	0.22	1	10/11/12 11:30	10/18/12 11:17	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	1.0	0.23	1	10/11/12 11:30	10/18/12 11:17	7005-72-3	
Chrysene	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 11:17	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	1.0	0.47	1	10/11/12 11:30	10/18/12 11:17	53-70-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 11:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.28	1	10/11/12 11:30	10/18/12 11:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.30	1	10/11/12 11:30	10/18/12 11:17	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	1.0	0.18	1	10/11/12 11:30	10/18/12 11:17	91-94-1	
2,4-Dichlorophenol	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 11:17	120-83-2	
Diethylphthalate	ND	ug/L	1.0	0.25	1	10/11/12 11:30	10/18/12 11:17	84-66-2	
2,4-Dimethylphenol	ND	ug/L	1.0	0.34	1	10/11/12 11:30	10/18/12 11:17	105-67-9	
Dimethylphthalate	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 11:17	131-11-3	
Di-n-butylphthalate	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 11:17	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	2.6	0.26	1	10/11/12 11:30	10/18/12 11:17	534-52-1	
2,4-Dinitrophenol	ND	ug/L	2.6	0.34	1	10/11/12 11:30	10/18/12 11:17	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	1.0	0.25	1	10/11/12 11:30	10/18/12 11:17	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 11:17	606-20-2	
Di-n-octylphthalate	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 11:17	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	1.0		1	10/11/12 11:30	10/18/12 11:17	122-66-7	N2
bis(2-Ethylhexyl)phthalate	ND	ug/L	1.0	0.45	1	10/11/12 11:30	10/18/12 11:17	117-81-7	
Fluoranthene	ND	ug/L	1.0	0.23	1	10/11/12 11:30	10/18/12 11:17	206-44-0	
Fluorene	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 11:17	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.34	1	10/11/12 11:30	10/18/12 11:17	87-68-3	
Hexachlorobenzene	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 11:17	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	1.0	0.19	1	10/11/12 11:30	10/18/12 11:17	77-47-4	
Hexachloroethane	ND	ug/L	1.0	0.32	1	10/11/12 11:30	10/18/12 11:17	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	0.50	1	10/11/12 11:30	10/18/12 11:17	193-39-5	
Isophorone	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 11:17	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/L	1.0	0.28	1	10/11/12 11:30	10/18/12 11:17	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2.1	0.73	1	10/11/12 11:30	10/18/12 11:17		
Naphthalene	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 11:17	91-20-3	
Nitrobenzene	ND	ug/L	1.0	0.48	1	10/11/12 11:30	10/18/12 11:17	98-95-3	
2-Nitrophenol	ND	ug/L	1.0	0.28	1	10/11/12 11:30	10/18/12 11:17	88-75-5	
4-Nitrophenol	ND	ug/L	1.0	0.40	1	10/11/12 11:30	10/18/12 11:17	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	1.0	0.30	1	10/11/12 11:30	10/18/12 11:17	62-75-9	N2
N-Nitroso-di-n-propylamine	ND	ug/L	1.0	0.22	1	10/11/12 11:30	10/18/12 11:17	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	1.0	0.21	1	10/11/12 11:30	10/18/12 11:17	86-30-6	
Pentachlorophenol	ND	ug/L	2.6	0.29	1	10/11/12 11:30	10/18/12 11:17	87-86-5	
Phenanthrene	ND	ug/L	1.0	0.24	1	10/11/12 11:30	10/18/12 11:17	85-01-8	
Phenol	ND	ug/L	1.0	0.27	1	10/11/12 11:30	10/18/12 11:17	108-95-2	
Pyrene	ND	ug/L	1.0	0.29	1	10/11/12 11:30	10/18/12 11:17	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.30	1	10/11/12 11:30	10/18/12 11:17	120-82-1	
2,4,6-Trichlorophenol	ND	ug/L	1.0	0.26	1	10/11/12 11:30	10/18/12 11:17	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	71	%	35-114		1	10/11/12 11:30	10/18/12 11:17	4165-60-0	
2-Fluorobiphenyl (S)	68	%	43-116		1	10/11/12 11:30	10/18/12 11:17	321-60-8	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Sample: Outfall 001 - Sample 2 **Lab ID: 3079403001** Collected: 10/10/12 09:30 Received: 10/10/12 17:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
Surrogates									
Terphenyl-d14 (S)	134	%	33-141		1	10/11/12 11:30	10/18/12 11:17	1718-51-0	
Phenol-d6 (S)	25	%	10-110		1	10/11/12 11:30	10/18/12 11:17	13127-88-3	
2-Fluorophenol (S)	35	%	21-110		1	10/11/12 11:30	10/18/12 11:17	367-12-4	
2,4,6-Tribromophenol (S)	91	%	10-123		1	10/11/12 11:30	10/18/12 11:17	118-79-6	
624 Volatile Organics	Analytical Method: EPA 624								
Acetone	ND	ug/L	100	9.1	10		10/12/12 21:55	67-64-1	
Acrolein	ND	ug/L	20.0	6.1	10		10/12/12 21:55	107-02-8	
Acrylonitrile	ND	ug/L	20.0	13.3	10		10/12/12 21:55	107-13-1	
Benzene	ND	ug/L	10.0	1.9	10		10/12/12 21:55	71-43-2	
Bromodichloromethane	ND	ug/L	10.0	1.9	10		10/12/12 21:55	75-27-4	
Bromoform	ND	ug/L	10.0	2.5	10		10/12/12 21:55	75-25-2	
Bromomethane	ND	ug/L	10.0	3.5	10		10/12/12 21:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	22.7	10		10/12/12 21:55	78-93-3	
Carbon tetrachloride	ND	ug/L	10.0	4.0	10		10/12/12 21:55	56-23-5	
Chlorobenzene	ND	ug/L	10.0	1.7	10		10/12/12 21:55	108-90-7	
Chloroethane	ND	ug/L	10.0	8.0	10		10/12/12 21:55	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	20.0	2.1	10		10/12/12 21:55	110-75-8	
Chloroform	ND	ug/L	10.0	1.7	10		10/12/12 21:55	67-66-3	
Chloromethane	ND	ug/L	10.0	2.7	10		10/12/12 21:55	74-87-3	5c
Dibromochloromethane	ND	ug/L	10.0	1.4	10		10/12/12 21:55	124-48-1	
1,1-Dichloroethane	ND	ug/L	10.0	2.0	10		10/12/12 21:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	10.0	2.5	10		10/12/12 21:55	107-06-2	
1,1-Dichloroethene	ND	ug/L	10.0	2.3	10		10/12/12 21:55	75-35-4	
trans-1,2-Dichloroethene	ND	ug/L	10.0	1.9	10		10/12/12 21:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	10.0	1.8	10		10/12/12 21:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	10.0	2.3	10		10/12/12 21:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	10.0	2.4	10		10/12/12 21:55	10061-02-6	
Ethylbenzene	ND	ug/L	10.0	1.3	10		10/12/12 21:55	100-41-4	
Methylene Chloride	ND	ug/L	10.0	3.2	10		10/12/12 21:55	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	10.0	1.6	10		10/12/12 21:55	79-34-5	
Tetrachloroethene	ND	ug/L	10.0	1.7	10		10/12/12 21:55	127-18-4	
Toluene	ND	ug/L	10.0	1.9	10		10/12/12 21:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	10.0	1.3	10		10/12/12 21:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	10.0	2.2	10		10/12/12 21:55	79-00-5	
Trichloroethene	ND	ug/L	10.0	2.3	10		10/12/12 21:55	79-01-6	
Vinyl chloride	ND	ug/L	10.0	2.0	10		10/12/12 21:55	75-01-4	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		10		10/12/12 21:55	460-00-4	
Toluene-d8 (S)	98	%	70-130		10		10/12/12 21:55	2037-26-5	
1,2-Dichloroethane-d4 (S)	93	%	70-130		10		10/12/12 21:55	17060-07-0	
HEM, Oil and Grease	Analytical Method: EPA 1664A								
Oil and Grease	**10.9**	mg/L	4.8	1.3	1		10/19/12 08:00		

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Sample: Outfall 001 - Sample 2 **Lab ID: 3079403001** Collected: 10/10/12 09:30 Received: 10/10/12 17:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2120B W Apparent Color	Analytical Method: SM 2120B								
Apparent Color	**2000**	units	100	100	100		10/11/12 19:45		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**8670**	mg/L	10.0	10.0	1		10/11/12 19:00		
2540D Total Suspended Solids	Analytical Method: SM 2540D								
Total Suspended Solids	**23.0**	mg/L	4.0	4.0	1		10/11/12 20:30		
4500CL G Chlorine, Residual	Analytical Method: SM 4500-Cl G								
Chlorine, Total Residual	ND	mg/L	0.10	0.029	1		10/11/12 09:07	7782-50-5	H6
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**8.2**	Std. Units	1.0	1.0	1		10/11/12 13:54		H6
5540C MBAS Surfactants	Analytical Method: SM 5540C								
Surfactants	ND	mg/L	1.0	0.29	10		10/11/12 23:32		3c
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation								
Chromium, Trivalent	ND	mg/L	0.010	0.010	1		10/25/12 13:46	16065-83-1	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Bromide	**33.4**	mg/L	12.5	12.5	200		10/23/12 10:48	24959-67-9	
Fluoride	ND	mg/L	2.5	2.5	200		10/23/12 10:48	16984-48-8	
335.4 Cyanide, Total	Analytical Method: EPA 335.4								
Cyanide	**0.020**	mg/L	0.0050	0.0027	1		10/15/12 19:30	57-12-5	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr D								
Chromium, Hexavalent	ND	mg/L	1.0	0.54	100		10/10/12 22:50	18540-29-9	
350.1 Ammonia, Distilled	Analytical Method: EPA 350.1								
Ammonia, Distilled	**4.4**	mg/L	0.10	0.068	1		10/17/12 11:56		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**19.0**	mg/L	10.0	4.2	10		10/23/12 12:07	7727-37-9	
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	**836**	mg/L	25.0	10.4	1		10/19/12 09:10		
Phenolics, Total Recoverable	Analytical Method: EPA 420.1								
Phenol	ND	mg/L	0.050	0.021	1		10/17/12 14:27	108-95-2	
4500CNE Cyanide, Free	Analytical Method: SM 4500-CN-E								
Cyanide	**0.032**	mg/L	0.0050	0.0027	1		10/18/12 22:10	57-12-5	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Sample: Outfall 001 - Sample 2 **Lab ID: 3079403001** Collected: 10/10/12 09:30 Received: 10/10/12 17:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SM4500NO3-F, NO3-NO2	Analytical Method: SM 4500-NO3 F								
Nitrogen,NO2 plus NO3	**254**	mg/L	2.0	0.56	20		10/16/12 09:15		
4500PB5E Total Phosphorus	Analytical Method: SM 4500-P E								
Phosphorus	**0.38**	mg/L	0.030	0.014	1		10/19/12 11:05	7723-14-0	
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**29.6**	mg/L	2.0	0.31	2		10/23/12 12:51	7440-44-0	
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02								
Sulfate	**78.1**	mg/L	50.0	8.4	5		10/22/12 11:48	14808-79-8	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: MBIO/2668
QC Batch Method: SM 9222D
Analysis Method: SM 9222D
Analysis Description: 9222D MICRO Fecal Coliform by MF
Associated Lab Samples: 3079403001

METHOD BLANK: 498170
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	0		10/11/12 18:15	

SAMPLE DUPLICATE: 498171

Parameter	Units	3079403001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	<3	<3			H3

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: MERP/3942
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Associated Lab Samples: 3079403001

METHOD BLANK: 499905 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/16/12 10:02	

LABORATORY CONTROL SAMPLE: 499906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	0.90	90	85-115	

MATRIX SPIKE SAMPLE: 499908

Parameter	Units	3079575001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.6	103	75-125	

SAMPLE DUPLICATE: 499907

Parameter	Units	3079575001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: MPRP/9289
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 3079403001

METHOD BLANK: 498425
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	50.0	10/12/12 12:31	
Antimony	ug/L	ND	6.0	10/12/12 12:31	
Arsenic	ug/L	ND	5.0	10/12/12 12:31	
Barium	ug/L	ND	10.0	10/12/12 12:31	
Beryllium	ug/L	ND	1.0	10/12/12 12:31	
Boron	ug/L	ND	50.0	10/12/12 12:31	
Cadmium	ug/L	ND	3.0	10/12/12 12:31	
Chromium	ug/L	ND	5.0	10/12/12 12:31	
Cobalt	ug/L	ND	5.0	10/12/12 12:31	
Copper	ug/L	ND	5.0	10/12/12 12:31	
Iron	ug/L	ND	70.0	10/12/12 12:31	
Lead	ug/L	ND	5.0	10/12/12 12:31	
Magnesium	ug/L	ND	200	10/12/12 12:31	
Manganese	ug/L	ND	5.0	10/12/12 12:31	
Molybdenum	ug/L	ND	20.0	10/12/12 12:31	
Nickel	ug/L	ND	10.0	10/12/12 12:31	
Selenium	ug/L	ND	8.0	10/12/12 12:31	
Silver	ug/L	ND	6.0	10/12/12 12:31	
Thallium	ug/L	ND	10.0	10/12/12 12:31	
Tin	ug/L	ND	50.0	10/12/12 12:31	
Titanium	ug/L	ND	5.0	10/12/12 12:31	
Vanadium	ug/L	ND	5.0	10/12/12 12:31	
Zinc	ug/L	ND	10.0	10/12/12 12:31	

LABORATORY CONTROL SAMPLE: 498426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5110	102	85-115	
Antimony	ug/L	500	516	103	85-115	
Arsenic	ug/L	500	526	105	85-115	
Barium	ug/L	500	522	104	85-115	
Beryllium	ug/L	500	523	105	85-115	
Boron	ug/L	500	507	101	85-115	
Cadmium	ug/L	500	522	104	85-115	
Chromium	ug/L	500	515	103	85-115	
Cobalt	ug/L	500	510	102	85-115	
Copper	ug/L	500	526	105	85-115	
Iron	ug/L	5000	5220	104	85-115	
Lead	ug/L	500	510	102	85-115	
Magnesium	ug/L	5000	5150	103	85-115	
Manganese	ug/L	500	515	103	85-115	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

LABORATORY CONTROL SAMPLE: 498426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	ug/L	500	525	105	85-115	
Nickel	ug/L	500	521	104	85-115	
Selenium	ug/L	500	514	103	85-115	
Silver	ug/L	250	256	102	85-115	
Thallium	ug/L	500	517	103	85-115	
Tin	ug/L	500	535	107	85-115	
Titanium	ug/L	500	529	106	85-115	
Vanadium	ug/L	500	516	103	85-115	
Zinc	ug/L	500	524	105	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 498428 498429

Parameter	Units	3079319001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aluminum	ug/L	1870	5000	5000	8410	8130	131	125	80-120	3	20	M1
Antimony	ug/L	9.9	500	500	619	596	122	117	80-120	4	20	M1
Arsenic	ug/L	ND	500	500	661	638	132	128	80-120	3	20	M1
Barium	ug/L	ND	500	500	535	517	106	103	80-120	3	20	
Beryllium	ug/L	ND	500	500	509	494	102	99	80-120	3	20	
Boron	ug/L	712	500	500	1370	1330	131	124	80-120	3	20	M1
Cadmium	ug/L	ND	500	500	542	528	108	105	80-120	3	20	
Chromium	ug/L	342	500	500	892	871	110	106	80-120	2	20	
Cobalt	ug/L	ND	500	500	531	516	106	103	80-120	3	20	
Copper	ug/L	6580	500	500	7540	7360	193	156	80-120	2	20	M1
Iron	ug/L	86.0	5000	5000	5320	5170	105	102	80-120	3	20	
Lead	ug/L	ND	500	500	576	554	114	110	80-120	4	20	
Magnesium	ug/L	6400	5000	5000	11700	11400	107	101	80-120	3	20	
Manganese	ug/L	8.3	500	500	541	526	107	104	80-120	3	20	
Molybdenum	ug/L	ND	500	500	632	614	123	119	80-120	3	20	M1
Nickel	ug/L	ND	500	500	531	520	106	104	80-120	2	20	
Selenium	ug/L	ND	500	500	698	658	139	131	80-120	6	20	M1
Silver	ug/L	ND	250	250	324	311	129	124	80-120	4	20	M1
Thallium	ug/L	ND	500	500	605	595	120	118	80-120	2	20	
Tin	ug/L	ND	500	500	681	644	133	126	80-120	5	20	M1
Titanium	ug/L	ND	500	500	564	543	113	109	80-120	4	20	
Vanadium	ug/L	ND	500	500	559	544	112	109	80-120	3	20	
Zinc	ug/L	262	500	500	849	831	117	114	80-120	2	20	

MATRIX SPIKE SAMPLE: 498431

Parameter	Units	3079277003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	ND	5000	5290	106	80-120	
Antimony	ug/L	ND	500	512	102	80-120	
Arsenic	ug/L	ND	500	542	108	80-120	
Barium	ug/L	2000	500	2470	94	80-120	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

MATRIX SPIKE SAMPLE: 498431

Parameter	Units	3079277003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	ug/L	ND	500	524	105	80-120	
Boron	ug/L	ND	500	536	104	80-120	
Cadmium	ug/L	ND	500	509	102	80-120	
Chromium	ug/L	5.9	500	519	103	80-120	
Cobalt	ug/L	10.9	500	514	101	80-120	
Copper	ug/L	ND	500	533	106	80-120	
Iron	ug/L	63.1 mg/L	5000	66200	61	80-120	M1
Lead	ug/L	17.4	500	529	102	80-120	
Magnesium	ug/L	34900	5000	39200	85	80-120	
Manganese	ug/L	5.0 mg/L	500	5310	70	80-120	M1
Molybdenum	ug/L	ND	500	529	106	80-120	
Nickel	ug/L	710	500	1200	99	80-120	
Selenium	ug/L	ND	500	520	104	80-120	
Silver	ug/L	ND	250	261	104	80-120	
Thallium	ug/L	ND	500	514	103	80-120	
Tin	ug/L	ND	500	534	107	80-120	
Titanium	ug/L	ND	500	527	105	80-120	
Vanadium	ug/L	ND	500	522	104	80-120	
Zinc	ug/L	116	500	622	101	80-120	

SAMPLE DUPLICATE: 498427

Parameter	Units	3079319001 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	1870	1880	.6	20	
Antimony	ug/L	9.9	7.7	24	20	D6
Arsenic	ug/L	ND	4J		20	
Barium	ug/L	ND	3.4J		20	
Beryllium	ug/L	ND	ND		20	
Boron	ug/L	712	728	2	20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	342	342	.06	20	
Cobalt	ug/L	ND	ND		20	
Copper	ug/L	6580	6570	.1	20	
Iron	ug/L	86.0	90.7	5	20	
Lead	ug/L	ND	4.9J		20	
Magnesium	ug/L	6400	6410	.1	20	
Manganese	ug/L	8.3	8.2	1	20	
Molybdenum	ug/L	ND	11.4J		20	
Nickel	ug/L	ND	ND		20	
Selenium	ug/L	ND	ND		20	
Silver	ug/L	ND	2.7J		20	
Thallium	ug/L	ND	ND		20	
Tin	ug/L	ND	ND		20	
Titanium	ug/L	ND	ND		20	
Vanadium	ug/L	ND	ND		20	
Zinc	ug/L	262	261	.2	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

SAMPLE DUPLICATE: 498430

Parameter	Units	3079277003 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	ND	ND		20	
Antimony	ug/L	ND	ND		20	
Arsenic	ug/L	ND	4.8J		20	
Barium	ug/L	2000	1960	2	20	
Beryllium	ug/L	ND	ND		20	
Boron	ug/L	ND	14.6J		20	
Cadmium	ug/L	ND	ND		20	
Chromium	ug/L	5.9	4.3J		20	
Cobalt	ug/L	10.9	10.7	2	20	
Copper	ug/L	ND	3.5J		20	
Iron	ug/L	63.1 mg/L	61500	3	20	
Lead	ug/L	17.4	19.2	10	20	
Magnesium	ug/L	34900	34100	3	20	
Manganese	ug/L	5.0 mg/L	4840	2	20	
Molybdenum	ug/L	ND	ND		20	
Nickel	ug/L	710	690	3	20	
Selenium	ug/L	ND	4J		20	
Silver	ug/L	ND	2.1J		20	
Thallium	ug/L	ND	ND		20	
Tin	ug/L	ND	ND		20	
Titanium	ug/L	ND	ND		20	
Vanadium	ug/L	ND	ND		20	
Zinc	ug/L	116	111	4	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: MPRP/9296
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Dissolved
Associated Lab Samples: 3079403001

METHOD BLANK: 498739
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	70.0	10/15/12 09:52	

LABORATORY CONTROL SAMPLE: 498740

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	5000	5120	102	85-115	

MATRIX SPIKE SAMPLE: 498742

Parameter	Units	3079415002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	ND	5000	5140	102	80-120	

SAMPLE DUPLICATE: 498741

Parameter	Units	3079415002 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Dissolved	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: MSV/14270
QC Batch Method: EPA 624
Analysis Method: EPA 624
Analysis Description: 624 MSV
Associated Lab Samples: 3079403001

METHOD BLANK: 499255
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,1-Dichloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,1-Dichloroethene	ug/L	ND	1.0	10/12/12 12:06	
1,2-Dichloroethane	ug/L	ND	1.0	10/12/12 12:06	
1,2-Dichloropropane	ug/L	ND	1.0	10/12/12 12:06	
2-Butanone (MEK)	ug/L	ND	10.0	10/12/12 12:06	
2-Chloroethylvinyl ether	ug/L	ND	2.0	10/12/12 12:06	
Acetone	ug/L	ND	10.0	10/12/12 12:06	
Acrolein	ug/L	ND	2.0	10/12/12 12:06	
Acrylonitrile	ug/L	ND	2.0	10/12/12 12:06	
Benzene	ug/L	ND	1.0	10/12/12 12:06	
Bromodichloromethane	ug/L	ND	1.0	10/12/12 12:06	
Bromoform	ug/L	ND	1.0	10/12/12 12:06	
Bromomethane	ug/L	ND	1.0	10/12/12 12:06	
Carbon tetrachloride	ug/L	ND	1.0	10/12/12 12:06	
Chlorobenzene	ug/L	ND	1.0	10/12/12 12:06	
Chloroethane	ug/L	ND	1.0	10/12/12 12:06	
Chloroform	ug/L	ND	1.0	10/12/12 12:06	
Chloromethane	ug/L	ND	1.0	10/12/12 12:06	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/12/12 12:06	
Dibromochloromethane	ug/L	ND	1.0	10/12/12 12:06	
Ethylbenzene	ug/L	ND	1.0	10/12/12 12:06	
Methylene Chloride	ug/L	ND	1.0	10/12/12 12:06	
Tetrachloroethene	ug/L	ND	1.0	10/12/12 12:06	
Toluene	ug/L	ND	1.0	10/12/12 12:06	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/12/12 12:06	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/12/12 12:06	
Trichloroethene	ug/L	ND	1.0	10/12/12 12:06	
Vinyl chloride	ug/L	ND	1.0	10/12/12 12:06	
1,2-Dichloroethane-d4 (S)	%	95	70-130	10/12/12 12:06	
4-Bromofluorobenzene (S)	%	97	70-130	10/12/12 12:06	
Toluene-d8 (S)	%	99	70-130	10/12/12 12:06	

LABORATORY CONTROL SAMPLE: 499256

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	18.0	90	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	18.4	92	64.6-121	
1,1,2-Trichloroethane	ug/L	20	19.1	96	75.6-120	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

LABORATORY CONTROL SAMPLE: 499256

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethane	ug/L	20	19.2	96	68.5-122	
1,1-Dichloroethene	ug/L	20	19.7	99	57.1-120	
1,2-Dichloroethane	ug/L	20	17.8	89	60.5-133	
1,2-Dichloropropane	ug/L	20	20.0	100	71-120	
2-Butanone (MEK)	ug/L	20	19.3	96	55.7-138	
2-Chloroethylvinyl ether	ug/L	20	ND	0	70-130	1c
Acetone	ug/L	20	18.8	94	70-130	
Acrolein	ug/L		ND			
Acrylonitrile	ug/L	20	18.3	92	70-130	
Benzene	ug/L	20	20.3	101	69.8-120	
Bromodichloromethane	ug/L	20	16.6	83	66.5-120	
Bromoform	ug/L	20	17.6	88	61.1-120	
Bromomethane	ug/L	20	29.7	148	10.6-240	
Carbon tetrachloride	ug/L	20	16.1	81	60.1-127	
Chlorobenzene	ug/L	20	19.4	97	70-130	
Chloroethane	ug/L	20	24.6	123	36.8-142	
Chloroform	ug/L	20	18.0	90	70-130	
Chloromethane	ug/L	20	19.1	96	37.2-129	
cis-1,3-Dichloropropene	ug/L	20	19.0	95	74.3-120	
Dibromochloromethane	ug/L	20	16.4	82	66.1-120	
Ethylbenzene	ug/L	20	19.2	96	70.9-124	
Methylene Chloride	ug/L	20	20.8	104	70-130	
Tetrachloroethene	ug/L	20	20.1	101	63.4-121	
Toluene	ug/L	20	19.7	98	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	19.9	99	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	18.7	94	71-120	
Trichloroethene	ug/L	20	18.9	94	65.9-120	
Vinyl chloride	ug/L	20	22.9	115	51-127	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			93	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 499257 499258

Parameter	Units	3079133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	17.1	17.8	86	89	75-125	4	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.5	17.5	88	87	70-130	.2	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	18.1	18.2	90	91	71-129	.7	30	
1,1-Dichloroethane	ug/L	ND	20	20	18.4	19.5	92	97	72.5-127	6	30	
1,1-Dichloroethene	ug/L	ND	20	20	19.5	20.4	98	102	70-130	4	30	
1,2-Dichloroethane	ug/L	ND	20	20	16.5	17.2	82	86	70-130	4	30	
1,2-Dichloropropane	ug/L	ND	20	20	18.5	18.8	92	94	70-130	2	30	
2-Butanone (MEK)	ug/L	ND	20	20	18.6	17.6	93	88	70-130	5	30	
2-Chloroethylvinyl ether	ug/L	ND	20	20	ND	ND	0	0	70-130		30	2c
Acetone	ug/L	ND	20	20	17.2	16.7	61	58	70-130	3	30	M0
Acrolein	ug/L	ND			ND	ND					30	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
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(724)850-5600

QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 499257 499258

Parameter	Units	3079133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acrylonitrile	ug/L	ND	20	20	18.2	17.3	91	86	70-130	5	30	
Benzene	ug/L	ND	20	20	18.9	19.2	95	96	70-130	2	30	
Bromodichloromethane	ug/L	ND	20	20	14.9	15.7	75	78	70-130	5	30	
Bromoform	ug/L	ND	20	20	16.4	16.7	82	84	71-129	2	30	
Bromomethane	ug/L	ND	20	20	23.7	28.3	119	141	50-150	18	30	
Carbon tetrachloride	ug/L	ND	20	20	14.8	15.2	74	76	73-127	3	30	
Chlorobenzene	ug/L	ND	20	20	18.9	19.1	94	96	70-130	1	30	
Chloroethane	ug/L	ND	20	20	23.6	24.6	118	123	50-150	4	30	
Chloroform	ug/L	ND	20	20	16.8	16.9	84	85	70-130	1	30	
Chloromethane	ug/L	ND	20	20	19.9	21.3	99	106	50-150	7	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.6	18.3	88	92	70-130	4	30	
Dibromochloromethane	ug/L	ND	20	20	14.7	15.0	74	75	70-130	2	30	
Ethylbenzene	ug/L	ND	20	20	18.6	18.9	93	94	70-130	2	30	
Methylene Chloride	ug/L	ND	20	20	19.0	19.5	95	98	70-130	3	30	
Tetrachloroethene	ug/L	ND	20	20	19.6	20.4	98	102	73.5-126	4	30	
Toluene	ug/L	ND	20	20	18.6	19.2	93	96	74.5-125	3	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.9	19.6	94	98	70-130	4	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.3	17.7	87	89	70-130	2	30	
Trichloroethene	ug/L	ND	20	20	17.6	18.5	88	92	70-130	5	30	
Vinyl chloride	ug/L	ND	20	20	23.1	24.8	116	124	50-150	7	30	
1,2-Dichloroethane-d4 (S)	%						93	93	70-130			
4-Bromofluorobenzene (S)	%						96	95	70-130			
Toluene-d8 (S)	%						96	95	70-130			

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: OEXT/13092
QC Batch Method: EPA 608 SF
Analysis Method: EPA 608
Analysis Description: 608 GCS PCB
Associated Lab Samples: 3079403001

METHOD BLANK: 499708
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1221 (Aroclor 1221)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1232 (Aroclor 1232)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1242 (Aroclor 1242)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1248 (Aroclor 1248)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1254 (Aroclor 1254)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1260 (Aroclor 1260)	ug/L	ND	1.0	10/15/12 19:30	
Decachlorobiphenyl (S)	%	47	36-118	10/15/12 19:30	
Tetrachloro-m-xylene (S)	%	85	24-116	10/15/12 19:30	

LABORATORY CONTROL SAMPLE: 499709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	1.2	1.0	84	52-108	
PCB-1260 (Aroclor 1260)	ug/L	1.2	.99J	79	58-107	
Decachlorobiphenyl (S)	%			55	36-118	
Tetrachloro-m-xylene (S)	%			87	24-116	

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: OEXT/13091 Analysis Method: EPA 608
QC Batch Method: EPA 608 SF Analysis Description: 608 GCS Pesticide
Associated Lab Samples: 3079403001

METHOD BLANK: 499706 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/L	ND	0.10	10/16/12 04:16	
4,4'-DDE	ug/L	ND	0.10	10/16/12 04:16	
4,4'-DDT	ug/L	ND	0.10	10/16/12 04:16	
Aldrin	ug/L	ND	0.050	10/16/12 04:16	
alpha-BHC	ug/L	ND	0.050	10/16/12 04:16	
beta-BHC	ug/L	ND	0.050	10/16/12 04:16	
Chlordane (Technical)	ug/L	ND	0.50	10/16/12 04:16	
delta-BHC	ug/L	ND	0.050	10/16/12 04:16	
Dieldrin	ug/L	ND	0.10	10/16/12 04:16	
Endosulfan I	ug/L	ND	0.050	10/16/12 04:16	
Endosulfan II	ug/L	ND	0.10	10/16/12 04:16	
Endosulfan sulfate	ug/L	ND	0.10	10/16/12 04:16	
Endrin	ug/L	ND	0.10	10/16/12 04:16	
Endrin aldehyde	ug/L	ND	0.10	10/16/12 04:16	
gamma-BHC (Lindane)	ug/L	ND	0.050	10/16/12 04:16	
Heptachlor	ug/L	ND	0.050	10/16/12 04:16	
Heptachlor epoxide	ug/L	ND	0.050	10/16/12 04:16	
Toxaphene	ug/L	ND	1.0	10/16/12 04:16	
Decachlorobiphenyl (S)	%	62	36-118	10/16/12 04:16	
Tetrachloro-m-xylene (S)	%	79	24-116	10/16/12 04:16	8c

LABORATORY CONTROL SAMPLE: 499707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/L	.4	0.37	93	68-114	
4,4'-DDE	ug/L	.4	0.35	87	64-108	
4,4'-DDT	ug/L	.4	0.37	92	69-112	
Aldrin	ug/L	.2	0.17	84	59-104	
alpha-BHC	ug/L	.2	0.18	88	60-114	
beta-BHC	ug/L	.2	0.18	90	62-104	
delta-BHC	ug/L	.2	0.18	92	59-113	
Dieldrin	ug/L	.4	0.37	92	71-110	
Endosulfan I	ug/L	.2	0.18	92	54-100	
Endosulfan II	ug/L	.4	0.35	87	64-101	
Endosulfan sulfate	ug/L	.4	0.35	87	66-106	
Endrin	ug/L	.4	0.37	92	67-118	
Endrin aldehyde	ug/L	.4	0.40	101	70-132	
gamma-BHC (Lindane)	ug/L	.2	0.18	92	68-123	
Heptachlor	ug/L	.2	0.18	90	59-109	
Heptachlor epoxide	ug/L	.2	0.18	89	66-100	
Decachlorobiphenyl (S)	%			65	36-118	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

LABORATORY CONTROL SAMPLE: 499707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloro-m-xylene (S)	%			84	24-116	8c

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: OEXT/13062
QC Batch Method: EPA 625 Low Level
Analysis Method: EPA 625 Low Level
Analysis Description: 625 MSS Low Level
Associated Lab Samples: 3079403001

METHOD BLANK: 498338
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
1,2-Diphenylhydrazine	ug/L	ND	1.0	10/18/12 08:50	N2
1,3-Dichlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
2,4,6-Trichlorophenol	ug/L	ND	1.0	10/18/12 08:50	
2,4-Dichlorophenol	ug/L	ND	1.0	10/18/12 08:50	
2,4-Dimethylphenol	ug/L	ND	1.0	10/18/12 08:50	
2,4-Dinitrophenol	ug/L	ND	2.5	10/18/12 08:50	
2,4-Dinitrotoluene	ug/L	ND	1.0	10/18/12 08:50	
2,6-Dinitrotoluene	ug/L	ND	1.0	10/18/12 08:50	
2-Chloronaphthalene	ug/L	ND	1.0	10/18/12 08:50	
2-Chlorophenol	ug/L	ND	1.0	10/18/12 08:50	
2-Methylphenol(o-Cresol)	ug/L	ND	1.0	10/18/12 08:50	
2-Nitrophenol	ug/L	ND	1.0	10/18/12 08:50	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2.0	10/18/12 08:50	
3,3'-Dichlorobenzidine	ug/L	ND	1.0	10/18/12 08:50	
4,6-Dinitro-2-methylphenol	ug/L	ND	2.5	10/18/12 08:50	
4-Bromophenylphenyl ether	ug/L	ND	1.0	10/18/12 08:50	
4-Chloro-3-methylphenol	ug/L	ND	1.0	10/18/12 08:50	
4-Chlorophenylphenyl ether	ug/L	ND	1.0	10/18/12 08:50	
4-Nitrophenol	ug/L	ND	1.0	10/18/12 08:50	
Acenaphthene	ug/L	ND	1.0	10/18/12 08:50	
Acenaphthylene	ug/L	ND	1.0	10/18/12 08:50	
Acetophenone	ug/L	ND	1.0	10/18/12 08:50	N2
Anthracene	ug/L	ND	1.0	10/18/12 08:50	
Benzidine	ug/L	ND	100	10/18/12 08:50	
Benzo(a)anthracene	ug/L	ND	1.0	10/18/12 08:50	
Benzo(a)pyrene	ug/L	ND	1.0	10/18/12 08:50	
Benzo(b)fluoranthene	ug/L	ND	1.0	10/18/12 08:50	
Benzo(g,h,i)perylene	ug/L	ND	1.0	10/18/12 08:50	
Benzo(k)fluoranthene	ug/L	ND	1.0	10/18/12 08:50	
Benzoic acid	ug/L	ND	2.5	10/18/12 08:50	N2
bis(2-Chloroethoxy)methane	ug/L	ND	1.0	10/18/12 08:50	
bis(2-Chloroethyl) ether	ug/L	ND	1.0	10/18/12 08:50	
bis(2-Chloroisopropyl) ether	ug/L	ND	1.0	10/18/12 08:50	
bis(2-Ethylhexyl)phthalate	ug/L	ND	1.0	10/18/12 08:50	
Butylbenzylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Carbazole	ug/L	ND	1.0	10/18/12 08:50	N2
Chrysene	ug/L	ND	1.0	10/18/12 08:50	
Di-n-butylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Di-n-octylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Dibenz(a,h)anthracene	ug/L	ND	1.0	10/18/12 08:50	

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

METHOD BLANK: 498338 Matrix: Water

Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diethylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Dimethylphthalate	ug/L	ND	1.0	10/18/12 08:50	
Fluoranthene	ug/L	ND	1.0	10/18/12 08:50	
Fluorene	ug/L	ND	1.0	10/18/12 08:50	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/18/12 08:50	
Hexachlorobenzene	ug/L	ND	1.0	10/18/12 08:50	
Hexachlorocyclopentadiene	ug/L	ND	1.0	10/18/12 08:50	
Hexachloroethane	ug/L	ND	1.0	10/18/12 08:50	
Indeno(1,2,3-cd)pyrene	ug/L	ND	1.0	10/18/12 08:50	
Isophorone	ug/L	ND	1.0	10/18/12 08:50	
N-Nitroso-di-n-propylamine	ug/L	ND	1.0	10/18/12 08:50	
N-Nitrosodimethylamine	ug/L	ND	1.0	10/18/12 08:50	N2
N-Nitrosodiphenylamine	ug/L	ND	1.0	10/18/12 08:50	
Naphthalene	ug/L	ND	1.0	10/18/12 08:50	
Nitrobenzene	ug/L	ND	1.0	10/18/12 08:50	
Pentachlorophenol	ug/L	ND	2.5	10/18/12 08:50	
Phenanthrene	ug/L	ND	1.0	10/18/12 08:50	
Phenol	ug/L	ND	1.0	10/18/12 08:50	
Pyrene	ug/L	ND	1.0	10/18/12 08:50	
2,4,6-Tribromophenol (S)	%	71	10-123	10/18/12 08:50	
2-Fluorobiphenyl (S)	%	73	43-116	10/18/12 08:50	
2-Fluorophenol (S)	%	39	21-110	10/18/12 08:50	
Nitrobenzene-d5 (S)	%	74	35-114	10/18/12 08:50	
Phenol-d6 (S)	%	26	10-110	10/18/12 08:50	
Terphenyl-d14 (S)	%	135	33-141	10/18/12 08:50	

LABORATORY CONTROL SAMPLE: 498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	10	6.3	63	39-98	
1,2-Dichlorobenzene	ug/L	10	5.8	58	32-129	
1,2-Diphenylhydrazine	ug/L		ND			N2
1,3-Dichlorobenzene	ug/L	10	5.3	53	1-172	
1,4-Dichlorobenzene	ug/L	10	5.5	55	20-124	
2,4,6-Trichlorophenol	ug/L	10	9.1	91	37-144	
2,4-Dichlorophenol	ug/L	10	6.4	64	39-135	
2,4-Dimethylphenol	ug/L	10	7.5	75	32-119	
2,4-Dinitrophenol	ug/L	10	10.3	103	1-191	
2,4-Dinitrotoluene	ug/L	10	9.6	96	39-139	
2,6-Dinitrotoluene	ug/L	10	9.2	92	50-158	
2-Chloronaphthalene	ug/L	10	7.7	77	60-118	
2-Chlorophenol	ug/L	10	6.9	69	23-134	
2-Methylphenol(o-Cresol)	ug/L		ND			
2-Nitrophenol	ug/L	10	8.3	83	29-182	
3&4-Methylphenol(m&p Cresol)	ug/L		ND			

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

LABORATORY CONTROL SAMPLE: 498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3'-Dichlorobenzidine	ug/L	10	8.1	81	1-262	
4,6-Dinitro-2-methylphenol	ug/L	10	9.0	90	1-181	
4-Bromophenylphenyl ether	ug/L	10	8.3	83	53-127	
4-Chloro-3-methylphenol	ug/L	10	6.2	62	22-147	
4-Chlorophenylphenyl ether	ug/L	10	8.4	84	25-158	
4-Nitrophenol	ug/L	10	3.0	30	1-132	
Acenaphthene	ug/L	10	8.1	81	27-133	
Acenaphthylene	ug/L	10	8.2	82	33-145	
Acetophenone	ug/L	10	7.5	75	40-140	N2
Anthracene	ug/L	10	9.5	95	27-133	
Benzidine	ug/L	10	ND	0	40-140	L0
Benzo(a)anthracene	ug/L	10	9.6	96	33-142	
Benzo(a)pyrene	ug/L	10	10.6	106	17-163	
Benzo(b)fluoranthene	ug/L	10	10.2	102	24-159	
Benzo(g,h,i)perylene	ug/L	10	6.9	69	1-219	
Benzo(k)fluoranthene	ug/L	10	12.5	125	11-162	
Benzoic acid	ug/L		ND			N2
bis(2-Chloroethoxy)methane	ug/L	10	8.3	83	33-184	
bis(2-Chloroethyl) ether	ug/L	10	6.6	66	12-158	
bis(2-Chloroisopropyl) ether	ug/L	10	6.9	69	36-166	
bis(2-Ethylhexyl)phthalate	ug/L	10	10.9	109	8-158	
Butylbenzylphthalate	ug/L	10	11.6	116	1-152	
Carbazole	ug/L	10	8.7	87	40-140	N2
Chrysene	ug/L	10	11.0	110	17-168	
Di-n-butylphthalate	ug/L	10	9.4	94	1-118	
Di-n-octylphthalate	ug/L	10	10.2	102	4-146	
Dibenz(a,h)anthracene	ug/L	10	9.6	96	1-227	
Diethylphthalate	ug/L	10	10	100	1-114	
Dimethylphthalate	ug/L	10	9.3	93	1-112	
Fluoranthene	ug/L	10	8.8	88	26-137	
Fluorene	ug/L	10	9.0	90	59-121	
Hexachloro-1,3-butadiene	ug/L	10	6.6	66	24-116	
Hexachlorobenzene	ug/L	10	9.4	94	1-152	
Hexachlorocyclopentadiene	ug/L	10	4.4	44	40-140	
Hexachloroethane	ug/L	10	5.3	53	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	10	9.0	90	1-171	
Isophorone	ug/L	10	7.9	79	21-196	
N-Nitroso-di-n-propylamine	ug/L	10	7.9	79	1-230	
N-Nitrosodimethylamine	ug/L	10	4.8	48	1-230	N2
N-Nitrosodiphenylamine	ug/L	10	8.1	81	40-140	
Naphthalene	ug/L	10	7.1	71	21-133	
Nitrobenzene	ug/L	10	7.7	77	35-118	
Pentachlorophenol	ug/L	10	8.3	83	14-176	
Phenanthrene	ug/L	10	9.7	97	54-120	
Phenol	ug/L	10	2.8	28	5-112	
Pyrene	ug/L	10	12.1	121	26-127	
2,4,6-Tribromophenol (S)	%			96	10-123	
2-Fluorobiphenyl (S)	%			81	43-116	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

LABORATORY CONTROL SAMPLE: 498339

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorophenol (S)	%			42	21-110	
Nitrobenzene-d5 (S)	%			78	35-114	
Phenol-d6 (S)	%			29	10-110	
Terphenyl-d14 (S)	%			124	33-141	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WET/15635
QC Batch Method: EPA 1664A
Analysis Method: EPA 1664A
Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 3079403001

METHOD BLANK: 501712 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/19/12 08:00	

METHOD BLANK: 501714 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/19/12 08:00	

METHOD BLANK: 501716 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	23.8	10/19/12 08:00	

LABORATORY CONTROL SAMPLE: 501713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	39.9	95	78-114	

LABORATORY CONTROL SAMPLE: 501715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	40.9	97	78-114	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WET/15534
QC Batch Method: SM 2120B
Analysis Method: SM 2120B
Analysis Description: 2120B Color
Associated Lab Samples: 3079403001

METHOD BLANK: 498870
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	ND	1.0	10/11/12 19:45	

LABORATORY CONTROL SAMPLE: 498871

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Apparent Color	units	25	25.0	100	80-120	

SAMPLE DUPLICATE: 498872

Parameter	Units	3079470001 Result	Dup Result	RPD	Max RPD	Qualifiers
Apparent Color	units	1500	1500	0		

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WET/15521
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 3079403001

METHOD BLANK: 498486
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10/11/12 19:00	

LABORATORY CONTROL SAMPLE: 498487

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	969	97	85-115	

SAMPLE DUPLICATE: 498488

Parameter	Units	3079403001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	8670	8690	.2	5	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WET/15528
QC Batch Method: SM 2540D
Analysis Method: SM 2540D
Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 3079403001

METHOD BLANK: 498680
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	4.0	10/11/12 20:30	

SAMPLE DUPLICATE: 498681

Parameter	Units	3079422001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	6.0	6.0	0	5	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WET/15514
QC Batch Method: SM 4500-Cl G
Analysis Method: SM 4500-Cl G
Analysis Description: 4500CL G Chlorine, Total Residual
Associated Lab Samples: 3079403001

METHOD BLANK: 498341
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.10	10/11/12 09:07	H6

LABORATORY CONTROL SAMPLE: 498342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	.5	0.50	100	85-115	H6

MATRIX SPIKE SAMPLE: 498343

Parameter	Units	3079403001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	ND	.5	0.20	35	85-115	H6,M1

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WET/15507
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 3079403001

SAMPLE DUPLICATE: 498162

Parameter	Units	3079418013 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	5.2	5.2	.2	10	H6

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WET/15540
QC Batch Method: SM 5540C
Analysis Method: SM 5540C
Analysis Description: 5540C MBAS Surfactants
Associated Lab Samples: 3079403001

METHOD BLANK: 498884 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Surfactants	mg/L	ND	0.10	10/11/12 23:32	3c

LABORATORY CONTROL SAMPLE: 498885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Surfactants	mg/L	1	0.94	94	85-115	3c

MATRIX SPIKE SAMPLE: 498887

Parameter	Units	3079340002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Surfactants	mg/L	ND	1	0.97	97	85-115	3c

SAMPLE DUPLICATE: 498886

Parameter	Units	3079340001 Result	Dup Result	RPD	Max RPD	Qualifiers
Surfactants	mg/L	ND	ND		20	3c

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/11067
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions 28day
Associated Lab Samples: 3079403001

METHOD BLANK: 503209 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	ND	0.062	10/23/12 10:29	
Fluoride	mg/L	ND	0.012	10/23/12 10:29	

LABORATORY CONTROL SAMPLE: 503210

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	2	2.0	98	80-120	
Fluoride	mg/L	.4	0.38	95	80-120	

MATRIX SPIKE SAMPLE: 503211

Parameter	Units	3079403001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	33.4	400	400	92	80-120	
Fluoride	mg/L	ND	80	76.2	95	80-120	

SAMPLE DUPLICATE: 503212

Parameter	Units	3079403001 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromide	mg/L	33.4	30.8	8	20	
Fluoride	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/10984
QC Batch Method: EPA 335.4
Analysis Method: EPA 335.4
Analysis Description: 335.4 Cyanide, Total
Associated Lab Samples: 3079403001

METHOD BLANK: 499879 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	10/15/12 19:13	

LABORATORY CONTROL SAMPLE: 499880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.2	0.21	103	90-110	

MATRIX SPIKE SAMPLE: 499882

Parameter	Units	3079650001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	22.9 ug/L	.1	0.13	106	90-110	

SAMPLE DUPLICATE: 499881

Parameter	Units	3079650001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	22.9 ug/L	0.021	9	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/10938
QC Batch Method: SM 3500-Cr D
Analysis Method: SM 3500-Cr D
Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 3079403001

METHOD BLANK: 498264 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.010	10/10/12 22:50	

LABORATORY CONTROL SAMPLE & LCSD: 498265 498266

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	.25	0.27	0.26	107	104	80-120	3	20	

SAMPLE DUPLICATE: 498267

Parameter	Units	3079403001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/10999
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia, Distilled
Associated Lab Samples: 3079403001

METHOD BLANK: 500602 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ammonia, Distilled	mg/L	ND	0.10	10/17/12 11:56	

LABORATORY CONTROL SAMPLE: 500603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ammonia, Distilled	mg/L	4	3.9	97	85-115	

MATRIX SPIKE SAMPLE: 500604

Parameter	Units	3079477001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Ammonia, Distilled	mg/L	0.30	4	4.1	96	85-115	

SAMPLE DUPLICATE: 500605

Parameter	Units	3079477001 Result	Dup Result	RPD	Max RPD	Qualifiers
Ammonia, Distilled	mg/L	0.30	0.21	35	20	D6

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/11061 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 3079403001

METHOD BLANK: 503166 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	1.0	10/23/12 12:07	

LABORATORY CONTROL SAMPLE: 503167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	3.6	91	90-110	

MATRIX SPIKE SAMPLE: 503168

Parameter	Units	3080001001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.1	4	5.4	109	90-110	

SAMPLE DUPLICATE: 503169

Parameter	Units	3080001001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.1	.64J		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/11040 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 3079403001

METHOD BLANK: 502071 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

METHOD BLANK: 502073 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

METHOD BLANK: 502076 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

LABORATORY CONTROL SAMPLE: 502072

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	300	275	92	90-110	

MATRIX SPIKE SAMPLE: 502074

Parameter	Units	3079461001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	25.9	150	164	92	90-110	

SAMPLE DUPLICATE: 502075

Parameter	Units	3079461001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	25.9	23.9J		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/10993
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics
Associated Lab Samples: 3079403001

METHOD BLANK: 500270 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenol	mg/L	ND	0.050	10/17/12 14:27	

LABORATORY CONTROL SAMPLE: 500271

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenol	mg/L	.25	0.24	96	85-115	

MATRIX SPIKE SAMPLE: 500272

Parameter	Units	3079733001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenol	mg/L	ND	.25	0.23	86	85-115	H3

SAMPLE DUPLICATE: 500273

Parameter	Units	3079733001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phenol	mg/L	ND	ND		20	H3

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/11028
QC Batch Method: SM 4500-CN-E
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide, Free
Associated Lab Samples: 3079403001

METHOD BLANK: 501794 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	10/18/12 22:10	

LABORATORY CONTROL SAMPLE: 501795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.2	0.21	105	90-110	

MATRIX SPIKE SAMPLE: 501820

Parameter	Units	3079744003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.014	.1	0.11	91	90-110	

SAMPLE DUPLICATE: 501819

Parameter	Units	3079744003 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	0.014	0.015	6	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/10990
QC Batch Method: SM 4500-NO3 F
Analysis Method: SM 4500-NO3 F
Analysis Description: SM4500NO3-F, Nitrate, Preserved
Associated Lab Samples: 3079403001

METHOD BLANK: 500148 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	ND	0.10	10/16/12 09:15	

LABORATORY CONTROL SAMPLE: 500149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	4	4.0	99	85-115	

MATRIX SPIKE SAMPLE: 500150

Parameter	Units	3079088001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	5	7.0	100	85-115	

SAMPLE DUPLICATE: 500151

Parameter	Units	3079088001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	2.0	.5	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/11022
QC Batch Method: SM 4500-P E
Analysis Method: SM 4500-P E
Analysis Description: 4500PB5E Phosphorus
Associated Lab Samples: 3079403001

METHOD BLANK: 501322 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	10/19/12 09:58	

LABORATORY CONTROL SAMPLE: 501323

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	.4	0.43	107	85-115	

MATRIX SPIKE SAMPLE: 501324

Parameter	Units	3079340002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	.4	0.49	123	90-110	M1

SAMPLE DUPLICATE: 501325

Parameter	Units	3079340002 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	ND	0.038		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/11069
QC Batch Method: SM 5310C
Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon
Associated Lab Samples: 3079403001

METHOD BLANK: 503234
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	10/23/12 11:08	

LABORATORY CONTROL SAMPLE: 503235

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	11.2	112	85-115	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: WETA/11048
QC Batch Method: ASTM D516-90,02
Analysis Method: ASTM D516-90,02
Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 3079403001

METHOD BLANK: 502642 Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	10.0	10/22/12 11:11	

LABORATORY CONTROL SAMPLE: 502643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	30	28.1	94	85-115	

MATRIX SPIKE SAMPLE: 502644

Parameter	Units	3079206016 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	12.2	20	29.4	86	85-115	

SAMPLE DUPLICATE: 502645

Parameter	Units	3079206016 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	12.2	12.2	.2	20	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Sample: Outfall 001 - Sample 2 **Lab ID: 3079403001** Collected: 10/10/12 09:30 Received: 10/10/12 17:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	SM 7110C	**-0.720 ± 1.30 (2.65)**	pCi/L	10/19/12 16:43	12587-46-1	
Gross Beta	EPA 900.0m	**236 ± 47.1 (21.3)**	pCi/L	10/17/12 15:26	12587-47-2	
Radium-226	EPA 903.1	**0.000 ± 0.411 (0.921)**	pCi/L	10/22/12 13:36	13982-63-3	
Radium-228	EPA 904.0	**0.380 ± 1.12 (2.09)**	pCi/L	10/17/12 15:00	15262-20-1	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: RADC/13474
QC Batch Method: EPA 900.0m
Analysis Method: EPA 900.0m
Analysis Description: 900.0 Gross Alpha/Beta
Associated Lab Samples: 3079403001

METHOD BLANK: 498628
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Gross Beta	1.40 ± 0.987 (1.83)	pCi/L	10/18/12 06:43	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: RADC/13488
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Associated Lab Samples: 3079403001

METHOD BLANK: 499023
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-228	-0.0176 ± 0.353 (0.846)	pCi/L	10/17/12 12:21	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: RADC/13546
QC Batch Method: EPA 903.1
Analysis Method: EPA 903.1
Analysis Description: 903.1 Radium-226
Associated Lab Samples: 3079403001

METHOD BLANK: 501251
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-226	-0.138 ± 0.526 (0.979)	pCi/L	10/22/12 13:04	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079403

QC Batch: RADC/13560
QC Batch Method: SM 7110C
Analysis Method: SM 7110C
Analysis Description: 7110C Gross Alpha
Associated Lab Samples: 3079403001

METHOD BLANK: 501265
Matrix: Water
Associated Lab Samples: 3079403001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Gross Alpha	0.899 ± 0.766 (1.41)	pCi/L	10/19/12 11:11	

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QUALIFIERS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

SAMPLE QUALIFIERS

Sample: 3079403001

[1] Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

BATCH QUALIFIERS

Batch: OEXT/13062

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: OEXT/13091

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: GCSV/4936

[1] The following samples were diluted due to the presence of high levels of non-target analytes or other matrix interference, resulting in elevated reporting limits for all analytes: 5070699-005 and 5070699-008.

ANALYTE QUALIFIERS

1c Analyte not present in the LCS spiking standards.

2c Analyte not present in the spiking standards.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: NPDES Permit Renewal
Pace Project No.: 3079403

ANALYTE QUALIFIERS

3c	MBAS, calculated as LAS, Mol wt 340 g/mol
4c	Recovery of the surrogate DCB is low. Sample results accepted based upon the recovery of the TCMX surrogate.
5c	Sample was diluted due to matrix.
6c	The recovery of the surrogate DCB is low. The sample is accepted based upon the recovery of the surrogate TCMX.
7c	The result for Endosulfan I is reported from the front analytical column due to a high response for Endosulfan I on the rear analytical column.
8c	The result for TCMX is reported from the rear analytical column due to a high response for TCMX on the front analytical column.
CU	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
H3	Sample was received or analysis requested beyond the recognized method holding time.
H6	Analysis initiated outside of the 15 minute EPA recommended holding time.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold TNI accreditation for this parameter.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3079403001	**Outfall 001 - Sample 2**	EPA 608 SF	OEXT/13092	EPA 608	GCSV/4935
3079403001	**Outfall 001 - Sample 2**	EPA 608 SF	OEXT/13091	EPA 608	GCSV/4936
3079403001	**Outfall 001 - Sample 2**	EPA 200.7	MPRP/9289	EPA 200.7	ICP/8708
3079403001	**Outfall 001 - Sample 2**	EPA 200.7	MPRP/9296	EPA 200.7	ICP/8715
3079403001	**Outfall 001 - Sample 2**	SM 2340B	ICP/8766		
3079403001	**Outfall 001 - Sample 2**	SM 9222D	MBIO/2658	SM 9222D	MBIO/2668
3079403001	**Outfall 001 - Sample 2**	EPA 245.1	MERP/3942	EPA 245.1	MERC/3791
3079403001	**Outfall 001 - Sample 2**	EPA 625 Low Level	OEXT/13062	EPA 625 Low Level	MSSV/4495
3079403001	**Outfall 001 - Sample 2**	EPA 624	MSV/14270		
3079403001	**Outfall 001 - Sample 2**	SM 7110C	RADC/13560		
3079403001	**Outfall 001 - Sample 2**	EPA 900.0m	RADC/13474		
3079403001	**Outfall 001 - Sample 2**	EPA 903.1	RADC/13546		
3079403001	**Outfall 001 - Sample 2**	EPA 904.0	RADC/13488		
3079403001	**Outfall 001 - Sample 2**	EPA 1664A	WET/15635		
3079403001	**Outfall 001 - Sample 2**	SM 2120B	WET/15534		
3079403001	**Outfall 001 - Sample 2**	SM 2540C	WET/15521		
3079403001	**Outfall 001 - Sample 2**	SM 2540D	WET/15528		
3079403001	**Outfall 001 - Sample 2**	SM 4500-Cl G	WET/15514		
3079403001	**Outfall 001 - Sample 2**	SM 4500-H+B	WET/15507		
3079403001	**Outfall 001 - Sample 2**	SM 5540C	WET/15540		
3079403001	**Outfall 001 - Sample 2**	Trivalent Chromium Calculation	WET/15741		
3079403001	**Outfall 001 - Sample 2**	EPA 300.0	WETA/11067		
3079403001	**Outfall 001 - Sample 2**	EPA 335.4	WETA/10984		
3079403001	**Outfall 001 - Sample 2**	SM 3500-Cr D	WETA/10938		
3079403001	**Outfall 001 - Sample 2**	EPA 350.1	WETA/10999		
3079403001	**Outfall 001 - Sample 2**	EPA 351.2	WETA/11061		
3079403001	**Outfall 001 - Sample 2**	EPA 410.4	WETA/11040		
3079403001	**Outfall 001 - Sample 2**	EPA 420.1	WETA/10993		
3079403001	**Outfall 001 - Sample 2**	SM 4500-CN-E	WETA/11028		
3079403001	**Outfall 001 - Sample 2**	SM 4500-NO3 F	WETA/10990		
3079403001	**Outfall 001 - Sample 2**	SM 4500-P E	WETA/11022		
3079403001	**Outfall 001 - Sample 2**	SM 5310C	WETA/11069		

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES Permit Renewal
Pace Project No.: 3079403

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3079403001	**Outfall 001 - Sample 2**	ASTM D516-90,02	WETA/11048		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Seneca Landfill, Inc.	Report To:	Mike Pavelek	Attention:	Beth Hanz
Address:	PO Box 1080	Copy To:	Mick Palmer	Company Name:	Seneca Landfill, Inc.
	Mars, PA 16046			Address:	PO Box 1080, Mars, PA 16046
Email To:	mpavelek@senecalandfill.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	724-452-0899 Fax: 724-453-0915	Project Name:	NPDES Permit Renewal	Pace Project Manager:	Rachel Christner
Requested Due Date/TAT:	Standard	Project Number:	Outfall 001 - Sample 3	Pace Profile #:	3915 - Line 1

REGULATORY AGENCY

[X] NPDES [ ] GROUND WATER [ ] DRINKING WATER
[ ] UST [ ] RCRA [ ] OTHER

Site Location STATE: PA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	Sample ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COLLECTED: COMPOSITE START TIME	COLLECTED: COMPOSITE END/GRAB DATE	COLLECTED: COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Pollutant Group 1	Pollutant Group 2	Pollutant Group 3	Pollutant Group 4	Pollutant Group 5	Module 11 (TICs)	Pollutant Group 6	a-Terpineol, p-Cresol, o-Cresol	Benzoic Acid, Pyridine, Acetone	Acetophenone, 2-Butanone	2,4,6-Trichlorophenol	Vanadium	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Outfall 001 - Sample 3	WT	C	10-10	9:30	10-11	9:30		8	2	4	4	2	1	1		3		X	X	X	X	X	X	X	X	X	X	X	X		5079470
2			G			10-11	9:30		3	1			3				2															OSL
3																																
4																																
5																																
6																																
7																																
8																																
9																																
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11																																
12																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
BOD - Subout to ESL	Mick Palmer	10/10/12		Pace	10-11-12	9:40				
Phenolics - Subout to Geochemical Testing	Pace	10/11/12	11:30		10/11/12	1100	4.5	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: MICK PALMER

SIGNATURE of SAMPLER: Mick Palmer

DATE Signed (MM/DD/YY): 10/11/12

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important: By signing this form you are accepting Pace's NET 30 day payment terms and ~~agreeing to late charges of 1.5% per month for any~~ Not paid within 30 days.

F-ALL-Q-020rev.06, 2-Feb

Sample Condition Upon Receipt

Pace Analytical

Client Name: Seneca   Project # 3574470

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other ______

Tracking #: ______

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no   Seals intact: ☐ yes ☐ no

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other ______

Thermometer Used (5) 6 7   Type of Ice: (Wet) Blue None   ☑ Samples on ice, cooling process has begun

Cooler Temperature 4.8   Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: LFR 10/11/12

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes	☐No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☑No	☐N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: (VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes	☐No		Initial when completed LFR / Lot # of added preservative
Samples checked for dechlorination:	☑Yes	☐No	☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): ______				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ______   Date/Time: ______

Comments/ Resolution: ______

Project Manager Review: [signature]   **Date:** 10/12/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 35941710

Client Name: Seneca

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
001	WA			4	6		1	2		1	1	1		3	1	1	1		2					

SCURF Back (C016-4 15May2012).xls

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

MB

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 3079470

Matrix: (soil/water) WATER Lab Sample ID: BLK

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 21016012

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 10/16/12

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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30.					

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

OUTFALL 0
01 - SAMPL

Lab Name: Contract:

Lab Code: Case No.: SAS No.: SDG No.: 3079470

Matrix: (soil/water) WATER Lab Sample ID: 3079470001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: 21016044

Level: (low/med) LOW Date Received: 10/11/12

% Moisture: not dec. _____ Date Analyzed: 10/16/12

GC Column: RTX-VMS ID: 0.18 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	1.20	65.1	J
2.	71-36-3	1-BUTANOL	4.49	58.4	NJ
3.		UNKNOWN ORGANIC ACID	5.83	412	J
4.	104-76-7	1-HEXANOL, 2-ETHYL-	6.41	918	NJ
5.		UNKNOWN ORGANIC ACID	7.20	250	J
6.					
7.					
8.					
9.					
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29.					
30.					

ENVIRONMENTAL SERVICE LABORATORIES, INC.

1803 Philadelphia St.
Indiana, PA 15701
P: (724) 463-TEST
F: (724) 465-4209
PADEP: 32-00382

1276 Bentleyville Rd.
Van Voorhis, PA 15366
P: (724) 258-TEST
F: (724) 258-8376
PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

22 October 2012

Work Order: 2101060

Project: Wastewater

Pace Analytical Services, Inc.
Attn: Penny Westrick
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Report of Analysis

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
3079470001	2101060-01	Waste Water	10/11/2012 09:30	10/12/2012 10:44

Report Narrative

The results contained in this report are only representative of the samples received. Environmental Service Laboratories, Inc. is not responsible for use or interpretation of the data included herein.

Definitions

ND	Less than reporting limit
RL	Reporting Limit
CFU	Colony Forming Units

Certifications

Analyses performed by Environmental Service Laboratories, Inc., Indiana PA unless otherwise specified.

Environmental Service Laboratories, Inc., Indiana, PA DEP lab ID #32-32382

Approved By

Gabe Taylor
Manager

ENVIRONMENTAL SERVICE LABORATORIES, INC.

1803 Philadelphia St.
Indiana, PA 15701
P: (724) 463-TEST
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PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Reported: 10/22/2012 13:42

Lab Sample ID#: 2101060-01
Sample Type: Waste Water
Sample Source: Grab
Sampler: Client
Client Sample ID: 3079470001

Sample Date: 10/11/2012 09:30
Receipt Date: 10/12/2012 10:44

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/ Certification	Analysis Date/Time
General Chemistry							
Biochemical Oxygen Demand	ND	mg/L		2.0	SM5210B	KAR	10/12 11:45

Chain of Custody

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601
Phone: (724) 850-5600
FAX: (724) 850-5601

2101060

Page 1 of 1

Subcontractor Project No.:
P.O. No: ASR- 3079470

Request Date: 10/12/12 Analysis Due Date: 11/1/2012
Shipped By: Fed-Ex

Certification Required: PA Cert

Pace Project No.: 3079470
Report/Invoice to: Rachel Christner

	Pace Sample ID:	Matrix:	Collection Date:	Time:	Analysis Requested:	Analytical Method:	Detection Limits:	Units Requested:
1	3079470001	WT	10/11/12	9:30	BOD ✓ 2101060-01			
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

Special Requirements: Please e-mail final report to Rachel.Christner@pacelabs.com.

Subcontract Lab: Environmental Services Laboratories, Inc.
Address: 1803 Philadelphia Street
Indiana, PA 15701
Phone:

Analysis Authorized By: Rachel D Christner — Project Manager
Pace Agent Name — Title

Acceptance of Terms By:
Subcontract Lab Agent — Title

Relinquised By: [signature] 10/12/12 1044
(Signature & Affiliation) (Date) (Time)

Relinquised By:
(Signature & Affiliation) (Date) (Time)

Comments:

Received By: [signature] 10/12/12 1044
(Signature & Affiliation) (Date) (Time)

Received By: [signature] 10/12/12 1055
(Signature & Affiliation) (Date) (Time)

ASR (C015-0 31July2007)

0.6

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10208823
Sample Receipt Date: 10/16/2012
Client Project #: 3079470
Client Sub PO #: N/A
State Cert #: 68-00563

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Norman Hoffa, your Pace Project Manager.

This report has been reviewed by:

October 23, 2012

Norman Hoffa, Project Manager
(919) 596-1935
(612) 607-6444 (fax)
norm.hoffa@pacelabs.com

Report Prepared Date:
October 23, 2012

ACCREDITED IN ACCORDANCE WITH nelac

Report of Laboratory Analysis

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of PASI Pittsburgh. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration point and a nominal 1-Liter sample amount.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 96%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that 2,3,7,8-TCDD was not detected, indicating that the sample processing steps were free of background levels of this congener.

Laboratory spike samples were also prepared using clean water that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 91-97%, with a relative percent difference of 6.4%. These results indicate high degrees of accuracy and precision for these determinations. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Montana	92
Alaska	MN00064	Nebraska	
Arizona	AZ0014	Nevada	MN_00064_200
Arkansas	88-0680	New Jersey (NE	MN002
California	01155CA	New Mexico	MN00064
Colorado	MN00064	New York (NEL	11647
Connecticut	PH-0256	North Carolina	27700
EPA Region 5	WD-15J	North Dakota	R-036
EPA Region 8	8TMS-Q	Ohio	4150
Florida (NELAP	E87605	Ohio VAP	CL101 9507
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennesee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

Appendix A

Sample Management

1125

Chain of Custody

10208823

Pace Analytical
www.pacelabs.com

Workorder: 3079470 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/11/2012 **Results Requested By:** 11/2/2012

Report To	Subcontract To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Item	Sample ID	Sample Type	Collected (Date/Time)	Lab ID	Matrix	Requested Analysis: Preservation: Unpreserved	1613 - 2,3,7,8-TCDD	LAB USE ONLY
1	Outfall 001 - Sample 3	PS	10/11/2012 09:30	3079470001	Water	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Lalor	10-15-12 1540	PACE	10/16/12 8:55
2				
3				

Comments:

Cooler Temperature on Receipt 2.6 °C | Custody Seal Y or (N) | Received on Ice (Y) or N | Samples Intact (Y) or N

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Pace PA

Project #: WO# : 10208823

10208823

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 554826807423

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☐ Yes ☒ No

Thermometer Used: ☒ 98BA912167504 ☐ 80512447 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.6 **Biological Tissue Frozen?** ☐ Yes ☒ No **Date and Initials of Person Examining Contents:** AC 10/16/12

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☒ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☒ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☒ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☒ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: **Date/Time:**

Comments/Resolution:

Project Manager Review: Norman Hoffa Digitally signed by Norman Hoffa DN: cn=Norman Hoffa, o=Pace Analytical Services Inc, ou=Project Manager, email=norm.hoffa@pacelabs.com, c=US; Date: 2012.10.16 16:47:23 -04'00' **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PASI Pittsburgh

Client's Sample ID	Outfall 001- Sample 3		
Lab Sample ID	3079470001		
Filename	F121021A_18		
Injected By	BAL		
Total Amount Extracted	1000 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/11/2012 09:30
ICAL ID	F121011	Received	10/16/2012 08:55
CCal Filename(s)	F121021A_03	Extracted	10/18/2012 14:00
Method Blank ID	BLANK-34233	Analyzed	10/22/2012 07:21

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	96
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	100

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-34233	Matrix	Water
Filename	F121020B_06	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	10/18/2012 14:00
ICAL ID	F121011	Analyzed	10/21/2012 08:05
CCal Filename(s)	F121020B_01	Injected By	BAL

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	---	10	2,3,7,8-TCDD-13C	2.00	100
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	98

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-34234		
Filename	F121020B_02	Matrix	Water
Total Amount Extracted	1050 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 04:59
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.1	7.3	14.6	91
2,3,7,8-TCDD-37Cl4	10	9.6	3.7	15.8	96
2,3,7,8-TCDD-13C	100	98	25.0	141.0	98

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-34245		
Filename	F121020B_03	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 05:46
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.7	7.3	14.6	97
2,3,7,8-TCDD-37Cl4	10	9.8	3.7	15.8	98
2,3,7,8-TCDD-13C	100	97	25.0	141.0	97

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Pittsburgh		
Spike 1 ID	LCS-34234	Spike 2 ID	LCSD-34245
Spike 1 Filename	F121020B_02	Spike 2 Filename	F121020B_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	91	97	6.4

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

October 22, 2012

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Grensburg, PA 15601

RE: Project 20145492
Project ID: 3079470/Seneca

Dear Rachel Christner:

Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerly,

Karen Brown
karen.brown@pacelabs.com

REPORT OF LABORATORY ANALYSIS

Cover No Results 10/22/2012 18:2

Laboratory Certifications

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145492

Client: PASI Pittsburgh

Project ID: 3079470/Seneca

Washington Department of Ecology C2078
Oregon Environmental Laboratory Accreditation - LA200001
U.S. Dept. of Agriculture Foreign Soil Import P330-10-00119
Pennsylvania Dept. of Env Protection (NELAC) 68-04202
Texas Commission on Env. Quality (NELAC) T104704405-09-TX
Kansas Department of Health and Environment (NELAC) E-10266
Florida Department of Health (NELAC) E87595
Oklahoma Department of Environmental Quality - 2010-139
Illinois Environmental Protection Agency - 0025721
California Env. Lab Accreditation Program Branch - 11277CA
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

10/22/2012 18:24:22

Sample Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145492

Client: PASI Pittsburgh

Project ID: 3079470/Seneca

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
OUTFALL 001-SAMPLE3/30794700	201032410	Water	11-Oct-12 09:30	16-Oct-12 10:20

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145492

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Surrogates:

All surrogate recoveries were within QC limits.

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Sample Results

Client: PASI Pittsburgh

Client ID: OUTFALL 001-SAMPLE3/3079470001
Project: 20145492
Project ID: 3079470/Seneca
Site: None
Lab ID: 201032410
Matrix: Water
% Moisture: n/a
Description: None
Prep Level: Water
Batch: 194981
Method: EPA 625
GCMS SVOAs Dual pH
Collected: 11-Oct-12
Received: 16-Oct-12
Prepared: 17-Oct-12

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
124-18-5	n-Decane	1	ND		10.0		19-Oct-12 16:35 JAM
593-45-3	n-Octadecane	1	ND		10.0		19-Oct-12 16:35 JAM
110-86-1	Pyridine	1	ND		10.0		19-Oct-12 16:35 JAM
98-55-5	alpha-Terpineol	1	ND		10.0		19-Oct-12 16:35 JAM

4 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 10/22/2012 18:24:57
Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 194981 **Project:** 20145492

Method: Water GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
201032573	194981 BLANK 1		119	95	84	101	112	96		
201032574	194981 LCS 1		86	83	47	82	73	89		
201032410	OUTFALL 001-SAMPLE3/30794		100	85	77	91	89	72		
	QC limits:		25-145	34-117	10-118	33-120	15-134	24-133		

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

Surrogates 10/22/2012 18:24:58

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Quality Control

Batch: 194981 **Project:** 20145492 **LCS:** 20103257 19-Oct-12 15:21

Method: Water GC/MS Semivolatile Organics **MS:**

Units: ug/L **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
n-Decane	50.0	28.4	57								22-110			Q5
n-Octadecane	50.0	39.2	78								27-115			Q5
Pyridine	50.0	34.7	69								24-113			Q5

3 compound(s) reported

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

QC Protocol 10/22/2012 18:24:59

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank Results

Blank ID: 194981 BLANK 1 **Project:** 20145492

Lab ID: 201032573

Prep Level: Water **Batch:** 194981

Method: Water GC/MS Semivolatile Organics

Prepared: 17-Oct-12

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	Analysis
124-18-5	n-Decane	1	ND		10.0	19-Oct-12 14:56 JAM
593-45-3	n-Octadecane	1	ND		10.0	19-Oct-12 14:56 JAM
110-86-1	Pyridine	1	ND		10.0	19-Oct-12 14:56 JAM
98-55-5	alpha-Terpineol	1	ND		10.0	19-Oct-12 14:56 JAM

4 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145492

Value	Description
Q5	Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
LCS	Laboratory Control Sample.
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

Pace Analytical Services, In
1000 Riverbend Blvd. Suite F
St. Rose, LA 7008
(504) 469-033

Chains of Custody

20145492 PASI-PT

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: 3079470 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/11/2012 **Results Requested By:** 10/25/2012

Report To	Company
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical New Orleans 1000 Riverbend Blvd Suite F St. Rose, LA 70087 Phone 1(504)469-0333

Item	Sample ID	Sample Type	Collected	Lab ID	Matrix	Preservatives: Unpreserved	Requested Analysis: 625- a-Terpineol, Pyridine	n-Decane, n-Octadecane	LAB USE ONLY
1	Outfall 001 - Sample 3	PS	10/11/2012 09:30	3079470001	Water	1	X		20103470
2									
3									
4									
5									

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Lalor	10-15-12 1545		
2	FedEx	10-16-12 1020	J Smith	10-16-12 1020
3				

Comments

Cooler Temperature on Receipt 2.7 °C | Custody Seal Y or N | Received on Ice (Y) or N | Samples Intact (Y) or N

Pace Analytical

1000 Riverbend. Blvd., Suite F
St. Rose, LA 70087

Sample Conc

20115492 PASI-PITT

Courier: ☐ Pace Courier ☐ Hackbarth ☑ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC] Custody Seals intact: ☑Yes ☐No

Therometer Used:	☑ Therm Fisher IR 1 ☐ Therm Fisher IR 2 ☐ Therm Fisher IR 4

Type of Ice: Wet Blue None Samples on ice: [see COC]

Cooler Temperature: [see COC] Temp should be above freezing to 6°C

Date and Initials of person examining contents: LN 10/16/12

Temp must be measured from Temperature blank when present

				Comments:
Temperature Blank Present"?	☑Yes	☐No	☐N/A	1
Chain of Custody Present:	☑Yes	☐No	☐N/A	2
Chain of Custody Complete:	☑Yes	☐No	☐N/A	3
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	4
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	5
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	6
Sufficient Volume:	☑Yes	☐No	☐N/A	7
Correct Containers Used:	☑Yes	☐No	☐N/A	8
Filtered vol. Rec. for Diss. tests	☐Yes	☑No	☐N/A	9
Sample Labels match COC:	☑Yes	☐No	☐N/A	10
All containers received within manafacture's precautionary and/or expiration dates.	☑Yes	☐No	☐N/A	11
All containers needing preservation have been checked (except VOA, coliform, & O&G).	☑Yes	☐No	☐N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	☐Yes	☐No	☐N/A	13 If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO3 _____ H2SO4 _____
Samples checked for dechlorination:	☐Yes	☑No	☐N/A	14
Headspace in VOA Vials (>6mm):	☐Yes	☑No	☐N/A	14
Trip Blank Present:	☐Yes	☑No	☐N/A	16
Trip Blank Custody Seals Present	☐Yes	☑No	☐N/A	17
Pace Trip Blank Lot # (If purchased): N/A				18

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

ALL-C003rev.06, 28Jul2010 - mod

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 19, 2012

Mr. Mike Pavelek
Seneca Landfill
421 Hartmann Rd.
Evans City, PA 16033

RE: Project: NPDES Permit Renewal
Pace Project No.: 3079470

Dear Mr. Pavelek:
Enclosed are the analytical results for sample(s) received by the laboratory on October 11, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

The samples were subcontracted to Environmental Services Laboratories, Inc., 1803 Philadelphia Street, Indiana, PA 15701 for BOD analysis. The results of this analysis are reported on the ESL data tables attached.

The samples were subcontracted to Pace Analytical Services, Inc., 1000 Riverbend Blvd., Suite F, St. Rose, LA 70087 for a-Terpineol, n-Decane, n-Octadecane, and Pyridine analysis. Results of the analysis are reported on the Pace Analytical, New Orleans data tables.

The samples were subcontracted to Pace Analytical Services, Inc., 1700 Elm Street, Suite 200, Minneapolis, MN 55414 for Dioxin analysis. Results of the analysis are reported on the Pace Analytical, Minnesota data tables.

This report was reissued on November 15, 2012 to report Gross Alpha only by 7110C.

This report was reissued on November 19, 2012 to include MDLs per client's request.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner

rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. John Ott, Seneca Landfill
Mr. Mick Palmer, Seneca Landfill, Inc.
Mr. Chris Peightl, Seneca Landfill
Jamie Swayne, Seneca Landfill

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Virgin Island/PADEP Certification
Virginia Certification #: 00112
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3079470001	Outfall 001 - Sample 3	Water	10/11/12 09:30	10/11/12 11:00

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SAMPLE ANALYTE COUNT

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3079470001	**Outfall 001 - Sample 3**	EPA 608	SJG	9	PASI-PA
		EPA 608	CWB	20	PASI-PA
		EPA 200.7	CTS	23	PASI-PA
		EPA 200.7	CTS	1	PASI-PA
		SM 2340B	RTW	1	PASI-PA
		SM 9222D	PAS	1	PASI-PA
		EPA 245.1	RTW	1	PASI-PA
		EPA 625 Low Level	SPL	68	PASI-PA
		EPA 624	RES	34	PASI-PA
		SM 7110C	JC2	1	PASI-PA
		EPA 900.0m	JC2	1	PASI-PA
		EPA 903.1	SLA	1	PASI-PA
		EPA 904.0	MAW	1	PASI-PA
		EPA 1664A	DLH	1	PASI-PA
		SM 2120B	JLS	1	PASI-PA
		SM 2540C	PAS	1	PASI-PA
		SM 2540D	PAS	1	PASI-PA
		SM 4500-Cl G	JLS	1	PASI-PA
		SM 4500-H+B	JLS	1	PASI-PA
		SM 5540C	PM1	1	PASI-PA
		Trivalent Chromium Calculation	BKH	1	PASI-PA
		EPA 300.0	BKH	2	PASI-PA
		EPA 335.4	PM1	1	PASI-PA
		SM 3500-Cr D	JLS	1	PASI-PA
		EPA 350.1	AMS	1	PASI-PA
		EPA 351.2	AMS	1	PASI-PA
		EPA 410.4	DLH	1	PASI-PA
		EPA 420.1	JLS	1	PASI-PA
		SM 4500-CN-E	PM1	1	PASI-PA
		SM 4500-NO3 F	AMS	1	PASI-PA
		SM 4500-P E	AMS	1	PASI-PA
		SM 5310C	CLP	1	PASI-PA
		ASTM D516-90,02	CLP	1	PASI-PA

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 608**
Description: 608 GCS PCBs
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 608. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 608 SF with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

Analyte Comments:

QC Batch: OEXT/13092

3c: Recovery of the surrogate DCB is low. Sample results accepted based upon the recovery of the TCMX surrogate.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)
  - Decachlorobiphenyl (S)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 608**
Description: 608 GCS Pesticides
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 608. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 608 SF with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: GCSV/4936

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

Batch Comments:

The following samples were diluted due to the presence of high levels of non-target analytes or other matrix interference, resulting in elevated reporting limits for all analytes: 5070699-005 and 5070699-008.
- QC Batch: GCSV / 4936

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 608**
Description: 608 GCS Pesticides
Client: Seneca Landfill, Inc.
Date: November 19, 2012

Analyte Comments:

QC Batch: OEXT/13091

4c: The recovery of the surrogate DCB is low. The sample is accepted based upon the recovery of the surrogate TCMX.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)
  - Decachlorobiphenyl (S)

5c: The result for Endosulfan I is reported from the front analytical column due to a high response for Endosulfan I on the rear analytical column.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)
  - Endosulfan I

6c: The result for TCMX is reported from the rear analytical column due to a high response for TCMX on the front analytical column.
- BLANK (Lab ID: 499706)
  - Tetrachloro-m-xylene (S)
- LCS (Lab ID: 499707)
  - Tetrachloro-m-xylene (S)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 200.7**
Description: 200.7 Metals, Dissolved (LF)
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 2340B**
Description: 2340B Hardness, Total (Calc.)
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2340B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 9222D**
Description: 9222D MICRO Fecal Coli by MF
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 9222D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SM 9222D with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 625 Low Level**
Description: 625 MSSV Low Level
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 625 Low Level. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 625 Low Level with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: OEXT/13122

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 500646)
  - Benzidine
  - Hexachlorocyclopentadiene

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSSV/4524

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 625 Low Level**
Description: 625 MSSV Low Level
Client: Seneca Landfill, Inc.
Date: November 19, 2012

Sample Comments:

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

Analyte Comments:

QC Batch: OEXT/13122

N2: The lab does not hold TNI accreditation for this parameter.
- BLANK (Lab ID: 500645)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine
- LCS (Lab ID: 500646)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine
- Outfall 001 - Sample 3 (Lab ID: 3079470001)
  - 1,2-Diphenylhydrazine
  - Acetophenone
  - Benzoic acid
  - Carbazole
  - N-Nitrosodimethylamine

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 624**
Description: 624 Volatile Organics
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 624. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/14307

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

Analyte Comments:

QC Batch: MSV/14307

1c: Analyte not present in the LCS spiking standards.
- LCS (Lab ID: 500355)
  - 2-Chloroethylvinyl ether

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 7110C**
Description: 7110C Gross Alpha
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 7110C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 900.0m**
Description: 900.0 Gross Alpha/Beta
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 900.0m. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 903.1**
Description: 903.1 Radium 226
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 904.0**
Description: 904.0 Radium 228
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 1664A**
Description: HEM, Oil and Grease
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 1664A. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 2120B**
Description: 2120B W Apparent Color
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2120B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 2540C**
Description: 2540C Total Dissolved Solids
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2540C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 2540D**
Description: 2540D Total Suspended Solids
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 4500-Cl G**
Description: 4500CL G Chlorine, Residual
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-Cl G. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 5540C**
Description: 5540C MBAS Surfactants
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 5540C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

Analyte Comments:

QC Batch: WET/15540

2c: MBAS, calculated as LAS, Mol wt 340 g/mol
- BLANK (Lab ID: 498884)
  - Surfactants
- DUP (Lab ID: 498886)
  - Surfactants
- LCS (Lab ID: 498885)
  - Surfactants
- MS (Lab ID: 498887)
  - Surfactants
- Outfall 001 - Sample 3 (Lab ID: 3079470001)
  - Surfactants

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **Trivalent Chromium Calculation**
Description: Trivalent Chromium Calculation
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for Trivalent Chromium Calculation. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 300.0**
Description: 300.0 IC Anions 28 Days
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 300.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 335.4**
Description: 335.4 Cyanide, Total
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 335.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 3500-Cr D**
Description: Chromium, Hexavalent
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 3500-Cr D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 350.1**
Description: 350.1 Ammonia, Distilled
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: WETA/10999

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 500605)
  - Ammonia, Distilled

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 410.4**
Description: 410.4 COD
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **EPA 420.1**
Description: Phenolics, Total Recoverable
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 420.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 4500-CN-E**
Description: 4500CNE Cyanide, Free
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-CN-E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 4500-NO3 F**
Description: SM4500NO3-F, NO3-NO2
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-NO3 F. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 4500-P E**
Description: 4500PB5E Total Phosphorus
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **SM 5310C**
Description: 5310C TOC
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 5310C. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Outfall 001 - Sample 3 (Lab ID: 3079470001)

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PROJECT NARRATIVE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Method: **ASTM D516-90,02**
Description: ASTM D516-9002 Sulfate Water
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for ASTM D516-90,02. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/11097

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079470001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 504775)
  - Sulfate

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Sample Comments:

Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

- Outfall 001 - Sample 3 (Lab ID: 3079470001)

VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- Outfall 001 - Sample 3 (Lab ID: 3079470001)

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Sample: Outfall 001 - Sample 3 **Lab ID: 3079470001** Collected: 10/11/12 09:30 Received: 10/11/12 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
608 GCS PCBs	Analytical Method: EPA 608 Preparation Method: EPA 608 SF								
PCB-1016 (Aroclor 1016)	ND	ug/L	1.0	0.032	1	10/15/12 13:00	10/22/12 16:31	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	1.0	0.030	1	10/15/12 13:00	10/22/12 16:31	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	1.0	0.051	1	10/15/12 13:00	10/22/12 16:31	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	1.0	0.032	1	10/15/12 13:00	10/22/12 16:31	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	1.0	0.061	1	10/15/12 13:00	10/22/12 16:31	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	1.0	0.015	1	10/15/12 13:00	10/22/12 16:31	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	1.0	0.031	1	10/15/12 13:00	10/22/12 16:31	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	92	%	24-116		1	10/15/12 13:00	10/22/12 16:31	877-09-8	
Decachlorobiphenyl (S)	20	%	36-118		1	10/15/12 13:00	10/22/12 16:31	2051-24-3	3c
608 GCS Pesticides	Analytical Method: EPA 608 Preparation Method: EPA 608 SF								
Aldrin	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 22:59	309-00-2	CU
alpha-BHC	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 22:59	319-84-6	
beta-BHC	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 22:59	319-85-7	
delta-BHC	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 22:59	319-86-8	
gamma-BHC (Lindane)	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 22:59	58-89-9	
Chlordane (Technical)	ND	ug/L	0.52		1	10/15/12 13:00	10/23/12 22:59	57-74-9	
4,4'-DDD	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 22:59	72-54-8	
4,4'-DDE	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 22:59	72-55-9	
4,4'-DDT	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 22:59	50-29-3	
Dieldrin	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 22:59	60-57-1	CU
Endosulfan I	**0.17**	ug/L	0.052		1	10/15/12 13:00	10/23/12 22:59	959-98-8	5c
Endosulfan II	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 22:59	33213-65-9	
Endosulfan sulfate	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 22:59	1031-07-8	
Endrin	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 22:59	72-20-8	
Endrin aldehyde	ND	ug/L	0.10		1	10/15/12 13:00	10/23/12 22:59	7421-93-4	
Heptachlor	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 22:59	76-44-8	
Heptachlor epoxide	ND	ug/L	0.052		1	10/15/12 13:00	10/23/12 22:59	1024-57-3	
Toxaphene	ND	ug/L	1.0		1	10/15/12 13:00	10/23/12 22:59	8001-35-2	
Surrogates									
Tetrachloro-m-xylene (S)	85	%	24-116		1	10/15/12 13:00	10/23/12 22:59	877-09-8	
Decachlorobiphenyl (S)	22	%	36-118		1	10/15/12 13:00	10/23/12 22:59	2051-24-3	4c
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Aluminum	**1640**	ug/L	50.0	8.7	1	10/12/12 15:44	10/15/12 14:16	7429-90-5	
Antimony	**11.2**	ug/L	6.0	3.3	1	10/12/12 15:44	10/15/12 14:16	7440-36-0	
Arsenic	**10.3**	ug/L	5.0	3.6	1	10/12/12 15:44	10/15/12 14:16	7440-38-2	
Barium	**125**	ug/L	10.0	0.32	1	10/12/12 15:44	10/15/12 14:16	7440-39-3	
Beryllium	ND	ug/L	1.0	0.24	1	10/12/12 15:44	10/15/12 14:16	7440-41-7	
Boron	**19800**	ug/L	50.0	3.4	1	10/12/12 15:44	10/15/12 14:16	7440-42-8	
Cadmium	ND	ug/L	3.0	1.3	1	10/12/12 15:44	10/15/12 14:16	7440-43-9	
Chromium	**39.2**	ug/L	5.0	0.90	1	10/12/12 15:44	10/15/12 14:16	7440-47-3	
Cobalt	**42.0**	ug/L	5.0	1.6	1	10/12/12 15:44	10/15/12 14:16	7440-48-4	
Copper	**12.0**	ug/L	5.0	2.0	1	10/12/12 15:44	10/15/12 14:16	7440-50-8	
Iron	**378**	ug/L	70.0	38.1	1	10/12/12 15:44	10/15/12 14:16	7439-89-6	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Sample: Outfall 001 - Sample 3 **Lab ID: 3079470001** Collected: 10/11/12 09:30 Received: 10/11/12 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Lead	ND	ug/L	5.0	3.2	1	10/12/12 15:44	10/15/12 14:16	7439-92-1	
Magnesium	**134000**	ug/L	200	37.4	1	10/12/12 15:44	10/15/12 14:16	7439-95-4	
Manganese	**437**	ug/L	5.0	2.3	1	10/12/12 15:44	10/15/12 14:16	7439-96-5	
Molybdenum	**84.7**	ug/L	20.0	3.6	1	10/12/12 15:44	10/15/12 14:16	7439-98-7	
Nickel	**356**	ug/L	10.0	1.4	1	10/12/12 15:44	10/15/12 14:16	7440-02-0	
Selenium	ND	ug/L	8.0	3.3	1	10/12/12 15:44	10/15/12 14:16	7782-49-2	
Silver	ND	ug/L	6.0	1.6	1	10/12/12 15:44	10/15/12 14:16	7440-22-4	
Thallium	ND	ug/L	10.0	3.9	1	10/12/12 15:44	10/15/12 14:16	7440-28-0	
Tin	ND	ug/L	50.0	24.5	1	10/12/12 15:44	10/15/12 14:16	7440-31-5	
Titanium	ND	ug/L	5.0	0.83	1	10/12/12 15:44	10/15/12 14:16	7440-32-6	
Vanadium	ND	ug/L	5.0	1.8	1	10/12/12 15:44	10/15/12 14:16	7440-62-2	
Zinc	**50.7**	ug/L	10.0	1.4	1	10/12/12 15:44	10/15/12 14:16	7440-66-6	
200.7 Metals, Dissolved (LF)	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Iron, Dissolved	**196**	ug/L	70.0	38.1	1	10/16/12 08:51	10/16/12 13:51	7439-89-6	
2340B Hardness, Total (Calc.)	Analytical Method: SM 2340B								
Total Hardness	**750**	mg/L	2.1	2.1	1		10/15/12 14:16		
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**<3**	CFU/100 mL			1	10/11/12 18:15	10/12/12 16:50		
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.20	0.025	1	10/15/12 14:37	10/16/12 10:15	7439-97-6	
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
Acenaphthene	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:46	83-32-9	
Acenaphthylene	ND	ug/L	1.0	0.21	1	10/17/12 13:30	10/25/12 01:46	208-96-8	
Acetophenone	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:46	98-86-2	N2
Anthracene	ND	ug/L	1.0	0.21	1	10/17/12 13:30	10/25/12 01:46	120-12-7	
Benzidine	ND	ug/L	104	104	1	10/17/12 13:30	10/25/12 01:46	92-87-5	
Benzo(a)anthracene	ND	ug/L	1.0	0.24	1	10/17/12 13:30	10/25/12 01:46	56-55-3	
Benzo(a)pyrene	ND	ug/L	1.0	0.26	1	10/17/12 13:30	10/25/12 01:46	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	1.0	0.20	1	10/17/12 13:30	10/25/12 01:46	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	1.0	0.40	1	10/17/12 13:30	10/25/12 01:46	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	1.0	0.26	1	10/17/12 13:30	10/25/12 01:46	207-08-9	
Benzoic acid	ND	ug/L	2.6	0.28	1	10/17/12 13:30	10/25/12 01:46	65-85-0	N2
4-Bromophenylphenyl ether	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:46	101-55-3	
Butylbenzylphthalate	ND	ug/L	1.0	0.29	1	10/17/12 13:30	10/25/12 01:46	85-68-7	
Carbazole	ND	ug/L	1.0	0.24	1	10/17/12 13:30	10/25/12 01:46	86-74-8	N2
4-Chloro-3-methylphenol	ND	ug/L	1.0	0.24	1	10/17/12 13:30	10/25/12 01:46	59-50-7	
bis(2-Chloroethoxy)methane	ND	ug/L	1.0	0.23	1	10/17/12 13:30	10/25/12 01:46	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	1.0	0.30	1	10/17/12 13:30	10/25/12 01:46	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	1.0	0.23	1	10/17/12 13:30	10/25/12 01:46	108-60-1	
2-Chloronaphthalene	ND	ug/L	1.0	0.25	1	10/17/12 13:30	10/25/12 01:46	91-58-7	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Sample: Outfall 001 - Sample 3 **Lab ID: 3079470001** Collected: 10/11/12 09:30 Received: 10/11/12 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Low Level	Analytical Method: EPA 625 Low Level		Preparation Method: EPA 625 Low Level						
2-Chlorophenol	ND	ug/L	1.0	0.21	1	10/17/12 13:30	10/25/12 01:46	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	1.0	0.23	1	10/17/12 13:30	10/25/12 01:46	7005-72-3	
Chrysene	ND	ug/L	1.0	0.24	1	10/17/12 13:30	10/25/12 01:46	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	1.0	0.47	1	10/17/12 13:30	10/25/12 01:46	53-70-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.26	1	10/17/12 13:30	10/25/12 01:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.28	1	10/17/12 13:30	10/25/12 01:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.30	1	10/17/12 13:30	10/25/12 01:46	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	1.0	0.18	1	10/17/12 13:30	10/25/12 01:46	91-94-1	
2,4-Dichlorophenol	ND	ug/L	1.0	0.26	1	10/17/12 13:30	10/25/12 01:46	120-83-2	
Diethylphthalate	ND	ug/L	1.0	0.25	1	10/17/12 13:30	10/25/12 01:46	84-66-2	
2,4-Dimethylphenol	ND	ug/L	1.0	0.33	1	10/17/12 13:30	10/25/12 01:46	105-67-9	
Dimethylphthalate	ND	ug/L	1.0	0.29	1	10/17/12 13:30	10/25/12 01:46	131-11-3	
Di-n-butylphthalate	ND	ug/L	1.0	0.25	1	10/17/12 13:30	10/25/12 01:46	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	2.6	0.26	1	10/17/12 13:30	10/25/12 01:46	534-52-1	
2,4-Dinitrophenol	ND	ug/L	2.6	0.34	1	10/17/12 13:30	10/25/12 01:46	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	1.0	0.24	1	10/17/12 13:30	10/25/12 01:46	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:46	606-20-2	
Di-n-octylphthalate	ND	ug/L	1.0	0.29	1	10/17/12 13:30	10/25/12 01:46	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	1.0		1	10/17/12 13:30	10/25/12 01:46	122-66-7	N2
bis(2-Ethylhexyl)phthalate	ND	ug/L	1.0	0.45	1	10/17/12 13:30	10/25/12 01:46	117-81-7	
Fluoranthene	ND	ug/L	1.0	0.22	1	10/17/12 13:30	10/25/12 01:46	206-44-0	
Fluorene	ND	ug/L	1.0	0.21	1	10/17/12 13:30	10/25/12 01:46	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.34	1	10/17/12 13:30	10/25/12 01:46	87-68-3	
Hexachlorobenzene	ND	ug/L	1.0	0.26	1	10/17/12 13:30	10/25/12 01:46	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	1.0	0.19	1	10/17/12 13:30	10/25/12 01:46	77-47-4	
Hexachloroethane	ND	ug/L	1.0	0.32	1	10/17/12 13:30	10/25/12 01:46	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	1.0	0.50	1	10/17/12 13:30	10/25/12 01:46	193-39-5	
Isophorone	ND	ug/L	1.0	0.21	1	10/17/12 13:30	10/25/12 01:46	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:46	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2.1	0.73	1	10/17/12 13:30	10/25/12 01:46		
Naphthalene	ND	ug/L	1.0	0.24	1	10/17/12 13:30	10/25/12 01:46	91-20-3	
Nitrobenzene	ND	ug/L	1.0	0.48	1	10/17/12 13:30	10/25/12 01:46	98-95-3	
2-Nitrophenol	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:46	88-75-5	
4-Nitrophenol	ND	ug/L	1.0	0.40	1	10/17/12 13:30	10/25/12 01:46	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	1.0	0.29	1	10/17/12 13:30	10/25/12 01:46	62-75-9	N2
N-Nitroso-di-n-propylamine	ND	ug/L	1.0	0.21	1	10/17/12 13:30	10/25/12 01:46	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	1.0	0.21	1	10/17/12 13:30	10/25/12 01:46	86-30-6	
Pentachlorophenol	ND	ug/L	2.6	0.29	1	10/17/12 13:30	10/25/12 01:46	87-86-5	
Phenanthrene	ND	ug/L	1.0	0.23	1	10/17/12 13:30	10/25/12 01:46	85-01-8	
Phenol	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:46	108-95-2	
Pyrene	ND	ug/L	1.0	0.28	1	10/17/12 13:30	10/25/12 01:46	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.29	1	10/17/12 13:30	10/25/12 01:46	120-82-1	
2,4,6-Trichlorophenol	ND	ug/L	1.0	0.26	1	10/17/12 13:30	10/25/12 01:46	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	79	%	35-114		1	10/17/12 13:30	10/25/12 01:46	4165-60-0	
2-Fluorobiphenyl (S)	71	%	43-116		1	10/17/12 13:30	10/25/12 01:46	321-60-8	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Sample: Outfall 001 - Sample 3 **Lab ID: 3079470001** Collected: 10/11/12 09:30 Received: 10/11/12 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
Surrogates									
Terphenyl-d14 (S)	112	%	33-141		1	10/17/12 13:30	10/25/12 01:46	1718-51-0	
Phenol-d6 (S)	25	%	10-110		1	10/17/12 13:30	10/25/12 01:46	13127-88-3	
2-Fluorophenol (S)	36	%	21-110		1	10/17/12 13:30	10/25/12 01:46	367-12-4	
2,4,6-Tribromophenol (S)	82	%	10-123		1	10/17/12 13:30	10/25/12 01:46	118-79-6	
624 Volatile Organics	Analytical Method: EPA 624								
Acetone	**792**	ug/L	100	9.1	10		10/16/12 18:58	67-64-1	
Acrolein	ND	ug/L	20.0	6.1	10		10/16/12 18:58	107-02-8	
Acrylonitrile	ND	ug/L	20.0	13.3	10		10/16/12 18:58	107-13-1	
Benzene	ND	ug/L	10.0	1.9	10		10/16/12 18:58	71-43-2	
Bromodichloromethane	ND	ug/L	10.0	1.9	10		10/16/12 18:58	75-27-4	
Bromoform	ND	ug/L	10.0	2.5	10		10/16/12 18:58	75-25-2	
Bromomethane	ND	ug/L	10.0	3.5	10		10/16/12 18:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	22.7	10		10/16/12 18:58	78-93-3	
Carbon tetrachloride	ND	ug/L	10.0	4.0	10		10/16/12 18:58	56-23-5	
Chlorobenzene	ND	ug/L	10.0	1.7	10		10/16/12 18:58	108-90-7	
Chloroethane	ND	ug/L	10.0	8.0	10		10/16/12 18:58	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	20.0	2.1	10		10/16/12 18:58	110-75-8	
Chloroform	ND	ug/L	10.0	1.7	10		10/16/12 18:58	67-66-3	
Chloromethane	ND	ug/L	10.0	2.7	10		10/16/12 18:58	74-87-3	
Dibromochloromethane	ND	ug/L	10.0	1.4	10		10/16/12 18:58	124-48-1	
1,1-Dichloroethane	ND	ug/L	10.0	2.0	10		10/16/12 18:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	10.0	2.5	10		10/16/12 18:58	107-06-2	
1,1-Dichloroethene	ND	ug/L	10.0	2.3	10		10/16/12 18:58	75-35-4	
trans-1,2-Dichloroethene	ND	ug/L	10.0	1.9	10		10/16/12 18:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	10.0	1.8	10		10/16/12 18:58	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	10.0	2.3	10		10/16/12 18:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	10.0	2.4	10		10/16/12 18:58	10061-02-6	
Ethylbenzene	ND	ug/L	10.0	1.3	10		10/16/12 18:58	100-41-4	
Methylene Chloride	ND	ug/L	10.0	3.2	10		10/16/12 18:58	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	10.0	1.6	10		10/16/12 18:58	79-34-5	
Tetrachloroethene	ND	ug/L	10.0	1.7	10		10/16/12 18:58	127-18-4	
Toluene	ND	ug/L	10.0	1.9	10		10/16/12 18:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	10.0	1.3	10		10/16/12 18:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	10.0	2.2	10		10/16/12 18:58	79-00-5	
Trichloroethene	ND	ug/L	10.0	2.3	10		10/16/12 18:58	79-01-6	
Vinyl chloride	ND	ug/L	10.0	2.0	10		10/16/12 18:58	75-01-4	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		10		10/16/12 18:58	460-00-4	
Toluene-d8 (S)	101	%	70-130		10		10/16/12 18:58	2037-26-5	
1,2-Dichloroethane-d4 (S)	88	%	70-130		10		10/16/12 18:58	17060-07-0	
HEM, Oil and Grease	Analytical Method: EPA 1664A								
Oil and Grease	ND	mg/L	4.8	1.3	1		10/19/12 08:00		

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Sample: Outfall 001 - Sample 3 **Lab ID: 3079470001** Collected: 10/11/12 09:30 Received: 10/11/12 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2120B W Apparent Color	Analytical Method: SM 2120B								
Apparent Color	**1500**	units	100	100	100		10/11/12 19:45		
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**8010**	mg/L	10.0	10.0	1		10/17/12 16:00		
2540D Total Suspended Solids	Analytical Method: SM 2540D								
Total Suspended Solids	**19.0**	mg/L	4.0	4.0	1		10/16/12 15:15		
4500CL G Chlorine, Residual	Analytical Method: SM 4500-Cl G								
Chlorine, Total Residual	ND	mg/L	1.0	0.29	10		10/11/12 20:17	7782-50-5	H6
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**8.0**	Std. Units	1.0	1.0	1		10/11/12 23:13		H6
5540C MBAS Surfactants	Analytical Method: SM 5540C								
Surfactants	ND	mg/L	1.0	0.29	10		10/11/12 23:32		2c
Trivalent Chromium Calculation	Analytical Method: Trivalent Chromium Calculation								
Chromium, Trivalent	ND	mg/L	0.010	0.010	1		10/25/12 13:46	16065-83-1	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Bromide	**31.6**	mg/L	12.5	12.5	200		10/23/12 16:59	24959-67-9	
Fluoride	ND	mg/L	2.5	2.5	200		10/23/12 16:59	16984-48-8	
335.4 Cyanide, Total	Analytical Method: EPA 335.4								
Cyanide	**0.032**	mg/L	0.0050	0.0027	1		10/15/12 19:31	57-12-5	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr D								
Chromium, Hexavalent	ND	mg/L	1.0	0.54	100		10/11/12 23:56	18540-29-9	
350.1 Ammonia, Distilled	Analytical Method: EPA 350.1								
Ammonia, Distilled	**3.8**	mg/L	0.10	0.068	1		10/17/12 11:56		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**21.7**	mg/L	5.0	2.1	5		10/23/12 12:07	7727-37-9	
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	**676**	mg/L	25.0	10.4	1		10/19/12 09:10		
Phenolics, Total Recoverable	Analytical Method: EPA 420.1								
Phenol	ND	mg/L	0.050	0.021	1		10/17/12 14:27	108-95-2	
4500CNE Cyanide, Free	Analytical Method: SM 4500-CN-E								
Cyanide	**0.11**	mg/L	0.0050	0.0027	1		10/18/12 22:10	57-12-5	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Sample: Outfall 001 - Sample 3 **Lab ID: 3079470001** Collected: 10/11/12 09:30 Received: 10/11/12 11:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
SM4500NO3-F, NO3-NO2	Analytical Method: SM 4500-NO3 F								
Nitrogen,NO2 plus NO3	**264**	mg/L	2.0	0.56	20		10/16/12 09:15		
4500PB5E Total Phosphorus	Analytical Method: SM 4500-P E								
Phosphorus	**0.17**	mg/L	0.030	0.014	1		10/23/12 09:36	7723-14-0	
5310C TOC	Analytical Method: SM 5310C								
Total Organic Carbon	**2340**	mg/L	100	15.7	100		10/23/12 23:00	7440-44-0	
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02								
Sulfate	**147**	mg/L	50.0	8.4	5		10/25/12 12:45	14808-79-8	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: MBIO/2670
QC Batch Method: SM 9222D
Analysis Method: SM 9222D
Analysis Description: 9222D MICRO Fecal Coliform by MF
Associated Lab Samples: 3079470001

METHOD BLANK: 498658 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	0		10/12/12 16:50	

SAMPLE DUPLICATE: 498659

Parameter	Units	3079470001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	<3	<3			

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: MERP/3942
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Associated Lab Samples: 3079470001

METHOD BLANK: 499905 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/16/12 10:02	

LABORATORY CONTROL SAMPLE: 499906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	0.90	90	85-115	

MATRIX SPIKE SAMPLE: 499908

Parameter	Units	3079575001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.6	103	75-125	

SAMPLE DUPLICATE: 499907

Parameter	Units	3079575001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: MPRP/9307
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 3079470001

METHOD BLANK: 499333 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	50.0	10/15/12 12:17	
Antimony	ug/L	ND	6.0	10/15/12 12:17	
Arsenic	ug/L	ND	5.0	10/15/12 12:17	
Barium	ug/L	ND	10.0	10/15/12 12:17	
Beryllium	ug/L	ND	1.0	10/15/12 12:17	
Boron	ug/L	ND	50.0	10/15/12 12:17	
Cadmium	ug/L	ND	3.0	10/15/12 12:17	
Chromium	ug/L	ND	5.0	10/15/12 12:17	
Cobalt	ug/L	ND	5.0	10/15/12 12:17	
Copper	ug/L	ND	5.0	10/15/12 12:17	
Iron	ug/L	ND	70.0	10/15/12 12:17	
Lead	ug/L	ND	5.0	10/15/12 12:17	
Magnesium	ug/L	ND	200	10/15/12 12:17	
Manganese	ug/L	ND	5.0	10/15/12 12:17	
Molybdenum	ug/L	ND	20.0	10/15/12 12:17	
Nickel	ug/L	ND	10.0	10/15/12 12:17	
Selenium	ug/L	ND	8.0	10/15/12 12:17	
Silver	ug/L	ND	6.0	10/15/12 12:17	
Thallium	ug/L	ND	10.0	10/15/12 12:17	
Tin	ug/L	ND	50.0	10/15/12 12:17	
Titanium	ug/L	ND	5.0	10/15/12 12:17	
Vanadium	ug/L	ND	5.0	10/15/12 12:17	
Zinc	ug/L	ND	10.0	10/15/12 12:17	

LABORATORY CONTROL SAMPLE: 499334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5230	105	85-115	
Antimony	ug/L	500	510	102	85-115	
Arsenic	ug/L	500	514	103	85-115	
Barium	ug/L	500	511	102	85-115	
Beryllium	ug/L	500	515	103	85-115	
Boron	ug/L	500	506	101	85-115	
Cadmium	ug/L	500	519	104	85-115	
Chromium	ug/L	500	518	104	85-115	
Cobalt	ug/L	500	502	100	85-115	
Copper	ug/L	500	517	103	85-115	
Iron	ug/L	5000	5190	104	85-115	
Lead	ug/L	500	510	102	85-115	
Magnesium	ug/L	5000	5340	107	85-115	
Manganese	ug/L	500	512	102	85-115	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

LABORATORY CONTROL SAMPLE: 499334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	ug/L	500	509	102	85-115	
Nickel	ug/L	500	532	106	85-115	
Selenium	ug/L	500	518	104	85-115	
Silver	ug/L	250	260	104	85-115	
Thallium	ug/L	500	503	101	85-115	
Tin	ug/L	500	521	104	85-115	
Titanium	ug/L	500	519	104	85-115	
Vanadium	ug/L	500	510	102	85-115	
Zinc	ug/L	500	538	108	85-115	

MATRIX SPIKE SAMPLE: 499336

Parameter	Units	3079489001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	232	5000	5510	106	80-120	
Antimony	ug/L	3.3U	500	518	104	80-120	
Arsenic	ug/L	3.6U	500	527	105	80-120	
Barium	ug/L	206	500	720	103	80-120	
Beryllium	ug/L	0.24U	500	507	101	80-120	
Boron	ug/L	43.4J	500	555	102	80-120	
Cadmium	ug/L	1.3U	500	518	104	80-120	
Chromium	ug/L	5.4	500	507	100	80-120	
Cobalt	ug/L	1.6U	500	506	101	80-120	
Copper	ug/L	21.7	500	536	103	80-120	
Iron	ug/L	658	5000	5820	103	80-120	
Lead	ug/L	24.1	500	530	101	80-120	
Magnesium	ug/L	26300	5000	31800	110	80-120	
Manganese	ug/L	16.2	500	517	100	80-120	
Molybdenum	ug/L	3.6U	500	535	107	80-120	
Nickel	ug/L	24.3	500	509	97	80-120	
Selenium	ug/L	3.3U	500	517	103	80-120	
Silver	ug/L	1.6U	250	261	104	80-120	
Thallium	ug/L	3.9U	500	490	98	80-120	
Tin	ug/L	24.5U	500	517	103	80-120	
Titanium	ug/L	6.4	500	525	104	80-120	
Vanadium	ug/L	1.8U	500	505	101	80-120	
Zinc	ug/L	45.7	500	560	103	80-120	

SAMPLE DUPLICATE: 499335

Parameter	Units	3079489001 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	232	221	5	20	
Antimony	ug/L	3.3U	ND		20	
Arsenic	ug/L	3.6U	ND		20	
Barium	ug/L	206	205	.5	20	
Beryllium	ug/L	0.24U	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

SAMPLE DUPLICATE: 499335

Parameter	Units	3079489001 Result	Dup Result	RPD	Max RPD	Qualifiers
Boron	ug/L	43.4J	42.4J		20	
Cadmium	ug/L	1.3U	ND		20	
Chromium	ug/L	5.4	3.3J		20	
Cobalt	ug/L	1.6U	ND		20	
Copper	ug/L	21.7	21.9	.8	20	
Iron	ug/L	658	655	.4	20	
Lead	ug/L	24.1	22.6	7	20	
Magnesium	ug/L	26300	26100	.8	20	
Manganese	ug/L	16.2	16.3	.7	20	
Molybdenum	ug/L	3.6U	ND		20	
Nickel	ug/L	24.3	7.7J		20	
Selenium	ug/L	3.3U	ND		20	
Silver	ug/L	1.6U	ND		20	
Thallium	ug/L	3.9U	ND		20	
Tin	ug/L	24.5U	ND		20	
Titanium	ug/L	6.4	6.6	2	20	
Vanadium	ug/L	1.8U	ND		20	
Zinc	ug/L	45.7	46.4	2	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: MPRP/9321
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Dissolved
Associated Lab Samples: 3079470001

METHOD BLANK: 500171 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Dissolved	ug/L	ND	70.0	10/16/12 13:42	

LABORATORY CONTROL SAMPLE: 500172

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	5000	4920	98	85-115	

MATRIX SPIKE SAMPLE: 500174

Parameter	Units	3079470001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Dissolved	ug/L	196	5000	4950	95	80-120	

SAMPLE DUPLICATE: 500173

Parameter	Units	3079470001 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Dissolved	ug/L	196	160	20	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: MSV/14307 Analysis Method: EPA 624
QC Batch Method: EPA 624 Analysis Description: 624 MSV
Associated Lab Samples: 3079470001

METHOD BLANK: 500354 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/16/12 12:07	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/16/12 12:07	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/16/12 12:07	
1,1-Dichloroethane	ug/L	ND	1.0	10/16/12 12:07	
1,1-Dichloroethene	ug/L	ND	1.0	10/16/12 12:07	
1,2-Dichloroethane	ug/L	ND	1.0	10/16/12 12:07	
1,2-Dichloropropane	ug/L	ND	1.0	10/16/12 12:07	
2-Butanone (MEK)	ug/L	ND	10.0	10/16/12 12:07	
2-Chloroethylvinyl ether	ug/L	ND	2.0	10/16/12 12:07	
Acetone	ug/L	ND	10.0	10/16/12 12:07	
Acrolein	ug/L	ND	2.0	10/16/12 12:07	
Acrylonitrile	ug/L	ND	2.0	10/16/12 12:07	
Benzene	ug/L	ND	1.0	10/16/12 12:07	
Bromodichloromethane	ug/L	ND	1.0	10/16/12 12:07	
Bromoform	ug/L	ND	1.0	10/16/12 12:07	
Bromomethane	ug/L	ND	1.0	10/16/12 12:07	
Carbon tetrachloride	ug/L	ND	1.0	10/16/12 12:07	
Chlorobenzene	ug/L	ND	1.0	10/16/12 12:07	
Chloroethane	ug/L	ND	1.0	10/16/12 12:07	
Chloroform	ug/L	ND	1.0	10/16/12 12:07	
Chloromethane	ug/L	ND	1.0	10/16/12 12:07	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/16/12 12:07	
Dibromochloromethane	ug/L	ND	1.0	10/16/12 12:07	
Ethylbenzene	ug/L	ND	1.0	10/16/12 12:07	
Methylene Chloride	ug/L	ND	1.0	10/16/12 12:07	
Tetrachloroethene	ug/L	ND	1.0	10/16/12 12:07	
Toluene	ug/L	ND	1.0	10/16/12 12:07	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/16/12 12:07	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/16/12 12:07	
Trichloroethene	ug/L	ND	1.0	10/16/12 12:07	
Vinyl chloride	ug/L	ND	1.0	10/16/12 12:07	
1,2-Dichloroethane-d4 (S)	%	89	70-130	10/16/12 12:07	
4-Bromofluorobenzene (S)	%	97	70-130	10/16/12 12:07	
Toluene-d8 (S)	%	101	70-130	10/16/12 12:07	

LABORATORY CONTROL SAMPLE: 500355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	17.5	87	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	19.8	99	64.6-121	
1,1,2-Trichloroethane	ug/L	20	20.0	100	75.6-120	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

LABORATORY CONTROL SAMPLE: 500355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethane	ug/L	20	20.1	101	68.5-122	
1,1-Dichloroethene	ug/L	20	20.2	101	57.1-120	
1,2-Dichloroethane	ug/L	20	17.6	88	60.5-133	
1,2-Dichloropropane	ug/L	20	20.5	103	71-120	
2-Butanone (MEK)	ug/L	20	22.3	111	55.7-138	
2-Chloroethylvinyl ether	ug/L	20	ND	0	70-130	1c
Acetone	ug/L	20	20.7	104	70-130	
Acrolein	ug/L		ND			
Acrylonitrile	ug/L	20	21.5	107	70-130	
Benzene	ug/L	20	20.1	100	69.8-120	
Bromodichloromethane	ug/L	20	17.4	87	66.5-120	
Bromoform	ug/L	20	17.4	87	61.1-120	
Bromomethane	ug/L	20	18.6	93	10.6-240	
Carbon tetrachloride	ug/L	20	16.2	81	60.1-127	
Chlorobenzene	ug/L	20	19.8	99	70-130	
Chloroethane	ug/L	20	15.4	77	36.8-142	CU
Chloroform	ug/L	20	17.8	89	70-130	
Chloromethane	ug/L	20	18.9	94	37.2-129	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	74.3-120	
Dibromochloromethane	ug/L	20	18.1	91	66.1-120	
Ethylbenzene	ug/L	20	19.4	97	70.9-124	
Methylene Chloride	ug/L	20	21.5	107	70-130	
Tetrachloroethene	ug/L	20	19.5	98	63.4-121	
Toluene	ug/L	20	19.7	98	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	20.3	101	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	19.9	99	71-120	
Trichloroethene	ug/L	20	19.0	95	65.9-120	
Vinyl chloride	ug/L	20	22.4	112	51-127	
1,2-Dichloroethane-d4 (S)	%			93	70-130	
4-Bromofluorobenzene (S)	%			95	70-130	
Toluene-d8 (S)	%			97	70-130	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: OEXT/13092
QC Batch Method: EPA 608 SF
Analysis Method: EPA 608
Analysis Description: 608 GCS PCB
Associated Lab Samples: 3079470001

METHOD BLANK: 499708 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1221 (Aroclor 1221)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1232 (Aroclor 1232)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1242 (Aroclor 1242)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1248 (Aroclor 1248)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1254 (Aroclor 1254)	ug/L	ND	1.0	10/15/12 19:30	
PCB-1260 (Aroclor 1260)	ug/L	ND	1.0	10/15/12 19:30	
Decachlorobiphenyl (S)	%	47	36-118	10/15/12 19:30	
Tetrachloro-m-xylene (S)	%	85	24-116	10/15/12 19:30	

LABORATORY CONTROL SAMPLE: 499709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	1.2	1.0	84	52-108	
PCB-1260 (Aroclor 1260)	ug/L	1.2	.99J	79	58-107	
Decachlorobiphenyl (S)	%			55	36-118	
Tetrachloro-m-xylene (S)	%			87	24-116	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: OEXT/13091
QC Batch Method: EPA 608 SF
Analysis Method: EPA 608
Analysis Description: 608 GCS Pesticide
Associated Lab Samples: 3079470001

METHOD BLANK: 499706 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/L	ND	0.10	10/16/12 04:16	
4,4'-DDE	ug/L	ND	0.10	10/16/12 04:16	
4,4'-DDT	ug/L	ND	0.10	10/16/12 04:16	
Aldrin	ug/L	ND	0.050	10/16/12 04:16	
alpha-BHC	ug/L	ND	0.050	10/16/12 04:16	
beta-BHC	ug/L	ND	0.050	10/16/12 04:16	
Chlordane (Technical)	ug/L	ND	0.50	10/16/12 04:16	
delta-BHC	ug/L	ND	0.050	10/16/12 04:16	
Dieldrin	ug/L	ND	0.10	10/16/12 04:16	
Endosulfan I	ug/L	ND	0.050	10/16/12 04:16	
Endosulfan II	ug/L	ND	0.10	10/16/12 04:16	
Endosulfan sulfate	ug/L	ND	0.10	10/16/12 04:16	
Endrin	ug/L	ND	0.10	10/16/12 04:16	
Endrin aldehyde	ug/L	ND	0.10	10/16/12 04:16	
gamma-BHC (Lindane)	ug/L	ND	0.050	10/16/12 04:16	
Heptachlor	ug/L	ND	0.050	10/16/12 04:16	
Heptachlor epoxide	ug/L	ND	0.050	10/16/12 04:16	
Toxaphene	ug/L	ND	1.0	10/16/12 04:16	
Decachlorobiphenyl (S)	%	62	36-118	10/16/12 04:16	
Tetrachloro-m-xylene (S)	%	79	24-116	10/16/12 04:16	6c

LABORATORY CONTROL SAMPLE: 499707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/L	.4	0.37	93	68-114	
4,4'-DDE	ug/L	.4	0.35	87	64-108	
4,4'-DDT	ug/L	.4	0.37	92	69-112	
Aldrin	ug/L	.2	0.17	84	59-104	
alpha-BHC	ug/L	.2	0.18	88	60-114	
beta-BHC	ug/L	.2	0.18	90	62-104	
delta-BHC	ug/L	.2	0.18	92	59-113	
Dieldrin	ug/L	.4	0.37	92	71-110	
Endosulfan I	ug/L	.2	0.18	92	54-100	
Endosulfan II	ug/L	.4	0.35	87	64-101	
Endosulfan sulfate	ug/L	.4	0.35	87	66-106	
Endrin	ug/L	.4	0.37	92	67-118	
Endrin aldehyde	ug/L	.4	0.40	101	70-132	
gamma-BHC (Lindane)	ug/L	.2	0.18	92	68-123	
Heptachlor	ug/L	.2	0.18	90	59-109	
Heptachlor epoxide	ug/L	.2	0.18	89	66-100	
Decachlorobiphenyl (S)	%			65	36-118	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

LABORATORY CONTROL SAMPLE: 499707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloro-m-xylene (S)	%			84	24-116	6c

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: OEXT/13122
QC Batch Method: EPA 625 Low Level
Analysis Method: EPA 625 Low Level
Analysis Description: 625 MSS Low Level
Associated Lab Samples: 3079470001

METHOD BLANK: 500645
Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/25/12 00:23	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/25/12 00:23	
1,2-Diphenylhydrazine	ug/L	ND	1.0	10/25/12 00:23	N2
1,3-Dichlorobenzene	ug/L	ND	1.0	10/25/12 00:23	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/25/12 00:23	
2,4,6-Trichlorophenol	ug/L	ND	1.0	10/25/12 00:23	
2,4-Dichlorophenol	ug/L	ND	1.0	10/25/12 00:23	
2,4-Dimethylphenol	ug/L	ND	1.0	10/25/12 00:23	
2,4-Dinitrophenol	ug/L	ND	2.5	10/25/12 00:23	
2,4-Dinitrotoluene	ug/L	ND	1.0	10/25/12 00:23	
2,6-Dinitrotoluene	ug/L	ND	1.0	10/25/12 00:23	
2-Chloronaphthalene	ug/L	ND	1.0	10/25/12 00:23	
2-Chlorophenol	ug/L	ND	1.0	10/25/12 00:23	
2-Methylphenol(o-Cresol)	ug/L	ND	1.0	10/25/12 00:23	
2-Nitrophenol	ug/L	ND	1.0	10/25/12 00:23	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2.0	10/25/12 00:23	
3,3'-Dichlorobenzidine	ug/L	ND	1.0	10/25/12 00:23	
4,6-Dinitro-2-methylphenol	ug/L	ND	2.5	10/25/12 00:23	
4-Bromophenylphenyl ether	ug/L	ND	1.0	10/25/12 00:23	
4-Chloro-3-methylphenol	ug/L	ND	1.0	10/25/12 00:23	
4-Chlorophenylphenyl ether	ug/L	ND	1.0	10/25/12 00:23	
4-Nitrophenol	ug/L	ND	1.0	10/25/12 00:23	
Acenaphthene	ug/L	ND	1.0	10/25/12 00:23	
Acenaphthylene	ug/L	ND	1.0	10/25/12 00:23	
Acetophenone	ug/L	ND	1.0	10/25/12 00:23	N2
Anthracene	ug/L	ND	1.0	10/25/12 00:23	
Benzidine	ug/L	ND	100	10/25/12 00:23	
Benzo(a)anthracene	ug/L	ND	1.0	10/25/12 00:23	
Benzo(a)pyrene	ug/L	ND	1.0	10/25/12 00:23	
Benzo(b)fluoranthene	ug/L	ND	1.0	10/25/12 00:23	
Benzo(g,h,i)perylene	ug/L	ND	1.0	10/25/12 00:23	
Benzo(k)fluoranthene	ug/L	ND	1.0	10/25/12 00:23	
Benzoic acid	ug/L	ND	2.5	10/25/12 00:23	N2
bis(2-Chloroethoxy)methane	ug/L	ND	1.0	10/25/12 00:23	
bis(2-Chloroethyl) ether	ug/L	ND	1.0	10/25/12 00:23	
bis(2-Chloroisopropyl) ether	ug/L	ND	1.0	10/25/12 00:23	
bis(2-Ethylhexyl)phthalate	ug/L	ND	1.0	10/25/12 00:23	
Butylbenzylphthalate	ug/L	ND	1.0	10/25/12 00:23	
Carbazole	ug/L	ND	1.0	10/25/12 00:23	N2
Chrysene	ug/L	ND	1.0	10/25/12 00:23	
Di-n-butylphthalate	ug/L	ND	1.0	10/25/12 00:23	
Di-n-octylphthalate	ug/L	ND	1.0	10/25/12 00:23	
Dibenz(a,h)anthracene	ug/L	ND	1.0	10/25/12 00:23	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

METHOD BLANK: 500645 Matrix: Water

Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diethylphthalate	ug/L	ND	1.0	10/25/12 00:23	
Dimethylphthalate	ug/L	ND	1.0	10/25/12 00:23	
Fluoranthene	ug/L	ND	1.0	10/25/12 00:23	
Fluorene	ug/L	ND	1.0	10/25/12 00:23	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/25/12 00:23	
Hexachlorobenzene	ug/L	ND	1.0	10/25/12 00:23	
Hexachlorocyclopentadiene	ug/L	ND	1.0	10/25/12 00:23	
Hexachloroethane	ug/L	ND	1.0	10/25/12 00:23	
Indeno(1,2,3-cd)pyrene	ug/L	ND	1.0	10/25/12 00:23	
Isophorone	ug/L	ND	1.0	10/25/12 00:23	
N-Nitroso-di-n-propylamine	ug/L	ND	1.0	10/25/12 00:23	
N-Nitrosodimethylamine	ug/L	ND	1.0	10/25/12 00:23	N2
N-Nitrosodiphenylamine	ug/L	ND	1.0	10/25/12 00:23	
Naphthalene	ug/L	ND	1.0	10/25/12 00:23	
Nitrobenzene	ug/L	ND	1.0	10/25/12 00:23	
Pentachlorophenol	ug/L	ND	2.5	10/25/12 00:23	
Phenanthrene	ug/L	ND	1.0	10/25/12 00:23	
Phenol	ug/L	ND	1.0	10/25/12 00:23	
Pyrene	ug/L	ND	1.0	10/25/12 00:23	
2,4,6-Tribromophenol (S)	%	76	10-123	10/25/12 00:23	
2-Fluorobiphenyl (S)	%	78	43-116	10/25/12 00:23	
2-Fluorophenol (S)	%	47	21-110	10/25/12 00:23	
Nitrobenzene-d5 (S)	%	75	35-114	10/25/12 00:23	
Phenol-d6 (S)	%	31	10-110	10/25/12 00:23	
Terphenyl-d14 (S)	%	113	33-141	10/25/12 00:23	

LABORATORY CONTROL SAMPLE: 500646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	10	7.1	71	39-98	
1,2-Dichlorobenzene	ug/L	10	6.6	66	32-129	
1,2-Diphenylhydrazine	ug/L		ND			N2
1,3-Dichlorobenzene	ug/L	10	6.3	63	1-172	
1,4-Dichlorobenzene	ug/L	10	6.6	66	20-124	
2,4,6-Trichlorophenol	ug/L	10	9.2	92	37-144	
2,4-Dichlorophenol	ug/L	10	7.8	78	39-135	
2,4-Dimethylphenol	ug/L	10	4.1	41	32-119	
2,4-Dinitrophenol	ug/L	10	5.9	59	1-191	
2,4-Dinitrotoluene	ug/L	10	9.5	95	39-139	
2,6-Dinitrotoluene	ug/L	10	9.0	90	50-158	
2-Chloronaphthalene	ug/L	10	8.3	83	60-118	
2-Chlorophenol	ug/L	10	7.2	72	23-134	
2-Methylphenol(o-Cresol)	ug/L		ND			
2-Nitrophenol	ug/L	10	8.6	86	29-182	
3&4-Methylphenol(m&p Cresol)	ug/L		ND			

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

LABORATORY CONTROL SAMPLE: 500646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
3,3'-Dichlorobenzidine	ug/L	10	8.6	86	1-262	
4,6-Dinitro-2-methylphenol	ug/L	10	6.7	67	1-181	
4-Bromophenylphenyl ether	ug/L	10	7.5	75	53-127	
4-Chloro-3-methylphenol	ug/L	10	7.9	79	22-147	
4-Chlorophenylphenyl ether	ug/L	10	8.7	87	25-158	
4-Nitrophenol	ug/L	10	3.1	31	1-132	
Acenaphthene	ug/L	10	8.6	86	27-133	
Acenaphthylene	ug/L	10	8.4	84	33-145	
Acetophenone	ug/L	10	7.5	75	40-140	N2
Anthracene	ug/L	10	8.7	87	27-133	
Benzidine	ug/L	10	ND	0	40-140	L0
Benzo(a)anthracene	ug/L	10	9.1	91	33-142	
Benzo(a)pyrene	ug/L	10	9.3	93	17-163	
Benzo(b)fluoranthene	ug/L	10	10.0	100	24-159	
Benzo(g,h,i)perylene	ug/L	10	6.4	64	1-219	
Benzo(k)fluoranthene	ug/L	10	11.8	118	11-162	
Benzoic acid	ug/L		ND			N2
bis(2-Chloroethoxy)methane	ug/L	10	8.6	86	33-184	
bis(2-Chloroethyl) ether	ug/L	10	7.1	71	12-158	
bis(2-Chloroisopropyl) ether	ug/L	10	7.4	74	36-166	
bis(2-Ethylhexyl)phthalate	ug/L	10	8.9	89	8-158	
Butylbenzylphthalate	ug/L	10	9.6	96	1-152	
Carbazole	ug/L	10	9.1	91	40-140	N2
Chrysene	ug/L	10	10.1	101	17-168	
Di-n-butylphthalate	ug/L	10	8.8	88	1-118	
Di-n-octylphthalate	ug/L	10	8.3	83	4-146	
Dibenz(a,h)anthracene	ug/L	10	7.0	70	1-227	
Diethylphthalate	ug/L	10	9.8	98	1-114	
Dimethylphthalate	ug/L	10	9.9	99	1-112	
Fluoranthene	ug/L	10	9.6	96	26-137	
Fluorene	ug/L	10	9.2	92	59-121	
Hexachloro-1,3-butadiene	ug/L	10	7.2	72	24-116	
Hexachlorobenzene	ug/L	10	9.0	90	1-152	
Hexachlorocyclopentadiene	ug/L	10	3.9	39	40-140	L0
Hexachloroethane	ug/L	10	6.2	62	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	10	7.1	71	1-171	
Isophorone	ug/L	10	8.0	80	21-196	
N-Nitroso-di-n-propylamine	ug/L	10	7.6	76	1-230	
N-Nitrosodimethylamine	ug/L	10	6.2	62	1-230	N2
N-Nitrosodiphenylamine	ug/L	10	7.4	74	40-140	
Naphthalene	ug/L	10	7.9	79	21-133	
Nitrobenzene	ug/L	10	8.6	86	35-118	
Pentachlorophenol	ug/L	10	6.6	66	14-176	
Phenanthrene	ug/L	10	9.5	95	54-120	
Phenol	ug/L	10	3.4	34	5-112	
Pyrene	ug/L	10	10.3	103	26-127	
2,4,6-Tribromophenol (S)	%			83	10-123	
2-Fluorobiphenyl (S)	%			84	43-116	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

LABORATORY CONTROL SAMPLE: 500646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorophenol (S)	%			47	21-110	
Nitrobenzene-d5 (S)	%			83	35-114	
Phenol-d6 (S)	%			26	10-110	
Terphenyl-d14 (S)	%			113	33-141	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WET/15635
QC Batch Method: EPA 1664A
Analysis Method: EPA 1664A
Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 3079470001

METHOD BLANK: 501712 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/19/12 08:00	

METHOD BLANK: 501714 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/19/12 08:00	

METHOD BLANK: 501716 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	23.8	10/19/12 08:00	

LABORATORY CONTROL SAMPLE: 501713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	39.9	95	78-114	

LABORATORY CONTROL SAMPLE: 501715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	40.9	97	78-114	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WET/15534
QC Batch Method: SM 2120B
Analysis Method: SM 2120B
Analysis Description: 2120B Color
Associated Lab Samples: 3079470001

METHOD BLANK: 498870 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Apparent Color	units	ND	1.0	10/11/12 19:45	

LABORATORY CONTROL SAMPLE: 498871

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Apparent Color	units	25	25.0	100	80-120	

SAMPLE DUPLICATE: 498872

Parameter	Units	3079470001 Result	Dup Result	RPD	Max RPD	Qualifiers
Apparent Color	units	1500	1500	0		

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WET/15602
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 3079470001

METHOD BLANK: 500808 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10/17/12 16:00	

LABORATORY CONTROL SAMPLE: 500809

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	1000	936	94	85-115	

SAMPLE DUPLICATE: 500810

Parameter	Units	3079843001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	194	194	0	5	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WET/15584
QC Batch Method: SM 2540D
Analysis Method: SM 2540D
Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 3079470001

METHOD BLANK: 500312 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	4.0	10/16/12 15:15	

SAMPLE DUPLICATE: 500313

Parameter	Units	3079630001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		5	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WET/15533
QC Batch Method: SM 4500-Cl G
Analysis Method: SM 4500-Cl G
Analysis Description: 4500CL G Chlorine, Total Residual
Associated Lab Samples: 3079470001

METHOD BLANK: 498866 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.10	10/11/12 20:17	H6

LABORATORY CONTROL SAMPLE: 498867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	.5	0.46	92	85-115	H6

MATRIX SPIKE SAMPLE: 498868

Parameter	Units	3079489001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	0.029U	.5	0.43	85	85-115	H6

SAMPLE DUPLICATE: 498869

Parameter	Units	3079489001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorine, Total Residual	mg/L	0.029U	ND		20	H6

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WET/15535
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 3079470001

SAMPLE DUPLICATE: 498873

Parameter	Units	3079489003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.2	8.1	.5	10	H6

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WET/15540 Analysis Method: SM 5540C
QC Batch Method: SM 5540C Analysis Description: 5540C MBAS Surfactants
Associated Lab Samples: 3079470001

METHOD BLANK: 498884 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Surfactants	mg/L	ND	0.10	10/11/12 23:32	2c

LABORATORY CONTROL SAMPLE: 498885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Surfactants	mg/L	1	0.94	94	85-115	2c

MATRIX SPIKE SAMPLE: 498887

Parameter	Units	3079340002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Surfactants	mg/L	ND	1	0.97	97	85-115	2c

SAMPLE DUPLICATE: 498886

Parameter	Units	3079340001 Result	Dup Result	RPD	Max RPD	Qualifiers
Surfactants	mg/L	ND	ND		20	2c

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/11068
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions 28day
Associated Lab Samples: 3079470001

METHOD BLANK: 503213 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Bromide	mg/L	ND	0.062	10/23/12 15:08	
Fluoride	mg/L	ND	0.012	10/23/12 15:08	

LABORATORY CONTROL SAMPLE: 503214

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	2	1.9	97	80-120	
Fluoride	mg/L	.4	0.39	98	80-120	

MATRIX SPIKE SAMPLE: 503215

Parameter	Units	3079862010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromide	mg/L	26.2	400	388	90	80-120	
Fluoride	mg/L	4.4	80	75.8	89	80-120	

SAMPLE DUPLICATE: 503216

Parameter	Units	3079862010 Result	Dup Result	RPD	Max RPD	Qualifiers
Bromide	mg/L	26.2	24.4	7	20	
Fluoride	mg/L	4.4	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/10984
QC Batch Method: EPA 335.4
Analysis Method: EPA 335.4
Analysis Description: 335.4 Cyanide, Total
Associated Lab Samples: 3079470001

METHOD BLANK: 499879 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	10/15/12 19:13	

LABORATORY CONTROL SAMPLE: 499880

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.2	0.21	103	90-110	

MATRIX SPIKE SAMPLE: 499882

Parameter	Units	3079650001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	22.9 ug/L	.1	0.13	106	90-110	

SAMPLE DUPLICATE: 499881

Parameter	Units	3079650001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	22.9 ug/L	0.021	9	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/10958
QC Batch Method: SM 3500-Cr D
Analysis Method: SM 3500-Cr D
Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 3079470001

METHOD BLANK: 498848 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	ND	0.010	10/11/12 23:56	

LABORATORY CONTROL SAMPLE & LCSD: 498849 498851

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	.25	0.26	0.26	103	105	80-120	2	20	

SAMPLE DUPLICATE: 498850

Parameter	Units	3079470001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/10999
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia, Distilled
Associated Lab Samples: 3079470001

METHOD BLANK: 500602 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ammonia, Distilled	mg/L	ND	0.10	10/17/12 11:56	

LABORATORY CONTROL SAMPLE: 500603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ammonia, Distilled	mg/L	4	3.9	97	85-115	

MATRIX SPIKE SAMPLE: 500604

Parameter	Units	3079477001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Ammonia, Distilled	mg/L	0.30	4	4.1	96	85-115	

SAMPLE DUPLICATE: 500605

Parameter	Units	3079477001 Result	Dup Result	RPD	Max RPD	Qualifiers
Ammonia, Distilled	mg/L	0.30	0.21	35	20	D6

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/11061
QC Batch Method: EPA 351.2
Analysis Method: EPA 351.2
Analysis Description: 351.2 TKN
Associated Lab Samples: 3079470001

METHOD BLANK: 503166 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	1.0	10/23/12 12:07	

LABORATORY CONTROL SAMPLE: 503167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	3.6	91	90-110	

MATRIX SPIKE SAMPLE: 503168

Parameter	Units	3080001001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.1	4	5.4	109	90-110	

SAMPLE DUPLICATE: 503169

Parameter	Units	3080001001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.1	.64J		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/11040 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 3079470001

METHOD BLANK: 502071 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

METHOD BLANK: 502073 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

METHOD BLANK: 502076 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

LABORATORY CONTROL SAMPLE: 502072

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	300	275	92	90-110	

MATRIX SPIKE SAMPLE: 502074

Parameter	Units	3079461001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	25.9	150	164	92	90-110	

SAMPLE DUPLICATE: 502075

Parameter	Units	3079461001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	25.9	23.9J		20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/10993
QC Batch Method: EPA 420.1
Analysis Method: EPA 420.1
Analysis Description: 420.1 Phenolics
Associated Lab Samples: 3079470001

METHOD BLANK: 500270 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenol	mg/L	ND	0.050	10/17/12 14:27	

LABORATORY CONTROL SAMPLE: 500271

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenol	mg/L	.25	0.24	96	85-115	

MATRIX SPIKE SAMPLE: 500272

Parameter	Units	3079733001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenol	mg/L	ND	.25	0.23	86	85-115	H3

SAMPLE DUPLICATE: 500273

Parameter	Units	3079733001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phenol	mg/L	ND	ND		20	H3

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/11028
QC Batch Method: SM 4500-CN-E
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide, Free
Associated Lab Samples: 3079470001

METHOD BLANK: 501794 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	10/18/12 22:10	

LABORATORY CONTROL SAMPLE: 501795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.2	0.21	105	90-110	

MATRIX SPIKE SAMPLE: 501820

Parameter	Units	3079744003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.014	.1	0.11	91	90-110	

SAMPLE DUPLICATE: 501819

Parameter	Units	3079744003 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	0.014	0.015	6	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/10990
QC Batch Method: SM 4500-NO3 F
Analysis Method: SM 4500-NO3 F
Analysis Description: SM4500NO3-F, Nitrate, Preserved
Associated Lab Samples: 3079470001

METHOD BLANK: 500148 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	ND	0.10	10/16/12 09:15	

LABORATORY CONTROL SAMPLE: 500149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	4	4.0	99	85-115	

MATRIX SPIKE SAMPLE: 500150

Parameter	Units	3079088001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	5	7.0	100	85-115	

SAMPLE DUPLICATE: 500151

Parameter	Units	3079088001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	2.0	.5	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/11050
QC Batch Method: SM 4500-P E
Analysis Method: SM 4500-P E
Analysis Description: 4500PB5E Phosphorus
Associated Lab Samples: 3079470001

METHOD BLANK: 502695 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	10/23/12 09:25	

LABORATORY CONTROL SAMPLE: 502696

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	.4	0.39	97	85-115	

MATRIX SPIKE SAMPLE: 502697

Parameter	Units	3079603001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	0.043	.4	0.45	102	90-110	

SAMPLE DUPLICATE: 502698

Parameter	Units	3079603001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	0.043	0.052	19	20	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/11069
QC Batch Method: SM 5310C
Associated Lab Samples: 3079470001

Analysis Method: SM 5310C
Analysis Description: 5310C Total Organic Carbon

METHOD BLANK: 503234 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Organic Carbon	mg/L	ND	1.0	10/23/12 11:08	

LABORATORY CONTROL SAMPLE: 503235

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Organic Carbon	mg/L	10	11.2	112	85-115	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: WETA/11097
QC Batch Method: ASTM D516-90,02
Associated Lab Samples: 3079470001

Analysis Method: ASTM D516-90,02
Analysis Description: ASTM D516-9002 Sulfate Water

METHOD BLANK: 504330 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	10.0	10/25/12 11:44	

LABORATORY CONTROL SAMPLE: 504331

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	30	28.5	95	85-115	

MATRIX SPIKE SAMPLE: 504775

Parameter	Units	3079470001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	147	20	150	14	85-115	M1

SAMPLE DUPLICATE: 504776

Parameter	Units	3079470001 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	147	172	15	20	

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ANALYTICAL RESULTS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Sample: Outfall 001 - Sample 3 **Lab ID: 3079470001** Collected: 10/11/12 09:30 Received: 10/11/12 11:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha	SM 7110C	**1.51 ± 0.931 (1.33)**	pCi/L	10/20/12 10:38	12587-46-1	
Gross Beta	EPA 900.0m	**143 ± 28.1 (10.8)**	pCi/L	10/20/12 11:22	12587-47-2	
Radium-226	EPA 903.1	**0.650 ± 0.991 (0.587)**	pCi/L	10/22/12 13:49	13982-63-3	
Radium-228	EPA 904.0	**0.322 ± 0.482 (0.960)**	pCi/L	10/24/12 14:57	15262-20-1	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: RADC/13546 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 3079470001

METHOD BLANK: 501251 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-226	-0.138 ± 0.526 (0.979)	pCi/L	10/22/12 13:04	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: RADC/13552
QC Batch Method: EPA 904.0
Analysis Method: EPA 904.0
Analysis Description: 904.0 Radium 228
Associated Lab Samples: 3079470001

METHOD BLANK: 501257
Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-228	0.700 ± 0.396 (0.720)	pCi/L	10/24/12 12:07	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: RADC/13558
QC Batch Method: EPA 900.0m
Analysis Method: EPA 900.0m
Analysis Description: 900.0 Gross Alpha/Beta
Associated Lab Samples: 3079470001

METHOD BLANK: 501263
Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Gross Beta	-0.712 ± 0.627 (1.71)	pCi/L	10/21/12 09:28	

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QUALITY CONTROL DATA

Project: NPDES Permit Renewal
Pace Project No.: 3079470

QC Batch: RADC/13561 Analysis Method: SM 7110C
QC Batch Method: SM 7110C Analysis Description: 7110C Gross Alpha
Associated Lab Samples: 3079470001

METHOD BLANK: 501271 Matrix: Water
Associated Lab Samples: 3079470001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Gross Alpha	0.258 ± 0.760 (1.86)	pCi/L	10/19/12 15:14	

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QUALIFIERS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

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TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

SAMPLE QUALIFIERS

Sample: 3079470001

[1] Sulfite and Sulfide could not be completed on this sample due to coloration of sample.

[2] VOA 624: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

BATCH QUALIFIERS

Batch: OEXT/13091

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: GCSV/4936

[1] The following samples were diluted due to the presence of high levels of non-target analytes or other matrix interference, resulting in elevated reporting limits for all analytes: 5070699-005 and 5070699-008.

Batch: MSV/14307

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: OEXT/13122

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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QUALIFIERS

Project: NPDES Permit Renewal
Pace Project No.: 3079470

ANALYTE QUALIFIERS

1c	Analyte not present in the LCS spiking standards.
2c	MBAS, calculated as LAS, Mol wt 340 g/mol
3c	Recovery of the surrogate DCB is low. Sample results accepted based upon the recovery of the TCMX surrogate.
4c	The recovery of the surrogate DCB is low. The sample is accepted based upon the recovery of the surrogate TCMX.
5c	The result for Endosulfan I is reported from the front analytical column due to a high response for Endosulfan I on the rear analytical column.
6c	The result for TCMX is reported from the rear analytical column due to a high response for TCMX on the front analytical column.
CU	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
H3	Sample was received or analysis requested beyond the recognized method holding time.
H6	Analysis initiated outside of the 15 minute EPA recommended holding time.
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3079470001	Outfall 001 - Sample 3	EPA 608 SF	OEXT/13092	EPA 608	GCSV/4935
3079470001	Outfall 001 - Sample 3	EPA 608 SF	OEXT/13091	EPA 608	GCSV/4936
3079470001	Outfall 001 - Sample 3	EPA 200.7	MPRP/9307	EPA 200.7	ICP/8727
3079470001	Outfall 001 - Sample 3	EPA 200.7	MPRP/9321	EPA 200.7	ICP/8736
3079470001	Outfall 001 - Sample 3	SM 2340B	ICP/8766		
3079470001	Outfall 001 - Sample 3	SM 9222D	MBIO/2660	SM 9222D	MBIO/2670
3079470001	Outfall 001 - Sample 3	EPA 245.1	MERP/3942	EPA 245.1	MERC/3791
3079470001	Outfall 001 - Sample 3	EPA 625 Low Level	OEXT/13122	EPA 625 Low Level	MSSV/4524
3079470001	Outfall 001 - Sample 3	EPA 624	MSV/14307		
3079470001	Outfall 001 - Sample 3	SM 7110C	RADC/13561		
3079470001	Outfall 001 - Sample 3	EPA 900.0m	RADC/13558		
3079470001	Outfall 001 - Sample 3	EPA 903.1	RADC/13546		
3079470001	Outfall 001 - Sample 3	EPA 904.0	RADC/13552		
3079470001	Outfall 001 - Sample 3	EPA 1664A	WET/15635		
3079470001	Outfall 001 - Sample 3	SM 2120B	WET/15534		
3079470001	Outfall 001 - Sample 3	SM 2540C	WET/15602		
3079470001	Outfall 001 - Sample 3	SM 2540D	WET/15584		
3079470001	Outfall 001 - Sample 3	SM 4500-Cl G	WET/15533		
3079470001	Outfall 001 - Sample 3	SM 4500-H+B	WET/15535		
3079470001	Outfall 001 - Sample 3	SM 5540C	WET/15540		
3079470001	Outfall 001 - Sample 3	Trivalent Chromium Calculation	WET/15741		
3079470001	Outfall 001 - Sample 3	EPA 300.0	WETA/11068		
3079470001	Outfall 001 - Sample 3	EPA 335.4	WETA/10984		
3079470001	Outfall 001 - Sample 3	SM 3500-Cr D	WETA/10958		
3079470001	Outfall 001 - Sample 3	EPA 350.1	WETA/10999		
3079470001	Outfall 001 - Sample 3	EPA 351.2	WETA/11061		
3079470001	Outfall 001 - Sample 3	EPA 410.4	WETA/11040		
3079470001	Outfall 001 - Sample 3	EPA 420.1	WETA/10993		
3079470001	Outfall 001 - Sample 3	SM 4500-CN-E	WETA/11028		
3079470001	Outfall 001 - Sample 3	SM 4500-NO3 F	WETA/10990		
3079470001	Outfall 001 - Sample 3	SM 4500-P E	WETA/11050		
3079470001	Outfall 001 - Sample 3	SM 5310C	WETA/11069		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES Permit Renewal
Pace Project No.: 3079470

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3079470001	**Outfall 001 - Sample 3**	ASTM D516-90,02	WETA/11097		

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Seneca Landfill, Inc.	Report To:	Mike Pavelek	Attention:	Beth Hanz
Address:	PO Box 1080	Copy To:	Mick Palmer	Company Name:	Seneca Landfill, Inc.
	Mars, PA 16046			Address:	PO Box 1080, Mars, PA 16046
Email To:	mpavelek@senecalandfill.com	Purchase Order No.:		Pace Quote Reference:	
Phone:	724-452-0899 Fax: 724-453-0915	Project Name:	Stormwater Sampling	Pace Project Manager:	Rachel Christner
Requested Due Date/TAT:	Standard	Project Number:	Outfall 005	Pace Profile #:	3915 - Line 2

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER Storm Water

Site Location STATE: PA

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	Section D: SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: COD, BOD, Ammonia, Fecal	TSS, TKN, Nitrate+Nitrite, Phos.	Oil & Grease, Residual Chlorine	Al, Fe, Mn, Zn, Sb, As, Cd, Cr, Co	Pb, Hg, Ni, Ag, Sn, Ti, V, Zn	a-Terpineol, Benzoic Acid, p-Cresol	Phenol, o-Cresol, Pyridine	Acetone, Acetophenone, 2-Butanon	2,4,6-Trichlorophenol	Phenol		Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 30794461
1	Outfall 005	WT	G			10/10	13:40	13.8	12	4	2	1	4		1				X	X	X	X	X	X	X	X	X			001
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
BOD - Subout to ESL	Jim Ott	10/10	14:50	Ellen Pace	10-11-12	8:40			Temp	13.8°C
	Ellen Pace	10/10/12	11:30	Amanda Shirey Pace	10/11/12	1150	0.5°	Y	pH	8.59
									N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jim Ott

SIGNATURE of SAMPLER: Jim Ott

DATE Signed (MM/DD/YY): 10/10/12

Temp in °C | Received on ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Sample Condition Upon Receipt

Pace Analytical

Client Name: Seneca Landfill Project # 30941

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Optional: Proj. Due Date: Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 5 (6) 7 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature 0.5° Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: AGS 10/11/12

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☐Yes ☑No ☐N/A	5. Fecal arrived out of hold.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☐No ☑N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:	WT	
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) Phenolics	☑Yes ☐No	Initial when completed AGS / Lot # of added preservative
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14. Sample tested positive
Headspace in VOA Vials (>6mm):	☐Yes ☑No ☐N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/12/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30946d

Client Name: Seneca Landfill

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml) 30 ml	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe / smear / filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
C01	WT			2	2	1	1			1		1		3			1							

SCURF Back (C016-4 15May201

ENVIRONMENTAL SERVICE LABORATORIES, INC.

1803 Philadelphia St.
Indiana, PA 15701
P: (724) 463-TEST
F: (724) 465-4209
PADEP: 32-00382

1276 Bentleyville Rd.
Van Voorhis, PA 15366
P: (724) 258-TEST
F: (724) 258-8376
PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

22 October 2012

Work Order: 2100984

Project: Wastewater

Pace Analytical Services, Inc.
Attn: Penny Westrick
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Report of Analysis

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
3079461001	2100984-01	Waste Water	10/10/2012 13:40	10/11/2012 15:00

Report Narrative

The results contained in this report are only representative of the samples received. Environmental Service Laboratories, Inc. is not responsible for use or interpretation of the data included herein.

Definitions

ND	Less than reporting limit
RL	Reporting Limit
CFU	Colony Forming Units

Certifications

Analyses performed by Environmental Service Laboratories, Inc., Indiana PA unless otherwise specified.

Environmental Service Laboratories, Inc., Indiana, PA DEP lab ID #32-32382

Approved By

Gabe Taylor
Manager

ENVIRONMENTAL SERVICE LABORATORIES, INC.

1803 Philadelphia St.
Indiana, PA 15701
P: (724) 463-TEST
F: (724) 465-4209
PADEP: 32-00382

1276 Bentleyville Rd.
Van Voorhis, PA 15366
P: (724) 258-TEST
F: (724) 258-8376
PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Reported: 10/22/2012 13:42

Lab Sample ID#: 2100984-01
Sample Type: Waste Water
Sample Source: Grab
Sampler: client
Client Sample ID: 3079461001

Sample Date: 10/10/2012 13:40
Receipt Date: 10/11/2012 15:00

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/ Certification	Analysis Date/Time
General Chemistry							
Biochemical Oxygen Demand	8.5	mg/L		2.0	SM5210B	KAR	10/11 19:30

Chain of Custody

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601
Phone: (724) 850-5600
FAX: (724) 850-5601

Subcontractor Project No.:
P.O. No: ASR- 3079461

Request Date: 10/11/12 Analysis Due Date: 10/25/2012
Shipped By: PACE Courier

Certification Required:

Page 1 of 1

Pace Project No.: 3079461
Report/Invoice to: Rachel Christner

	Pace Sample ID:	Matrix:	Collection Date:	Time:	Analysis Requested:	Analytical Method:	Detection Limits:	Units Requested:
1	3079461001	Water	10/10/12	13:40	✓ BOD 2100984 -01			
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

2100984

Special Requirements: Please email results to Rachel.Christner@pacelabs.com

Subcontract Lab: Environmental Services Lab
Address: 1803 Philadelphia Street
Indiana PA 15701
Phone: 724-463-8378

Analysis Authorized By: Rachel B Christner (Pace Agent Name) Project manager (Title)

Acceptance of Terms By: (Subcontract Lab Agent) (Title)

Relinquised By: (Signature & Affiliation) 10/11/12 1457 (Date) (Time)

Relinquised By: (Signature & Affiliation) (Date) (Time)

Comments:

Received By: (Signature & Affiliation) 10/11/12 15:00 (Date) (Time)

Received By: (Signature & Affiliation) 10/11/12 15:24 (Date) (Time)

3.0

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

October 22, 2012

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Grensburg, PA 15601

RE: Project 20145499
Project ID: 3079461/SENECA LANDFILL

Dear Rachel Christner:

Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerly,

Karen Brown
karen.brown@pacelabs.com

REPORT OF LABORATORY ANALYSIS

Cover No Results 10/22/2012 18:2

Laboratory Certifications

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145499

Client: PASI Pittsburgh

Project ID: 3079461/SENECA LANDFILL

Washington Department of Ecology C2078
Oregon Environmental Laboratory Accreditation - LA200001
U.S. Dept. of Agriculture Foreign Soil Import P330-10-00119
Pennsylvania Dept. of Env Protection (NELAC) 68-04202
Texas Commission on Env. Quality (NELAC) T104704405-09-TX
Kansas Department of Health and Environment (NELAC) E-10266
Florida Department of Health (NELAC) E87595
Oklahoma Department of Environmental Quality - 2010-139
Illinois Environmental Protection Agency - 0025721
California Env. Lab Accreditation Program Branch - 11277CA
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

10/22/2012 18:25:44

Pace Analytical™

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Sample Cross Reference

Project: 20145499

Client: PASI Pittsburgh

Project ID: 3079461/SENECA LANDFILL

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
OUTFALL 005	201032460	Water	10-Oct-12 13:40	16-Oct-12 10:20

Pace Analytical™

Project Narrative

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145499

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times:

All holding times were met.

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Surrogates:

All surrogate recoveries were within QC limits.

Pace Analytical™

Sample Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Client: PASI Pittsburgh

Client ID: OUTFALL 005
Project ID: 3079461/SENECA LANDFILL
Lab ID: 201032460
Description: None
Method: EPA 625
GCMS SVOAs Dual pH

Project: 20145499
Site: None
Matrix: Water
Prep Level: Water
% Moisture: n/a
Batch: 194981

Collected: 10-Oct-12
Received: 16-Oct-12
Prepared: 17-Oct-12

Units: ug/L

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
124-18-5	n-Decane	1	ND		10.0		19-Oct-12 17:00 JAM
593-45-3	n-Octadecane	1	ND		10.0		19-Oct-12 17:00 JAM
110-86-1	Pyridine	1	ND		10.0		19-Oct-12 17:00 JAM
98-55-5	alpha-Terpineol	1	ND		10.0		19-Oct-12 17:00 JAM

4 compound(s) reported

Protocol 10/22/2012 18:26:19

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Surrogate Recovery

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 194981 **Project:** 20145499

Method: Water GC/MS Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
201032573	194981 BLANK 1		119	95	84	101	112	96		
201032574	194981 LCS 1		86	83	47	82	73	89		
201032460	OUTFALL 005		80	80	65	82	77	72		
	QC limits:		25-145	34-117	10-118	33-120	15-134	24-133		

Sur 1: 2,4,6-Tribromophenol (S)
Sur 2: 2-Fluorobiphenyl (S)
Sur 3: 2-Fluorophenol (S)
Sur 4: Nitrobenzene-d5 (S)
Sur 5: Phenol-d5 (S)
Sur 6: Terphenyl-d14 (S)

* denotes surrogate recovery outside of QC limits.
D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Batch: 194981 **Project:** 20145499 **LCS:** 20103257 19-Oct-12 15:21

Method: Water GC/MS Semivolatile Organics **MS:**

Units: ug/L **MSD:**

Original for MS:

Parameter Name	LCS Spike	LCS Found	LCS %Rec	MS Spike	Sample Found	MS Found	MSD Found	MS %Rec	MSD %Rec	RPD	QC Limits LCS	QC Limits MS/MSD	Max RPD	Qu
n-Decane	50.0	28.4	57								22-110			Q5
n-Octadecane	50.0	39.2	78								27-115			Q5
Pyridine	50.0	34.7	69								24-113			Q5

3 compound(s) reported

* denotes recovery outside of QC limits.
MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.

QC Protocol 10/22/2012 18:26:21

Pace Analytical™

Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 194981 BLANK 1 **Project:** 20145499

Lab ID: 201032573

Prep Level: Water **Batch:** 194981

Method: Water GC/MS Semivolatile Organics

Prepared: 17-Oct-12

Units: ug/L

CAS Numb	Analyte	Dilution	Result	Qu	Reporting Limit	Analysis
124-18-5	n-Decane	1	ND		10.0	19-Oct-12 14:56 JAM
593-45-3	n-Octadecane	1	ND		10.0	19-Oct-12 14:56 JAM
110-86-1	Pyridine	1	ND		10.0	19-Oct-12 14:56 JAM
98-55-5	alpha-Terpineol	1	ND		10.0	19-Oct-12 14:56 JAM

4 compound(s) reported

Protocol Blank 10/22/2012 18:26:2

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Limits are corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Pace Analytical™

Definitions/Qualifiers

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20145499

Value	Description
Q5	Insufficient sample was provided to perform matrix spike analyses on any sample in this analytical batch. Method performance for this analyte has been demonstrated by the laboratory control sample recovery.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
LCS	Laboratory Control Sample.
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.

Pace Analytical Services, In
1000 Riverbend Blvd. Suite F
St. Rose, LA 7008'
(504) 469-033:

Chains of Custody

20145499 PASI-PITT

Chain of Custody

20145499

Pace Analytical
www.pacelabs.com

Workorder: 3079461 **Workorder Name:** Stormwater Sampling **Owner Received Date:** 10/11/2012 **Results Requested By:** 10/25/2012

Report To	Subcontract To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical New Orleans 1000 Riverbend Blvd Suite F St. Rose, LA 70087 Phone 1(504)469-0333

Item	Sample ID	Sample Type	Collected	Lab ID	Matrix	Preservation: H2SO4	Requested Analysis: 625-a-Terpineol, Pyridine	n-Decane, n-Octadecane	LAB USE ONLY
1	Outfall 005	PS	10/10/2012 13:40	3079461001	Water	1	X		20103260
2									
3									
4									
5									

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Lalor	10-15-12 1545		
2		10-16-12 1020		10/16/12 1020
3				

Comments:

Cooler Temperature on Receipt 2.1 °C | Custody Seal (Y) or N | Received on Ice (Y) or N | Samples Intact (Y) or N

Pace Analytical

1000 Riverbend. Blvd., Suite F
St. Rose, LA 70087

Sample C

20145499 PASI-PITT

Courier: ☐ Pace Courier ☐ Hackbarth ☑ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC] **Custody Seals Intact:** ☑Yes ☐No

Therometer Used: ☑ Therm Fisher IR 1 ☐ Therm Fisher IR 2 ☐ Therm Fisher IR 4

Type of Ice: (Wet) Blue None Samples on ice: [see COC]

Cooler Temperature: [see COC] Temp should be above freezing to 6°C

Date and initials of person examining contents: 10-17-12

Temp must be measured from Temperature blank when present

			Comments:
Temperature Blank Present"?	☑Yes ☐No ☐N/A	1	
Chain of Custody Present:	☑Yes ☐No ☐N/A	2	
Chain of Custody Complete:	☑Yes ☐No ☐N/A	3	
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	4	
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	5	
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	6	
Sufficient Volume:	☑Yes ☐No ☐N/A	7	
Correct Containers Used:	☑Yes ☐No ☐N/A	8	
Filtered vol. Rec. for Diss. tests	☐Yes ☑No ☐N/A	9	
Sample Labels match COC:	☑Yes ☐No ☐N/A	10	
All containers received within manafacture's precautionary and/or expiration dates.	☑Yes ☐No ☐N/A	11	
All containers needing preservation have been checked (except VOA, coliform, & O&G).	☐Yes ☐No ☑N/A	12	
All containers preservation checked found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	13	If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO3 _____ H2SO4 _____
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14	
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14	
Trip Blank Present:	☐Yes ☐No ☑N/A	16	
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	17	
Pace Trip Blank Lot # (if purchased): N/A		18	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

ALLC003rev.06, 28Jul2010 - mod

Pace Analytical®
www.pacelabs.com

INTER_LABORATORY WORK ORDER # 3079461
(To be completed by sending lab)

Ship To:
Pace Analytical New Orleans
1000 Riverbend Blvd
Suite F
St. Rose, LA 70087
Phone 1(504)469-0333

Sending Project No:	3079461
Receiving Project No:	
Check Box for Consolidated Invoice:	☐
Date Prepared:	10/12/12
REQUESTED COMPLETION DATE:	**10/25/2012**

Sending Region	IR30-Pittsburgh	Sending Project Mgr.	Rachel Christner
Receiving Region	IR20-New Orleans	External Client	Seneca Landfill, Inc.
State of Sample Origin		QC Deliverable	STD REPORT

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert. Needed _____

WORK REQUESTED

Method Description	Container Type	Quantity of containers	Preservatives	Quantity of Samples	Unit Price	Amount
625- a-Terpineol, n-Decane, n-Octadecane, Pyridine	AG1U		H2SO4	1	$130.00	$130.00
					TOTAL	$130.00

Special Requirements: _____

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept. Sending Region (20%)
GC/MS Semivolatiles	30	$130.00	$104.00	$26.00
* Custom Revenue Allocation	**TOTAL**	$130.00	$104.00	$26.00

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Chain of Custody Included: [X] Yes [ ] No Return Samples to Sending Region: [ ] Yes [X] No

Matrix: [ ] Soil [X] Water [ ] Air [ ] Other (Identify) _____

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

DISPOSITION of FORM

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

Chain of Custody

Pace Analytical®
www.pacelabs.com

Workorder: 3079461 **Workorder Name:** Stormwater Sampling **Owner Received Date:** 10/11/2012 **Results Requested By:** 10/25/2012

Report To	Subcontract To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical New Orleans 1000 Riverbend Blvd Suite F St. Rose, LA 70087 Phone 1(504)469-0333

						Preserved Containers						Requested Analysis												
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	H2SO4						625-a-Terpineol, Pyridine	n-Decane, n-Octadecane											LAB USE ONLY
1	Outfall 005	PS	10/10/2012 13:40	3079461001	Water	1						X												
2																								
3																								
4																								
5																								

Transfers	Released By	Date/Time	Received By	Date/Time
1				
2				
3				

Comments

Cooler Temperature on Receipt ____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Samples Intact** Y or N

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 19, 2012

Mr. Mike Pavelek
Seneca Landfill
421 Hartmann Rd.
Evans City, PA 16033

RE: Project: Stormwater Sampling
Pace Project No.: 3079461

Dear Mr. Pavelek:
Enclosed are the analytical results for sample(s) received by the laboratory on October 11, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

The samples were subcontracted to Environmental Services Lab, 1803 Philadelphia Street, Indiana PA 15701 for BOD. Results of the analysis are reported on the ESL data tables.

The samples were subcontracted to Pace Analytical Services, Inc., 1000 Riverbend Blvd., Suite F, St. Rose, LA 70087 for a-Terpineol, n-Decane, n-Octadecane, and Pyridine analysis. Results of the analysis are reported on the Pace Analytical, New Orleans data tables.

This report was reissued on November 1, 2012 to include additional 625 compounds.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

Rachel D Christner

Rachel Christner

rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Mr. John Ott, Seneca Landfill
Mr. Mick Palmer, Seneca Landfill, Inc.
Mr. Chris Peightl, Seneca Landfill
Jamie Swayne, Seneca Landfill

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CERTIFICATIONS

Project: Stormwater Sampling
Pace Project No.: 3079461

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Virgin Island/PADEP Certification
Virginia Certification #: 00112
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: Stormwater Sampling
Pace Project No.: 3079461

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3079461001	**Outfall 005**	Water	10/10/12 13:40	10/11/12 11:50

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SAMPLE ANALYTE COUNT

Project: Stormwater Sampling
Pace Project No.: 3079461

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3079461001	**Outfall 005**	EPA 200.7	CTS	16	PASI-PA
		SM 9222D	PAS	1	PASI-PA
		EPA 245.1	RTW	1	PASI-PA
		EPA 625 Low Level	SPL	16	PASI-PA
		EPA 624	RES	5	PASI-PA
		EPA 1664A	DLH	1	PASI-PA
		SM 2540D	PAS	1	PASI-PA
		SM 4500-Cl G	JLS	1	PASI-PA
		EPA 350.1	AMS	1	PASI-PA
		EPA 351.2	AMS	1	PASI-PA
		EPA 410.4	DLH	1	PASI-PA
		SM 4500-NO3 F	AMS	1	PASI-PA
		SM 4500-P E	AMS	1	PASI-PA

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 200.7**
Description: 200.7 Metals, Total
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 200.7. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **SM 9222D**
Description: 9222D MICRO Fecal Coli by MF
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 9222D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with SM 9222D with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MBIO/2660

1c: Result is an estimate based on colony counts outside the acceptable range.
- Outfall 005 (Lab ID: 3079461001)
  - Fecal Coliforms

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 245.1**
Description: 245.1 Mercury
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 245.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 625 Low Level**
Description: 625 MSSV Low Level
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 625 Low Level. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 625 Low Level with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: OEXT/13122

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- Outfall 005 (Lab ID: 3079461001)
  - Terphenyl-d14 (S)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSSV/4524

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 625 Low Level**
Description: 625 MSSV Low Level
Client: Seneca Landfill, Inc.
Date: November 19, 2012

Analyte Comments:

QC Batch: OEXT/13122

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 500645)
  - Acetophenone
  - Benzoic acid
  - Carbazole
- LCS (Lab ID: 500646)
  - Acetophenone
  - Benzoic acid
  - Carbazole
- Outfall 005 (Lab ID: 3079461001)
  - Acetophenone
  - Benzoic acid
  - Carbazole

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 624**
Description: 624 Volatile Organics
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 624. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MSV/14270

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079133001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 499257)
  - Acetone
- MSD (Lab ID: 499258)
  - Acetone

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 1664A**
Description: HEM, Oil and Grease
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 1664A. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **SM 2540D**
Description: 2540D Total Suspended Solids
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **SM 4500-Cl G**
Description: 4500CL G Chlorine, Residual
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-Cl G. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.
- Outfall 005 (Lab ID: 3079461001)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 350.1**
Description: 350.1 Ammonia, Distilled
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 350.1. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: WETA/10999

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 500605)
  - Ammonia, Distilled

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/11053

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079461001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 502710)
  - Nitrogen, Kjeldahl, Total

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **EPA 410.4**
Description: 410.4 COD
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **SM 4500-NO3 F**
Description: SM4500NO3-F, NO3-NO2
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-NO3 F. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Sampling
Pace Project No.: 3079461

Method: **SM 4500-P E**
Description: 4500PB5E Total Phosphorus
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/11022

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079340002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 501324)
  - Phosphorus

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Stormwater Sampling
Pace Project No.: 3079461

Sample: Outfall 005 **Lab ID: 3079461001** Collected: 10/10/12 13:40 Received: 10/11/12 11:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Aluminum	**2250**	ug/L	50.0	8.7	1	10/12/12 15:44	10/15/12 13:23	7429-90-5	
Antimony	ND	ug/L	6.0	3.3	1	10/12/12 15:44	10/15/12 13:23	7440-36-0	
Arsenic	ND	ug/L	5.0	3.6	1	10/12/12 15:44	10/15/12 13:23	7440-38-2	
Cadmium	ND	ug/L	3.0	1.3	1	10/12/12 15:44	10/15/12 13:23	7440-43-9	
Chromium	ND	ug/L	5.0	0.90	1	10/12/12 15:44	10/15/12 13:23	7440-47-3	
Cobalt	ND	ug/L	5.0	1.6	1	10/12/12 15:44	10/15/12 13:23	7440-48-4	
Copper	**5.6**	ug/L	5.0	2.0	1	10/12/12 15:44	10/15/12 13:23	7440-50-8	
Iron	**1470**	ug/L	70.0	38.1	1	10/12/12 15:44	10/15/12 13:23	7439-89-6	
Lead	ND	ug/L	5.0	3.2	1	10/12/12 15:44	10/15/12 13:23	7439-92-1	
Manganese	**288**	ug/L	5.0	2.3	1	10/12/12 15:44	10/15/12 13:23	7439-96-5	
Nickel	ND	ug/L	10.0	1.4	1	10/12/12 15:44	10/15/12 13:23	7440-02-0	
Silver	ND	ug/L	6.0	1.6	1	10/12/12 15:44	10/15/12 13:23	7440-22-4	
Tin	ND	ug/L	50.0	24.5	1	10/12/12 15:44	10/15/12 13:23	7440-31-5	
Titanium	**75.6**	ug/L	5.0	0.83	1	10/12/12 15:44	10/15/12 13:23	7440-32-6	
Vanadium	ND	ug/L	5.0	1.8	1	10/12/12 15:44	10/15/12 13:23	7440-62-2	
Zinc	ND	ug/L	10.0	1.4	1	10/12/12 15:44	10/15/12 13:23	7440-66-6	
9222D MICRO Fecal Coli by MF	Analytical Method: SM 9222D Preparation Method: SM 9222D								
Fecal Coliforms	**2**	CFU/100 mL			1	10/11/12 18:15	10/12/12 16:50		1c
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.20	0.025	1	10/15/12 14:37	10/16/12 10:14	7439-97-6	
625 MSSV Low Level	Analytical Method: EPA 625 Low Level Preparation Method: EPA 625 Low Level								
Acetophenone	ND	ug/L	1.0	0.26	1	10/17/12 13:30	10/25/12 01:25	98-86-2	N2
Benzoic acid	ND	ug/L	2.6	0.28	1	10/17/12 13:30	10/25/12 01:25	65-85-0	N2
Butylbenzylphthalate	ND	ug/L	1.0	0.29	1	10/17/12 13:30	10/25/12 01:25	85-68-7	
Carbazole	ND	ug/L	1.0	0.24	1	10/17/12 13:30	10/25/12 01:25	86-74-8	N2
bis(2-Ethylhexyl)phthalate	ND	ug/L	1.0	0.45	1	10/17/12 13:30	10/25/12 01:25	117-81-7	
Fluoranthene	ND	ug/L	1.0	0.22	1	10/17/12 13:30	10/25/12 01:25	206-44-0	
2-Methylphenol(o-Cresol)	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:25	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	2.1	0.72	1	10/17/12 13:30	10/25/12 01:25		
Phenol	ND	ug/L	1.0	0.27	1	10/17/12 13:30	10/25/12 01:25	108-95-2	
2,4,6-Trichlorophenol	ND	ug/L	1.0	0.25	1	10/17/12 13:30	10/25/12 01:25	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	83	%	35-114		1	10/17/12 13:30	10/25/12 01:25	4165-60-0	
2-Fluorobiphenyl (S)	88	%	43-116		1	10/17/12 13:30	10/25/12 01:25	321-60-8	
Terphenyl-d14 (S)	172	%	33-141		1	10/17/12 13:30	10/25/12 01:25	1718-51-0	S3
Phenol-d6 (S)	32	%	10-110		1	10/17/12 13:30	10/25/12 01:25	13127-88-3	
2-Fluorophenol (S)	49	%	21-110		1	10/17/12 13:30	10/25/12 01:25	367-12-4	
2,4,6-Tribromophenol (S)	99	%	10-123		1	10/17/12 13:30	10/25/12 01:25	118-79-6	
624 Volatile Organics	Analytical Method: EPA 624								
Acetone	ND	ug/L	10.0	0.91	1		10/12/12 21:04	67-64-1	
2-Butanone (MEK)	ND	ug/L	10.0	2.3	1		10/12/12 21:04	78-93-3	

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ANALYTICAL RESULTS

Project: Stormwater Sampling
Pace Project No.: 3079461

Sample: Outfall 005 **Lab ID: 3079461001** Collected: 10/10/12 13:40 Received: 10/11/12 11:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
624 Volatile Organics	Analytical Method: EPA 624								
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/12/12 21:04	460-00-4	
Toluene-d8 (S)	98	%	70-130		1		10/12/12 21:04	2037-26-5	
1,2-Dichloroethane-d4 (S)	92	%	70-130		1		10/12/12 21:04	17060-07-0	
HEM, Oil and Grease	Analytical Method: EPA 1664A								
Oil and Grease	ND	mg/L	4.9	1.4	1		10/19/12 08:00		
2540D Total Suspended Solids	Analytical Method: SM 2540D								
Total Suspended Solids	**33.0**	mg/L	4.0	4.0	1		10/15/12 16:30		
4500CL G Chlorine, Residual	Analytical Method: SM 4500-Cl G								
Chlorine, Total Residual	ND	mg/L	1.0	0.29	10		10/11/12 20:17	7782-50-5	H6
350.1 Ammonia, Distilled	Analytical Method: EPA 350.1								
Ammonia, Distilled	**0.21**	mg/L	0.10	0.068	1		10/17/12 11:56		
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	**1.2**	mg/L	1.0	0.42	1		10/22/12 14:20	7727-37-9	
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	**25.9**	mg/L	25.0	10.4	1		10/19/12 09:10		
SM4500NO3-F, NO3-NO2	Analytical Method: SM 4500-NO3 F								
Nitrogen,NO2 plus NO3	ND	mg/L	0.10	0.028	1		10/16/12 09:15		
4500PB5E Total Phosphorus	Analytical Method: SM 4500-P E								
Phosphorus	**0.035**	mg/L	0.030	0.014	1		10/19/12 11:05	7723-14-0	

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: MBIO/2670
QC Batch Method: SM 9222D
Analysis Method: SM 9222D
Analysis Description: 9222D MICRO Fecal Coliform by MF
Associated Lab Samples: 3079461001

METHOD BLANK: 498658 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Fecal Coliforms	CFU/100 mL	0		10/12/12 16:50	

SAMPLE DUPLICATE: 498659

Parameter	Units	3079470001 Result	Dup Result	RPD	Max RPD	Qualifiers
Fecal Coliforms	CFU/100 mL	<3	<3			

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: MERP/3942
QC Batch Method: EPA 245.1
Analysis Method: EPA 245.1
Analysis Description: 245.1 Mercury
Associated Lab Samples: 3079461001

METHOD BLANK: 499905 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/16/12 10:02	

LABORATORY CONTROL SAMPLE: 499906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	0.90	90	85-115	

MATRIX SPIKE SAMPLE: 499908

Parameter	Units	3079575001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.6	103	75-125	

SAMPLE DUPLICATE: 499907

Parameter	Units	3079575001 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	ug/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: MPRP/9307
QC Batch Method: EPA 200.7
Analysis Method: EPA 200.7
Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 3079461001

METHOD BLANK: 499333 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	50.0	10/15/12 12:17	
Antimony	ug/L	ND	6.0	10/15/12 12:17	
Arsenic	ug/L	ND	5.0	10/15/12 12:17	
Cadmium	ug/L	ND	3.0	10/15/12 12:17	
Chromium	ug/L	ND	5.0	10/15/12 12:17	
Cobalt	ug/L	ND	5.0	10/15/12 12:17	
Copper	ug/L	ND	5.0	10/15/12 12:17	
Iron	ug/L	ND	70.0	10/15/12 12:17	
Lead	ug/L	ND	5.0	10/15/12 12:17	
Manganese	ug/L	ND	5.0	10/15/12 12:17	
Nickel	ug/L	ND	10.0	10/15/12 12:17	
Silver	ug/L	ND	6.0	10/15/12 12:17	
Tin	ug/L	ND	50.0	10/15/12 12:17	
Titanium	ug/L	ND	5.0	10/15/12 12:17	
Vanadium	ug/L	ND	5.0	10/15/12 12:17	
Zinc	ug/L	ND	10.0	10/15/12 12:17	

LABORATORY CONTROL SAMPLE: 499334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	5000	5230	105	85-115	
Antimony	ug/L	500	510	102	85-115	
Arsenic	ug/L	500	514	103	85-115	
Cadmium	ug/L	500	519	104	85-115	
Chromium	ug/L	500	518	104	85-115	
Cobalt	ug/L	500	502	100	85-115	
Copper	ug/L	500	517	103	85-115	
Iron	ug/L	5000	5190	104	85-115	
Lead	ug/L	500	510	102	85-115	
Manganese	ug/L	500	512	102	85-115	
Nickel	ug/L	500	532	106	85-115	
Silver	ug/L	250	260	104	85-115	
Tin	ug/L	500	521	104	85-115	
Titanium	ug/L	500	519	104	85-115	
Vanadium	ug/L	500	510	102	85-115	
Zinc	ug/L	500	538	108	85-115	

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

MATRIX SPIKE SAMPLE: 499336

Parameter	Units	3079489001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Aluminum	ug/L	232	5000	5510	106	80-120	
Antimony	ug/L	3.3U	500	518	104	80-120	
Arsenic	ug/L	3.6U	500	527	105	80-120	
Cadmium	ug/L	1.3U	500	518	104	80-120	
Chromium	ug/L	5.4	500	507	100	80-120	
Cobalt	ug/L	1.6U	500	506	101	80-120	
Copper	ug/L	21.7	500	536	103	80-120	
Iron	ug/L	658	5000	5820	103	80-120	
Lead	ug/L	24.1	500	530	101	80-120	
Manganese	ug/L	16.2	500	517	100	80-120	
Nickel	ug/L	24.3	500	509	97	80-120	
Silver	ug/L	1.6U	250	261	104	80-120	
Tin	ug/L	24.5U	500	517	103	80-120	
Titanium	ug/L	6.4	500	525	104	80-120	
Vanadium	ug/L	1.8U	500	505	101	80-120	
Zinc	ug/L	45.7	500	560	103	80-120	

SAMPLE DUPLICATE: 499335

Parameter	Units	3079489001 Result	Dup Result	RPD	Max RPD	Qualifiers
Aluminum	ug/L	232	221	5	20	
Antimony	ug/L	3.3U	ND		20	
Arsenic	ug/L	3.6U	ND		20	
Cadmium	ug/L	1.3U	ND		20	
Chromium	ug/L	5.4	3.3J		20	
Cobalt	ug/L	1.6U	ND		20	
Copper	ug/L	21.7	21.9	.8	20	
Iron	ug/L	658	655	.4	20	
Lead	ug/L	24.1	22.6	7	20	
Manganese	ug/L	16.2	16.3	.7	20	
Nickel	ug/L	24.3	7.7J		20	
Silver	ug/L	1.6U	ND		20	
Tin	ug/L	24.5U	ND		20	
Titanium	ug/L	6.4	6.6	2	20	
Vanadium	ug/L	1.8U	ND		20	
Zinc	ug/L	45.7	46.4	2	20	

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: MSV/14270
QC Batch Method: EPA 624
Analysis Method: EPA 624
Analysis Description: 624 MSV
Associated Lab Samples: 3079461001

METHOD BLANK: 499255 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2-Butanone (MEK)	ug/L	ND	10.0	10/12/12 12:06	
Acetone	ug/L	ND	10.0	10/12/12 12:06	
1,2-Dichloroethane-d4 (S)	%	95	70-130	10/12/12 12:06	
4-Bromofluorobenzene (S)	%	97	70-130	10/12/12 12:06	
Toluene-d8 (S)	%	99	70-130	10/12/12 12:06	

LABORATORY CONTROL SAMPLE: 499256

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Butanone (MEK)	ug/L	20	19.3	96	55.7-138	
Acetone	ug/L	20	18.8	94	70-130	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			93	70-130	
Toluene-d8 (S)	%			96	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 499257 499258

Parameter	Units	3079133001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Butanone (MEK)	ug/L	ND	20	20	18.6	17.6	93	88	70-130	5	30	
Acetone	ug/L	ND	20	20	17.2	16.7	61	58	70-130	3	30	M0
1,2-Dichloroethane-d4 (S)	%						93	93	70-130			
4-Bromofluorobenzene (S)	%						96	95	70-130			
Toluene-d8 (S)	%						96	95	70-130			

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: OEXT/13122
QC Batch Method: EPA 625 Low Level
Analysis Method: EPA 625 Low Level
Analysis Description: 625 MSS Low Level
Associated Lab Samples: 3079461001

METHOD BLANK: 500645 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,6-Trichlorophenol	ug/L	ND	1.0	10/25/12 00:23	
2-Methylphenol(o-Cresol)	ug/L	ND	1.0	10/25/12 00:23	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	2.0	10/25/12 00:23	
Acetophenone	ug/L	ND	1.0	10/25/12 00:23	N2
Benzoic acid	ug/L	ND	2.5	10/25/12 00:23	N2
bis(2-Ethylhexyl)phthalate	ug/L	ND	1.0	10/25/12 00:23	
Butylbenzylphthalate	ug/L	ND	1.0	10/25/12 00:23	
Carbazole	ug/L	ND	1.0	10/25/12 00:23	N2
Fluoranthene	ug/L	ND	1.0	10/25/12 00:23	
Phenol	ug/L	ND	1.0	10/25/12 00:23	
2,4,6-Tribromophenol (S)	%	76	10-123	10/25/12 00:23	
2-Fluorobiphenyl (S)	%	78	43-116	10/25/12 00:23	
2-Fluorophenol (S)	%	47	21-110	10/25/12 00:23	
Nitrobenzene-d5 (S)	%	75	35-114	10/25/12 00:23	
Phenol-d6 (S)	%	31	10-110	10/25/12 00:23	
Terphenyl-d14 (S)	%	113	33-141	10/25/12 00:23	

LABORATORY CONTROL SAMPLE: 500646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,6-Trichlorophenol	ug/L	10	9.2	92	37-144	
2-Methylphenol(o-Cresol)	ug/L		ND			
3&4-Methylphenol(m&p Cresol)	ug/L		ND			
Acetophenone	ug/L	10	7.5	75	40-140	N2
Benzoic acid	ug/L		ND			N2
bis(2-Ethylhexyl)phthalate	ug/L	10	8.9	89	8-158	
Butylbenzylphthalate	ug/L	10	9.6	96	1-152	
Carbazole	ug/L	10	9.1	91	40-140	N2
Fluoranthene	ug/L	10	9.6	96	26-137	
Phenol	ug/L	10	3.4	34	5-112	
2,4,6-Tribromophenol (S)	%			83	10-123	
2-Fluorobiphenyl (S)	%			84	43-116	
2-Fluorophenol (S)	%			47	21-110	
Nitrobenzene-d5 (S)	%			83	35-114	
Phenol-d6 (S)	%			26	10-110	
Terphenyl-d14 (S)	%			113	33-141	

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: WET/15635
QC Batch Method: EPA 1664A
Analysis Method: EPA 1664A
Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 3079461001

METHOD BLANK: 501712 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/19/12 08:00	

METHOD BLANK: 501714 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/19/12 08:00	

METHOD BLANK: 501716 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	23.8	10/19/12 08:00	

LABORATORY CONTROL SAMPLE: 501713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	39.9	95	78-114	

LABORATORY CONTROL SAMPLE: 501715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	40.9	97	78-114	

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: WET/15569
QC Batch Method: SM 2540D
Analysis Method: SM 2540D
Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 3079461001

METHOD BLANK: 499838 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	4.0	10/15/12 16:30	

SAMPLE DUPLICATE: 499839

Parameter	Units	3079479002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	4.0	4.0	0	5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: WET/15533
QC Batch Method: SM 4500-Cl G
Analysis Method: SM 4500-Cl G
Analysis Description: 4500CL G Chlorine, Total Residual
Associated Lab Samples: 3079461001

METHOD BLANK: 498866 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chlorine, Total Residual	mg/L	ND	0.10	10/11/12 20:17	H6

LABORATORY CONTROL SAMPLE: 498867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	.5	0.46	92	85-115	H6

MATRIX SPIKE SAMPLE: 498868

Parameter	Units	3079489001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chlorine, Total Residual	mg/L	0.029U	.5	0.43	85	85-115	H6

SAMPLE DUPLICATE: 498869

Parameter	Units	3079489001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chlorine, Total Residual	mg/L	0.029U	ND		20	H6

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: WETA/10999
QC Batch Method: EPA 350.1
Analysis Method: EPA 350.1
Analysis Description: 350.1 Ammonia, Distilled
Associated Lab Samples: 3079461001

METHOD BLANK: 500602 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ammonia, Distilled	mg/L	ND	0.10	10/17/12 11:56	

LABORATORY CONTROL SAMPLE: 500603

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ammonia, Distilled	mg/L	4	3.9	97	85-115	

MATRIX SPIKE SAMPLE: 500604

Parameter	Units	3079477001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Ammonia, Distilled	mg/L	0.30	4	4.1	96	85-115	

SAMPLE DUPLICATE: 500605

Parameter	Units	3079477001 Result	Dup Result	RPD	Max RPD	Qualifiers
Ammonia, Distilled	mg/L	0.30	0.21	35	20	D6

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: WETA/11053
QC Batch Method: EPA 351.2
Analysis Method: EPA 351.2
Analysis Description: 351.2 TKN
Associated Lab Samples: 3079461001

METHOD BLANK: 502708 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	1.0	10/22/12 14:20	

LABORATORY CONTROL SAMPLE: 502709

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	4.1	103	90-110	

MATRIX SPIKE SAMPLE: 502710

Parameter	Units	3079461001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.2	4	5.7	113	90-110	M1

SAMPLE DUPLICATE: 502711

Parameter	Units	3079461001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.2	1.0	11	20	

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: WETA/11040
QC Batch Method: EPA 410.4
Analysis Method: EPA 410.4
Analysis Description: 410.4 COD
Associated Lab Samples: 3079461001

METHOD BLANK: 502071 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

METHOD BLANK: 502073 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

METHOD BLANK: 502076 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

LABORATORY CONTROL SAMPLE: 502072

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	300	275	92	90-110	

MATRIX SPIKE SAMPLE: 502074

Parameter	Units	3079461001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	25.9	150	164	92	90-110	

SAMPLE DUPLICATE: 502075

Parameter	Units	3079461001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	25.9	23.9J		20	

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QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: WETA/10990
QC Batch Method: SM 4500-NO3 F
Analysis Method: SM 4500-NO3 F
Analysis Description: SM4500NO3-F, Nitrate, Preserved
Associated Lab Samples: 3079461001

METHOD BLANK: 500148 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	ND	0.10	10/16/12 09:15	

LABORATORY CONTROL SAMPLE: 500149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	4	4.0	99	85-115	

MATRIX SPIKE SAMPLE: 500150

Parameter	Units	3079088001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	5	7.0	100	85-115	

SAMPLE DUPLICATE: 500151

Parameter	Units	3079088001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	2.0	.5	20	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: Stormwater Sampling
Pace Project No.: 3079461

QC Batch: WETA/11022
QC Batch Method: SM 4500-P E
Analysis Method: SM 4500-P E
Analysis Description: 4500PB5E Phosphorus
Associated Lab Samples: 3079461001

METHOD BLANK: 501322 Matrix: Water
Associated Lab Samples: 3079461001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	10/19/12 09:58	

LABORATORY CONTROL SAMPLE: 501323

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	.4	0.43	107	85-115	

MATRIX SPIKE SAMPLE: 501324

Parameter	Units	3079340002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	.4	0.49	123	90-110	M1

SAMPLE DUPLICATE: 501325

Parameter	Units	3079340002 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	ND	0.038		20	

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QUALIFIERS

Project: Stormwater Sampling
Pace Project No.: 3079461

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BATCH QUALIFIERS

Batch: OEXT/13122

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1c	Result is an estimate based on colony counts outside the acceptable range.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
H6	Analysis initiated outside of the 15 minute EPA recommended holding time.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold TNI accreditation for this parameter.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Stormwater Sampling
Pace Project No.: 3079461

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3079461001	**Outfall 005**	EPA 200.7	MPRP/9307	EPA 200.7	ICP/8727
3079461001	**Outfall 005**	SM 9222D	MBIO/2660	SM 9222D	MBIO/2670
3079461001	**Outfall 005**	EPA 245.1	MERP/3942	EPA 245.1	MERC/3791
3079461001	**Outfall 005**	EPA 625 Low Level	OEXT/13122	EPA 625 Low Level	MSSV/4524
3079461001	**Outfall 005**	EPA 624	MSV/14270		
3079461001	**Outfall 005**	EPA 1664A	WET/15635		
3079461001	**Outfall 005**	SM 2540D	WET/15569		
3079461001	**Outfall 005**	SM 4500-Cl G	WET/15533		
3079461001	**Outfall 005**	EPA 350.1	WETA/10999		
3079461001	**Outfall 005**	EPA 351.2	WETA/11053		
3079461001	**Outfall 005**	EPA 410.4	WETA/11040		
3079461001	**Outfall 005**	SM 4500-NO3 F	WETA/10990		
3079461001	**Outfall 005**	SM 4500-P E	WETA/11022		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A — Required Client Information:

Company:	Seneca Landfill, Inc.
Address:	PO Box 1080
	Mars, PA 16046
Email To:	mpavelek@senecalandfill.com
Phone: 724-452-0899	Fax: 724-453-0915
Requested Due Date/TAT:	Standard

Section B — Required Project Information:

Report To:	Mike Pavelek
Copy To:	Mick Palmer
Purchase Order No.:	
Project Name:	Stormwater Module 13
Project Number:	Outfall 005

Section C — Invoice Information:

Attention:	Beth Hanz
Company Name:	Seneca Landfill, Inc.
Address:	PO Box 1080, Mars, PA 16046
Pace Quote Reference:	
Pace Project Manager:	Rachel Christner
Pace Profile #:	3915 - Line 2

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: PA

Section D — Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Oil & Grease	BOD-5	COD	TSS	TKN	Nitrate+Nitrite	Phosphorus	pH			Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	Outfall 005	WT	G	10/1/12	13:40	10/1/12	13:45	13.8	4	2	1		1						X	X	X	X	X	X	X	X			30744163
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
BOD - Subout to ESL	John Ott	10/1/12	14:50	Alyn Pace	10/1/12	8:40			Temp	13.8°C
	Alyn Pace	10/1/12	11:50	Amanda Shuey Pace	10/1/12	1150	0.7	Y	pH	8.59
									N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John Ott

SIGNATURE of SAMPLER: John Ott

DATE Signed (MM/DD/YY): 10/1/12

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Sample Condition Upon Receipt

Pace Analytical

Client Name: Seneca Landfill Project # 30124463

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used 5 6 7 Type of Ice: (We) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature 0.7° Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: AOS 10/11/12

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☑Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☐No ☑N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☑Yes ☐No	Initial when completed AOS Lot # of added preservative
Samples checked for dechlorination:	☑Yes ☐No ☐N/A	14. Sample tested positive
Headspace in VOA Vials (≥6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [signature] **Date:** 10/12/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

Project Number: 30794163

Client Name: Seneca Landfill

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250/ 500 /1L)	Organics (1L)	Nutrient (250 /500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
C01	WT			2		1						1												

SCURF Back (C016-4 15May2012).xls

ENVIRONMENTAL SERVICE LABORATORIES, INC.

1803 Philadelphia St.
Indiana, PA 15701
P: (724) 463-TEST
F: (724) 465-4209
PADEP: 32-00382

1276 Bentleyville Rd.
Van Voorhis, PA 15366
P: (724) 258-TEST
F: (724) 258-8376
PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

22 October 2012

Work Order: 2100983

Project: Wastewater

Pace Analytical Services, Inc.
Attn: Penny Westrick
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Report of Analysis

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
3079463001	2100983-01	Waste Water	10/10/2012 13:40	10/11/2012 15:00

Report Narrative

The results contained in this report are only representative of the samples received. Environmental Service Laboratories, Inc. is not responsible for use or interpretation of the data included herein.

Definitions

ND	Less than reporting limit
RL	Reporting Limit
CFU	Colony Forming Units

Certifications

Analyses performed by Environmental Service Laboratories, Inc., Indiana PA unless otherwise specified.

Environmental Service Laboratories, Inc., Indiana, PA DEP lab ID #32-32382

Approved By

Gabe Taylor
Manager

ENVIRONMENTAL SERVICE LABORATORIES, INC.

1803 Philadelphia St.
Indiana, PA 15701
P: (724) 463-TEST
F: (724) 465-4209
PADEP: 32-00382

1276 Bentleyville Rd.
Van Voorhis, PA 15366
P: (724) 258-TEST
F: (724) 258-8376
PADEP: 63-04247

1200 River Avenue
Williamsport, PA 17701
P: (570) 321-9002
F: (570) 321-1957
PADEP: 41-04880

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601

Reported: 10/22/2012 13:42

Lab Sample ID#: 2100983-01
Sample Type: Waste Water
Sample Source: Grab
Sampler: client
Client Sample ID: 3079463001

Sample Date: 10/10/2012 13:40
Receipt Date: 10/11/2012 15:00

Analyte	Sample Result	Units	Data Qualifier	RL	Method	Analyst/ Certification	Analysis Date/Time
General Chemistry							
Biochemical Oxygen Demand	9.3	mg/L		2.0	SM5210B	KAR	10/11 19:30

Chain of Custody

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Subcontractor Project No.: _____
P.O. No: ASR- 3079463

Pace Analytical Services, Inc.
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601
Phone: (724) 850-5600
FAX: (724) 850-5601

Request Date: 10/11/12 Analysis Due Date: 10/25/2012
Shipped By: PACE Courier

Certification Required: _____

Page 1 of 1

Pace Project No.: 3079463
Report/Invoice to: Rachel Christner

	Pace Sample ID:	Matrix:	Collection Date:	Time:	Analysis Requested:	Analytical Method:	Detection Limits:	Units Requested:
1	3079463001	Water	10/10/12	13:40	BOD 2100983-1			
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

2100983

Special Requirements: Please email results to Rachel.Christner@pacelabs.com

Subcontract Lab: Environmental Services Lab
Address: 1803 Philadelphia Street
Indiana PA 15701
Phone: 724-463-8378

Analysis Authorized By: Rachel Christner (Pace Agent Name) Project manager (Title)

Acceptance of Terms By: _____ (Subcontract Lab Agent) _____ (Title)

Relinquished By: _____ (Signature & Affiliation) 10/11/12 1453 (Date) (Time)

Relinquished By: _____ (Signature & Affiliation) _____ (Date) (Time)

Received By: _____ (Signature & Affiliation) 10/11/12 15:50 (Date) (Time)

Received By: _____ (Signature & Affiliation) 10/11/12 15:23 (Date) (Time)

Comments: _____

ASR (C015-0 31July2007)

3.0 I

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Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

November 19, 2012

Mr. Mike Pavelek
Seneca Landfill
421 Hartmann Rd.
Evans City, PA 16033

RE: Project: Stormwater Module 13
Pace Project No.: 3079463

Dear Mr. Pavelek:
Enclosed are the analytical results for sample(s) received by the laboratory on October 11, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Some analyses have been subcontracted outside of the Pace Network. The subcontracted laboratory report has been attached.

The samples were subcontracted to Environmental Services Lab, 1803 Philadelphia Street, Indiana PA 15701 for BOD. Results of the analysis are reported on the ESL data tables.

This report was reissued on November 19, 2012 to include MDLs per client's request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner

rachel.christner@pacelabs.com
Project Manager

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

Enclosures

cc: Mr. John Ott, Seneca Landfill
Mr. Mick Palmer, Seneca Landfill, Inc.
Mr. Chris Peightl, Seneca Landfill
Jamie Swayne, Seneca Landfill

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CERTIFICATIONS

Project: Stormwater Module 13
Pace Project No.: 3079463

Pennsylvania Certification IDs
1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Virgin Island/PADEP Certification
Virginia Certification #: 00112
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Stormwater Module 13
Pace Project No.: 3079463

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3079463001	**Outfall 005**	Water	10/10/12 13:40	10/11/12 11:50

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Stormwater Module 13
Pace Project No.: 3079463

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3079463001	**Outfall 005**	EPA 1664A	DLH	1	PASI-PA
		SM 2540D	PAS	1	PASI-PA
		SM 4500-H+B	JLS	1	PASI-PA
		EPA 351.2	AMS	1	PASI-PA
		EPA 410.4	DLH	1	PASI-PA
		SM 4500-NO3 F	AMS	1	PASI-PA
		SM 4500-P E	AMS	1	PASI-PA

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Stormwater Module 13
Pace Project No.: 3079463

Method: **EPA 1664A**
Description: HEM, Oil and Grease
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 1664A. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Module 13
Pace Project No.: 3079463

Method: **SM 2540D**
Description: 2540D Total Suspended Solids
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Module 13
Pace Project No.: 3079463

Method: **SM 4500-H+B**
Description: 4500H+ pH, Electrometric
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-H+B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.
- Outfall 005 (Lab ID: 3079463001)

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Stormwater Module 13
Pace Project No.: 3079463

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 351.2. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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(724)850-5600

PROJECT NARRATIVE

Project: Stormwater Module 13
Pace Project No.: 3079463

Method: **EPA 410.4**
Description: 410.4 COD
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for EPA 410.4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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Greensburg, PA 15601
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PROJECT NARRATIVE

Project: Stormwater Module 13
Pace Project No.: 3079463

Method: **SM 4500-NO3 F**
Description: SM4500NO3-F, NO3-NO2
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-NO3 F. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: Stormwater Module 13
Pace Project No.: 3079463

Method: **SM 4500-P E**
Description: 4500PB5E Total Phosphorus
Client: Seneca Landfill, Inc.
Date: November 19, 2012

General Information:
1 sample was analyzed for SM 4500-P E. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/11022

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3079340002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 501324)
  - Phosphorus

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: Stormwater Module 13
Pace Project No.: 3079463

Sample: Outfall 005 **Lab ID: 3079463001** Collected: 10/10/12 13:40 Received: 10/11/12 11:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
HEM, Oil and Grease	Analytical Method: EPA 1664A								
Oil and Grease	ND	mg/L	4.8	1.3	1		10/19/12 08:00		
2540D Total Suspended Solids	Analytical Method: SM 2540D								
Total Suspended Solids	**36.0**	mg/L	4.0	4.0	1		10/15/12 16:30		
4500H+ pH, Electrometric	Analytical Method: SM 4500-H+B								
pH at 25 Degrees C	**8.6**	Std. Units	1.0	1.0	1		10/11/12 23:13		H6
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA 351.2								
Nitrogen, Kjeldahl, Total	ND	mg/L	1.0	0.42	1		10/23/12 12:07	7727-37-9	
410.4 COD	Analytical Method: EPA 410.4								
Chemical Oxygen Demand	ND	mg/L	25.0	10.4	1		10/19/12 09:10		
SM4500NO3-F, NO3-NO2	Analytical Method: SM 4500-NO3 F								
Nitrogen,NO2 plus NO3	ND	mg/L	0.10	0.028	1		10/16/12 09:15		
4500PB5E Total Phosphorus	Analytical Method: SM 4500-P E								
Phosphorus	**0.033**	mg/L	0.030	0.014	1		10/19/12 11:06	7723-14-0	

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QUALITY CONTROL DATA

Project: Stormwater Module 13
Pace Project No.: 3079463

QC Batch: WET/15635
QC Batch Method: EPA 1664A
Analysis Method: EPA 1664A
Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 3079463001

METHOD BLANK: 501712 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/19/12 08:00	

METHOD BLANK: 501714 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	10/19/12 08:00	

METHOD BLANK: 501716 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	23.8	10/19/12 08:00	

LABORATORY CONTROL SAMPLE: 501713

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	39.9	95	78-114	

LABORATORY CONTROL SAMPLE: 501715

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	42.1	40.9	97	78-114	

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(724)850-5600

QUALITY CONTROL DATA

Project: Stormwater Module 13
Pace Project No.: 3079463

QC Batch: WET/15569
QC Batch Method: SM 2540D
Analysis Method: SM 2540D
Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 3079463001

METHOD BLANK: 499838 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	4.0	10/15/12 16:30	

SAMPLE DUPLICATE: 499839

Parameter	Units	3079479002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	4.0	4.0	0	5	

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QUALITY CONTROL DATA

Project: Stormwater Module 13
Pace Project No.: 3079463

QC Batch: WET/15535
QC Batch Method: SM 4500-H+B
Analysis Method: SM 4500-H+B
Analysis Description: 4500H+B pH
Associated Lab Samples: 3079463001

SAMPLE DUPLICATE: 498873

Parameter	Units	3079489003 Result	Dup Result	RPD	Max RPD	Qualifiers
pH at 25 Degrees C	Std. Units	8.2	8.1	.5	10	H6

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QUALITY CONTROL DATA

Project: Stormwater Module 13
Pace Project No.: 3079463

QC Batch: WETA/11061
QC Batch Method: EPA 351.2
Analysis Method: EPA 351.2
Analysis Description: 351.2 TKN
Associated Lab Samples: 3079463001

METHOD BLANK: 503166 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	1.0	10/23/12 12:07	

LABORATORY CONTROL SAMPLE: 503167

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	4	3.6	91	90-110	

MATRIX SPIKE SAMPLE: 503168

Parameter	Units	3080001001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.1	4	5.4	109	90-110	

SAMPLE DUPLICATE: 503169

Parameter	Units	3080001001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	1.1	.64J		20	

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QUALITY CONTROL DATA

Project: Stormwater Module 13
Pace Project No.: 3079463

QC Batch: WETA/11040 Analysis Method: EPA 410.4
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD
Associated Lab Samples: 3079463001

METHOD BLANK: 502071 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

METHOD BLANK: 502073 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

METHOD BLANK: 502076 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	10/19/12 09:10	

LABORATORY CONTROL SAMPLE: 502072

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	300	275	92	90-110	

MATRIX SPIKE SAMPLE: 502074

Parameter	Units	3079461001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	25.9	150	164	92	90-110	

SAMPLE DUPLICATE: 502075

Parameter	Units	3079461001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	25.9	23.9J		20	

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QUALITY CONTROL DATA

Project: Stormwater Module 13
Pace Project No.: 3079463

QC Batch: WETA/10990
QC Batch Method: SM 4500-NO3 F
Analysis Method: SM 4500-NO3 F
Analysis Description: SM4500NO3-F, Nitrate, Preserved
Associated Lab Samples: 3079463001

METHOD BLANK: 500148 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	ND	0.10	10/16/12 09:15	

LABORATORY CONTROL SAMPLE: 500149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	4	4.0	99	85-115	

MATRIX SPIKE SAMPLE: 500150

Parameter	Units	3079088001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	5	7.0	100	85-115	

SAMPLE DUPLICATE: 500151

Parameter	Units	3079088001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen,NO2 plus NO3	mg/L	2.0	2.0	.5	20	

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QUALITY CONTROL DATA

Project: Stormwater Module 13
Pace Project No.: 3079463

QC Batch: WETA/11022
QC Batch Method: SM 4500-P E
Analysis Method: SM 4500-P E
Analysis Description: 4500PB5E Phosphorus
Associated Lab Samples: 3079463001

METHOD BLANK: 501322 Matrix: Water
Associated Lab Samples: 3079463001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	10/19/12 09:58	

LABORATORY CONTROL SAMPLE: 501323

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	.4	0.43	107	85-115	

MATRIX SPIKE SAMPLE: 501324

Parameter	Units	3079340002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	ND	.4	0.49	123	90-110	M1

SAMPLE DUPLICATE: 501325

Parameter	Units	3079340002 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	ND	0.038		20	

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Greensburg, PA 15601
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QUALIFIERS

Project: Stormwater Module 13
Pace Project No.: 3079463

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

H6 Analysis initiated outside of the 15 minute EPA recommended holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Stormwater Module 13
Pace Project No.: 3079463

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3079463001	**Outfall 005**	EPA 1664A	WET/15635		
3079463001	**Outfall 005**	SM 2540D	WET/15569		
3079463001	**Outfall 005**	SM 4500-H+B	WET/15535		
3079463001	**Outfall 005**	EPA 351.2	WETA/11061		
3079463001	**Outfall 005**	EPA 410.4	WETA/11040		
3079463001	**Outfall 005**	SM 4500-NO3 F	WETA/10990		
3079463001	**Outfall 005**	SM 4500-P E	WETA/11022		

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

May 4, 2020

Edward R. Vogel
Tri-County Landfill, Inc.
159 TCL Park Dive
Grove City, PA 16127

Re: Additional Sampling Request
Tri-County Landfill
Application No. PA0263664
Authorization ID No. 1288854
Liberty Township, Mercer County

Dear Mr. Vogel:

The Department of Environmental Protection (DEP) has conducted water quality modeling for the proposed new discharge from Outfall 006. The modeling determined the need for Water Quality-Based Effluent Limits (WQBELs) for thirty-three (33) unconventional pollutants that were reported as "non-detect" in influent and projected effluent analysis tables. Since these analyses were not conducted and reported to be non-detect down to the target Quantitative Limits (QLs) found in Attachment C of the permit application instructions, they could not be ruled out as needing effluent limits.

You may elect to collect a minimum of three (3) additional influent samples, and have the samples analyzed for the following pollutants, using a reporting limit that is no greater than the target QLs identified in the permit application instructions: acrolein, carbon tetrachloride, chlorodibromomethane, dichlorobromomethane, 1,3-dichloropropylene, 1,1,2,2-tetrachoroethane, tetrachloroethylene, 1,1,2—trichloroethane, 4,6-dinitro-o-cresol, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, 3,4-benzofluoranthene, benzo(k)fluoranthene, bis(2-chloroethyl)ether, chrysene, dibenzo(a,h)anthrancene, 3,3-dichlorobenzidine, 2,4-dinitrotoluene, 2,6-dinitrotoluene, hexachlorobenzene, hexachlorobutadiene, hexachlorocyclopentadiene, hexachloroethane, indeno(1,2,3-cd)pyrene, nitrobenzene, n-nitrosodimethylene, n-nitrosodi-n-propylamine, n-nitrosodiphenylamine, phenanthrene, chlordane, toxaphene, and 2,3,7,8-TCDD. The samples should be collected at least one week apart.

Demonstration that the results are non-detect at the target QLs could eliminate the need for effluent limits or monitoring in the draft permit. Please contact me if you elect to collect these additional samples.

Review of your application will remain on hold until the additional sampling results are provided to DEP. If you have any questions, please contact me at 814.332.6331.

Northwest Regional Office
230 Chestnut Street | Meadville, PA 16335-3481 | 814.332.6942 | Fax 814.332.6121
www.dep.pa.gov

Sincerely,

Adam Pesek

Adam J. Pesek, E.I.T.
Environmental Engineer
Clean Water Program

cc: James B. Echard, P.E. / BAI Group, LLC
NPDES File

Pesek, Adam

From: Elizabeth Bertha <ebertha@senecalandfill.com>
Sent: Monday, May 4, 2020 3:41 PM
To: Pesek, Adam
Cc: Lvallett@baigroupllc.com; Eddie Vogel; Jim Echard
Subject: RE: [External] re: Fwd: Tri-County Landfill NPDES Application Resample Request Letter

Thanks Adam. We'll begin sampling right away.

Elizabeth R. Bertha, EHS Director
Vogel Holding Companies
P.O. Box 1080, Mars, PA 16046
Mobile: (724) 816-6149
http://www.vogelholdinginc.com/

> On Monday, May 04, 2020 3:37 PM, Pesek, Adam wrote:
>
> Liz,
> Yes – "n-nitrosodimethylene" is the same as "n-nitroso-di-methylamine," and it has a QL of 5.0 ug/L.
> After looking at Appendix C, you are right that there is no QL listed 2,3,7,8-TCDD. However our Toxic Screening Analysis Spreadsheet, which the Department uses for evaluating application data, uses a QL of 0.000005 ug/l.
> Adam J. Pesek, E.I.T. / Environmental Engineer
> Department of Environmental Protection / Clean Water Program
> 230 Chestnut Street, Meadville, PA 16335
> Phone: 814.332.6331 / Fax: 814.332.6121
>
> **From:** Elizabeth Bertha <ebertha@senecalandfill.com>
> **Sent:** Monday, May 4, 2020 3:24 PM
> **To:** Pesek, Adam <apesek@pa.gov>
> **Cc:** Eddie Vogel <ervogel@vogeldisposal.com>; Jim Echard <jechard@baigroupllc.com>; Lvallett@baigroupllc.com
> **Subject:** [External] re: Fwd: Tri-County Landfill NPDES Application Resample Request Letter
>
> ***ATTENTION:*** *This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.*
>
> Adam,
>
> Thanks for sending the resample letter. Just 2 points for clarification:
>
> 1) Your letter requests sample data for pollutant "n-nitrosodimethylene". Please confirm that this is the same as "n-nitroso-di-methylamine" with a QL of 5.0 ug/L on Appendix C, attached.
> 2) Your letter requests sample data for pollutant "2,3,7,8-TCDD"; however, I do not see that listed on Appendix C. Please confirm the target QL value.
>
> Please call me if you have any questions or concerns.

Thanks,
Liz

Elizabeth R. Bertha, EHS Director
Vogel Holding Companies
P.O. Box 1080, Mars, PA 16046
Mobile: (724) 816-6149
http://www.vogelholdinginc.com/

On Monday, May 04, 2020 12:58 PM, ervogel@vogeldisposal.com wrote:

Sent from my iPhone

Begin forwarded message:

From: "Pesek, Adam" <apesek@pa.gov>
Date: May 4, 2020 at 11:10:00 AM EDT
To: "ervogel@vogeldisposal.com" <ervogel@vogeldisposal.com>
Cc: Jim Echard <jechard@baigroupllc.com>, "lvallet@baigroupllc.com" <lvallet@baigroupllc.com>, "Dickey, Justin" <judickey@pa.gov>
Subject: Tri-County Landfill NPDES Application Resample Request Letter

Mr. Vogel,
Please find the attached letter regarding the NPDES Permit Application for Tri-County Landfill.
Adam J. Pesek, E.I.T. / Environmental Engineer
Department of Environmental Protection / Clean Water Program
230 Chestnut Street, Meadville, PA 16335
Phone: 814.332.6331 / Fax: 814.332.6121

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Pesek, Adam

From: Laura Vallett <Lvallett@baigroupllc.com>
Sent: Monday, August 24, 2020 1:10 PM
To: Pesek, Adam
Cc: 'ebertha@senecalandfill.com'; Office Manager; Jim Echard
Subject: [External] Response to Tri-County Landfill NPDES Application Resample Request Letter
Attachments: TCLResampleRequest_ReponsePackage.pdf

Follow Up Flag: Follow up
Due By: Monday, August 31, 2020 9:00 AM
Flag Status: Flagged

ATTENTION: *This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.*

Adam,

Please see the attached response to the resampling request for TCL's NPDES permit application. As discussed this morning, I have provided a cover letter and the separate summary table with the results of the resampling as well as copies of the laboratory analysis results.

Please let me know if you have any questions or require any further information.

Thank you,

Laura A Vallett, P.E.
BAI Group
2525 Green Tech Drive, Suite D
State College, PA 16803
(814) 238-2060 (phone) EXT. 140
(814) 238-7123 (fax)
www.baigroupllc.com

2525 Green Tech Drive Suite D, State College PA 19468 • 814.238.2060
Civil, Environmental, & Geological Consultants

August 24, 2020

Mr. Adam J. Pesek, E.I.T.
Environmental Engineer
Clean Water Program
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335-3481

RE: Additional Sampling Request – Application No. PA0263664
Tri-County Landfill - Pine Township and Liberty Township, Mercer County, Pennsylvania

Dear Mr. Pesek:

In response to your May 04, 2020 letter requesting additional sampling of several parameters, Tri-County Landfill, Inc. has conducted the re-sampling of these parameters and the results of those laboratory analyses are provided herein. In addition, the other parameters suggested for an additional sampling event in your email correspondence dated July 10, 2020 have been resampled and the results enclosed.

As you are aware from our correspondence over the last few months, three-rounds of sampling were conducted for the thirty-three (33) unconventional pollutants as requested in May and June. However, the laboratory did not analyze down to the target QL for many of those parameters, mostly those semi-volatile pollutants requested. Based on our correspondence, you indicated that the results for those parameters in Pollutant Groups 3 and 6 were acceptable, but that those remaining parameters in Groups 4 and 5 would need to be analyzed further. Therefore, another three rounds of sampling were conducted in July and August with the additional five suggested parameters (only one additional sampling) of hexavalent chromium, butyl benzyl phthalate, di-n-butyl phthalate, isophorone and 1,2,4-trichlorobenzene. All re-sampling results came back as 'non-detect', except for two parameters which had detected results (one estimated). However please note that these results were detected (or estimated) below the target QL.

The laboratory analytical reports for the additional three rounds of sampling for 2,3,7,8 TCCD are also enclosed with this response. The contracted laboratory did not detect any of the pollutant in the samples down to a 10 pico-gram/L reporting limit.

We trust that this additional information is sufficient to finalize the review of the permit application. If you have any questions or comments concerning this submission, please contact me at (814) 238-2060.

Sincerely,

BAI Group

Laura A. Vallett, P.E.
Project Engineer

Enclosure
cc: Edward Vogel – TCL

Tri-County Landfill
NPDES Re-sampling per PaDEP May 4, 2020 Comment Letter

Group 3 Pollutants			**5/26/2020**	**6/2/2020**	**6/10/2020**
Parameter	unit	Target QL	Sample 1	Sample 2	Sample 3
Acrolein	ug/L	2.0	2.0	2.0	2.0
Carbon Tetrachloride	ug/L	0.5	0.2	0.2	0.2
Chlorodibromomethane	ug/L	0.5	0.4	0.4	0.4
Dichlorobormomethane	ug/L	0.5	0.2	0.2	0.2
1,3 - Dichlorpropylene	ug/L	0.5	0.2	0.2	0.2
1,1,2,2 - Tetrachloroethane	ug/L	0.5	0.2	0.2	0.2
Tetrachloroethylene	ug/L	0.5	0.4	0.4	0.4
1,1,2 - Trichloroethane	ug/L	0.5	0.5	0.5	0.5

Group 4 Pollutant			**5/26/2020**	**6/2/2020**	**6/10/2020**	**7/21/2020**	**7/28/2020**	**8/3/2020**
Parameter	unit	Target QL	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3
4, 6 - Dinitro-o-Cresol (2-methyl-4,6-di	ug/L	10	25	25	25	10	5	5

Group 5 Pollutants			**5/26/2020**	**6/2/2020**	**6/10/2020**	**7/21/2020**	**7/28/2020**	**8/3/2020**
Parameter	unit	Target QL	Sample 1	Sample 2	Sample 3	Sample 1	Sample 2	Sample 3
Acenaphthene	ug/L	2.5	25	25	25	2	0.5	**0.8 J**
Benzo(a)anthracene	ug/L	2.5	25	25	25	2	0.5	0.5
Benzo(a)Pyrene	ug/L	2.5	25	25	25	2	0.5	0.5
3,4 - Benzofluoranthene	ug/L	2.5	25	25	25	2	0.5	0.5
Benzo(k)Fluoranthene	ug/L	2.5	25	25	25	2	0.5	0.5
Bis(2-Chlorethyl)Ether	ug/L	5.0	25	25	25	2	0.5	0.5
Chrysene	ug/L	2.5	25	25	25	2	0.5	0.5
Dibenzo(a,h)Anthracene	ug/L	2.5	25	25	25	2	0.5	0.5
3,3-Dichlorobenzidene	ug/L	5.0	25	25	25	10	2.5	2.5
2,4-Dinitrotoluene	ug/L	5.0	25	25	25	5	1	1
2,6-Dinitrotoluene	ug/L	5.0	25	25	25	5	1	1
Hexachlorobenzene	ug/L	5.0	25	25	25	2	0.5	0.5
Hexechlorobutadiene	ug/L	0.5	25	25	25	2	0.5	0.5
Hexachlorocyclopentadiene	ug/L	5.0	25	25	25	10	2.5	2.5
Hexachlorethane	ug/L	5.0	25	25	25	2	0.5	0.5
Indeno (1,2,3-cd)Pyrene	ug/L	2.5	25	25	25	2	0.5	0.5
Nitrobenzene	ug/L	5.0	25	25	25	5	0.5	0.5
N-Nitroso-di-methylamine	ug/L	5.0	25	25	25	2	0.5	0.5
N-Nitroso-di-n-propylamine	ug/L	5.0	25	25	25	2	0.5	0.5
N-Nitroso-di-n-phenylamine	ug/L	5.0	25	25	25	2	0.5	0.5
Phenanthrene	ug/L	2.5	25	25	25	5	**1.2**	**1.9**

			7/21/2020	**7/28/2020**	**8/3/2020**
Additional parameters	unit	Target QL	Sample 1	Sample 2	Sample 3
Chromium, Hexavalent	ug/L	1	0.5	-	
Butyl Benzyl Phthalate	ug/L	5	10	5	5
Di-n-Butyl Phthalate	ug/L	5	10	5	5
Isophorone	ug/L	5	10	1	1
1,2,4-Trichlorobenzene	ug/L	0.5	2	0.5	0.5

Group 6 Pollutants			**5/26/2020**	**6/2/2020**	**6/10/2020**
Parameter	unit	Target QL	Sample 1	Sample 2	Sample 3
Chlordane	ug/L	1.0	0.5	0.5	2.5
Toxaphene	ug/L	0.5	0.5	0.5	2.5

		5/26/2020	**6/2/2020**	**6/10/2020**
Parameter	unit	Sample 1	Sample 2	Sample 3
2,3,7,8-TCCD	pg/L	10	10	10

Note: All results were non-detect at or above the listed concentration, which is below the laboratory quantitation limit unless indicated otherwise. Refer to enclosed labortory analyticals.
Those results in **bold** are results where the pollutant was detected (or estimated) but at a level below DEP's Target QL listed.

NPDES RENEWAL POLLUTANT SAMPLING LABORATORY ANALYSES
RESULTS – PER DEP RESAMPLING REQUEST MAY 4, 2020

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Tuesday, July 7, 2020

Elizabeth Bertha
SENECA LANDFILL INC.
421 HARTMANN ROAD
EVANS CITY, PA 16033

Order No.: G2006273

Dear Elizabeth Bertha:

Geochemical Testing received 1 sample(s) on 6/3/2020 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *07-Jul-20*

CLIENT: SENECA LANDFILL INC.
Project:
Lab Order: G2006273

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Submitted COC documentation incomplete with the following deficiencies: missing Preservatives and Sampler Name.

REVISED REPORT (07/07/20): Per client request, reports issued in MDL report type.

Note: This is a reissue of a previously generated report. Information herein supersedes that of previously issued report(s).

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *07-Jul-20*

CLIENT:	SENECA LANDFILL INC.	**Client Sample ID:**	PS #2
Lab Order:	G2006273		
Project:		**Collection Date:**	6/2/2020 9:04:00 AM
Lab ID:	G2006273-001	**Sampled By:**	Seneca LF
Matrix:	WASTE WATER	**DateReceived:**	6/3/2020 4:53:44 PM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
PESTICIDE ANALYSIS			Analyst: **ACG**				**EPA 3535A**	**EPA 608.3**
Chlordane	0.50	U	0.50	1.0	µg/L	1	06/04/20 7:00 AM	06/04/20 10:04 PM
Toxaphene	0.50	U	0.50	2.0	µg/L	1	06/04/20 7:00 AM	06/04/20 10:04 PM
Surr: Decachlorobiphenyl	2.99	S	0	10-110	%REC	1	06/04/20 7:00 AM	06/04/20 10:04 PM
Surr: Tetrachloro-m-xylene	34.7		0	22.9-114.	%REC	1	06/04/20 7:00 AM	06/04/20 10:04 PM
SEMI-VOLATILE COMPOUNDS			Analyst: **AJR**				**EPA 3535A**	**EPA 625.1**
2,4-Dinitrotoluene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
2,6-Dinitrotoluene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
2-Methyl-4,6-dinitrophenol	25	U	25	100	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
3,3-Dichlorobenzidine	25	U	25	100	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Acenaphthene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Benzo(a)anthracene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Benzo(a)pyrene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Benzo(b)fluoranthene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Benzo(k)fluoranthene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
bis(2-Chloroethyl)ether	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Chrysene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Dibenzo(a,h)anthracene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Hexachlorobenzene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Hexachlorobutadiene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Hexachlorocyclopentadiene	25	U	25	100	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Hexachloroethane	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Indeno(1,2,3-cd)pyrene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Nitrobenzene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
n-Nitrosodimethylamine	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
N-Nitroso-di-n-propylamine	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
n-Nitrosodiphenylamine	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Phenanthrene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Surr: 2,4,6-Tribromophenol	19.7	S	0	34-129	%REC	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Surr: 2-Fluorobiphenyl	13.9	S	0	21-115	%REC	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Surr: 2-Fluorophenol	17.8		0	14-118	%REC	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Surr: Nitrobenzene-d5	29.4		0	28-119	%REC	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Surr: Phenol-d6	20.1		0	12-114	%REC	5	06/06/20 7:00 AM	06/08/20 7:02 AM
Surr: p-Terphenyl-d14	8.89	S	0	18-144	%REC	5	06/06/20 7:00 AM	06/08/20 7:02 AM

NOTES:

D4 - Sample was diluted in the extraction steps due to marked matrix interferences.

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Analyst: **SJM**					**EPA 624.1**
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.5	µg/L	1		06/05/20 12:17 PM
1,1,2-Trichloroethane	0.50	U	0.50	1.0	µg/L	1		06/05/20 12:17 PM
Acrolein	2.00	UP4	2.00	5.0	µg/L	1		06/05/20 12:17 PM

ACCREDITED IN ACCORDANCE WITH nelac

I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *07-Jul-20*

CLIENT:	SENECA LANDFILL INC.	**Client Sample ID:**	PS #2
Lab Order:	G2006273		
Project:		**Collection Date:**	6/2/2020 9:04:00 AM
Lab ID:	G2006273-001	**Sampled By:**	Seneca LF
Matrix:	WASTE WATER	**DateReceived:**	6/3/2020 4:53:44 PM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Analyst: **SJM**					**EPA 624.1**
Carbon Tetrachloride	0.20	U	0.20	0.5	µg/L	1		06/05/20 12:17 PM
Chlorodibromomethane	0.40	U	0.40	1.0	µg/L	1		06/05/20 12:17 PM
Dichlorobromomethane	0.20	U	0.20	0.5	µg/L	1		06/05/20 12:17 PM
Tetrachloroethene	0.40	U	0.40	0.5	µg/L	1		06/05/20 12:17 PM
1,3-Dichloropropylene	0.20	U	0.20	0.5	µg/L	1		06/05/20 12:17 PM
Surr: 1,2-Dichloroethane-d4	105		0	78-122	%REC	1		06/05/20 12:17 PM
Surr: 4-Bromofluorobenzene	97.5		0	74-123	%REC	1		06/05/20 12:17 PM
Surr: Toluene-d8	101		0	79-117	%REC	1		06/05/20 12:17 PM

NOTES:

P4 - Field preservation does not meet EPA or method recommendations for this analysis.

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Tuesday, July 7, 2020

Elizabeth Bertha
SENECA LANDFILL INC.
421 HARTMANN ROAD
EVANS CITY, PA 16033

Order No.: G2006294

Dear Elizabeth Bertha:

Geochemical Testing received 1 sample(s) on 6/3/2020 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *07-Jul-20*

CLIENT: SENECA LANDFILL INC.
Project:
Lab Order: G2006294

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Submitted COC documentation incomplete with the following deficiencies: missing Preservatives, Number of Containers, and Sampler Name.

REVISED REPORT (07/07/20): Per client request, reports issued in MDL report type.

Note: This is a reissue of a previously generated report. Information herein supersedes that of previously issued report(s).

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative ND - Not Detected
MCL - Contaminant Limit J - Indicates an estimated value.
Q - Qualifier QL -Quantitation Limit DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *07-Jul-20*

CLIENT: SENECA LANDFILL INC.
Client Sample ID: Pump Station 1
Lab Order: G2006294
Project:
Collection Date: 5/26/2020 8:48:00 AM
Lab ID: G2006294-001
Sampled By: Seneca LF
Matrix: WASTE WATER
DateReceived: 6/3/2020 7:10:34 PM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
PESTICIDE ANALYSIS			Analyst: **ACG**				**EPA 3535A**	**EPA 608.3**
Chlordane	0.50	U	0.50	1.0	µg/L	1	06/04/20 7:00 AM	06/04/20 6:54 PM
Toxaphene	0.50	U	0.50	2.0	µg/L	1	06/04/20 7:00 AM	06/04/20 6:54 PM
Surr: Decachlorobiphenyl	5.31	S	0	10-110	%REC	1	06/04/20 7:00 AM	06/04/20 6:54 PM
Surr: Tetrachloro-m-xylene	35.1		0	22.9-114.	%REC	1	06/04/20 7:00 AM	06/04/20 6:54 PM
SEMI-VOLATILE COMPOUNDS			Analyst: **AJR**				**EPA 3535A**	**EPA 625.1**
2,4-Dinitrotoluene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
2,6-Dinitrotoluene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
2-Methyl-4,6-dinitrophenol	25	U	25	100	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
3,3-Dichlorobenzidine	25	U	25	100	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Acenaphthene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Benzo(a)anthracene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Benzo(a)pyrene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Benzo(b)fluoranthene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Benzo(k)fluoranthene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
bis(2-Chloroethyl)ether	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Chrysene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Dibenzo(a,h)anthracene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Hexachlorobenzene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Hexachlorobutadiene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Hexachlorocyclopentadiene	25	U	25	100	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Hexachloroethane	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Indeno(1,2,3-cd)pyrene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Nitrobenzene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
n-Nitrosodimethylamine	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
N-Nitroso-di-n-propylamine	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
n-Nitrosodiphenylamine	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Phenanthrene	25	U	25	50	µg/L	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Surr: 2,4,6-Tribromophenol	38.3		0	34-129	%REC	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Surr: 2-Fluorobiphenyl	28.7		0	21-115	%REC	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Surr: 2-Fluorophenol	55.7		0	14-118	%REC	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Surr: Nitrobenzene-d5	79.6		0	28-119	%REC	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Surr: Phenol-d6	66.3		0	12-114	%REC	5	06/06/20 7:00 AM	06/08/20 7:35 AM
Surr: p-Terphenyl-d14	17.6	S	0	18-144	%REC	5	06/06/20 7:00 AM	06/08/20 7:35 AM

NOTES:
D4 - Sample was diluted in the extraction steps due to marked matrix interferences.

VOLATILE ORGANIC COMPOUNDS			Analyst: **SJM**					**EPA 624.1**
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.5	µg/L	1		06/05/20 12:43 PM
1,1,2-Trichloroethane	0.50	U	0.50	1.0	µg/L	1		06/05/20 12:43 PM
Acrolein	2.00	UP4	2.00	5.0	µg/L	1		06/05/20 12:43 PM

Laboratory Results

Geochemical Testing

Date: *07-Jul-20*

CLIENT:	SENECA LANDFILL INC.	**Client Sample ID:**	Pump Station 1
Lab Order:	G2006294		
Project:		**Collection Date:**	5/26/2020 8:48:00 AM
Lab ID:	G2006294-001	**Sampled By:**	Seneca LF
Matrix:	WASTE WATER	**DateReceived:**	6/3/2020 7:10:34 PM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Analyst: **SJM**					**EPA 624.1**
Carbon Tetrachloride	0.20	U	0.20	0.5	µg/L	1		06/05/20 12:43 PM
Chlorodibromomethane	0.40	U	0.40	1.0	µg/L	1		06/05/20 12:43 PM
Dichlorobromomethane	0.20	U	0.20	0.5	µg/L	1		06/05/20 12:43 PM
Tetrachloroethene	0.40	U	0.40	0.5	µg/L	1		06/05/20 12:43 PM
1,3-Dichloropropylene	0.20	U	0.20	0.5	µg/L	1		06/05/20 12:43 PM
Surr: 1,2-Dichloroethane-d4	105		0	78-122	%REC	1		06/05/20 12:43 PM
Surr: 4-Bromofluorobenzene	96.5		0	74-123	%REC	1		06/05/20 12:43 PM
Surr: Toluene-d8	101		0	79-117	%REC	1		06/05/20 12:43 PM

NOTES:

P4 - Field preservation does not meet EPA or method recommendations for this analysis.

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Tuesday, July 7, 2020

Elizabeth Bertha
SENECA LANDFILL INC.
421 HARTMANN ROAD
EVANS CITY, PA 16033

Order No.: G2006831

Dear Elizabeth Bertha:

Geochemical Testing received 1 sample(s) on 6/11/2020 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *07-Jul-20*

CLIENT: SENECA LANDFILL INC.
Project:
Lab Order: G2006831

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Submitted COC documentation incomplete with the following deficiencies: correction made without initials/date.

REVISED REPORT (07/07/20): Per client request, reports issued in MDL report type.

Note: This is a reissue of a previously generated report. Information herein supersedes that of previously issued report(s).

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative ND - Not Detected
MCL - Contaminant Limit J - Indicates an estimated value.
Q - Qualifier QL -Quantitation Limit DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *07-Jul-20*

CLIENT:	SENECA LANDFILL INC.	**Client Sample ID:**	PS3
Lab Order:	G2006831		
Project:		**Collection Date:**	6/10/2020 8:20:00 AM
Lab ID:	G2006831-001	**Sampled By:**	Seneca LF (JO)
Matrix:	WASTE WATER	**DateReceived:**	6/11/2020 12:21:53 PM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
PESTICIDE ANALYSIS			Analyst: **ACG**				**EPA 3535A**	**EPA 608.3**
Chlordane	2.5	U	2.5	5.0	µg/L	5	06/16/20 6:00 AM	06/16/20 7:48 PM
Toxaphene	2.5	U	2.5	10	µg/L	5	06/16/20 6:00 AM	06/16/20 7:48 PM
Surr: Decachlorobiphenyl	14.6		0	10-110	%REC	5	06/16/20 6:00 AM	06/16/20 7:48 PM
Surr: Tetrachloro-m-xylene	29.2		0	22.9-114.	%REC	5	06/16/20 6:00 AM	06/16/20 7:48 PM

NOTES:
D4 - Sample was diluted in the extraction steps due to marked matrix interferences.

SEMI-VOLATILE COMPOUNDS			Analyst: **AJR**				**EPA 3535A**	**EPA 625.1**
2,4-Dinitrotoluene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
2,6-Dinitrotoluene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
2-Methyl-4,6-dinitrophenol	25	U	25	100	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
3,3-Dichlorobenzidine	25	U	25	100	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Acenaphthene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Benzo(a)anthracene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Benzo(a)pyrene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Benzo(b)fluoranthene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Benzo(k)fluoranthene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
bis(2-Chloroethyl)ether	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Chrysene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Dibenzo(a,h)anthracene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Hexachlorobenzene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Hexachlorobutadiene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Hexachlorocyclopentadiene	25	U	25	100	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Hexachloroethane	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Indeno(1,2,3-cd)pyrene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Nitrobenzene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
n-Nitrosodimethylamine	25	UL2	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
N-Nitroso-di-n-propylamine	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
n-Nitrosodiphenylamine	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Phenanthrene	25	U	25	50	µg/L	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Surr: 2,4,6-Tribromophenol	33.0	S	0	34-129	%REC	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Surr: 2-Fluorobiphenyl	20.9		0	21-115	%REC	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Surr: 2-Fluorophenol	30.5		0	14-118	%REC	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Surr: Nitrobenzene-d5	47.1		0	28-119	%REC	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Surr: Phenol-d6	32.4		0	12-114	%REC	5	06/12/20 7:12 AM	06/13/20 3:34 AM
Surr: p-Terphenyl-d14	11.6	S	0	18-144	%REC	5	06/12/20 7:12 AM	06/13/20 3:34 AM

NOTES:
D4 - Sample was diluted in the extraction steps due to marked matrix interferences.

L2 - LCS below the acceptance limits. Result may be biased low.

VOLATILE ORGANIC COMPOUNDS			Analyst: **SJM**				**EPA 624.1**
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.5	µg/L	1	06/12/20 6:21 AM

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *07-Jul-20*

CLIENT:	SENECA LANDFILL INC.	**Client Sample ID:**	PS3
Lab Order:	G2006831		
Project:		**Collection Date:**	6/10/2020 8:20:00 AM
Lab ID:	G2006831-001	**Sampled By:**	Seneca LF (JO)
Matrix:	WASTE WATER	**DateReceived:**	6/11/2020 12:21:53 PM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			Analyst: **SJM**					**EPA 624.1**
1,1,2-Trichloroethane	0.50	U	0.50	1.0	µg/L	1		06/12/20 6:21 AM
Acrolein	2.00	UP4	2.00	5.0	µg/L	1		06/12/20 6:21 AM
Carbon Tetrachloride	0.20	U	0.20	0.5	µg/L	1		06/12/20 6:21 AM
Chlorodibromomethane	0.40	U	0.40	1.0	µg/L	1		06/12/20 6:21 AM
Dichlorobromomethane	0.20	U	0.20	0.5	µg/L	1		06/12/20 6:21 AM
Tetrachloroethene	0.40	U	0.40	0.5	µg/L	1		06/12/20 6:21 AM
1,3-Dichloropropylene	0.20	U	0.20	0.5	µg/L	1		06/12/20 6:21 AM
Surr: 1,2-Dichloroethane-d4	103		0	78-122	%REC	1		06/12/20 6:21 AM
Surr: 4-Bromofluorobenzene	101		0	74-123	%REC	1		06/12/20 6:21 AM
Surr: Toluene-d8	100		0	79-117	%REC	1		06/12/20 6:21 AM

NOTES:

P4 - Field preservation does not meet EPA or method recommendations for this analysis.

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Tuesday, July 28, 2020

JAY KNIGHT
TRI-COUNTY INDUSTRIES, INC.
159 TCI PARK DRIVE
GROVE CITY, PA 16127

RE: Tri-County LF NPDES Permit Order No.: G2007D35

Dear JAY KNIGHT:

Geochemical Testing received 1 sample(s) on 7/22/2020 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

Nate R. Bergstresser
Client Support

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *28-Jul-20*

CLIENT: TRI-COUNTY INDUSTRIES, INC.
Project: Tri-County LF NPDES Permit
Lab Order: G2007D35

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Submitted COC documentation incomplete with the following deficiencies: missing Analysis Requested, Preservatives, and Relinquished Date.

The sample aliquot for Hexavalent Chromium, dissolved was not filtered within 15 minutes of collection and is not compliant with 40CFR136 Table II. The lab filtered the sample before analysis.

Hexavalent Chromium, dissolved by USGS I-1230-85 was received out of hold time. Analyzed per client request.

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *28-Jul-20*

CLIENT:	TRI-COUNTY INDUSTRIES, INC.	**Client Sample ID:**	1 Pump Sta
Lab Order:	G2007D35		
Project:	Tri-County LF NPDES Permit	**Collection Date:**	7/21/2020 8:17:00 AM
Lab ID:	G2007D35-001	**Sampled By:**	Seneca LF
Matrix:	WASTE WATER	**DateReceived:**	7/22/2020 10:43:42 AM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
INORGANIC METALS			Analyst: **BEH**				**USGS I-1230-85**	**USGS I-1230-85**
Hexavalent Chromium, dissolved	0.00050	JH Q1 M2	0.00050	0.0010	mg/L	1	07/22/20 12:05 PM	07/22/20 12:27 PM
NOTES: M2 - MS recovery below the acceptance limits.								
SEMI-VOLATILE COMPOUNDS			Analyst: **NPT**				**EPA 3520C**	**EPA 625.1**
1,2,4-Trichlorobenzene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
2,4-Dinitrotoluene	5.00	U	5.00	10	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
2,6-Dinitrotoluene	5.00	U	5.00	10	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
2-Methyl-4,6-dinitrophenol	10.0	U	10.0	20.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
3,3-Dichlorobenzidine	10.0	U	10.0	20.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Acenaphthene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Benzo(a)anthracene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Benzo(a)pyrene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Benzo(b)fluoranthene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Benzo(k)fluoranthene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
bis(2-Chloroethyl)ether	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Butyl benzylphthalate	10.0	U	10.0	20.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Chrysene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Dibenzo(a,h)anthracene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Di-N-Butyl Phthalate	10.0	U	10.0	20.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Hexachlorobenzene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Hexachlorobutadiene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Hexachlorocyclopentadiene	10.0	U	10.0	20.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Hexachloroethane	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Indeno(1,2,3-cd)pyrene	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Isophorone	< 10		5.00	10	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Nitrobenzene	< 5.0		2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
n-Nitrosodimethylamine	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
N-Nitroso-di-n-propylamine	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
n-Nitrosodiphenylamine	2.00	U	2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
Phenanthrene	< 5.0		2.00	5.0	µg/L	10	07/22/20 12:50 PM	07/24/20 4:29 PM
NOTES: D4 - Sample was diluted in the extraction steps due to marked matrix interferences.								

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

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Wednesday, August 12, 2020

JAY KNIGHT
TRI-COUNTY INDUSTRIES, INC.
159 TCI PARK DRIVE
GROVE CITY, PA 16127

RE: Tri-County LF NPDES Permit Order No.: G2007H09

Dear JAY KNIGHT:

Geochemical Testing received 2 sample(s) on 7/29/2020 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

Nate R. Bergstresser
Client Support

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *12-Aug-20*

CLIENT: TRI-COUNTY INDUSTRIES, INC.
Project: Tri-County LF NPDES Permit
Lab Order: G2007H09

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Submitted COC documentation incomplete with the following deficiencies: missing Analysis Requested and Preservations.

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *12-Aug-20*

CLIENT:	TRI-COUNTY INDUSTRIES, INC.	**Client Sample ID:**	2 Pump Sta
Lab Order:	G2007H09		Acid compounds
Project:	Tri-County LF NPDES Permit	**Collection Date:**	7/28/2020 8:10:00 AM
Lab ID:	G2007H09-001	**Sampled By:**	Seneca LF
Matrix:	WASTE WATER	**DateReceived:**	7/29/2020 1:33:34 PM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
SEMI-VOLATILE COMPOUNDS			Analyst: **NPT**				**EPA 3520C**	**EPA 625.1**
2-Methyl-4,6-dinitrophenol	5.00	U	5.00	10	µg/L	5	08/03/20 9:36 AM	08/06/20 7:56 PM
Surr: 2,4,6-Tribromophenol	108		0	10-139	%REC	5	08/03/20 9:36 AM	08/06/20 7:56 PM
Surr: 2-Fluorophenol	55.0		0	16-134	%REC	5	08/03/20 9:36 AM	08/06/20 7:56 PM
Surr: Phenol-d6	3.00	S	0	19-122	%REC	5	08/03/20 9:36 AM	08/06/20 7:56 PM

NOTES:

D4 - Sample was diluted in the extraction steps due to marked matrix interferences.

ACCREDITED IN ACCORDANCE WITH nelac

I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *12-Aug-20*

CLIENT:	TRI-COUNTY INDUSTRIES, INC.	**Client Sample ID:**	2 Pump Sta
Lab Order:	G2007H09		Base/Neutral compounds
Project:	Tri-County LF NPDES Permit	**Collection Date:**	7/28/2020 8:10:00 AM
Lab ID:	G2007H09-002	**Sampled By:**	Seneca LF
Matrix:	WASTE WATER	**DateReceived:**	7/29/2020 1:33:34 PM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
SEMI-VOLATILE COMPOUNDS			Analyst: **NPT**				**EPA 3520C**	**EPA 625.1**
1,2,4-Trichlorobenzene	0.50	UM2	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
2,4-Dinitrotoluene	1.00	U	1.00	2.5	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
2,6-Dinitrotoluene	1.00	U	1.00	2.5	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
3,3-Dichlorobenzidine	2.50	U	2.50	5.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Acenaphthene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Benzo(a)anthracene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Benzo(a)pyrene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Benzo(b)fluoranthene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Benzo(k)fluoranthene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
bis(2-Chloroethyl)ether	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Butyl benzylphthalate	5.00	U	5.00	10	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Chrysene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Dibenzo(a,h)anthracene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Di-N-Butyl Phthalate	5.00	U	5.00	10	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Hexachlorobenzene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Hexachlorobutadiene	0.50	UM2	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Hexachlorocyclopentadiene	2.50	UM2	2.50	5.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Hexachloroethane	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Isophorone	1.00	U	1.00	2.5	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Nitrobenzene	0.50	UM2	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
n-Nitrosodimethylamine	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
N-Nitroso-di-n-propylamine	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
n-Nitrosodiphenylamine	0.50	U	0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Phenanthrene	1.2		0.50	1.0	µg/L	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Surr: 4,4-Dibromoctafluorobiphenyl	32.5		0	27-145	%REC	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Surr: Benz(a)anthracene-d12	49.5		0	30-141	%REC	5	08/03/20 9:36 AM	08/06/20 5:47 PM
Surr: Tetrachloro-m-xylene	18.9	S M5	0	27-131	%REC	5	08/03/20 9:36 AM	08/06/20 5:47 PM

NOTES:

D4 - Sample was diluted in the extraction steps due to marked matrix interferences.

M2 - MS recovery below the acceptance limits.

M5 - The matrix spike failed low for the surrogate.

ACCREDITED IN ACCORDANCE WITH nelac

I.D. 56-00306 PA DEP

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Monday, August 17, 2020

JAY KNIGHT
TRI-COUNTY INDUSTRIES, INC.
159 TCI PARK DRIVE
GROVE CITY, PA 16127

RE: Tri-County LF NPDES Permit Order No.: G2008099

Dear JAY KNIGHT:

Geochemical Testing received 2 sample(s) on 8/4/2020 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

Nate R. Bergstresser
Client Support

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *17-Aug-20*

CLIENT: TRI-COUNTY INDUSTRIES, INC.
Project: Tri-County LF NPDES Permit
Lab Order: G2008099

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative
ND - Not Detected
MCL - Contaminant Limit
J - Indicates an estimated value.
Q - Qualifier
QL -Quantitation Limit
DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *17-Aug-20*

CLIENT:	TRI-COUNTY INDUSTRIES, INC.	**Client Sample ID:**	3 Pump Sta.
Lab Order:	G2008099		Acid compounds
Project:	Tri-County LF NPDES Permit	**Collection Date:**	8/3/2020 1:15:00 PM
Lab ID:	G2008099-001	**Sampled By:**	Seneca LF
Matrix:	AQUEOUS	**DateReceived:**	8/4/2020 10:53:08 AM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
SEMI-VOLATILE COMPOUNDS			Analyst: **NPT**				**EPA 3520C**	**EPA 625.1**
2-Methyl-4,6-dinitrophenol	5.00	U	5.00	10	µg/L	5	08/05/20 12:29 PM	08/13/20 11:48 PM
Surr: 2,4,6-Tribromophenol	92.0		0	10-139	%REC	5	08/05/20 12:29 PM	08/13/20 11:48 PM
Surr: 2-Fluorophenol	57.5		0	16-134	%REC	5	08/05/20 12:29 PM	08/13/20 11:48 PM
Surr: Phenol-d6	1.25	S	0	19-122	%REC	5	08/05/20 12:29 PM	08/13/20 11:48 PM

NOTES:

D4 - Sample was diluted in the extraction steps due to marked matrix interferences.

Laboratory Results

Geochemical Testing

Date: *17-Aug-20*

CLIENT:	TRI-COUNTY INDUSTRIES, INC.	**Client Sample ID:**	3 Pump Sta. Base/Neutral compounds
Lab Order:	G2008099		
Project:	Tri-County LF NPDES Permit	**Collection Date:**	8/3/2020 1:15:00 PM
Lab ID:	G2008099-002	**Sampled By:**	Seneca LF
Matrix:	AQUEOUS	**DateReceived:**	8/4/2020 10:53:08 AM

Analyses	Result	Q	MDL	PQL	Units	DF	Date Prepared	Date Analyzed
SEMI-VOLATILE COMPOUNDS			Analyst: **NPT**				**EPA 3520C**	**EPA 625.1**
1,2,4-Trichlorobenzene	0.50	UM2	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
2,4-Dinitrotoluene	1.00	U	1.00	2.5	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
2,6-Dinitrotoluene	1.00	U	1.00	2.5	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
3,3-Dichlorobenzidine	2.50	U	2.50	5.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Acenaphthene	0.8	J	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Benzo(a)anthracene	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Benzo(a)pyrene	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Benzo(b)fluoranthene	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Benzo(k)fluoranthene	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
bis(2-Chloroethyl)ether	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Butyl benzylphthalate	5.00	U	5.00	10	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Chrysene	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Dibenzo(a,h)anthracene	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Di-N-Butyl Phthalate	5.00	U	5.00	10	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Hexachlorobenzene	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Hexachlorobutadiene	0.50	UL2 M2	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Hexachlorocyclopentadiene	2.50	UM2	2.50	5.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Hexachloroethane	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Indeno(1,2,3-cd)pyrene	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Isophorone	1.00	U	1.00	2.5	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Nitrobenzene	0.50	UM2	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
n-Nitrosodimethylamine	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
N-Nitroso-di-n-propylamine	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
n-Nitrosodiphenylamine	0.50	U	0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Phenanthrene	1.9		0.50	1.0	µg/L	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Surr: 4,4-Dibromoctafluorobiphenyl	22.8	S M5	0	27-145	%REC	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Surr: Benz(a)anthracene-d12	49.2		0	30-141	%REC	5	08/05/20 12:29 PM	08/13/20 10:12 PM
Surr: Tetrachloro-m-xylene	21.5	S M5	0	27-131	%REC	5	08/05/20 12:29 PM	08/13/20 10:12 PM

NOTES:

D4 - Sample was diluted in the extraction steps due to marked matrix interferences.

L2 - LCS below the acceptance limits. Result may be biased low.

M2 - MS recovery below the acceptance limits.

M5 - The matrix spike failed low for the surrogate.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

June 09, 2020

Ms. Elizabeth Bertha
Seneca Landfill
421 Hartmann Rd.
Evans City, PA 16033

RE: Project: 2,3,7,8 TCDD
Pace Project No.: 30365015

Dear Ms. Bertha:

Enclosed are the analytical results for sample(s) received by the laboratory on May 27, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

The samples were subcontracted to Pace Analytical Services, 1700 Elm Street, Suite 200, Minneapolis, MN 55414 for Dioxin analysis. Results of the analysis are reported on the Pace Analytical, Minnesota data tables.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project:
Pace Project No.:

Method:
Description:
Client:
Date:

This data package has been reviewed for quality and completeness and is approved for release.

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO# : 30365015

30365015

LAB USE ONLY

Company: Seneca Landfill, Inc.	Billing Information:
Address: 421 Hartmann Rd	
Report To: Elizabeth Bertha	Email To: ebertha@senecalandfill.com
Copy To:	Site Collection Info/Address:
Customer Project Name/Number: 2,3,7,8-TCDD	State: PA County/City: Butler Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: 724-452-0899 Email:	Site/Facility ID #: Compliance Monitoring? [X] Yes [ ] No
Collected By (print): John Ott	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature): John Ott	Turnaround Date Required: Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [X] No Analysis:

Container Preservative Type*

* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses	Lab Sample # / Comments
Pump Station 1	WW	X								001

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y (N) NA
Custody Signatures Present	(Y) N NA
Collector Signature Present	(Y) N NA
Bottles Intact	(Y) N NA
Correct Bottles	(Y) N NA
Sufficient Volume	(Y) N NA
Samples Received on Ice	(Y) N NA
VOA - Headspace Acceptable	Y N (NA)
USDA Regulated Soils	Y N (NA)
Samples in Holding Time	(Y) N NA
Residual Chlorine Present	Y (N) NA
Cl Strips:	
Sample pH Acceptable	(Y) N NA
pH Strips: 10D2192	
Sulfide Present	Y N (NA)
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:
NMR
NMR 5/27/2020

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: 1L & bubblewrap

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2500706

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 9
Cooler 1 Temp Upon Receipt: 4.7 oC
Cooler 1 Therm Corr. Factor: -0.5 oC
Cooler 1 Corrected Temp: 4.2 oC
Comments:

Relinquished by/Company: (Signature) John Ott	Date/Time: 5/26/20 10:00	Received by/Company: (Signature)	Date/Time: 5.27.20 1115
Relinquished by/Company: (Signature)	Date/Time: 5.27.20 1515	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y (N) NA
HCL MeOH TSP Other

Non Conformance(s): (YES) / NO

Page: _____ of: _____

30365015 Pace Container Order #649996

PLEASE RETURN THIS COPY WITH COC

Addresses

Order By :		Ship To :		Return To:	
Company	Seneca Landfill, Inc.	Company	Seneca Landfill, Inc.	Company	Pace Analytical Pittsburgh
Contact	Bertha, Elizabeth	Contact	Bertha, Elizabeth	Contact	Christner, Rachel
Email	ebertha@senecalandfill.com	Email	ebertha@senecalandfill.com	Email	rachel.christner@pacelabs.com
Address	421 Hartmann Rd.	Address	421 Hartmann Rd.	Address	1638 Roseytown Road
Address 2	Building #7	Address 2	Building #7	Address 2	Suites 2,3,4
City	Evans City	City	Evans City	City	Greensburg
State	PA Zip 16033	State	PA Zip 16033	State	PA Zip 15601
Phone	(724) 816-6149	Phone	(724) 816-6149	Phone	724-850-5611

Info

Project Name 2,3,7,8-TCDD **Due Date** 05/21/2020 **Profile** 3915 - L5 **Quote**

Project Manager Christner, Rachel **Return Date** **Carrier** FedEx Ground **Location** PA

Trip Blanks

- [ ] Include Trip Blanks

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [X] Individually Wrapped
- [ ] Grouped By Sample ID/Matrix

Return Shipping Labels

- [ ] No Shipper
- [ ] With Shipper

COC Options

- [X] Number of Blanks 3
- [ ] Pre-Printed

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [ ] Temp. Blanks
- [X] Coolers 3
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water Liter(s)
- [ ] USDA Regulated Soils

# of Samples	Matrix	Test	Container	Total	# of	Lot #	Notes
3	WT	Dioxin by 1613 (Low Res.) Sodium Thiosulfate (Chlorinated Source)	1L amber glass Sodium Thiosulfate	6	2	102819-1EIK	

Hazard Shipping Placard In Place : NO

*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

LAB USE:

Ship Date :	05/19/2020
Prepared By:	David F
Verified By:	MGiron

Sample

Send 3 sets - 2 containers and 1 COC in each cooler.

CLIENT USE (Optional):

Date Rec'd:	
Received By:	
Verified By:	

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Sample Receiving Non-Conformance Form (NCF)

Date: 5/27/2020	Evaluated by: NMR
Client: Seneca Landfill	

Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

30365015

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

✓	Collection date/time missing or incorrect	✓	Analyses or analytes: missing or clarification needed		Samples listed on COC do not match samples received (missing, additional, etc.)
	Sample IDs on COC do not match sample labels		Required trip blanks were not received		Required signatures are missing

Comments/Details/Other Issues not listed above:

- Collected date & time not present on COC
- analyses not specified on COC, only on bottle order
- Sample collected on 5/26/2020 at 9:49

3. Sample integrity issues: check applicable issues below and add details where appropriate:

	Samples: Past holding time		Samples: Condition needs to be brought to lab personnel's attention (details below)		Preservation: Improper
	Samples: Not field filtered		Containers: Broken or compromised		Temperature: not within acceptance criteria (typically 0-6C)
	Samples: Insufficient volume received		Containers: Incorrect		Temperature: Samples arrived frozen
	Samples: Cooler damaged or compromised		Custody Seals: Missing or compromised on samples, trip blanks or coolers		Vials received with improper headspace
	Samples: contain chlorine or sulfides		Packing Material: Insufficient/Improper		Other:

Comments/Details:

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Rachel Christner
PACE Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10519656
Sample Receipt Date: 05/29/2020
Client Project #: 30365015
Client Sub PO #: N/A
State Cert #: 68-00563

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Joanne Richardson, your Pace Project Manager.

This report has been reviewed by:

Joanne Richardson

June 08, 2020

Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

Report Prepared Date:
June 8, 2020

Report of Laboratory Analysis

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Pace Analytical Services, LLC. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration points and a nominal 1-liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 56%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of 2,3,7,8-TCDD at the reporting limit.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 106-107% with a relative percent difference of 0.9%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina -	27700
Connecticut	PH-0256	North Carolina -	530
EPA Region 8+	via MN 027-053	North Dakota	R-036
Florida (NELAP	E87605	Ohio - DW	41244
Georgia	959	Ohio - VAP	CL101
Guam	20-00.R	Oklahoma	9507
Hawaii	MN00064	Oregon - Primar	MN300001
Idaho	MN00064	Oregon - Secon	MN200001
Illinois	200011	Pennsylvania	68-00563
Indiana	C-MN-01	Puerto Rico	MN00064
Iowa	368	South Carolina	74003
Kansas	E-10167	Tennessee	TN02818
Kentucky - DW	90062	Texas	T104704192
Kentucky - WW	90062	Utah (NELAP)	MN00064
Louisiana - DE	84596	Vermont	VT-027053137
Louisiana - DW	MN00064	Virginia	460163
Maine	MN00064	Washington	C486
Maryland	322	West Virginia -	382
Massachusetts	M-MN064	West Virginia -	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming - UST	2926.01
Minnesota - De	via MN 027-053		

REPORT OF LABORATORY ANALYSIS

Appendix A

Sample Management

Chain of Custody

☐ Samples were sent directly to the Subcontracting Laboratory.

Pace Analytical®
www.pacelabs.com

State Of Origin: PA
Cert. Needed: ☒ Yes ☐ No
Owner Received Date: 5/27/2020 **Results Requested By:** 6/10/2020

Workorder: 30365015 **Workorder Name:** 2,3,7,8 TCDD

Report To	Subcontract To
Rachel Christner Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone 724-850-5611	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

WO#: 10519656
10519656

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: NA2S2O3	Requested Analysis: 1613 - 2,3,7,8 TCDD	LAB USE ONLY
1	Pump Station 1	PS	5/26/2020 09:49	30365015001	Water	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[illegible] Pace	5/27/2020 1600	MKY / Pace	5/28/20 845
2				
3				

Comments

Cooler Temperature on Receipt 2.1 °C **Custody Seal** Y or N̶ (N marked) **Received on Ice** Y (marked) or N **Samples Intact** Y (marked) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO#: 30365015

30365015

LAB USE ONLY

Company: Seneca Landfill, Inc.	Billing Information:
Address: 421 Hartmann Rd	
Report To: Elizabeth Bertha	Email To: ebertha@senecalandfill.com
Copy To:	Site Collection Info/Address:
Customer Project Name/Number: 2,3,7,8-TCDD	State: PA County/City: Butler Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: 724-452-0899 Email:	Site/Facility ID #: Compliance Monitoring? [X] Yes [ ] No
Collected By (print): John Ott	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature): John Ott	Turnaround Date Required: Immediately Packed on Ice: [X] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [X] No Analysis:

Container Preservative Type

* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	Lab Sample # / Comments
Pump Station 1	WW	X							001

Lab Profile/Line:

Lab Sample Receipt Checklist:
- Custody Seals Present/Intact Y (N) NA
- Custody Signatures Present (Y) N NA
- Collector Signature Present (Y) N NA
- Bottles Intact (Y) N NA
- Correct Bottles (Y) N NA
- Sufficient Volume (Y) N NA
- Samples Received on Ice (Y) N NA
- VOA - Headspace Acceptable Y N (NA)
- USDA Regulated Soils Y N (NA)
- Samples in Holding Time (Y) N NA
- Residual Chlorine Present Y (N) NA
- Cl Strips:
- Sample pH Acceptable (Y) N NA
- pH Strips: 1002192
- Sulfide Present Y N (NA)
- Lead Acetate Strips:

LAB USE ONLY:
Lab Sample # / Comments:
nme
nme 5/27/2020

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: ice & bubblewrap

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2500706

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
- Temp Blank Received: Y (N) NA
- Therm ID#: 9
- Cooler 1 Temp Upon Receipt: 4.7 oC
- Cooler 1 Therm Corr. Factor: -0.5 oC
- Cooler 1 Corrected Temp: 4.2 oC
- Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
John Ott	5/26/20 10:00	[signature]	5.27.20 1113
[signature]	5.27.20 1515		

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y (N) NA
HCL MeOH TSP Other

Non Conformance(s): (YES) / NO

Page: ____ of: ____

Page 11 of 22

Pace Analytical
www.pacelabs.com

Sample Receiving Non-Conformance Form (NCF)

Date: 5/27/2020	Evaluated by: NMR
Client: Seneca Landfill	

Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

30365015

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

✓	Collection date/time missing or incorrect	✓	Analyses or analytes: missing or clarification needed		Samples listed on COC do not match samples received (missing, additional, etc.)
	Sample IDs on COC do not match sample labels		Required trip blanks were not received		Required signatures are missing

Comments/Details/Other Issues not listed above:

- Collected date & time not present on COC
- analyses not specified on COC, only on bottle order
- Sample collected on 5/26/2020 at 9:49

3. Sample integrity issues: check applicable issues below and add details where appropriate:

	Samples: Past holding time		Samples: Condition needs to be brought to lab personnel's attention (details below)		Preservation: Improper
	Samples: Not field filtered		Containers: Broken or compromised		Temperature: not within acceptance criteria (typically 0-6C)
	Samples: Insufficient volume received		Containers: Incorrect		Temperature: Samples arrived frozen
	Samples: Cooler damaged or compromised		Custody Seals: Missing or compromised on samples, trip blanks or coolers		Vials received with improper headspace
	Samples: contain chlorine or sulfides		Packing Material: Insufficient/Improper		Other:

Comments/Details:

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

F-ALL-C-011-rev.00, 05Jul2018

30365015 Pace Container Order #649996

PLEASE RETURN THIS COPY WITH COC

Addresses

Order By :		Ship To :		Return To:	
Company	Seneca Landfill, Inc.	Company	Seneca Landfill, Inc.	Company	Pace Analytical Pittsburgh
Contact	Bertha, Elizabeth	Contact	Bertha, Elizabeth	Contact	Christner, Rachel
Email	ebertha@senecalandfill.com	Email	ebertha@senecalandfill.com	Email	rachel.christner@pacelabs.com
Address	421 Hartmann Rd.	Address	421 Hartmann Rd.	Address	1638 Roseytown Road
Address 2	Building #7	Address 2	Building #7	Address 2	Suites 2,3,4
City	Evans City	City	Evans City	City	Greensburg
State	PA Zip 16033	State	PA Zip 16033	State	PA Zip 15601
Phone	(724) 816-6149	Phone	(724) 816-6149	Phone	724-850-5611

Info

Project Name	2,3,7,8-TCDD	**Due Date**	05/21/2020	**Profile**	3915 - L5	**Quote**	
Project Manager	Christner, Rachel	**Return Date**		**Carrier**	FedEx Ground	**Location**	PA

Trip Blanks

- [ ] Include Trip Blanks

Bottle Labels

- [X] Blank
- [ ] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [X] Individually Wrapped
- [ ] Grouped By Sample ID/Matrix

Return Shipping Labels

- [ ] No Shipper
- [ ] With Shipper

Misc

- [ ] Sampling Instructions
- [ ] Custody Seal
- [ ] Temp. Blanks
- [X] Coolers 3
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water Liter(s)
- [ ] USDA Regulated Soils

COC Options

- [X] Number of Blanks 3
- [ ] Pre-Printed

# of Samples	Matrix	Test	Container	Total	# of	Lot #	Notes
3	WT	Dioxin by 1613 (Low Res.) Sodium Thiosulfate (Chlorinated Source)	1L amber glass Sodium Thiosulfate	6	2	102819-1EIK	

Hazard Shipping Placard In Place : NO

*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to insure proper billing.

LAB USE:

Ship Date :	05/19/2020
Prepared By:	David F
Verified By:	MGiron

Sample

Send 3 sets - 2 containers and 1 COC in each cooler.

CLIENT USE (Optional):

Date Rec'd:	
Received By:	
Verified By:	

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) - MN**	Document Revised: 27Mar2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0150 Rev.00**	Pace Analytical Services - **Minneapolis**

Sample Condition Upon Receipt

Client Name: Pace Pittsburgh

Project #: **WO#: 10519656**

PM: JMR **Due Date: 06/10/20**

CLIENT: PASI-PITT

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial **See Exceptions** ☐

Tracking Number: 1461 8060 2184

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other:_____ **Temp Blank?** ☐ Yes ☒ No

Thermometer: ☐ T1(0461) ☒ T2(1336) ☐ T3(0459) ☐ T4(0254) ☐ T5(0489) **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:**_____ °C **Average Corrected Temp (no temp blank only):** ☒ See Exceptions 2.1 °C ☐ 1 Container

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank :**_____ °C

USDA Regulated Soil: (☒ N/A, water sample/Other: NJ) **Date/Initials of Person Examining Contents:** mk4 5/29/20

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E coli ☐ BOD/cBOD ☐ Hex Chrome ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other_____
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No		8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☒ Yes	☐ No		11. **If no, write ID/ Date/Time on Container Below:** **See Exception** ☐
Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other_____				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO_3 ☐ H_2SO_4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☒ Yes	☐ No	☐ N/A	Positive for Res. Chlorine? ☐ Yes ☐ No **pH Paper Lot#** **See Exception** ☐
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	13. **See Exception** ☐
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased):_____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted:_____ Date/Time:_____

Comments/Resolution:_____

Project Manager Review: Joanne Richardson **Date:** 5-29-20

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: CW

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) Exception Form**	Document Revised: 26Mar2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0142 Rev.00**	Pace Analytical Services - **Minneapolis**

SCUR Exceptions:

Workorder #: 10519656

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank		
Read Temp	Corrected Temp	Average Temp
2.6	true	2.1
1.5		

Tracking Number/Temperature	

Other Issues		
Issue Type: **Sample ID**	**Container Type**	**# of Containers**

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

Appendix B

Sample Analysis Summary

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PACE Pittsburgh

Client's Sample ID	Pump Station 1		
Lab Sample ID	30365015001		
Filename	F200604C_11		
Injected By	SMT		
Total Amount Extracted	510 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	05/26/2020 09:49
ICAL ID	F200601	Received	05/29/2020 08:45
CCal Filename(s)	F200604C_01	Extracted	06/01/2020 12:40
Method Blank ID	BLANK-79746	Analyzed	06/05/2020 04:13

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	56
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	96

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

R = Recovery outside target range
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKYY		
Lab Sample ID	BLANK-79746	Matrix	Water
Filename	F200604C_05	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	06/01/2020 12:40
ICAL ID	F200601	Analyzed	06/04/2020 23:42
CCal Filename(s)	F200604C_01	Injected By	SMT

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	98
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	104

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

R = Recovery outside target range
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-79747		
Filename	F200604C_02	Matrix	Water
Total Amount Extracted	1030 mL	Dilution	NA
ICAL ID	F200601	Extracted	06/01/2020 12:40
CCal Filename	F200604C_01	Analyzed	06/04/2020 21:27
Method Blank ID	BLANK-79746	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	107
2,3,7,8-TCDD-37Cl4	10	10	3.7	15.8	102
2,3,7,8-TCDD-13C	100	93	25.0	141.0	93

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-79748		
Filename	F200604C_03	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	F200601	Extracted	06/01/2020 12:40
CCal Filename	F200604C_01	Analyzed	06/04/2020 22:12
Method Blank ID	BLANK-79746	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	106
2,3,7,8-TCDD-37Cl4	10	8.8	3.7	15.8	88
2,3,7,8-TCDD-13C	100	82	25.0	141.0	82

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PACE Pittsburgh		
Spike 1 ID	LCS-79747	Spike 2 ID	LCSD-79748
Spike 1 Filename	F200604C_02	Spike 2 Filename	F200604C_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	107	106	0.9

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

June 12, 2020

Ms. Elizabeth Bertha
Seneca Landfill
421 Hartmann Rd.
Evans City, PA 16033

RE: Project: NPDES Permit Renewal
Pace Project No.: 30365929

Dear Ms. Bertha:

Enclosed are the analytical results for sample(s) received by the laboratory on June 02, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

The samples were subcontracted to Pace Analytical Services, 1700 Elm Street, Suite 200, Minneapolis, MN 55414 for Dioxin analysis. Results of the analysis are reported on the Pace Analytical, Minnesota data tables.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project:
Pace Project No.:

Method:
Description:
Client:
Date:

This data package has been reviewed for quality and completeness and is approved for release.

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

WO# : 30365929

30365929

ALL S

Company: Seneca Landfill, Inc.

Address: 421 Hartmann Rd Evans City, PA 16033

Report To: Elizabeth Bertha

Copy To:

Billing Information:

Email To: ebertha@senecalandfill.com

Site Collection Info/Address:

Customer Project Name/Number:

State: PA / County/City: Butler / Time Zone Collected: [ ] PT [ ] MT [ ] CT [✓] ET

Phone: 724-452-0884 Email:

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [ ] No

Collected By (print): John Ott

Purchase Order #:

Quote #:

DW PWS ID #:

DW Location Code:

Collected By (signature): John Ott

Turnaround Date Required:

Immediately Packed on Ice: [ ] Yes [ ] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ______ [ ] Hold: ______

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: ______

Container Preservative Type **

** Preservative Types: (1) nitric acid, ... (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ______

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Analyses: 2,3,7,8 TCDD

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Time	Composite End Date	Time	Res Cl	# of Ctns	2,3,7,8 TCDD
Pump Station #2		G	6/2	09:04				2	

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y (N) NA
Custody Signatures Present	(Y) N NA
Collector Signature Present	(Y) N NA
Bottles Intact	(Y) N NA
Correct Bottles	(Y) N NA
Sufficient Volume	(Y) N NA
Samples Received on Ice	(Y) N NA
VOA - Headspace Acceptable	Y N (NA)
USDA Regulated Soils	Y N (NA)
Samples in Holding Time	(Y) N NA
Residual Chlorine Present	Y (N) NA
Cl Strips:	
Sample pH Acceptable	(Y) N NA
pH Strips:	1CD2192
Sulfide Present	Y N (NA)
Lead Acetate Strips:	

LAB USE ONLY:

Lab Sample # / Comments: MV/MR Cel

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: Ice, Bubblewrap

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: N/A 2500705

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:

Temp Blank Received: Y (N) NA

Therm ID#: 9

Cooler 1 Temp Upon Receipt: 6.0 oC

Cooler 1 Therm Corr. Factor: -0.5 oC

Cooler 1 Corrected Temp: 5.5 oC

Comments: MV 6-2-20

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Seneca Landfill John Ott	6-2-20 1215	[signature]	6-2-20 1215
[signature]	6-2-20 1550	[signature]	6-2-20 15:50

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Trip Blank Received: Y (N) NA

HCL MeOH TSP Other

Non Conformance(s): YES / (NO)

Page: ______ of: ______

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Rachel Christner
PACE Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10520257
Sample Receipt Date: 06/04/2020
Client Project #: 30365929
Client Sub PO #: N/A
State Cert #: 018 (68-00563)

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Joanne Richardson, your Pace Project Manager.

This report has been reviewed by:

Joanne Richardson

June 11, 2020

Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

Report Prepared Date:
June 10, 2020

Report of Laboratory Analysis

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Pace Analytical Services, LLC. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration points and a nominal 1-liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 57%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of 2,3,7,8-TCDD at the reporting limit.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 108-114% with a relative percent difference of 5.4%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - De	via MN-ELAP
Alabama	40770	Minnesota - Pet	1240
Alaska - DW	MN00064	Mississippi	MN00064
Alaska - UST	17-009	Missouri - DW	10100
Arizona	AZ0014	Montana	CERT0092
Arkansas - DW	MN00064	Nebraska	NE-OS-18-06
Arkansas - WW	19-039-0 (88-06	Nevada	MN000642020-
CNMI Saipan	MP0003	New Hampshire	208120-B (2081
California	2929	New Jersey (NE	NLC 190003 (M
Colorado	MN00064	New York	11647
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	20-001R	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	2019-041 (9507
Idaho	MN00064	Oregon - Primar	MN300001-012
Illinois	004575 (20001	Oregon - Secon	MN200001-013
Indiana	C-MN-01	Pennsylvania	018 (68-00563)
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003001 (740
Kentucky - DW	90062	Tennessee	TN02818
Kentucky - WW	90062	Texas	T104704192
Louisiana - DE	03086 (84596)	Utah (NELAP)	MN000642019-
Louisiana - DH	LA006	Vermont	VT-027053137
Louisiana - DW	MN00064	Virginia	10570 (460163)
Maine	2019018 (238)(	Washington	C486-20 (C486)
Maryland	322	West Virginia -	382
Massachusetts	M-MN064	West Virginia -	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	1857409	Wyoming - UST	2926.01

REPORT OF LABORATORY ANALYSIS

Appendix A

Sample Management

Chain of Custody

☐ Samples were sent directly to the Subcontracting Laboratory.

Pace Analytical®
www.pacelabs.com

State Of Origin: PA
Cert. Needed: [x] Yes ☐ No
Owner Received Date: 6/2/2020 **Results Requested By:** 6/16/2020

Workorder: 30365929 **Workorder Name:** NPDES Permit Renewal

Report To	Subcontract To
Rachel Christner Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone 724-850-5611	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Requested Analysis

WO# : 10520257

10520257

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: NA2S2O3	1613 - 2,3,7,8-TCDD	LAB USE ONLY
1	Pump Station #2	PS	6/2/2020 09:04	30365929001	Water	1	X	001
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[illegible] 6/3/2020 1100		IJ-PACE 6/4/20	8:50
2				
3				

Comments

Cooler Temperature on Receipt 1.3 °C | **Custody Seal** Y or (N) | **Received on Ice** (Y) or N | **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Report No.....10520257_1613TCDD_DFR

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

WO# : 30365929

30365929

Company: Seneca Landfill, Inc.	Billing Information:
Address: 421 Hartmann Rd Evans City, PA 16033	
Report To: Elizabeth Bertha	Email To: ebertha@senecalandfill.com
Copy To:	Site Collection Info/Address:
Customer Project Name/Number:	State: PA County/City: Butler Time Zone Collected: [ ]PT [ ]MT [ ]CT [X]ET
Phone: 724-452-0852 Email:	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): John Ott	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature): John Ott	Turnaround Date Required: Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
	Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (Composite Start) Date	Collected (Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns
Pump Station #2		G	6/2	09:01				2

Analyses: 2,3,7,8-TCDD

Container Preserva

** Preservative Types: (1) nitric acid, (6) methanol, (7) sodium bisulfate, (8) [illegible], (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips: 1612192	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

MV/MR 6/2

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used: Ice, Bubblewrap

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: N/A 2500705

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 7
Cooler 1 Temp Upon Receipt: 6.0 oC
Cooler 1 Therm Corr. Factor: -0.5 oC
Cooler 1 Corrected Temp: 5.5 oC
Comments:
JM 6-2-20

Relinquished by/Company: (Signature) Seneca Landfill John Ott	Date/Time: 6-2-20 1215	Received by/Company: (Signature)	Date/Time: 6-2-20 1215
Relinquished by/Company: (Signature)	Date/Time: 6-2-20 1550	Received by/Company: (Signature)	Date/Time: 6-2-20 15:50
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: of:

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) - MN**	Document Revised: 27Mar2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0150 Rev.00**	Pace Analytical Services - **Minneapolis**

Sample Condition Upon Receipt

Client Name: Pace - PA

Project #: WO# : 10520257

PM: JMR Due Date: 06/18/20

CLIENT: PASI-PITT

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ SpeeDee ☐ Commercial **See Exceptions** ☐

Tracking Number: 1461 8060 3950

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other: _____ **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1(0461) ☐ T2(1336) ☒ T3(0459) ☐ T4(0254) ☐ T5(0489) **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** 1.2 °C **Average Corrected Temp (no temp blank only):** ☐ See Exceptions _____ °C ☐ 1 Container

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank:** 1.3 °C

USDA Regulated Soil: (☒ N/A, water sample/Other: _____) **Date/Initials of Person Examining Contents:** 6/4/20 IJ

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☐ Yes	☐ No	☒ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E coli ☐ BOD/cBOD ☐ Hex Chrome ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other _____
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No		8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other _____	☒ Yes	☐ No		11. **If no, write ID/ Date/Time on Container Below:** **See Exception** ☐
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO_3 ☐ H_2SO_4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☒ Yes	☐ No	☐ N/A	Positive for Res. Chlorine? ☐ Yes ☐ No **pH Paper Lot#** **See Exception** ☐
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	13. **See Exception** ☐
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Joanne Richardson **Date:** 6-4-20

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

Appendix B

Sample Analysis Summary

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PACE Pittsburgh

Client's Sample ID	Pump Station #2		
Lab Sample ID	30365929001		
Filename	F200609A_03		
Injected By	SMT		
Total Amount Extracted	498 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	06/02/2020 09:04
ICAL ID	F200601	Received	06/04/2020 08:50
CCal Filename(s)	F200609A_01	Extracted	06/05/2020 12:00
Method Blank ID	BLANK-79913	Analyzed	06/09/2020 16:07

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	57
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	84

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

R = Recovery outside target range
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKBC		
Lab Sample ID	BLANK-79913	Matrix	Water
Filename	Y200609A_13	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	06/05/2020 12:00
ICAL ID	Y200608	Analyzed	06/09/2020 23:00
CCal Filename(s)	Y200609A_01	Injected By	SM

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	85
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	95

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-79914		
Filename	Y200609A_04	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	Y200608	Extracted	06/05/2020 12:00
CCal Filename	Y200609A_01	Analyzed	06/09/2020 16:25
Method Blank ID	BLANK-79913	Injected By	SM

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	114
2,3,7,8-TCDD-37Cl4	10	9.4	3.7	15.8	94
2,3,7,8-TCDD-13C	100	86	25.0	141.0	86

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-79915		
Filename	Y200609A_05	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	Y200608	Extracted	06/05/2020 12:00
CCal Filename	Y200609A_01	Analyzed	06/09/2020 17:09
Method Blank ID	BLANK-79913	Injected By	SM

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	108
2,3,7,8-TCDD-37Cl4	10	10	3.7	15.8	103
2,3,7,8-TCDD-13C	100	94	25.0	141.0	94

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PACE Pittsburgh		
Spike 1 ID	LCS-79914	Spike 2 ID	LCSD-79915
Spike 1 Filename	Y200609A_04	Spike 2 Filename	Y200609A_05

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	114	108	5.4

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

June 23, 2020

Ms. Elizabeth Bertha
Seneca Landfill
421 Hartmann Rd.
Evans City, PA 16033

RE: Project: NPDES Permit Renewal
Pace Project No.: 30367364

Dear Ms. Bertha:

Enclosed are the analytical results for sample(s) received by the laboratory on June 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

The samples were subcontracted to Pace Analytical Services, 1700 Elm Street, Suite 200, Minneapolis, MN 55414 for Dioxin analysis. Results of the analysis are reported on the Pace Analytical, Minnesota data tables.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project:
Pace Project No.:

Method:
Description:
Client:
Date:

This data package has been reviewed for quality and completeness and is approved for release.

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder (Login Label Here or List Pace Workorder Number or

WO# : 30367364

ALL SHADED

30367364

Company: Seneca Landfill, Inc.	Billing Information:
Address: 421 Hartmann Rd; Evans City, PA 16033	
Report To: Elizabeth Bertha	Email To: ebertha@senecalandfill.com
Copy To:	Site Collection Info/Address:
Customer Project Name/Number:	State: PA / County/City: Butler / Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: Email: 724-452-0799	Site/Facility ID #: / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print):	Purchase Order #: / Quote #: / DW PWS ID #: / DW Location Code:
Collected By (signature):	Turnaround Date Required: / Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Container Preservative Type *

Analyses

4,3,7,1-TCDD

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns
Pump Station #3	WW	G	6/10/20	07:20				

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y (N)	NA
Custody Signatures Present	~~Y~~ N	NA
Collector Signature Present	Y ~~N~~	NA
Bottles Intact	~~Y~~ N	NA
Correct Bottles	~~Y~~ N	NA
Sufficient Volume	~~Y~~ N	NA
Samples Received on Ice	~~Y~~ N	NA
VOA - Headspace Acceptable	Y N	~~NA~~
USDA Regulated Soils	Y N	~~NA~~
Samples in Holding Time	~~Y~~ N	NA
Residual Chlorine Present	Y ~~N~~	NA
Cl Strips: _____		
Sample pH Acceptable	~~Y~~ N	NA
pH Strips: 10D2192		
Sulfide Present	Y N	~~NA~~
Lead Acetate Strips: _____		

LAB USE ONLY:
Lab Sample # / Comments:

MJ | VG

001

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: ice & bubblewrap

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2500704

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:

Temp Blank Received: Y N NA

Therm ID#: 11

Cooler 1 Temp Upon Receipt: 10.8 oC

Cooler 1 Therm Corr. Factor: -0.3 oC

Cooler 1 Corrected Temp: 10.5 oC

Comments:

MJ 6/10/2020

Trip Blank Received: Y N ~~NA~~

HCL MeOH TSP Other

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
John Ott	6/10/20 09:00	Pat Graham	6/10/20 1235
Pat Graham	6/10/20 1540	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY

Table #:

Acctnum:

Template:

Prelogin:

PM:

PB:

Non Conformance(s): (YES) / NO

Page: _____ of: _____

Pace Analytical
www.pacelabs.com

Sample Receiving Non-Conformance Form (NCF)

Date: 6-10-20	Evaluated by: KG
Client: Seneca Landfill	

Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

#-30367364

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

	Collection date/time missing or incorrect		Analyses or analytes: missing or clarification needed		Samples listed on COC do not match samples received (missing, additional, etc.)
	Sample IDs on COC do not match sample labels		Required trip blanks were not received	✓	Required signatures are missing

Comments/Details/Other Issues not listed above:

Collector's printed name & signature not present

3. Sample integrity issues: check applicable issues below and add details where appropriate:

	Samples: Past holding time		Samples: Condition needs to be brought to lab personnel's attention (details below)		Preservation: Improper
	Samples: Not field filtered		Containers: Broken or compromised		Temperature: not within acceptance criteria (typically 0-6C)
	Samples: Insufficient volume received		Containers: Incorrect		Temperature: Samples arrived frozen
	Samples: Cooler damaged or compromised		Custody Seals: Missing or compromised on samples, trip blanks or coolers		Vials received with improper headspace
	Samples: contain chlorine or sulfides		Packing Material: Insufficient/Improper		Other:

Comments/Details:

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

Pace Analytical™
www.pacelabs.com

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Rachel Christner
PACE Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10521326
Sample Receipt Date: 06/12/2020
Client Project #: 30367364
Client Sub PO #: N/A
State Cert #: N/A

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Joanne Richardson, your Pace Project Manager.

This report has been reviewed by:

Joanne Richardson

June 23, 2020

Joanne Richardson,
(612) 607-6453
(612) 607-6444 (fax)

Report Prepared Date:
June 23, 2020

Report of Laboratory Analysis

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of Pace Analytical Services, LLC. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration points and a nominal 1-liter sample amount, and the sensitivity was verified by signal-to-noise measurements. The quantitation limits, adjusted for sample extraction amount, may be somewhat higher or lower than the reporting limits provided in this report.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 47%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to be free of 2,3,7,8-TCDD at the reporting limit.

Laboratory spike samples were also prepared using clean reference matrix that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 112-117% with a relative percent difference of 4.4%. These results were within the target ranges for the method. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - De	via MN-ELAP
Alabama	40770	Minnesota - Pet	1240
Alaska - DW	MN00064	Mississippi	MN00064
Alaska - UST	17-009	Missouri - DW	10100
Arizona	AZ0014	Montana	CERT0092
Arkansas - DW	MN00064	Nebraska	NE-OS-18-06
Arkansas - WW	19-039-0 (88-06	Nevada	MN000642020-
CNMI Saipan	MP0003	New Hampshire	208120-B (2081
California	2929	New Jersey (NE	NLC 190003 (M
Colorado	MN00064	New York	11647
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	20-001R	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	2019-041 (9507
Idaho	MN00064	Oregon - Primar	MN300001-012
Illinois	004575 (20001	Oregon - Secon	MN200001-013
Indiana	C-MN-01	Pennsylvania	018 (68-00563)
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003001 (740
Kentucky - DW	90062	Tennessee	TN02818
Kentucky - WW	90062	Texas	T104704192
Louisiana - DE	03086 (84596)	Utah (NELAP)	MN000642019-
Louisiana - DH	LA006	Vermont	VT-027053137
Louisiana - DW	MN00064	Virginia	10570 (460163)
Maine	2019018 (238)(	Washington	C486-20 (C486)
Maryland	322	West Virginia -	382
Massachusetts	M-MN064	West Virginia -	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	1857409	Wyoming - UST	2926.01

REPORT OF LABORATORY ANALYSIS

Appendix A

Sample Management

Chain of Custody

Pace Analytical® www.pacelabs.com

☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: PA
Cert. Needed: ☒ Yes ☐ No
Owner Received Date: 6/10/2020 **Results Requested By:** 6/24/2020

Workorder: 30367364 **Workorder Name:** NPDES Permit Renewal

Report To	Subcontract To
Rachel Christner Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone 724-850-5611	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Requested Analysis

WO#: 10521326
10521326

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: NA2S2O3	1613 - 2,3,7,8-TCDD	LAB USE ONLY
1	Pump Station #3	PS	6/10/2020 08:20	30367364001	Water	1	X	001
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	[signature]	6/11/20 1630	[signature] pace	840 6/12/20
2				
3				

Comments

Cooler Temperature on Receipt 3.2 °C **Custody Seal** Y or N (N marked) **Received on Ice** Y or N (Y marked) **Samples Intact** Y or N (Y marked)

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

Report No.....10521326_1613TCDD_DFR

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder Label Here or List Pace Workorder Number or

WO# : 30367364

30367364

ALL SHADED

Company: Seneca Landfill, Inc.	Billing Information:
Address: 421 Hartmann Rd; Evans City, PA 16033	
Report To: Elizabeth Bertha	Email To: ebertha@senecalandfill.com
Copy To:	Site Collection Info/Address:
Customer Project Name/Number:	State: PA / County/City: Butler / Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET
Phone: 724-452-0F89 / Email:	Site/Facility ID #: / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print):	Purchase Order #: / Quote #: / DW PWS ID #: / DW Location Code:
Collected By (signature):	Turnaround Date Required: / Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No / Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns
Pump Station #3	WW	G	6/10/20	07:30				

Container Preservative Type *

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

2,3,7,8-TCDD

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y (N) NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips: 16D 2192	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

NJ / VG

001

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: (Wet) Blue Dry None

Packing Material Used: ice & bubblewrap

Radchem sample(s) screened (<500 cpm): Y N (NA)

SHORT HOLDS PRESENT (<72 hours): Y (N) N/A

Lab Tracking #: 2500704

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: 11
Cooler 1 Temp Upon Receipt: 10.8 oC
Cooler 1 Therm Corr. Factor: 0.3 oC
Cooler 1 Corrected Temp: 10.5 oC
Comments:
NJ 6/10/2020

Relinquished by/Company: (Signature) John Ott	Date/Time: 6/10/20 09:00	Received by/Company: (Signature) Bill Cochran	Date/Time: 6/10/20 1235
Relinquished by/Company: (Signature) Bill Cochran	Date/Time: 6/10/20 1540	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): (YES) NO

Page: _____ of: _____

Pace Analytical
www.pacelabs.com

Sample Receiving Non-Conformance Form (NCF)

Date: 6-10-20	Evaluated by:
Client: Sentinel Analytical	

Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

#_30367364

1. If Chain-of-Custody (COC) is not received: contact client and if necessary, fill out a COC and indicate that it was filled out by lab personnel. Note issues on this NCF.

2. If COC is incomplete, check applicable issues below and add details where appropriate:

Collection date/time missing or incorrect	Analyses or analytes: missing or clarification needed	Samples listed on COC do not match samples received (missing, additional, etc.)
Sample IDs on COC do not match sample labels	Required trip blanks were not received	Required signatures are missing

Comments/Details/Other issues not listed above:

Collector's printed name & signature not present

3. Sample integrity issues: check applicable issues below and add details where appropriate:

Samples: Past holding time	Samples: Condition needs to be brought to lab personnel's attention (details below)	Preservation: Improper
Samples: Not field filtered	Containers: Broken or compromised	Temperature: not within acceptance criteria (typically 0-6C)
Samples: Insufficient volume received	Containers: Incorrect	Temperature: Samples arrived frozen
Samples: Cooler damaged or compromised	Custody Seals: Missing or compromised on samples, trip blanks or coolers	Vials received with improper headspace
Samples: contain chlorine or sulfides	Packing Material: Insufficient/Improper	Other:

Comments/Details:

4. If Samples not preserved properly and Sample Receiving adjusts pH, add details below:

Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:
Sample ID:	Date/Time:	Amount/type pres added:
Preserved by:	Initial and Final pH:	Lot # of pres added:

5. Client Contact: If client is contacted for any issue listed above, fill in details below:

Client:	Contacted per:	
PM Initials:	Date/Time:	

Client Comments/Instructions:

F-ALL-C-011-rev.00, 05Jul2018

Pace Analytical®	Document Name: **Sample Condition Upon Receipt (SCUR) - MN**	Document Revised: 27Mar2020 **Page 1 of 1**
	Document No.: **ENV-FRM-MIN4-0150 Rev.00**	Pace Analytical Services - **Minneapolis**

Sample Condition Upon Receipt

Client Name: Pace Pittsburgh

Project #: WO#: 10521326

PM: JMR Due Date: 06/24/20

CLIENT: PASI-PITT

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Pace ☐ SpeeDee ☐ Commercial **See Exceptions** ☐

Tracking Number: 1461 8060 5654

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other:_____ **Temp Blank?** ☐ Yes ☒ No

Thermometer: ☐ T1(0461) ☐ T2(1336) ☒ T3(0459) ☐ T4(0254) ☐ T5(0489) **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:**_____ °C **Average Corrected Temp (no temp blank only):** ☒ See Exceptions 3.2 °C ☐ 1 Container

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank :**_____ °C

USDA Regulated Soil: (☒ N/A, water sample/Other: WH) **Date/Initials of Person Examining Contents:** MK4 6/12/20

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E coli ☐ BOD/cBOD ☐ Hex Chrome ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other_____
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No		8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☒ Yes	☐ No		11. **If no, write ID/ Date/Time on Container Below:** **See Exception** ☐
Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other_____				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, <2pH, NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO_3 ☐ H_2SO_4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	☒ Yes	☐ No	☐ N/A	Positive for Res. Chlorine? ☐ Yes ☐ No **pH Paper Lot#** **See Exception** ☐
				Res. Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	13. **See Exception** ☐
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased):_____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted:_____ Date/Time:_____

Comments/Resolution:_____

Project Manager Review: Joanne Richardson **Date:** 6-12-20

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers).

SCUR Exceptions:

Workorder #: 10521326

Out of Temp Sample IDs	Container Type	# of Containers

PM Notified? ☐Yes ☐No

If yes, indicate who was contacted/date/time.
If no, indicate reason why.

Multiple Cooler Project? ☐Yes ☐No
If you answered yes, fill out information to the left.

No Temp Blank		
Read Temp	Corrected Temp	Average Temp
2.7	2.8	3.2
3.7	3.8	

Tracking Number/Temperature	

Issue Type: Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	
								☐Yes ☐No	

Comments:

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

Appendix B

Sample Analysis Summary

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PACE Pittsburgh

Client's Sample ID	Pump Station #3		
Lab Sample ID	30367364001		
Filename	U200618B_06		
Injected By	SMT		
Total Amount Extracted	505 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	06/10/2020 08:20
ICAL ID	U200419	Received	06/12/2020 08:40
CCal Filename(s)	U200618A_17	Extracted	06/15/2020 11:56
Method Blank ID	BLANK-80123	Analyzed	06/18/2020 18:48

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	47
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	91

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

R = Recovery outside target range
E = Exceeds calibration range

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKEC		
Lab Sample ID	BLANK-80123	Matrix	Water
Filename	U200617B_09	Dilution	NA
Total Amount Extracted	1050 mL	Extracted	06/15/2020 11:56
ICAL ID	U200419	Analyzed	06/17/2020 20:02
CCal Filename(s)	U200617A_07	Injected By	SMT

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	-----	10	2,3,7,8-TCDD-13C	2.00	87
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	96

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-80124		
Filename	U200617B_02	Matrix	Water
Total Amount Extracted	1050 mL	Dilution	NA
ICAL ID	U200419	Extracted	06/15/2020 11:56
CCal Filename	U200617A_07	Analyzed	06/17/2020 15:07
Method Blank ID	BLANK-80123	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	12	7.3	14.6	117
2,3,7,8-TCDD-37Cl4	10	10	3.7	15.8	102
2,3,7,8-TCDD-13C	100	95	25.0	141.0	95

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-80125		
Filename	U200617A_06	Matrix	Water
Total Amount Extracted	1060 mL	Dilution	NA
ICAL ID	U200419	Extracted	06/15/2020 11:56
CCal Filename	U200617A_01	Analyzed	06/17/2020 12:54
Method Blank ID	BLANK-80123	Injected By	SMT

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	11	7.3	14.6	112
2,3,7,8-TCDD-37Cl4	10	9.0	3.7	15.8	90
2,3,7,8-TCDD-13C	100	82	25.0	141.0	82

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PACE Pittsburgh		
Spike 1 ID	LCS-80124	Spike 2 ID	LCSD-80125
Spike 1 Filename	U200617B_02	Spike 2 Filename	U200617A_06

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	117	112	4.4

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Pesek, Adam

From: Laura Vallett <Lvallett@baigroupllc.com>
Sent: Friday, April 17, 2020 5:00 PM
To: Pesek, Adam
Cc: Jim Echard; ebertha@senecalandfill.com
Subject: [External] Tri-County Landfill NPDES Permit Review-Responses based on Conference Call from April 15th
Attachments: TCL_NPDES_pollutantresultPgs_revised041720.pdf; 2378TCDD_report2_SLFNPDESrenewal.pdf; 2378TCDD_report3_SLFNPDESrenewal.pdf; 2378TCDD_report1_SLFNPDESrenewal.pdf

Adam,

Thank you setting up the meeting to discuss your initial technical review of TCL's NDPES permit application and to allow us the opportunity to address some of your initial questions and comments. I have looked into the items you mentioned on the above referenced conference call and have provided additional information as discussed.

I have pulled out the three 2,3,7,8 TCDD analysis reports completed for Seneca Landfill's NPDES renewal and referenced as included in the ~500 page Appendix G and attached for your review.

In addition, I looked into the question of missing data for Chloride, Acrylamide and PCBs from our reported data. I have updated the Chloride results for the Influent sampling results which are based on the Form 50's provided by Seneca Landfill. Chloride was not available for the Effluent results because Seneca's NPDES application did not require chloride as a pollutant parameter at the time of their reference renewal. I have also updated the PCB's section with the results from the Piezometer 29 leachate sampling completed at TCL from May 2000. I have provided a pdf of these revised pages from the application form.

Acrylamide results are not available as it was not a parameter that was required at the time when the referenced sampling events occurred.

Please let me know if you require a more formal submission of this information or if this correspondence satisfies the items mentioned in the call. We understand there were several parameters (33?) that you will allow for additional sampling and analysis to the required quantitation limit. Will you provide this list via email or do we wait until you issue the comment letter?

Feel free to contact me with any further questions.

Thank you,

Laura A Vallett, P.E.
BAI Group

2525 Green Tech Drive, Suite D
State College, PA 16803
(814) 238-2060 (phone) EXT. 140
(814) 238-7123 (fax)
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Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10208500
Sample Receipt Date: 10/12/2012
Client Project #: 3079283
Client Sub PO #: N/A
State Cert #: 68-00563

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Norman Hoffa, your Pace Project Manager.

This report has been reviewed by:

Norman C. Hoffa

October 23, 2012
Norman Hoffa, Project Manager
(919) 596-1935
(612) 607-6444 (fax)
norm.hoffa@pacelabs.com

ACCREDITED IN ACCORDANCE WITH nelac

Report Prepared Date:
October 23, 2012

Report of Laboratory Analysis

The results relate only to the samples included in this report.

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of PASI Pittsburgh. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration point and a nominal 1-Liter sample amount.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 98%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that 2,3,7,8-TCDD was not detected, indicating that the sample processing steps were free of background levels of this congener.

Laboratory spike samples were also prepared using clean water that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 91-97%, with a relative percent difference of 6.4%. These results indicate high degrees of accuracy and precision for these determinations. Matrix spikes were not prepared with the sample batch.

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Montana	92
Alaska	MN00064	Nebraska	
Arizona	AZ0014	Nevada	MN_00064_200
Arkansas	88-0680	New Jersey (NE	MN002
California	01155CA	New Mexico	MN00064
Colorado	MN00064	New York (NEL	11647
Connecticut	PH-0256	North Carolina	27700
EPA Region 5	WD-15J	North Dakota	R-036
EPA Region 8	8TMS-Q	Ohio	4150
Florida (NELAP	E87605	Ohio VAP	CL101 9507
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennesee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

Appendix A

Sample Management

1131

10208500

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: 3079283 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/9/2012 **Results Requested By:** 10/30/2012

Report To	Subcontract To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Item	Sample ID	Sample Type	Collected Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	Requested Analysis: 1613 - 2,3,7,8-TCDD	LAB USE ONLY
1	Outfall 001 - Sample 1	PS	10/9/2012 09:30	3079283001	Water	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Calor	10-10-12 1345	JN Pace	10/11/12 843
2				
3				

Comments

Cooler Temperature on Receipt 4.0 °C **Custody Seal** Y or (N) **Received on Ice** (Y) or N **Samples Intact** (Y) or N

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Pace PA

Project #: WO#: 10208500

10208500

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 5348 2680 6931

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☐ Yes ☒ No

Thermometer Used: ☐ 888A912167504 ☐ 80512447 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.0 **Biological Tissue Frozen?** ☐ Yes ☐ No **Date and Initials of Person Examining Contents:** 10 11 12 TN

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☒ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11.
Sample Labels Match COC?	☒ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WT				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☒ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☒ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Norman Hoffa Digitally signed by Norman Hoffa DN: cn=Norman Hoffa, o=Pace Analytical Services Inc, ou=Project Manager, email=norm.hoffa@pacelabs.com, c=US Date: 2012.10.12 12:48:40 -04'00' **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PASI Pittsburgh

Client's Sample ID	OUTFALL 001-SAMPLE 1		
Lab Sample ID	3079283001		
Filename	F121021A_09		
Injected By	BAL		
Total Amount Extracted	1000 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/09/2012 09:30
ICAL ID	F121011	Received	10/12/2012 10:40
CCal Filename(s)	F121021A_03	Extracted	10/18/2012 14:00
Method Blank ID	BLANK-34233	Analyzed	10/22/2012 00:23

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	98
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	123

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-34233	Matrix	Water
Filename	F121020B_06	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	10/18/2012 14:00
ICAL ID	F121011	Analyzed	10/21/2012 08:05
CCal Filename(s)	F121020B_01	Injected By	BAL

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	100
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	98

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-34234		
Filename	F121020B_02	Matrix	Water
Total Amount Extracted	1050 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 04:59
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.1	7.3	14.6	91
2,3,7,8-TCDD-37Cl4	10	9.6	3.7	15.8	96
2,3,7,8-TCDD-13C	100	98	25.0	141.0	98

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-34245		
Filename	F121020B_03	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 05:46
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.7	7.3	14.6	97
2,3,7,8-TCDD-37Cl4	10	9.8	3.7	15.8	98
2,3,7,8-TCDD-13C	100	97	25.0	141.0	97

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Pittsburgh		
Spike 1 ID	LCS-34234	Spike 2 ID	LCSD-34245
Spike 1 Filename	F121020B_02	Spike 2 Filename	F121020B_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	91	97	6.4

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10208529
Sample Receipt Date: 10/12/2012
Client Project #: 3079403
Client Sub PO #: N/A
State Cert #: 68-00563

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Norman Hoffa, your Pace Project Manager.

This report has been reviewed by:

Norman C. Hoffa

October 23, 2012
Norman Hoffa, Project Manager
(919) 596-1935
(612) 607-6444 (fax)
norm.hoffa@pacelabs.com

Report Prepared Date:
October 23, 2012

ACCREDITED IN ACCORDANCE WITH nelac

Report of Laboratory Analysis

The results relate only to the samples included in this report.

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of PASI Pittsburgh. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration point and a nominal 1-Liter sample amount.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 95%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that 2,3,7,8-TCDD was not detected, indicating that the sample processing steps were free of background levels of this congener.

Laboratory spike samples were also prepared using clean water that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 91-97%, with a relative percent difference of 6.4%. These results indicate high degrees of accuracy and precision for these determinations. Matrix spikes were not prepared with the sample batch.

1137

Chain of Custody

10208529

Pace Analytical
www.pacelabs.com

Workorder: 3079403 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/10/2012 **Results Requested By:** 11/1/2012

Report To	Subcontract To
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preservatives: Unpreserved	Requested Analysis: 1613 - 2,3,7,8-TCDD	LAB USE ONLY
1	Outfall 001 - Sample 2	PS	10/10/2012 09:30	3079403001	Water	1	X	
2								
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Falor	10-11-12 1515	GC pace	10-12-12 8:45
2				
3				

Comments:

Cooler Temperature on Receipt 6.3 °C **Custody Seal** Y or (N) **Received on Ice** (Y) or N **Samples Intact** (Y) or N

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: pace pa

Project #: WO#: 10208529

10208529

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other: _____

Tracking Number: 534826807728

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: _____ **Temp Blank?** ☐ Yes ☑ No

Thermometer Used: ☑ 888A912167504 ☐ 80512447 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.3 **Biological Tissue Frozen?** ☐ Yes ☐ No **Date and Initials of Person Examining Contents:** CSC 10-12-12

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☑ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☑ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☑ No		Initial when completed: ____ Lot # of added preservative: ____
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased): ____				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ **Date/Time:** _____

Comments/Resolution: _____

Project Manager Review: Norman Hoffa Digitally signed by Norman Hoffa DN: cn=Norman Hoffa, o=Pace Analytical Services Inc, ou=Project Manager, email=norm.hoffa@pacelabs.com, c=US Date: 2012.10.12 16:03:15 -04'00' **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Method 1613B Sample Analysis Results

Client - PASI Pittsburgh

Client's Sample ID	Outfall 001 - Sample 2		
Lab Sample ID	3079403001		
Filename	F121021A_10		
Injected By	BAL		
Total Amount Extracted	995 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/10/2012 09:30
ICAL ID	F121011	Received	10/12/2012 08:45
CCal Filename(s)	F121021A_03	Extracted	10/18/2012 14:00
Method Blank ID	BLANK-34233	Analyzed	10/22/2012 01:10

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	95
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	98

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-34233	Matrix	Water
Filename	F121020B_06	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	10/18/2012 14:00
ICAL ID	F121011	Analyzed	10/21/2012 08:05
CCal Filename(s)	F121020B_01	Injected By	BAL

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	---	10	2,3,7,8-TCDD-13C	2.00	100
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	98

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-34234		
Filename	F121020B_02	Matrix	Water
Total Amount Extracted	1050 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 04:59
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.1	7.3	14.6	91
2,3,7,8-TCDD-37Cl4	10	9.6	3.7	15.8	96
2,3,7,8-TCDD-13C	100	98	25.0	141.0	98

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-34245		
Filename	F121020B_03	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 05:46
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.7	7.3	14.6	97
2,3,7,8-TCDD-37Cl4	10	9.8	3.7	15.8	98
2,3,7,8-TCDD-13C	100	97	25.0	141.0	97

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Pittsburgh		
Spike 1 ID	LCS-34234	Spike 2 ID	LCSD-34245
Spike 1 Filename	F121020B_02	Spike 2 Filename	F121020B_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	91	97	6.4

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

www.pacelabs.com

Report Prepared for:

Rachel Christner
PASI Pittsburgh
1638 Roseytown Road
Greensburg PA 15601

REPORT OF LABORATORY ANALYSIS FOR TCDD

Report Information:

Pace Project #: 10208823
Sample Receipt Date: 10/16/2012
Client Project #: 3079470
Client Sub PO #: N/A
State Cert #: 68-00563

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 2,3,7,8-TCDD Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Norman Hoffa, your Pace Project Manager.

This report has been reviewed by:

Norman C. Hoffa

October 23, 2012
Norman Hoffa, Project Manager
(919) 596-1935
(612) 607-6444 (fax)
norm.hoffa@pacelabs.com

ACCREDITED IN ACCORDANCE WITH nelac

Report Prepared Date:
October 23, 2012

Report of Laboratory Analysis

The results relate only to the samples included in this report.

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analysis performed on one sample submitted by a representative of PASI Pittsburgh. The sample was analyzed for the presence or absence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) using USEPA Method 1613B. The reporting limits were set to correspond to the lowest calibration point and a nominal 1-Liter sample amount.

The isotopically-labeled TCDD internal standard in the sample extract was recovered at 96%. All of the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native TCDD was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that 2,3,7,8-TCDD was not detected, indicating that the sample processing steps were free of background levels of this congener.

Laboratory spike samples were also prepared using clean water that had been fortified with native standard material. The results show that the spiked native TCDD was recovered at 91-97%, with a relative percent difference of 6.4%. These results indicate high degrees of accuracy and precision for these determinations. Matrix spikes were not prepared with the sample batch.

Pace Analytical Services, Inc.
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Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Montana	92
Alaska	MN00064	Nebraska	
Arizona	AZ0014	Nevada	MN_00064_200
Arkansas	88-0680	New Jersey (NE	MN002
California	01155CA	New Mexico	MN00064
Colorado	MN00064	New York (NEL	11647
Connecticut	PH-0256	North Carolina	27700
EPA Region 5	WD-15J	North Dakota	R-036
EPA Region 8	8TMS-Q	Ohio	4150
Florida (NELAP	E87605	Ohio VAP	CL101 9507
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennesee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q
Mississippi	MN00064		

REPORT OF LABORATORY ANALYSIS

Appendix A

Sample Management

1125

Chain of Custody

10208823

Pace Analytical
www.pacelabs.com

Workorder: 3079470 **Workorder Name:** NPDES Permit Renewal **Owner Received Date:** 10/11/2012 **Results Requested By:** 11/2/2012

Report To	Subcontract To	Requested Analysis
Rachel Christner Pace Analytical Services, Inc. 1638 Roseytown Road Greensburg, PA 15601 Phone (724)850-5600 Fax (999)999-9999	Pace Analytical Minnesota 1700 Elm Street SE Suite 200 Minneapolis, MN 55414 Phone (612)607-1700	

Item	Sample ID	Sample Type	Collected (or Composite Start)	Sample ID	Matrix	Requested Analysis: Unpreserved						1613 - 2,3,7,8-TCDD												LAB USE ONLY
1	Outfall 001 - Sample 3	PS	10/11/2012 09:30	3079470001	Water	1						X												
2																								
3																								
4																								
5																								

Comments:

Transfers	Released By	Date/Time	Received By	Date/Time
1	Ryan Lalor	10-15-12 1540	PACE	10/16/12 8:55
2				
3				

Cooler Temperature on Receipt 2.6 °C | Custody Seal Y or (N) | Received on Ice (Y) or N | Samples Intact (Y) or N

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 22Aug2012 Page 1 of 1
	Document No.: F-MN-L-213-rev.04	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Pace PA

Project #: WO# : 10208823

10208823

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other:

Tracking Number: 554826807423

Custody Seal on Cooler/Box Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: **Temp Blank?** ☐ Yes ☑ No

Thermometer Used: ☑ 98BA912167504 ☐ 80512447 **Type of Ice:** ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 2.4 **Biological Tissue Frozen?** ☐ Yes ☑ No **Date and Initials of Person Examining Contents:** AC 10/16/12

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☐ Yes	☑ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☑ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☑ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: **Date/Time:**

Comments/Resolution:

Norman Hoffa Digitally signed by Norman Hoffa DN: cn=Norman Hoffa, o=Pace Analytical Services Inc, ou=Project Manager, email=norm.hoffa@pacelabs.com, c=US; Date: 2012.10.16 16:47:23 -04'00'

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical™

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Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interference present

J = Estimated value

Nn = Value obtained from additional analysis

P = PCDE Interference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = See Discussion

Appendix B

Sample Analysis Summary

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Sample Analysis Results

Client - PASI Pittsburgh

Client's Sample ID	Outfall 001- Sample 3		
Lab Sample ID	3079470001		
Filename	F121021A_18		
Injected By	BAL		
Total Amount Extracted	1000 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	10/11/2012 09:30
ICAL ID	F121011	Received	10/16/2012 08:55
CCal Filename(s)	F121021A_03	Extracted	10/18/2012 14:00
Method Blank ID	BLANK-34233	Analyzed	10/22/2012 07:21

Native Isomers	Conc pg/L	EMPC pg/L	RL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	96
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	100

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit.

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

REPORT OF LABORATORY ANALYSIS

Pace Analytical™

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
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Method 1613B Blank Analysis Results

Lab Sample ID	BLANK-34233	Matrix	Water
Filename	F121020B_06	Dilution	NA
Total Amount Extracted	1040 mL	Extracted	10/18/2012 14:00
ICAL ID	F121011	Analyzed	10/21/2012 08:05
CCal Filename(s)	F121020B_01	Injected By	BAL

Native Isomers	**Conc** pg/L	**EMPC** pg/L	**RL** pg/L	**Internal Standards**	**ng's Added**	**Percent Recovery**
2,3,7,8-TCDD	ND	—	10	2,3,7,8-TCDD-13C	2.00	100
				Recovery Standard 1,2,3,4-TCDD-13C	2.00	NA
				Cleanup Standard 2,3,7,8-TCDD-37Cl4	0.20	98

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
RL = Reporting Limit

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-34234		
Filename	F121020B_02	Matrix	Water
Total Amount Extracted	1050 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 04:59
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.1	7.3	14.6	91
2,3,7,8-TCDD-37Cl4	10	9.6	3.7	15.8	96
2,3,7,8-TCDD-13C	100	98	25.0	141.0	98

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-34245		
Filename	F121020B_03	Matrix	Water
Total Amount Extracted	1040 mL	Dilution	NA
ICAL ID	F121011	Extracted	10/18/2012 14:00
CCal Filename	F121020B_01	Analyzed	10/21/2012 05:46
Method Blank ID	BLANK-34233	Injected By	BAL

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDD	10	9.7	7.3	14.6	97
2,3,7,8-TCDD-37Cl4	10	9.8	3.7	15.8	98
2,3,7,8-TCDD-13C	100	97	25.0	141.0	97

Cs = Concentration Spiked (ng/mL)
Cr = Concentration Recovered (ng/mL)
Rec. = Recovery (Expressed as Percent)
Control Limit Reference: Method 1613, Table 6, 10/94 Revision
R = Recovery outside of control limits
Nn = Value obtained from additional analysis
* = See Discussion

REPORT OF LABORATORY ANALYSIS

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Method 1613B

Spike Recovery Relative Percent Difference (RPD) Results

Client	PASI Pittsburgh		
Spike 1 ID	LCS-34234	Spike 2 ID	LCSD-34245
Spike 1 Filename	F121020B_02	Spike 2 Filename	F121020B_03

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDD	91	97	6.4

%REC = Percent Recovered
RPD = The difference between the two values divided by the mean value

REPORT OF LABORATORY ANALYSIS

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 1

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc

☒ **Outfall / IMP Number 006** (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: **Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50**)

POLLUTANT GROUP 1 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
BOD_5 (mg/L)	135*	32.43	--	--	87.45*	21.0	2	0	1	405.1
COD (mg/L)	7,800	1,873	--	--	6475	1555	4	0	5	HACH 8000
TOC (mg/L)	2,590	622	--	--	1860	447	4	0	100	sM185310C
TSS (mg/L)	2,280*	548	--	--	1263.5*	303.5	2	0	1	160.2
Ammonia-Nitrogen (mg/L)	1480	355	--	--	1185	285	4	0	0.04	350.1
Temperature (Winter) (°F)	Not available	XXX	--	XXX	--	XXX	--	XXX	XXX	
Temperature (Summer) (°F)	Not available	XXX	--	XXX	--	XXX	--	XXX	XXX	
pH – Minimum (S.U.)	6.73	XXX	XXX	XXX	6.8	XXX	2	XXX	XXX	130.1
pH – Maximum (S.U.)	7.94	XXX	XXX	XXX	7.76	XXX	4	XXX	XXX	SM4500-H+B
Fecal Coliform (No./100 mL)	No Data	XXX	--	XXX	No Data	XXX	--	--	XXX	
Oil and Grease (mg/L)	No Data		--	--	No Data	--	--	--	--	
TRC (mg/L)	No Data	XXX	--	XXX	No Data	XXX	--	--	--	
Total Phosphorus (mg/L)	2.22*	0.53	--	--	1.43*	0.34	2	0	0.05	365.1
TKN (mg/L)	418*	100.4	--	--	316*	75.9	2	0	0.2	351.2
Nitrite + Nitrate-Nitrogen (mg/L)	0.15	0.04	--	--	<0.09	<0.02	4	1	0.05	353.2
Total Dissolved Solids (mg/L)	12,600	3026	--	--	11,685	2807	4	0	1	SM 2540C
Color (Pt-Co Units)	No Data	XXX	--	XXX	No Data	XXX	--	--	--	
Bromide (mg/L)	No Data	--	--	--	No Data	--	--	--	--	
Chloride (mg/L)	3640	874	--	--	2488	597.6	4	0	1	300
Sulfate (mg/L)	53.6*	12.9	--	--	<31.8*	<7.64	2	1	1	375.4
Sulfide (mg/L)	No Data	--	--	--	No Data	--	--	--	--	
Surfactants (mg/L)	No Data	--	--	--	No Data	--	--	---	---	
Fluoride (mg/L)	79.4	19	--	--	41.1	9.9	4	2	0.1	300
Total Hardness (mg/L)	848*	203.7	--	--	746*	179.2	2		1	150.1

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 6 (PAGE 1 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	Tri-County Landfill, Inc.

☒ **Outfall / IMP Number 006** (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: **Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50**)

POLLUTANT GROUP 6 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Aldrin (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Alpha BHC (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Beta BHC (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Gamma BHC (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Delta BHC (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Chlordane (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081
4,4'-DDT (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
4,4'-DDE (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
4,4'-DDD (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Dieldrin (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Alpha- Endosulfan (µg/L)	0.65	0.0002	--	--	0.65	0.0002	1	0	0.02	8081
Beta-Endosulfan (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Endosulfan Sulfate (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Endrin (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Endrin Aldehyde (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Heptachlor (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
Heptachlor Epoxide (µg/L)	<0.02*	0	--	--	<0.02*	0	1	1	0.02	8081
PCB -1242 (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081
PCB -1254 (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 6 (PAGE 2 OF 2)

Please read instructions carefully before completing this form.

APPLICANT NAME	**Tri-County Landfill, Inc.**

☒ **Outfall / IMP Number 006** (Show location of sampling point on Line Drawing)
☒ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: **Piezometer 29 leachate sampling at TCL where noted with an *, otherwise reported results from Seneca LF leachate Form 50**)

POLLUTANT GROUP 6 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
PCB-1221 (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081
PCB-1232 (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081
PCB-1248 (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081
PCB-1260 (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081
PCB-1016 (µg/L)	<1.02*	<0.0002	--	--	<1.02*	<0.0002	1	1	1.02	8081
Toxaphene (µg/L)	<1.02*	<0.0002			<1.02*	<0.0002	1	1	1.02	8081

Pesek, Adam

From: Laura Vallett <Lvallett@baigroupllc.com>
Sent: Thursday, October 15, 2020 3:12 PM
To: Pesek, Adam; Jim Echard
Cc: 'ebertha@senecalandfill.com'
Subject: [External] RE: TCL Disinfection type

ATTENTION: *This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.*

Adam,

Tri-County Landfill will utilize chlorine for disinfection as part of the leachate treatment process. This is the method that is also implemented at Seneca Landfill.

Please let me know if you have any other questions.

Thank you,

Laura A Vallett, P.E.
BAI Group
2525 Green Tech Drive, Suite D
State College, PA 16803
(814) 238-2060 (phone) EXT. 140
(814) 238-7123 (fax)
www.baigroupllc.com

From: Pesek, Adam <apesek@pa.gov>
Sent: Thursday, October 15, 2020 1:46 PM
To: Laura Vallett <Lvallett@baigroupllc.com>; Jim Echard <jechard@baigroupllc.com>
Subject: TCL Disinfection type

Laura,

Due to the expected presence of bacteria in the treated effluent, would you happen to know the type of disinfection that would be used if deemed necessary for Tri County Landfill?

Adam J. Pesek, E.I.T. / Environmental Engineer
Department of Environmental Protection / Clean Water Program
230 Chestnut Street, Meadville, PA 16335
Phone: 814.332.6331 / Fax: 814.332.6121

AP
NPDES File

2525 Green Tech Drive Suite D, State College PA 16803 • 814.238.2060

Balanced Environmental Solutions

November 5, 2019

Mr. Justin Dickey, P.E.
Permits Chief
Pennsylvania Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335-3481

RE: Application for NPDES Permit for Wastewater Treatment Plant Approval for Expansion of Tri-County Landfill, Inc. - Pine Township and Liberty Township, Mercer County, Pennsylvania

Dear Mr. Dickey:

On behalf of Tri-County Landfill, Inc., please find enclosed three copies of proof of newspaper publication of the referenced Application for a National Pollutant Discharge Elimination System (NPDES) permit for Individual Permit to Discharge Industrial Wastewater.

If you have any questions or comments concerning this permit application, please contact me at (814) 238-2060.

Sincerely,

BAI Group

Laura A Vallett, P.E.
Project Engineer

enclosure
cc: Edward Vogel – Tri-County

PROOF OF PUBLICATION NOTICE IN THE HERALD

Commonwealth of Pennsylvania

County of Mercer

Rick Work, of The Herald, having been duly sworn according to law, deposes and says The Herald is a newspaper of general circulation published at 52 South Dock Street, Sharon, Mercer County, Pennsylvania. The Herald was established May 13, 1935 and has been regularly published and issued in Mercer County since that time. The printed notice attached to affidavit is exactly the same as was printed and published in the regular edition and issue of The Herald on the dates listed below. I certify that I am duly authorized to verify this statement under oath and am not interested in the subject matter of the attached notice or advertisement. All allegations in this affidavit as to time, place and character of publication are true.

Rick Work

Advertising Director

Sworn to and subscribed to before me this

29th day of October, 2019

Karen A. Nestor

Karen A. Nestor

My commission expires April 10, 2023

Date	Ad Caption	Size
9/22/2019	Recycle Notice	1 COL. X 6" DEEP
9/29/2019	Recycle Notice	1 COL. X 6" DEEP
10/6/2019	Recycle Notice	1 COL. X 6" DEEP
10/13/2019	Recycle Notice	1 COL. X 6" DEEP

Commonwealth of Pennsylvania - Notary Seal
KAREN A NESTOR - Notary Public
Mercer County
My Commission Expires Apr 10, 2023
Commission Number 1198337

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OM PAGE A-1

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Tri-County Landfill, Inc. is providing notice that on or about August 23rd, 2019 a National Pollutant Discharge Elimination System (NPDES) Permit Application will be submitted to the Pennsylvania Department of Environmental Protection (PADEP). The application is a "replacement application" to revise previously submitted documents for the discharge of treated wastewater from a proposed treatment facility at the Tri-County Landfill facility and address modifications to the design and plans of the Landfill. The facility is located in Pine and Liberty Townships, Mercer County, Pennsylvania.

This application is made under the provisions of the Clean Streams Law, the Act of June 22, 1937, P.L. 1987, as amended. The application will be available for review and copying at the PaDEP Northwest Regional Office, 230 Chestnut Street, Meadville, PA 16335 between the hours of 8:00 A.M. to 4:00 P.M. Arrangements for reviewing the application can be made by telephoning the PaDEP Regional Office at (814) 332-6945. Fees for copying may be charged by the PaDEP. Copies of the application will also be submitted to Pine and Liberty Townships and the Mercer County Commissioners. Persons who wish to comment on this application should contact the PaDEP at the address noted.

used

dical marijuana prod-
t they're choosing to
nsume is impacting
eir health.
However, Worster said
here's no guessing"
at medical marijuana
safer than other med-
cines she prescribes,
uch as opioids.
"I don't think it's for
everyone. It's certainly
not the magic bullet or
without some risk," Wor-
ster said.
"I will tell you I think
it is incredible the med-
ical community hasn't
stepped up more than it
has because patients are
pushing for it. People are
saying, 'I'm using it and
it's helpful. Not one or
two but millions of peo-
ple."

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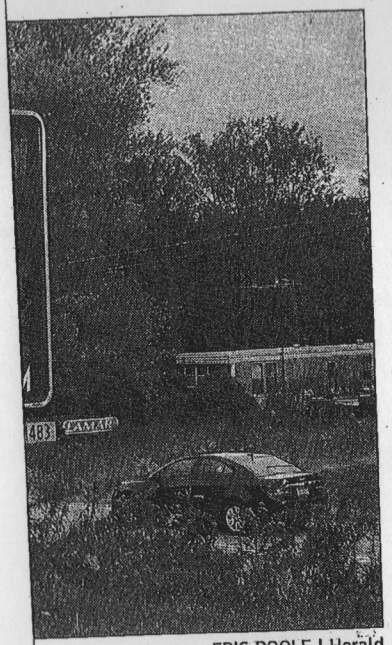

ERIC POOLE | Herald

nental Association of the Slip-
g on Tri-County Industries' pro-

email him at thomadecke@
pa.gov

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