Attachment A-6

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Scranton Sewer Authority

Lackawanna County, Pennsylvania

Chapter 94

Municipal Wasteload Management Report

For the Calendar Year of 2014

NPDES Permit Number PA0026492

Prepared by the Staff of the Scranton Sewer Authority

The Sewer Authority of the City of Scranton
Lackawanna County, Pennsylvania

2014 Municipal Wasteload Management Report

March 2015

I hereby certify that this Municipal Wasteload Management Report has been prepared by the SSA staff in accordance with Title 25, Part 1, Subpart C, Article II, Chapter 94, of Commonwealth of Pennsylvania Regulations.

I herby certify that I have personally examined and am familiar with the information submitted in this document and, that based on my inquiry of those individuals responsible for obtaining this information; I believe the submitted information to be true, accurate, and complete.

Submitted by: _____

THOMAS J. STONE
Chairman of the Board
The Sewer Authority of the City of Scranton

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1.0 INTRODUCTION

1.1 Governing Regulations

The Pennsylvania Department of Environmental Protection (PADEP) has adopted regulations under Chapter 94 of the PADEP Rules and Regulations entitled "Municipal Wasteload Management". These regulations set forth general provisions and information requirements to be included in an Annual Report on all wastewater conveyance and treatment facilities. The Annual Report's effective intent is to assist municipalities in assuring that the necessary wastewater conveyance and treatment capacities will be provided to meet anticipated growth demands. A 5-year planning interval is employed for treatment plants and a 2-year interval is utilized for pumping stations. If the wastewater treatment plant or pumping stations are found to be, or projected to be, hydraulically or organically overloaded within the planning period, specific steps are required to alleviate or prevent this overload condition.

This Annual Report is prepared in accordance with the requirements of Pennsylvania Code Title 25 Chapter 94, and includes hydraulic and organic loading projections, an industrial waste report, a summary of constructed and proposed sewer connections and extensions, a description of collection system monitoring, maintenance, repair, and rehabilitation, a discussion of the condition of the collection system and pumping stations, a solids handling and disposal summary, and a CSO Status Report.

1.2 Description of Wastewater Collection, Conveyance, and Treatment Facilities

The Sewer Authority of the City of Scranton owns the wastewater collection, conveyance and treatment system serving the City of Scranton and the Borough of Dunmore. The Authority, also known as the Scranton Sewer Authority (SSA), maintains the wastewater collection, conveyance, and treatment system, collectively known as the Scranton Sewer System.

Adjacent portions of the Lower Lackawanna Valley Sanitary Authority (LLVSA) and the Lackawanna River Basin Sewer Authority (LRBSA) are also served by the Scranton Sewer Authority. The LLVSA service area includes part of the Borough of Taylor. The LRBSA service area includes the Borough of Dickson City, also known as the Siniawa Sewer System,

and the Montage Sewer District, in the Borough of Moosic.

The SSA wastewater collection and conveyance system consists of over 275 miles of collection sewers and large interceptors, eighty (80) permitted combined sewer overflows (CSOs), and seven (7) pumping stations. Approximately 63% (172 miles) of the collection sewers are combined sewers, which convey combined stormwater and sanitary sewage flow to regulator chambers prior to connection with an interceptor sewer. Under high wet-weather flow conditions that exceed the capacities of downstream facilities, the regulators direct combined sanitary sewage and stormwater to the receiving streams. The permitted CSO discharge points in the sewer system include one (1) WWTP bypass, sixty-three (63) CSO regulators, twelve (12) diversion manholes, and four (4) pumping station overflow outlets.

The SSA Wastewater Treatment Plant (WWTP) discharges treated effluent to the Lackawanna River under National Pollutant Discharge Elimination System (NPDES) Permit No. PA0026492. The WWTP has an annual average design hydraulic capacity of 20.0 million gallons per day (mgd) and an annual average design organic loading capacity of 44,550 lbs BOD_5/day. The WWTP includes the following processes:

- Screening and Grit Removal;
- Primary Settling;
- Activated Sludge Process;
- Secondary Settling;
- Chlorine Disinfection; and
- Sulfur Dioxide Dechlorination.
- BNR

Excess solids generated at the SSA WWTP are rotary-drum thickened and dewatered on Belt Filter Presses (BFPs). Lime post treatment is utilized to provide further dewatering and partial stabilization. Dewatered sludge is hauled to the Keystone Sanitary Landfill for final disposal.

In 2010 the Scranton Sewer Authority entered into a professional agreement to design and construct upgrades to the WWTP to comply with federal and state mandated biological nutrient reduction (BNR) limits. For this BNR Project, the Scranton Sewer Authority completed the design phase and the project went out to bid in 2011. This project was awarded and construction began in 2012. The BNR construction was substantially completed in 2014 and BNR process optimization was initiated.

Over the past few years the Authority has struggled with finding a flow metering system that would be installed in the plant influent line. The Authority has had numerous flow monitoring vendors look at the application at the WWTP influent with zero success. Today the SSA has designed into their BNR upgrade, the use of weir plates in the same locations as the Parshall flumes to monitor flow. This location is between the primaries and the aeration tanks. These sharp crested weir plates were installed and implemented during 2014 under the BNR project. The weirs have been calibrated and are providing trouble free and accurate flow measurement.

2.0 HISTORICAL HYDRAULIC AND ORGANIC LOADINGS

2.1 Historical Hydraulic Loading

Hydraulic loadings for 2010 through 2014 are summarized in Exhibit A. This data is also presented graphically on *Figure 1*. The annual average daily wastewater flow to the WWTP during 2014 was 12.84 mgd, with a maximum consecutive 3-month average daily flow of 15.35 mgd. The monthly average flows recorded in 2014 were well within the WWTP design hydraulic loading capacity of 20.0 mgd. The ratio of the maximum consecutive 3-month average daily flow to the annual average flow for 2014 was 1.2. The WWTP's flow meters are calibrated once per year, and a copy of the most recent flow meter calibration certification is included as *Appendix 1*.

3.0 PROJECTED HYDRAULIC AND ORGANIC LOADINGS

3.1 Projected Hydraulic Loading

Anticipated new connections from development in the sewer service area for 2015 through 2019 are summarized in *Exhibit C*. The projected annual average daily flows are based on the anticipated growth and the respective estimated flow contribution. Information on new and projected connections was received from each contributing municipality, as shown in *Appendices 2, 3*, and *4*. Projected hydraulic and organic loadings to the WWTP for the 5-year projection period (2015 to 2019) are presented in *Exhibit D*. These projections are based on increased wastewater flows resulting from anticipated development in the sewer service area.

The historical 5-year annual average daily flow, from 2010 to 2014 was used as the 2015 base flow rate for projecting the hydraulic loadings to the WWTP through 2019. Each projected annual flow increase resulting from new residential and non-residential development was added to the preceding annual average daily flow to compute the projected annual average flow. The maximum 3-month average daily flows for the projection period were calculated by applying the historical 5-year average maximum 3-month average flow-to-annual average daily flow ratio (1.13). Based on the data presented in *Exhibit D*, the 2019 maximum 3-month average daily flow is projected to be 13.967 mgd, which is well below the 20.0 mgd annual average daily design hydraulic capacity for the WWTP, as shown on *Figure 1*.

3.2 Projected Organic Loading

The projected annual average BOD_5 increase for each year of the projection period is calculated using the annual average daily flow projections reported in *Exhibit A*, and an equivalent BOD_5 concentration of 122mg/L. This average equivalent BOD_5 concentration was calculated from the historical 5-year annual average flow to the WWTP from *Exhibit A*.

The projected maximum month organic loads for the 2015 through 2019 planning period are calculated by applying the 5-year historical average maximum month-to-annual average daily loading ratio (1.10) to the projected annual average daily organic loadings for each projection year. Based on the data presented in Exhibit D, the 2019 annual average organic loading is projected to be 12,661 lbs BOD_5/day and the projected monthly maximum organic loading is

15,446 lbs/BOD/day, which is well below the current 44,550 lbs BOD_5/day annual average organic loading design capacity for the WWTP, as shown on *Figure 2*.

4.0 COLLECTION SYSTEM CONNECTIONS AND EXTENSIONS

New connections to the collection system and their resulting flows are summarized in *Exhibit C*. New connections, as well as proposed flows during the 5-year projection period are summarized by municipality: the City of Scranton, the Borough of Dunmore, the Borough of Taylor, the Borough of Dickson City, and the Borough of Moosic. Information regarding new and proposed connections and extensions to the collection system was received from each contributing municipality, as included in *Appendices 2, 3*, and *4*. In 2014 there were no sewer extensions in the City of Scranton or Borough of Dunmore.

5.0 COLLECTION SYSTEM MONITORING, MAINTENANCE AND REPAIR

The wastewater collection and conveyance system is maintained and operated by the SSA staff. The SSA employs a full-time collection system staff composed of approximately forty (40) employees. SSA staff performs routine and emergency monitoring, maintenance, and repair work of the collection system, occasionally utilizing subcontractors as necessary.

5.1 Collection System Monitoring

The SSA characterizes the frequency, duration and volume of CSO discharges on a monthly basis on the monthly CSO Discharge Monitoring Reports (DMRs) which are submitted to the PADEP. Wooden blocks were installed in all of the CSOs as an indicator device to determine whether regulators have been active. Inspections document the dates the regulators were checked and the presence or absence of previous overflows. The CSO inspections consist of checking the presence of debris at the regulator and outfall pipe, and the amount of flow in the channel. Inspection forms are completed during each CSO inspection. The SSA incorporated the CSOs and flow meters into the Job Plus work order database system to better track and manage CSO / flow meter activities. This database is utilized in the field through the use of laptops and wireless connections.

The SSA has devoted additional resources to inspection, maintenance and repair of all CSO locations. These resources include additional staff, database implementation, equipment, improved procedures and standby manpower.

Combined sewer overflows are monitored by placing a block of wood in the majority of the CSO regulators. Additionally the SSA is required to flow monitor at fifteen (15) CSO locations and report them on the monthly DMR. Today the SSA has an average of twenty (20) flow metering systems installed throughout their collection system to continually monitor the CSO locations. Dry weather overflows are recorded when visually observed or when determined from the flow metering technologies. All the above is documented and on record at the SSA Office. Any and all Dry Weather Overflows are reported immediately and again in the monthly DMR.

Pumping stations are inspected five (5) days per week and logged into the Job Plus database. This database maintains the Operation and Maintenance (O&M) activities. This includes observations of blocks of wood placed in the emergency overflows and recording of storm pump operation. As the pump stations were upgraded with the Phase III of the Capital Improvements, alarm systems were added to the pump stations that send signals back to the SCADA system in the treatment facility, which allow an operator to immediately address any issue.

The SSA intends to clean and inspect the entire system over a 10 year cycle. The goal of the program is to televise a three-year rolling average of at least 150,000 feet per year to assess potential problems in need of repair. Approximately 168,289 feet of sewers were televised during 2014. Log sheets and videos of the work are maintained at the WWTP. During 2010 the SSA has characterized the grit in the main interceptor. A RFP was completed and the bid was awarded to Magnaflow for the cleaning of the interceptor. The interceptor cleaning was performed during 2011.

5.2 Collection System Maintenance

Normal O&M of the wastewater collection, conveyance, and treatment facilities includes daily records of operation. A Computerized Managed Maintenance System (CMMS) for preventative maintenance was initiated in January 2003. The SSA is utilizing Job Plus Version 2.9.3. This program generates work orders and maintains records for the maintenance, operations, sludge handling, pump station, vehicle maintenance, CSO, and flow meter departments. Through January of 2014, collection system records were recorded and maintained in an in-house written program called Collection Activity Tracking System (CATS). This program worked well for basic tracking and record keeping, but did not work for projecting and scheduling work along with capital improvement. In an effort to better maintain the collection system and more effectively manage the workforce the SSA decided to implement a GIS based asset management system. Through 2012 and 2013 the Authority investigated several different asset management software packages including Lucity, City Works and Innovyze. The asset management system selected by the SSA was Lucity, formerly GBA. On February 1st 2014 the Authority went live with the Lucity asset management system. Currently the SSA is using Lucity to track and maintain collection system records which include line maintenance, televising, basin cleaning, basin repair, sewer repair and emergency calls. The Collection and Basin Crews were the first to go on-line with this system. Currently all collection system activities, with the exception of CSO and pump stations are recorded in the SSA's asset management system. Work orders are sent to the trucks in real time and are updated and closed on site. The Authority has spent a significant amount of time and money making sure that collection system staff has the tools they need to best serve the Authority's customers. In the near future, the SSA's CSO, Flowmeter, Pump Station, Operations and Maintenance Departments will be integrated into the Authority's asset management system.

6.0 CONDITION OF COLLECTION SYSTEM

The collection system is composed of a variety of mains and interceptors dating back to the 1870s. Older sewers less than 24-inch diameter were commonly of terra-cotta clay construction, and mains greater than 24-inch diameter often were of brick construction. The Authority's Main Interceptor is constructed of reinforced concrete pipe. Based on information

provided by SSA staff and the 2008 RedZone Robotics inspection, the collection system generally appears to be in satisfactory condition. Preventive maintenance activities are routinely performed by SSA staff to optimize the operation of the system and to minimize the occurrences of blockages.

7.0 CONDITION OF PUMPING STATIONS

The SSA currently operates and maintains seven (7) pumping stations within its collection system:

- Dorothy Street Pumping Station;
- Froude Street Pumping Station;
- Keyser Valley Pumping Station;
- Middle Street Pumping Station;
- Myrtle Street Pumping Station;
- Parrott Street Pumping Station; and
- Shawnee Avenue Pumping Station.

All seven (7) pumping stations are maintained and inspected by SSA staff on a regular basis. Pumping stations inspections typically occur five (5) days per week, Monday through Friday, to ensure proper operation. Cleaning, repairs, and routine maintenance items are performed regularly. Preventative maintenance to the pumping stations in 2014 included:

- Changing pump motor oil, according to manufacturer specifications;
- Cleaning wet wells of each pumping station on a routine basis; and
- Operating emergency power generators, under load, on a weekly basis.

Tracking the average daily flows from the pumping stations is a standard diagnostic tool to help assess the performance of the facilities. Changes in the flows can indicate pump problems. Excessive flow variation is an indication of Inflow and Infiltration (I/I) issues. Pump station pumping rates are also necessary for projecting hydraulic overload conditions. The average monthly flows of each pumping station are calculated based on the hours of operation of

each pump, recorded from runtime meters, and the capacity of the pumps, from the most recent wet well drawdown test.

The capacity of a pump is not a constant value. When a pump station is initially placed in service, the pumps typically discharge at a rate significantly higher than the rated capacity because friction loss factors are designed conservatively high and head loss is not excessive. Over time, normal wear on the pumps and force main cause the pumping capacity to decrease closer to the rated capacity. As pumps age, their capacity may further decrease due to worn components or operational problems. To accurately calculate the average flow from a pumping station, drawdown tests must be conducted on each pump to determine its actual pumping capacity. Results of the most recent pumping station drawdown tests are included in *Appendix 6*.

The runtime hour meters of each pump are recorded at the seven (7) pumping stations during routine inspection visits conducted 5 days per week. The total flow from a pumping station is the sum of the volume pumped by each pump at the pumping station per day. The volume pumped from a pump is calculated by multiplying the runtime of the pump by the pump capacity as determined through drawdown testing. The SSA has begun to track the average monthly flows at each of the pumping stations, utilizing data that are already collected by SSA staff, as a diagnostic tool to assess the condition of the facilities.

The 2014 annual average flows are estimated based on the capacities of the pumps and the actual run time for the pumping equipment in each pumping station. The projected 2016 annual average daily flow for each pumping station is the sum of the 2014 annual average daily flow and the anticipated flow increases from residential and non-residential development planned in that pumping station's service area through 2016. The projected maximum day flows for 2015 were calculated by applying the historical maximum daily-to-average annual peaking factor to the projected average annual daily flow for each pumping station. The average annual daily flows for each pumping station are projected to remain below the rated capacity of the respective pumping stations through 2016.

The SSA continues to develop a written Preventative Maintenance (PM) Program for the pumping stations. The PM Program establishes a timetable for all routine maintenance activities, as well as creates a format to document and track these activities, including oil changes and drawdown tests.

8.0 INDUSTRIAL WASTE REPORT

During 2014, the SSA continued operation of the USEPA-approved Municipal Industrial Pretreatment Program (MIPP). The SSA continues to implement numerous operational and record-keeping changes to once again bring the Program into compliance with all applicable USEPA regulations.

Fourteen (14) significant industrials users (SIUs) are currently connected to the system and permitted under the SSA MIPP, of which five (5) are considered Categorical Industrial Users by definition. All permitted industrial users were inspected and applicable sites were sampled in 2014. All industrial users submitted the required self-monitoring reports under the terms of their industrial discharge permits. All SIUs also have current Control Documents. Fourteen (14) Notices of Noncompliance/Notices of Violation (NOVs) were issued in 2014. Two (2) SIUs were considered in significant non-compliance (SNC) during 2014. One of the permitted industries was on a compliance schedule in 2014. Details of the regulated industries are provided in the copy of the SSA's 2014 Municipal Industrial Pretreatment Performance (MIPP) Annual Report included in Appendix 7. Also included in Appendix 7 are laboratory results from quarterly influent, effluent, and sludge sampling. A copy of the Scranton Times newspaper article listing the industrial users considered to be in SNC during 2014 will be sent to EPA.

9.0 OVERLOAD REDUCTION PLAN

9.1 Wastewater Treatment Plant

Based upon the hydraulic and organic loading data and projections presented in *Exhibit D* and on *Figures 1* and *2*, neither a hydraulic nor an organic overload is anticipated at the WWTP during the 5-year projection period.

9.2 Pumping Stations

Based upon the hydraulic loading data and projections presented in *Table 1*, overload conditions at the SSA pumping stations are not projected during the 2-year projection period.

10.0 SOLIDS HANDLING AND DISPOSAL

Excess solids generated at the SSA WWTP are rotary drum thickened and dewatered on BFPs. Lime post treatment is utilized to provide further dewatering and partial stabilization. Dewatered sludge is hauled to the Keystone Sanitary Landfill (Solid Waste Permit No. 101247) for final disposal. The quantities of sludge land-filled are reported to the Bureau of Waste Management on a monthly basis. During 2014, the SSA reported that 11,780 Metric tons of wet sludge, with an average percent total solids (% TS) of 28.27%, were dewatered and disposed of at the landfill. This equates to a total dry solids production of 3,330 dry Metric tons in 2014.

Biosolids production data have been calculated based on the daily volumes of wet tons of biosolids hauled to the landfill. The wet tons of dewatered biosolids are weighed on a scale at the landfill. Dry tons of biosolids are then calculated using the wet tons of biosolids and % TS of the sludge cake. This method, however, does not yield an accurate dry biosolids production tonnage.

In addition to the dewatered biosolids, grit and stormwater basin catchings are transported in the same dump trucks for disposal at the landfill. Therefore, the total wet tons recorded at the landfill scale are not only dewatered biosolids, but also grit and catchings. Additionally, the dewatered biosolids cake % TS used to calculate the dry tons is cake before lime addition. The biosolids cake loaded into the dump trucks and hauled to the landfill, however, is a combination of solids and quick lime and, therefore, will most likely have a higher % TS than the cake prior to lime addition.

With Phase II upgrades complete, the SSA will begin to monitor BFP operational data to calculate the biosolids production values instead of wet tons weighed at the landfill. Operational data, including feed sludge gallons per day and % TS, recycle gallons per day and % TS, and lime feed lbs per day, will allow for a more accurate measure of dry solids produced.

11.0 COMBINED SEWER OVERFLOW STATUS REPORT

The majority of the collection system is a combined sewer system conveying both sanitary sewage and stormwater to the WWTP. Part C of the SSA NPDES Permit contains a requirement for the submission of an Annual CSO Status Report to PADEP with the Municipal Wasteload Management Report. The SSA CSO Status Report for 2014 is contained in a separate binder transmitted with this Report.

12.0 SOLIDS MANAGEMENT INVENTORY

Included in appendix 10 is a copy of the Scranton Sewer Authority's "Solids Management Inventory".

Table 1

Pumping Station Flow Projections

PUMPING STATIONS FLOW PROJECTIONS

Pumping Stations	2012Rated Capacity (1), MGD	2015 Rated Capacity (1), MGD	2014 (Actual Flows)		2015 (Projections)		
			Average Daily Flow (2), MGD	Maximum Daily Flow (3), MGD	Additional Average Daily Flow (4), MGD	Average Daily Flow (5), MGD	Peak Hourly Flow (6), MGD
Dorothy Street	0.223	0.042	0.017	N/A	0.000	0.017	0.042
Froude Street	0.191	0.032	0.017	N/A	0.000	0.017	0.041
Keyser Avenue	1.661	0.671	0.279	N/A	0.000	0.279	0.697
Middle Street	0.694	0.689	0.148	N/A	0.000	0.148	0.371
Myrtle Street	1.357	0.995	0.291	N/A	0.000	0.291	0.728
Parrot Street	0.389	0.862	0.036	N/A	0.000	0.036	0.090
Shawnee Avenue	0.188	0.145	0.017	N/A	0.000	0.017	0.042

Notes:
(1) Maximum pumping station capacity with one pump on and the stormwater pump out of service, based on drawdown test pump capacities
(2) Based on run time hour meter readings and drawdown test pump capacities
(3) Peak daily flows are unavailable because pump run times are not recorded daily at the pumping stations
(4) Based on the anticipated number of connections to the pumping station through 2015 from Table D.
(5) Average daily flow during 2011 plus the additional average daily flow projected through 2015.
(6) Based on the anticipated number of new connections to the pumping station through 2015and an estimated Peaking Factor of 2.5

Exhibit A

Historical Hydraulic Loading Summary

EXHIBIT A
Scranton Sewer Authority

HISTORICAL HYDRAULIC LOADING SUMMARY [1]

Month	2010	2011	2012	2013	2014
January	11.77 *	9.36	11.58	13.846 *	13.35
February	10.67 *	14.35	10.36	12.00 *	12.79
March	16 *	17.43 *	10.88	11.786 *	14.89 *
April	13.32	17.15 *	10.13	10.911	16.55 *
May	10.61	14.93 *	12.75 *	12.669	14.62 *
June	10.3	12.09	11.12 *	13.60	12.52
July	9.9	10.1	10.31 *	11.164	12.35
August	9.59	12.19	10.28	10.536	11.68
September	8.95	14.86	10.73	10.553	10.81
October	13.97	13.25	12.34	10.119	12.41
November	11.26	12.41	10.05	10.935	10.31
December	11.43	13.81	10.69	12.961	11.84
Annual Average Flow	11.48	13.49	10.94	11.76	12.84
5-Year Annual Average Hydraulic Loading					12.102
Maximum 3-Month Average Daily Flow	12.8133	16.50	11.393	12.476	15.353
Ratio (Maximum 3-Month Average to Annual Average)	1.12	1.22	1.04	1.06	1.20
Average Ratio to be used to project future Maximum 3-Month Average Daily Flows					1.13

* Maximum 3-Month Flow Period

Notes:

(1) Flow values are presented in million gallons per day (mgd)

Exhibit B

Historical Organic Loading Summary

EXHIBIT B
Scranton Sewer Authority
HISTORICAL ORGANIC LOADING SUMMARY[1]

Month	2010	2011	2012	2013	2014
January	16308	10534	11917	12398	11430
February	15574	12671	16129	13136	12249
March	16347	13676	17029	13424	12768
April	14703	15137	13770	12081	13037
May	13835	11074	13458	13234	11290
June	12941	9500	10959	12989	13311
July	11402	8981	12996	9263	12866
August	11537	8977	15614	10597	10881
September	11667	10036	14738	9869	13061
October	8575	10632	14702	9579	12054
November	12319	10439	13008	11770	11696
December	11488	12251	8991	10474	10085
Annual **Average**	13058	11159	13609	11568	12061
5 Year Annual Average Organic Loading (lbs BOD_5/day)					12290.95
5 Year Equivalent Organic Concentration (mg BOD_5/L)					122
Maximum Month	16347	15137	17029	13424	13311
Ratio (Maximum Month to Annual Average)	1.25	1.36	1.25	1.16	1.10
Average **Ratio to be used to project future Maximum Month Loadings**					1.22

Notes:

[1] Loading values are presented in pounds of BOD_5 per day (lbs BOD_5/day)

Exhibit C

Projected Hydraulic Loadings from New Connections

EXHIBIT C
Scranton Sewer Authority
PROJECTED HYDRAULIC LOADINGS FROM NEW CONNECTIONS

Developments	EDUs Total Planned	EDUs Connected in 2014	EDUs Connected as of Dec 31, 2014	2015	2016	2017	2018	2019
City of Scranton (a)								
Worksheet Data	0	88	88	0	0	0	0	0
Miscellaneous	150			150	150	150	150	150
Sub-Total EDUs	150			150	150	150	150	150
Sub-Total Annual Average								
Daily Flow Increase, gpd (b)	39,750	23,320	23,320	39,750	39,750	39,750	39,750	39,750
Borough of Dunmore (a)								
Worksheet Data	0	42	42	0	0	0	0	0
Miscellaneous	25			25	25	25	25	25
Sub-Total EDUs	25			25	25	25	25	25
Sub-Total Annual Average								
Daily Flow Increase, gpd (b)	6625	11,130	11,130	6625	6625	6625	6625	6625
Borough of Taylor (c)								
Worksheet Data	0	0	0	0	0	0	0	0
Miscellaneous	5			5	5	5	5	5
Sub-Total EDUs	5			5	5	5	5	5
Sub-Total Annual Average								
Daily Flow Increase, gpd (b)	1325	0	0	1325	1325	1325	1325	1325
Borough of Dickson City (d)								
Worksheet Data	0	18	18	16	0	0	0	0
Miscellaneous	5			5	5	5	5	5
Sub-Total EDUs	5			21	5	5	5	5
Sub-Total Annual Average								
Daily Flow Increase, gpd (b)	1325	4770	4770	5585	1325	1325	1325	1325
Borough of Moosic (e)								
Worksheet Data	5	2	2	3	3	3	3	3
Miscellaneous	5			5	5	5	5	5
Sub-Total EDUs	10			8	8	8	8	8
Sub-Total Annual Average								
Daily Flow Increase, gpd (b)	2650	530	530	2120	2120	2120	2120	2120
Total EDUs	**195**	**150**	**150**	**209**	**193**	**193**	**193**	**193**
Total Annual Average								
Daily Flow Increase, mgd	**0.052**	**0.040**	**0.040**	**0.055**	**0.051**	**0.051**	**0.051**	**0.051**

Notes

(a) Provided by the Scranton Sewer Authority

(b) Additional Flow increase calculated based on 265 gpd/EDU usage

(c) Provided by the Lower Lackawanna Valley Sewer Authority

(d) Provided by the Lackawanna River Basin Commission

(e) Provided by the Lackawanna River Basin Authority

Exhibit D

Hydraulic and Organic Loading Projections

EXHIBIT D

Scranton Sewer Authority

HYDRAULIC AND ORGANIC LOADING PROJECTIONS

HYDRAULIC LOADING PROJECTIONS

	2015	2016	2017	2018	2019
Previous Year's Annual Average Flow (mgd) [1]	12.102	12.152	12.204	12.256	12.308
Projected Annual Average Flow Increase (mgd) [2]	0.050	0.052	0.052	0.052	0.052
Projected Annual Average Flow (mgd)	12.152	12.204	12.256	12.308	12.360
Maximum 3 month Average Flow Ratio [3]	1.13	1.13	1.13	1.13	1.13
Projected Maximum 3 month Average Flow (mgd)	13.732	13.791	13.849	13.908	13.967

ORGANIC LOADING PROJECTIONS

Previous Year's Annual Average Organic Loading (lbs BOD/ day) [4]	12291	12365	12439	12513	12587
Projected Annual Average Organic Loading Increase (lbs BOD/day) [5]	74	74	74	74	74
Projected Annual Average Organic Loading (lbs BOD/ day) [4]	12365	12439	12513	12587	12661
Maximum Month Organic Loading Ratio [6]	1.22	1.22	1.22	1.22	1.22
Projected Monthly Maximum Organic Loading (lbs BOD/day)	15085	15176	15266	15356	15446

Notes:

[1] Average Flow for 2014 is the 5 year annual average flow from Exhibit A

[2] Projected Flow increase from Exhibit C

[3] Ratio from Exhibit A

[4] Average organic loading for 2014 is the 5 year Annual Average Loading from Exhibit B

[5] Annual Average organic loading increases based on an average equivalent BOD concentration of 122 mg/L from Exhibit B and projected Annual Average Daily flow increase from Exhibit C

[6] Ratio from Exhibit B

Figure 1

Hydraulic Loading Graph

Hydraulic Loading Graph

The Sewer Authority of the City of Scranton

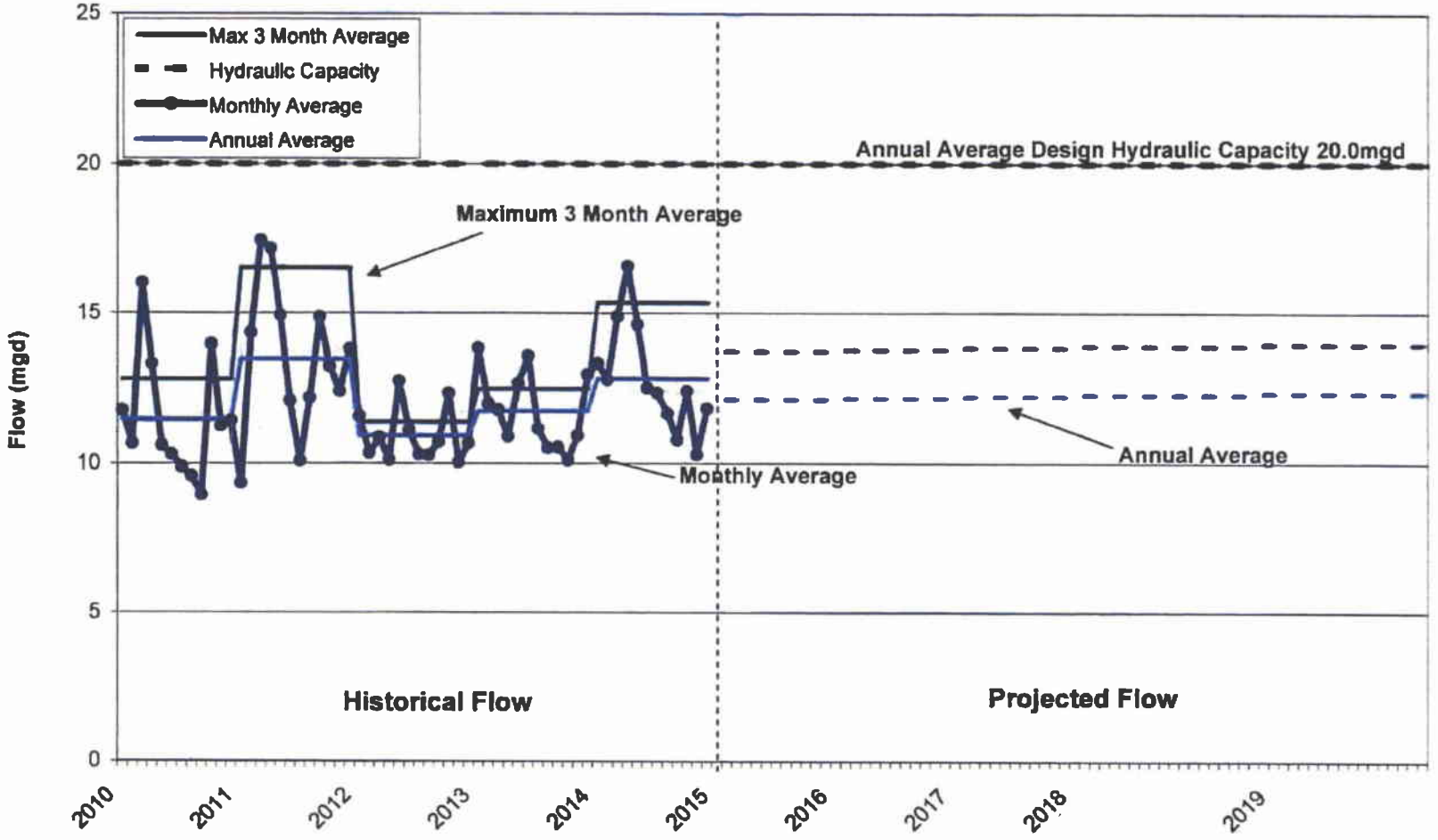
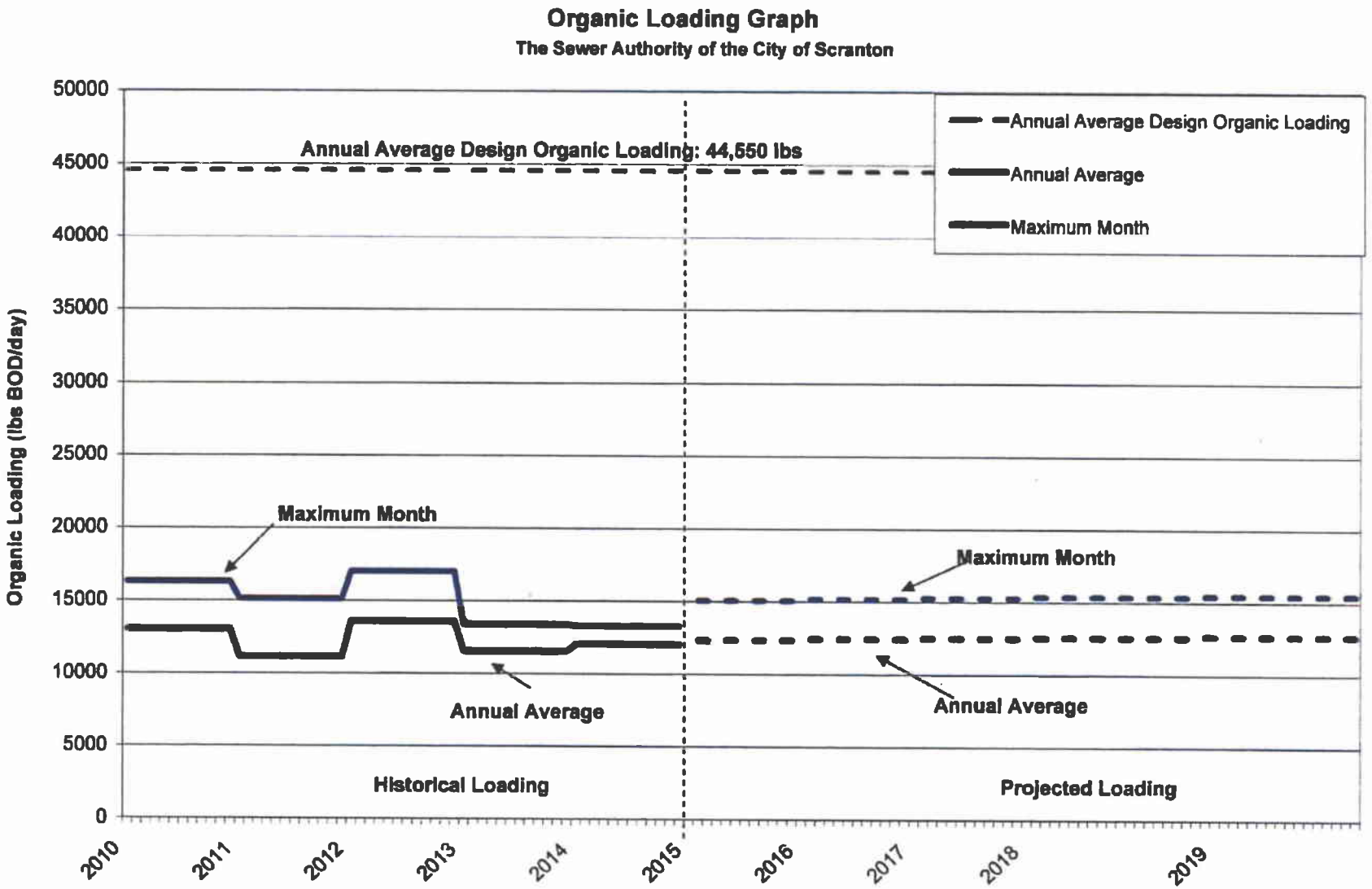


Figure 2

Organic Loading Graph


Organic Loading Graph
The Sewer Authority of the City of Scranton
Organic Loading (lbs BOD/day)
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Annual Average Design Organic Loading: 44,550 lbs
Annual Average Design Organic Loading
Annual Average
Maximum Month
Maximum Month
Maximum Month
Annual Average
Annual Average
Historical Loading
Projected Loading

Appendix 1

Calibration Report

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JEREMEY HULL
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 2/25/2015
METER#: C8017 AA
LOCATION: COMBINED SEWER OVERFLOW
SERIAL #: D73
MANUFACTURER: AMERICAN SIGMA
RECORDER: N/A
TRANSMITTER: 950
PRIMARY: AREA X VELOCITY
MAXIMUM CAPACITY: 78" PIPE
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** OPERATING RATE
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
LEVEL AND VELOCITY CHECK
ERROR: +.80" **CORRECTED ACCURACY:** ± .125"

COMMENT: PERFORMED ANNUAL CALIBRATION. CLEANED SENSORS. PERFORMED CONFINED SPACE ENTRY. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** JEREMY
copies: RICHARD HARRISON

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JEREMEY HULL
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 2/25/2015
METER#: C8017 AB
LOCATION: FLUME # 3
SERIAL #: H6003C150E6
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: FMU 90
PRIMARY: 59.75" WEIR
MAXIMUM CAPACITY: 25 MGD
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0 & 25, 50 & 100%
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENTS
ERROR: -1.2% **CORRECTED ACCURACY:** ± 1%

COMMENT: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. TESTED OUTPUT TO SCADA. FOUND MAX CAPACITY SET TO 15.332 MGD. CORRECTED. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** JEREMY
copies: RICHARD HARRISON

W.G. MALDEN
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SERVICE REPORT

JEREMEY HULL
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 2/25/2015
METER#: C8017 AC
LOCATION: FLUME # 2
SERIAL #: H6003D150E6
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: FMU 90
PRIMARY: 59.88" WEIR
MAXIMUM CAPACITY: 25 MGD
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0 & 25, 50 & 100%
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENTS
ERROR: -1.2% **CORRECTED ACCURACY:** ± 1%

COMMENT: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. TESTED OUTPUT TO SCADA. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** JEREMY
copies: RICHARD HARRISON

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SERVICE REPORT

JEREMEY HULL
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 2/25/2015
METER#: C8017 AD
LOCATION: FLUME # 4
SERIAL #: H6003E150E6
MANUFACTURER: E& H
RECORDER: N/A
TRANSMITTER: FMU 90
PRIMARY: 59.5" WEIR
MAXIMUM CAPACITY: 12 MGD
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0 & 25, 50 & 100%
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENTS
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

COMMENT: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. TESTED OUTPUT TO SCADA. FOUND MAX CAPACITY SET TO 15.332 MGD. CORRECTED. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** JEREMY
copies: RICHARD HARRISON

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SERVICE REPORT

JEREMEY HULL
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 2/25/2015
METER#: C8017 AE
LOCATION: FLUME # 1
SERIAL #: H60003A150E6
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: FMU 90
PRIMARY: 59.88" WEIR
MAXIMUM CAPACITY: 12 MGD
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0, 25, 50, 75 & 100%
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENTS
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

COMMENT: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. FOUND METER SCALED TO 23.366 MGD. CORRECTED. TESTED OUTPUT TO SCADA. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** JEREMY
copies: RICHARD HARRISON

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JEREMEY HULL
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 2/25/2015
METER#: C8017 AQ
LOCATION: FLUME #5
SERIAL #: H6003B150E6
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: FMU 90
PRIMARY: 60" WEIR
MAXIMUM CAPACITY: 12 MGD
SERVICE CONTRACT:

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0, 50, 100%
ERROR: 0% **CORRECTED ACCURACY:** ±1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENT
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

COMMENT: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. TESTED OUTPUT TO SCADA. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: BOB/DAVID **PERSON SEEN:** JEREMY
copies: RICHARD HARRISON

Protechs LLC dba

WG MALDEN

P.O. BOX 196
EAST EARL, PA 17519

Invoice

Date	Invoice #
3/5/2014	7612

PHONE #: 717-768-0800
FAX #: 717-768-0802

WEB SITE: WWW.WGMALDEN.COM
E-MAIL: OFFICE@WGMALDEN.COM

Bill To	Ship To
SCRANTON SEWER AUTHORITY 307 NORTH WASHINGTON AVENUE SCRANTON, PA 18503 ATTENTION: ACCOUNTS PAYABLE	

P.O. Number	Terms	Rep	Service Date
22244	Net 30	DS/BH	3/4/2014

Qty	Item Code	Description	U/M	Price Each	Amount
	LABOR-A	ANNUAL SERVICE TO CALIBRATE WASTE WATER METERING EQUIPMENT AT THE COMBINED SEWER OVERFLOW, FLUME #1, FLUME #2, FLUME #3, FLUME #4, RAS #1, RAS #2, AND RAS #4.		1,500.00	1,500.00

Thank you for your business. mv

Total:	$1,500.00
Payments/Credits:	$0.00
Balance Due:	**$1,500.00**

PAYMENTS RECEIVED 45 DAYS AFTER INVOICE DATE WILL BE ASSESED A 1.5% LATE FEE PER EACH MONTH LATE AND ALL COLLECTION COSTS

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AA
LOCATION: COMBINED SEWER OVERFLOW
SERIAL #: D73
MANUFACTURER: AMERICAN SIGMA
RECORDER: N/A
TRANSMITTER: 950
PRIMARY: AREA X VELOCITY
MAXIMUM CAPACITY: 78" PIPE
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** OPERATING RATE
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
LEVEL AND VELOCITY CHECK
ERROR: -17" **CORRECTED ACCURACY:** ± .125"

COMMENTS: PERFORMED ANNUAL CALIBRATION. CLEANED SENSORS. PERFORMED CONFINED SPACE ENTRY. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** PETE
copies:

W.G. MALDEN
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SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AB
LOCATION: FLUME # 3
SERIAL #: H20051150E6
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: FMU 90 - SENSOR #2
PRIMARY:
MAXIMUM CAPACITY: 25 MGD
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0 & 25, 50 & 100%
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENTS
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

COMMENTS: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. TESTED OUTPUT TO SCADA. FOUND MAX CAPACITY SET TO 15.332 MGD. CORRECTED. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** PETE
copies:

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SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 N. WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AC
LOCATION: FLUME # 2
SERIAL #: H20051150E6
MANUFACTURER: E&H TEMPORARY
RECORDER: N/A
TRANSMITTER: FMU 90 - SENSOR #1
PRIMARY: WEIR 5 FT.
MAXIMUM CAPACITY: 25 MGD
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0 & 25, 50 & 100%
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENTS
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

COMMENTS: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. TESTED OUTPUT TO SCADA. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** PETE
copies:

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SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 N. WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AD
LOCATION: FLUME # 4
SERIAL #:
MANUFACTURER: E& H TEMPORARY
RECORDER: N/A
TRANSMITTER: FMU 90
PRIMARY: 59.5"
MAXIMUM CAPACITY: 25 MGD
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0 & 25, 50 & 100%
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENTS
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

COMMENTS: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. TESTED OUTPUT TO SCADA. FOUND MAX CAPACITY SET TO 15.332 MGD. CORRECTED. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** PETE
copies:

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AE
LOCATION: FLUME # 1
SERIAL #: H6003D150E8
MANUFACTURER: E&H TEMPORARY
RECORDER: N/A
TRANSMITTER: FMU 90
PRIMARY: WEIR 5FT.
MAXIMUM CAPACITY: 25 MGD
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** 0, 25, 50, 75 & 100%
ERROR: 0% **CORRECTED ACCURACY:** ± 1%

TRANSMITTER CALIBRATION
SIMULATED HEAD RISES AND FLOW MEASUREMENTS
ERROR: -3.7% **CORRECTED ACCURACY:** ± 1%

COMMENTS: PERFORMED ANNUAL CALIBRATION. CLEANED PRIMARY. FOUND METER SCALED TO 23.366 MGD. CORRECTED. TESTED OUTPUT TO SCADA. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: DAVID/BOB **PERSON SEEN:** JEREMY/MATT
copies:

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AI
LOCATION: RAS #6
SERIAL #: H4002F16000
MANUFACTURER: E&H
RECORDER: 6004
TRANSMITTER: PROMAG 50
PRIMARY: 14" MAG
MAXIMUM CAPACITY: 3600 GPM
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** N/A
ERROR: * **CORRECTED ACCURACY:** N/A

TRANSMITTER CALIBRATION
PORTABLE TRANSIT TIME
ERROR: * **CORRECTED ACCURACY:** ± 1%

COMMENTS: *NOT DONE AT THIS TIME. METER OFFLINE.

SERVICE REPRESENTATIVE: BOB/DAVID **PERSON SEEN:** PETE
copies:

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0880 FAX: (717) 768-0802

SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AJ
LOCATION: RAS #5
SERIAL #: H4002E16000
MANUFACTURER: E&H
RECORDER: 6004
TRANSMITTER: PROMAG 50
PRIMARY: 14" MAG
MAXIMUM CAPACITY: 3600 GPM
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** N/A
ERROR: * **CORRECTED ACCURACY:** N/A

TRANSMITTER CALIBRATION
PORTABLE TRANSIT TIME
ERROR: * **CORRECTED ACCURACY:** ± 1%

COMMENTS: *NOT DONE AT THIS TIME. METER OFFLINE.

SERVICE REPRESENTATIVE: BOB/DAVID **PERSON SEEN:** PETE
copies:

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AM
LOCATION: RAS #1
SERIAL #: H504FC16000
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: PROMAG 50
PRIMARY: 14" MAG
MAXIMUM CAPACITY: 3600 GPM
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** OPERATING RATE
ERROR: 0% **CORRECTED ACCURACY:** ±1%

TRANSMITTER CALIBRATION
PORTABLE TRANSIT TIME
ERROR: 0% **CORRECTED ACCURACY:** ±3%

COMMENTS: PERFORMED CALIBRATION. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: BOB/DAVID **PERSON SEEN:** PETE
copies:

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AN
LOCATION: RAS #2
SERIAL #: H5055916000
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: PROMAG 50
PRIMARY: 14" MAG
MAXIMUM CAPACITY: 3600 GPM
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** OPERATING RATE
ERROR: 0% **CORRECTED ACCURACY:** ±1%

TRANSMITTER CALIBRATION
PORTABLE TRANSIT TIME
ERROR: 0% **CORRECTED ACCURACY:** ±3%

COMMENTS: PERFORMED CALIBRATION. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: BOB/DAVID **PERSON SEEN:** PETE
copies:

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-8802

SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, AP 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AO
LOCATION: RAS #3
SERIAL #:
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: PROMAG 50
PRIMARY: 14" MAG
MAXIMUM CAPACITY: 3600 GPM
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** OPERATING RATE
ERROR: * **CORRECTED ACCURACY:** ±1%

TRANSMITTER CALIBRATION
PORTABLE TRANSIT TIME
ERROR: * **CORRECTED ACCURACY:** ±3%

COMMENTS: *NOT DONE AT THIS TIME. METER OFFLINE.

SERVICE REPRESENTATIVE: BOB/DAVID **PERSON SEEN:** PETE
copies:

W.G. MALDEN
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

SERVICE REPORT

JAY NARDONE
SCRANTON SEWER AUTHORITY
307 NORTH WASHINGTON AVENUE
SCRANTON, PA 18503

SERVICE DATE: 3/4/2014
METER#: C8017 AP
LOCATION: RAS #4
SERIAL #: H5055A16000
MANUFACTURER: E&H
RECORDER: N/A
TRANSMITTER: PROMAG 50
PRIMARY: 14" MAG
MAXIMUM CAPACITY: 3600 GPM
SERVICE CONTRACT: ANNUAL

WORK PERFORMED

CLEANED EQUIPMENT: X **PRIMARY:** X

RECORDER CALIBRATION **CHECKED AT:** N/A
ERROR: N/A **CORRECTED ACCURACY:** N/A

TOTALIZER CALIBRATION **CHECKED AT:** OPERATING RATE
ERROR: 0% **CORRECTED ACCURACY:** ±1%

TRANSMITTER CALIBRATION
PORTABLE TRANSIT TIME
ERROR: 0% **CORRECTED ACCURACY:** ±3%

COMMENTS: PERFORMED CALIBRATION. LEFT EQUIPMENT OPERATING PROPERLY.

SERVICE REPRESENTATIVE: BOB/DAVID **PERSON SEEN:** PETE
copies:

LRM, Inc

Instrumentation & Disinfection Systems

Calibration Date
3/18/2015

User: City of Scranton

Job Site: Scranton WWTP

Attn: Richard Harison

Instrument Model No.
17CA3101A0

Instrument S/N
170a300000000343

Instrument Loop
4-20 mA

Input Type
Chlorine Sensor

Primary Signal Producer
Electrochemical Sensor

Calibrated Range
10 PPM

Instrument Settings

Found

Zero	Span
0 PPM CL2	10 PPM CL2

Changed To

Zero	Span
N/A	N/A

Calibration Data

Input %	Input Value	Output Value	% Error After Calibration
0 %	N/A	mADC	100.00%
50 %	N/A	mADC	100.00%
100 %	N/A	mADC	100.00%

Equipment Used: Calibration Gas 10 PPM; Calibration Gas Regulator

Adjustments / Actions Taken : Reset Span

Comments :
Conducted zero and span calibration using calibration gas cylinders. Found all four sensors reading correctly at both 0 and 10 PPM (within 0.2 PPM of target). Also verified all sensors to respond quickly to target gas exposure.

Tested alarm (relay) activation and verified proper operation.

Service Representative

Andrew Morgan

Date 3/19/2015

215 N. Main Street - Souderton,Pa 18964 - 215-721-4840 - Fax 215-721-4923

LRM, Inc

Instrumentation & Disinfection Systems

Calibration Date
3/18/2015

User: City of Scranton

Job Site: Scranton WWTP

Attn: Richard Harison

Instrument Model No.: 17CA3101A0

Instrument S/N: 170a300000000344

Instrument Loop: 4-20 mA

Input Type: Sulfur Dioxide Sensor

Primary Signal Producer: Electrochemical Sensor

Calibrated Range: 10 PPM

Instrument Settings

Found		Changed To	
Zero	Span	Zero	Span
0 PPM SO2	10 PPM SO2	N/A	N/A

Calibration Data

Input %	Input Value	Output Value	% Error After Calibration
0 %	N/A	mADC	100.00%
50 %	N/A	mADC	100.00%
100 %	N/A	mADC	100.00%

Equipment Used: Calibration Gas 10 PPM; Calibration Gas Regulator

Adjustments / Actions Taken : Reset Span

Comments :
Conducted zero and span calibration using calibration gas cylinders. Found one sensor module to be faulty and replaced it from customer's stock. Both sensors were then tested and found to be reading correctly at both 0 and 10 PPM (within 0.2 PPM of target). Also verified all sensors to respond quickly to target gas exposure.

Tested alarm (relay) activation and verified proper operation.

Service Representative

Andrew Morgan

Date 3/19/2015

215 N. Main Street - Souderton,Pa 18964 - 215-721-4840 - Fax 215-721-4923

Appendix 2

Dickson City
Chapter 94 Information Worksheet

www.scrantonsewer.org
Phone: 570-348-6330
Scranton Sewer Authority
312 - 314 Adams Avenue, Scranton, PA 18503
Fax: 570-348-6369

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET

Municipality: Siniawa (Dickson City Borough)

Mailing Address: LACKAWANNA RIVER BASIN SEWER AUTHORITY
P.O. BOX 280, OLYPHANT, PA 18447

Contact Person: MICHAEL MATECHAK, P.E.

Telephone Number: 570-489-7562

USERS: 42 COMMERCIAL
4 RESIDENTIAL

ITEM 1 - LOADING INFORMATION

*AVG Q ÷ 225 GPD/EDU

The total number of EDUs connected at the end of 2014 was 116, they contributed 0.0262 MGD. During the next five (5) years, the number of EDUs is projected to increase as follows:

	Additional # of EDUs	Total # of EDUs	Total MGD
2014	—	116	0.0262
2015	16	132	0.0298
2016	0	132	0.0298
2017	0	132	0.0298
2018	0	132	0.0298

The increase in the number of connections was derived in the following manner:

HILTON HOMEZ HOTEL TO BE CONSTRUCTED ON THE SITE OF THE FORMER FRESNO'S RESTAURANT. ESTIMATED INCREASE OF 3,600 GPD VS. FORMER FRESNO'S USAGE.

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

The organic loading in lbs BOD_5/day collected each day is estimated to be 44 lbs/day which was calculated by using a factor of 0.17 lbs/day per capita X (times) the estimated number of persons (—) or as follows:
26,170 GPD ÷ 225 GPD/EDU x 2.24 PERSONS/EDU x 0.17 #BOD/CAP = 44 #BOD/DAY

ITEM 2 - PLAN TO REDUCE OVERLOAD

a. **The following is a plan and schedule for reducing present or anticipated hydraulic or organic overload conditions within the municipal sewer system.**

Task to be Completed	By Year	Resulting Reduction in Overload (mgd or lbs/day BOD)
* N/A *		

b. **Attach, as a supplement, your detailed plan of action and schedule to locate and remove excessive inflow/infiltration from your sewer system.**

* N/A *

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

ITEM 3 - SEWER EXTENSIONS

During 2014 the following sewer extensions were constructed.

Name of Extension	W.Q.M. Permit No.	Population (EDUs) Permitted	Population EDUs Connected during 2014
		* N/A *	

b. The following sewer extensions were approved for future construction:

Name of Extension	W.Q.M. Permit No.	Population (EDUs) Permitted	Year Construction to Start	Year to Be Completed
		* N/A *		

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

c. The following sewer extensions were proposed but not approved during 2014:

Name of Extension	Population (EDUs) Proposed	Year that Construction Proposed to Start
	* N/A *	

d. In addition to the above information relative to each extension, an updated complete map of the entire collection system showing all 2014 extensions and all proposed sewer extensions should be submitted. Also indicate the location of any major or extraordinary system repairs as described in Item 4 below on the map.

ITEM 4 - SYSTEM MAINTENANCE

Briefly discuss the program utilized for sewer system monitoring, maintenance, repair, and rehabilitation. Provide a description of any major or extraordinary repairs.

SEWER COLLECTION LINES IN THE SINIAWA SEWER DISTRICT ARE OPERATED AND MAINTAINED BY DICKSON CITY BOROUGH.

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

ITEM 5 - SYSTEM CONDITION

Briefly discuss the condition of the sewer system and indicate any portions of the system where the conveyance capacity is being exceeded or will be exceeded in the next 5 years. Rehabilitation or cleaning work which is underway, planned, or required, should also be discussed.

* SYSTEM IS BELIEVED TO BE IN GENERALLY GOOD CONDITION.

ITEM 6 - PUMPING STATION INFORMATION

a. Pumping Station Capacities and Flows

Name of Station	No. of Pumps	Capacity of Each Pump	Present Average Daily Flow	Present Maximum Daily Flow	Projected 2-Year Maximum Daily Flow
		*	N/A *		

b. Briefly explain how the average daily flow and maximum daily flow were determined.

* N/A *

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

c. Briefly discuss the condition of each pumping station listed above:

* N/A *

d. Attach a copy of the flow meter calibration report (if flow meters are provided).

* N/A *

ITEM 7 - INDUSTRIAL WASTE DISCHARGES

a. Discuss any known or suspected problems in the sewer system caused by industrial discharges.

NONE - NO S.I.U.s

ITEM 8 - INSTRUMENT CALIBRATION RECORDS

a. Attach copies of calibration records for flow metering instrumentation. In lieu of specific signed calibration certificates, copies of paid invoices for instrument calibration and of canceled checks may be substituted.

* N/A *

LRBSA
P.O. BOX 280
OLYPHANT, PA 18447-0280

PH. (570) 489-7563
FAX (570) 489-0260

LETTER OF TRANSMITTAL

TO Scranton Sewer Authority
312-314 Adams Ave.
Scranton, PA 18503

DATE 1/19/15	JOB NO.
ATTENTION Mr. Eugene Barrett	
RE: 2014 Chapter 94 Worksheet	
Sinking Sewer District	

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Chapter 94 Worksheet - Sinking

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☑ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: Michael Fatscher

If enclosures are not as noted, kindly notify us at once.

Appendix 3

Montage Sewer District
Chapter 94 Information Worksheet

www.scrantonsewer.org
Phone: 570-348-6330
Scranton Sewer Authority
312 - 314 Adams Avenue, Scranton, PA 18503
Fax: 570-348-6350

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET

Municipality: Montage Sewer District

Mailing Address: LACKAWANNA RIVER BASIN SEWER AUTHORITY
P.O. BOX 280, OLYPHANT, PA 18447

Contact Person: MICHAEL MATECHAK, P.E.

Telephone Number: 570-489-7563

+ EDUs = AVG. Q ÷ 225 GPD/EDU
USERS: 227 RESIDENTIAL
31 COMMERCIAL

ITEM 1 - LOADING INFORMATION

The total number of EDUs connected at the end of **2014** was 613, they contributed 0.138 MGD. During the next five (5) years, the number of EDUs is projected to increase as follows:

	Additional # of EDUs	Total # of EDUs	Total MGD
2014	2	615	0.138
2015	2	617	0.139
2016	2	619	0.139
2017	2	621	0.140
2018	2	623	0.140

The increase in the number of connections was derived in the following manner:

BUILDING PERMITS + HISTORICAL TRENDS

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

The organic loading in lbs BOD_5/day collected each day is estimated to be 249 lbs/day which was calculated by using a factor of 0.17 lbs/day per capita X (times) the estimated number of persons (—) or as follows:
138,000 GPD ÷ 225 GPD/EDU x 2.39 persons/EDU x 0.17 #BOD/CAP
= 249 # BOD/Day

ITEM 2 - PLAN TO REDUCE OVERLOAD

a. The following is a plan and schedule for **reducing present or anticipated hydraulic or organic overload conditions within the municipal sewer system.**

Task to be Completed	By Year	Resulting Reduction in Overload (mgd or lbs/day BOD)
	* N/A *	

b. **Attach, as a supplement, your detailed plan of action and schedule to locate and remove excessive inflow/infiltration from your sewer system.**

* N/A *

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

ITEM 3 - SEWER EXTENSIONS

During 2014 the following sewer extensions were constructed.

Name of Extension	W.Q.M. Permit No.	Population (EDUs) Permitted	Population EDUs Connected during 2014
		* N/A *	

b. The following sewer extensions were approved for future construction:

Name of Extension	W.Q.M. Permit No.	Population (EDUs) Permitted	Year Construction to Start	Year to Be Completed
		* N/A *		

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

c. The following sewer extensions were proposed but not approved during 2014:

Name of Extension	Population (EDUs) Proposed	Year that Construction Proposed to Start
	* N/A *	

d. In addition to the above information relative to each extension, an updated complete map of the entire collection system showing all 2014 extensions and all proposed sewer extensions should be submitted. Also indicate the location of any major or extraordinary system repairs as described in Item 4 below on the map.

ITEM 4 - SYSTEM MAINTENANCE

Briefly discuss the program utilized for sewer system monitoring, maintenance, repair, and rehabilitation. Provide a description of any major or extraordinary repairs.

LRASA AND MOOSIC BOROUGH PERFORM ROUTINE MAINTENANCE ON THEIR RESPECTIVE LINES AS NEEDED.

REPLACED PUMP #2 AT MONTAGE PUMP STATION IN 2014.

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

ITEM 5 - SYSTEM CONDITION

Briefly discuss the condition of the sewer system and indicate any portions of the system where the conveyance capacity is being exceeded or will be exceeded in the next 5 years. Rehabilitation or cleaning work which is underway, planned, or required, should also be discussed.

THE LRBSA/COUNTY SEWERAGE SYSTEM IS BELIEVED TO BE IN GENERALLY GOOD CONDITION. THERE ARE NO KNOWN AREAS WHERE THE CONVEYANCE SYSTEM IS CURRENTLY OR PROJECTED TO BE OVERLOADED.

ITEM 6 - PUMPING STATION INFORMATION

a. Pumping Station Capacities and Flows

Name of Station	No. of Pumps	Capacity of Each Pump	Present Average Daily Flow	Present Maximum Daily Flow	Projected 2-Year Maximum Daily Flow
MONTAGE	3	500 GPM	0.138	0.243	0.272

b. Briefly explain how the average daily flow and maximum daily flow were determined.

FLOW METER DATA

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

c. Briefly discuss the condition of each pumping station listed above:

GOOD CONDITION. CONSTRUCTED 2004.

d. Attach a copy of the flow meter calibration report (if flow meters are provided).

ATTACHED.

ITEM 7 - INDUSTRIAL WASTE DISCHARGES

a. Discuss any known or suspected problems in the sewer system caused by industrial discharges.

NONE - NO S.I.U.S

ITEM 8 - INSTRUMENT CALIBRATION RECORDS

a. Attach copies of calibration records for flow metering instrumentation. In lieu of specific signed calibration certificates, copies of paid invoices for instrument calibration and of canceled checks may be substituted.

ATTACHED

Honeywell

Service Activity Report

SR Number	1-5272560425	Service Location					
SR Summary	Planned Hours	Customer	Lackawanna River Basin				
Activity Owner	Bogdan, Mark	Address	140 Rear 145 Blvd				
Honeywell Contact		Address					
SR Owner	Leilani Young	City	Throop	Region ZIP	PA	18512	
Telephone	(502) 435-1833	Customer Contact					
eMail Address	leilani.young@honeywell.com	Name	Michael Mercanti	eMail Address	lrbea@epix.net		
FBL	Geralyn Gamet	Telephone	(570) 489-7563	Alternate Phone#			
Payment Information		Service Information					
Customer PO#		Local Refl	US1109-484	Exp Date	1/31/2015		
Credit Card	No	Type	Service Agreement				
		SAP SO#	43054321				

Activity

12-19-14 Moosic/Montage Mtn. Calibration checks.

Transmitters and recorders at each location were subjected to 3 point checks for calibration accuracy. All items are within 1%.

Test Equipment Used

Test Equipment Description	Serial Number	Last Calib MM	Last Calib DD	Last Calib YYYY	Next Due MM	Next Due DD	Next Due YYYY
HONEYWELL 2020	6730902	11	06	2014	02	06	2015
FLUKE 87III DMM	78450137	08	07	2014	08	07	2015

Attachments

Approval

N/A

Customer Signature

Date

M Bogdan

Technician Signature

12-19-14

Date

QUALITY SERVICE means conforming to CUSTOMER REQUIREMENTS. If I have met your requirements please sign above.

NEW MAILING ADDRESS:
LRBSA
P.O. BOX 280
OLYPHANT, PA 18447-0280

PH. (570) 489-7563
FAX (570) 489-0260

LETTER OF TRANSMITTAL

DATE	JOB NO.
1/19/15	

ATTENTION: Mr Eugene Lonergan

RE: 2014 Chapter 94 Worksheet
Montage Sewer District

TO: Scranton Sewer Authority
312-314 Adams Ave.
Scranton, PA 18503

WE ARE SENDING YOU ☑ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
1			Chapter 94 Worksheet - Montage

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☑ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO _____

SIGNED: Michael Falcetta

If enclosures are not as noted, kindly notify us at once.

Appendix 4

Taylor Borough
Chapter 94 Information Worksheet

Scranton Sewer Authority
www.scrantonsewer.org
Phone: 570-348-6330
312 Adams Avenue, Scranton, PA 18503
Fax: 570-348-9369

January 9, 2015

Tom McDermott
LLVSA
P.O. Box 67
Duryea, PA 18642

RE: Scranton Sewer Authority (SSA)
Municipal Wasteload Management
Annual Report, Calendar Year 2014

Dear Mr. Tom McDermott,

The SSA is sending this information package to the LLVSA for assistance. Your help is greatly appreciated.

Taylor Borough generates wastewater and discharges it to the Scranton Sewer Authority's Wastewater Treatment Plant (WWTP). The authority, as permittee for the WWTP, is required to prepare and submit a Municipal Wasteload Management Report in compliance with Title 25, Chapter 94, of the Rules and Regulations of the Pennsylvania Department of Environmental Protection (PADEP). This annual report for the calendar year 2014 must be filed in the Regional Office of PADEP by March 31, 2015.

To assist us in Preparing the Chapter 94 Report for 2014, please provide the information described in "Requested Information Instructions." Also enclosed is a worksheet to assist in organizing the requested information.

Please submit this information to the attention of Tara Roche at the above address no later than February 4, 2015. If you have any questions concerning the above, please do not hesitate to contact me at (570) 348-5338.

Sincerely,

Eugene P. Barrett
Executive Director, Scranton Sewer Authority

CC: Christine Wesolowski, SSA WWTP Manager
Tara Roche, SSA MIPP Compliance

www.scrantonsewer.org
Phone: 570-348-9330
Scranton Sewer Authority
312 - 314 Adams Avenue, Scranton, PA 18503
Fax: 570-348-9369

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET

Municipality	Taylor Borough
Mailing Address	122 WEST UNION
	TAYLOR, PENNSYLVANIA, 18517
Contact Person	DAN ZELSNIAK
Telephone Number	570-562-1400

ITEM 1 - LOADING INFORMATION

The total number of EDUs connected at the end of **2014** was 352, they contributed 0.056 MGD. During the next five (5) years, the number of EDUs is projected to increase as follows:

	Additional # of EDUs	Total # of EDUs	Total MGD
2014	-0-	352	0.056
2015	-0-	352	0.056
2016	-0-	352	0.056
2017	-0-	352	0.056
2018	-0-	352	0.056

The increase in the number of connections was derived in the following manner:

ACCORDING TO TAYLOR BOROUGH, THIS AREA IS FULLY DEVELOPED WITH NO ADDITIONAL EXPANSION EXPECTED OVER THE NEXT (5) FIVE YEARS.

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

The organic loading in lbs BOD_5/day collected each day is estimated to be 210 lbs/day which was calculated by using a factor of 0.17 lbs/day per capita X (times) the estimated number of persons (1,232) or as follows:
(352 EDU's)(3.5 persons/EDU)(.17 LBS/BOD/PERSON) = 210 LBS/DAY BOD

ITEM 2 - PLAN TO REDUCE OVERLOAD

a. The following is a plan and schedule for reducing present or anticipated hydraulic or organic overload conditions within the municipal sewer system.

Task to be Completed	By Year	Resulting Reduction in Overload (mgd or lbs/day BOD)
N/A	N/A	N/A

b. Attach, as a supplement, your detailed plan of action and schedule to locate and remove excessive inflow/infiltration from your sewer system.

NONE.

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

ITEM 3 - SEWER EXTENSIONS

During 2014 the following sewer extensions were constructed.

Name of Extension	W.Q.M. Permit No.	Population (EDUs) Permitted	Population EDUs Connected during 2014
NONE	N/A	N/A	N/A

b. The following sewer extensions were approved for future construction:

Name of Extension	W.Q.M. Permit No.	Population (EDUs) Permitted	Year Construction to Start	Year to Be Completed
NONE	N/A	N/A	N/A	N/A

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

c. The following sewer extensions were proposed but not approved during 2014:

Name of Extension	Population (EDUs) Proposed	Year that Construction Proposed to Start
NONE	N/A	N/A

d. In addition to the above information relative to each extension, an updated complete map of the entire collection system showing all 2014 extensions and all proposed sewer extensions should be submitted. Also indicate the location of any major or extraordinary system repairs as described in Item 4 below on the map.

ITEM 4 - SYSTEM MAINTENANCE

Briefly discuss the program utilized for sewer system monitoring, maintenance, repair, and rehabilitation. Provide a description of any major or extraordinary repairs.

CSO 025 (6th Street) is monitored and maintained monthly and after every HALF-INCH RAINFALL AS PER THE LLVSA Nine Minimum Control Plan. THE LLVSA INTERCEPTOR IS INSPECTED SEMI-ANNUALLY. ALL MAINTENANCE IS documented.

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

ITEM 5 - SYSTEM CONDITION

Briefly discuss the condition of the sewer system and indicate any portions of the system where the conveyance capacity is being exceeded or will be exceeded in the next 5 years. Rehabilitation or cleaning work which is underway, planned, or required, should also be discussed.

System is in good condition, Maintenance includes Jet-Vac approximately twice per year. There is no known inflow or infiltration in the area.

ITEM 6 - PUMPING STATION INFORMATION

a. Pumping Station Capacities and Flows

Name of Station	No. of Pumps	Capacity of Each Pump	Present Average Daily Flow	Present Maximum Daily Flow	Projected 2-Year Maximum Daily Flow
N/A					

b. Briefly explain how the average daily flow and maximum daily flow were determined.

There are no pump stations in this area.

SCRANTON SEWER AUTHORITY
WASTEWATER TREATMENT FACILITIES

CHAPTER 94 INFORMATION WORKSHEET (CONTINUED)

c. Briefly discuss the condition of each pumping station listed above:

NONE.

d. Attach a copy of the flow meter calibration report (if flow meters are provided).

N/A

ITEM 7 - INDUSTRIAL WASTE DISCHARGES

a. Discuss any known or suspected problems in the sewer system caused by industrial discharges.

No industrial discharges in this service area.

ITEM 8 - INSTRUMENT CALIBRATION RECORDS

a. Attach copies of calibration records for flow metering instrumentation. In lieu of specific signed calibration certificates, copies of paid invoices for instrument calibration and of canceled checks may be substituted.

N/A

Appendix 5

Collection System Extensions

The Scranton Sewer Authority has no collection system extensions to report in the Scranton / Dunmore area for the year of 2014

Appendix 6

Pumping Station Drawdowns

Dorothy Street Pump Station

pump #1	Wet Well	Length 10 ft	Width 7 ft	Volume 523.6 gal/ft	
	Drawdown		Drawdown Time	Refill Time	Field Pump Test
	End 0 in		Minutes 16	Minutes 145	
	Start 9.6 in				
	Total Distance 0.8 ft				
	Gallons Pumped 418.88 gallons		26 gpm	3 gpm	29 gpm

Field Pump Test		
29 gpm	=	0.042 MGD

Average Daily Flow		
12 gpm	=	0.017 MGD

Total Annual Pump Runtime (Hrs) 3541

Average Daily Pump Runtime (Hrs.) 9.7

Froude Street Pump Station

pump #1	Wet Well	Length ft	Width 5 ft diameter	Volume 19.625 gal/ft	
	Drawdown End 0 in Start 12 in Total Distance 2.2 ft	Drawdown Time Minutes 2.00	Refill Time Minutes 56	Field Pump Test	
	Gallons Pumped 43.175 gallons	22 gpm	0.8 gpm	22 gpm	

Field Pump Test		
22 gpm	=	**0.032 MGD**

Average Daily Flow		
11 gpm	=	**0.017 MGD**

Total Annual Pump Runtime (Hrs) 4496

Average Daily Pump Runtime (Hrs.) **12.31781**

Keyser Avenue Pump Station

pump #1	Wet Well	Length	Width	Volume	
		15 ft	5 ft	561 gal/ft	
	Drawdown		Drawdown Time	Refill Time	Field Pump Test
	End 0 in		Minutes 0.83	Minutes	
	Start 12 in				
	Total Distance 1 ft				
	Gallons Pumped 561 gallons		466 gpm	0 gpm	466 gpm

Field Pump Test		
466 gpm	=	0.671 MGD

Average Daily Flow		
194 gpm	=	0.279 MGD

Total Annual Pump Runtime (Hrs)	3644
Average Daily Pump Runtime (Hrs.)	9.983562

Middle Street Pump Station

pump #1	Wet Well	Length 19.5 ft	Width 6 ft	Volume 875.16 gal/ft	
	Drawdown End 0 in Start 12 in Total Distance 1 ft	Drawdown Time Minutes 1.83		Refill Time Minutes	Field Pump Test
	Gallons Pumped 875.16 gallons	478 gpm		0 gpm	478 gpm

Field Pump Test		
478 gpm	=	0.689 MGD

Average Daily Flow		
103 gpm	=	0.148 MGD

Total Annual Pump Runtime (Hrs) 1887

Average Daily Pump Runtime (Hrs.) 5.169863

Myrtle Street Pump Station

pump #1	Wet Well	Length	Width	Volume	
		17 ft	5 ft	635.8 gal/ft	
	Drawdown		Drawdown Time	Refill Time	Field Pump Test
	End 0 in		Minutes 0.92	Minutes	
	Start 12 in				
	Total Distance 1 ft				
	Gallons Pumped 635.8 gallons		691.09 gpm	0 gpm	691 gpm

Field Pump Test		
691 gpm	=	0.995 MGD

Average Daily Flow		
202 gpm	=	0.291 MGD

Total Annual Pump Runtime (Hrs) 2562

Average Daily Pump Runtime (Hrs.) 7.019178

Parrot Street Pump Station

pump #1	Wet Well	Length 13.5 ft	Width 5 ft	Volume 504.9 gal/ft	
	Drawdown End 0 in Start 12 in Total Distance 1 ft	Drawdown Time Minutes 1	Refill Time Minutes 5.37	Field Pump Test	
	Gallons Pumped 504.9 gallons	505 gpm	94 gpm	599 gpm	

Field Pump Test		
599 gpm	=	0.862 MGD

Average Daily Flow		
25 gpm	=	0.036 MGD

Total Annual Pump Runtime (Hrs)	366
Average Daily Pump Runtime (Hrs.)	1.00274

Shawnee Ave Pump Station

pump #1	Wet Well	Length	Width	Volume	
		11 ft	5 ft	411.4 gal/ft	
	Drawdown		**Drawdown Time**	Refill Time	Field Pump Test
	End 0 in		Minutes **4.083**	Minutes	
	Start 12 in				
	Total Distance 1 ft				
	Gallons Pumped 411.4 gallons		101 gpm	0 gpm	101 gpm

Field Pump Test		
101 gpm	=	**0.145 MGD**

Average Daily Flow		
12 gpm	=	**0.017 MGD**

Total Annual Pump Runtime (Hrs) 1007

Average Daily Pump Runtime (Hrs.) **2.758904**

Appendix 7

MIPP Report

www.scrantonsewer.org Scranton Sewer Authority
Phone: 570-348-5330 312 Adams Avenue, Scranton, PA 18503 Fax: 570-348-5359

Industrial Users Summary for MIPP Report

(Fourth Quarter 2013, First Quarter 2014, Second Quarter 2014, Third Quarter 2014 and Fourth Quarter 2014)
Annual 2014 Report

Apex Waste Management

4th Quarter 2013- Sampled on time (10/01/2013-10/03/2013), reported on time (11/20/2013) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.

Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (10/15/2014) with no violations.

1st Quarter 2014- Sampled on time (01/07/2014-01/09/2014), reported on time (03/19/2014) and report was complete. This industry reported a total flow of 287,750 gallons for the first quarter. No violations. This industry is not in SNC for the period of October 1, 2013-March 31, 2014. A calculated surcharge for elevated ammonia and BOD was issued.

2nd Quarter 2014- Sampled on time (04/01/2014-04/03/2014), reported on time (05/16/2014) and report was complete. This industry reported a total flow of 154,073 gallons for the second quarter. No violations. This industry is not in SNC for the period of January 1, 2014-June 30, 2014. A calculated surcharge for elevated ammonia was issued.

3rd Quarter 2014- Sampled on time (07/08/2014-07/10/2014), reported on time (09/02/2014) and report was complete. This industry reported a total flow of 3,850 gallons for the third quarter. No violations. This industry is not in SNC for the period of April 1, 2014-September 30, 2014. A calculated surcharge for elevated ammonia was issued.

4th Quarter 2014- Sampled on time (10/07/2014-10/09/2014), reported on time (11/20/2014) and report was complete. This industry reported a total flow of 10,406 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014. A calculated surcharge for ammonia was issued.

Aramark

4th Quarter 2013- Sampled on time (10/28/2013-10/30/2013), reported on time (12/09/2013) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.

Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (06/03/2014). There were violations for pH on 06/03/2014. This industry reported a pH of 10.16, 9.69, 9.53, 9.89, and 9.78 su and pH limit is 6.0-9.0. A Notice of Violation was issued for pH along with a requirement to submit to the authority a completed compliance plan. A calculated surcharge for elevated BOD was issued.
1st Quarter 2014- Sampled on time (02/17/2014-02/19/2014) and reported on time (04/16/2014). This report was incomplete. Notices of Violations were issued with attached monetary fines for failure to submit flows, pH violation, and failure to resample for pH. Aramark had pH violations on Day 1 (02/17/2014), Day 2 (02/18/2014), and Day 3 (2/19/14). The pH readings for 02/17/2014 was 9.84 su, on 02/18/14 was 9.34 su, and on 02/19/14 was 9.23 su. No resampling was performed. This industry is not in SNC for the period of October 1, 2013-March 31, 2014.
2nd Quarter 2014- Sampled on time (06/2/2014-06/4/2014) and reported on time (07/23/2014). This report was complete. This industry reported a total flow of 762,137 gallons for the second quarter. Aramark had pH violations on Day 1 (06/2/2014) and Day 2 (06/3/2014). The pH reading for 06/2/2014 was 10.16 su and 10.12 su for 06/3/2014. Resampling was performed on 06/9/2014, 06/10/2014, 06/11/2014, 06/16/2014, 06/17/2014, 06/23/2014, 06/24/2014, and 06/25/2014 with pH results of 9.72 su, 9.78 su, 9.80 su, 6.08 su, 10.12 su, 5.56 su, 9.25 su, and 9.89 su. A Notice of Violation will be issued for pH. This industry is in SNC for the period of January 1, 2014-June 30, 2014.

The Scranton Sewer Authority has met with Aramark numerous times throughout this quarter. Initially the Authority proposed to issue an administrative order to implement treatment to meet compliance within 180 days, however, as a result of these meetings and Aramark's internal work to identify the source of the pH non-compliance it was decided to install a pH adjusting system. This system is in motion at Aramark and should be on-site by the next reporting period. At this time because of the above efforts the Authority believes compliance with the pH parameter will be met in the near future. If implementation of this system does not follow this discussed schedule between the SSA and Aramark, the Authority will immediately issue an administrative order with monetary fine to Aramark. All future details will be forwarded in forthcoming MIPP quarterly reports.
3rd Quarter 2014- Sampled on time (08/18/2014-08/20/2014), reported on time (10/16/2014) and report was complete. This industry reported a total flow of 674,989 gallons for the third quarter. No violations. This industry is in SNC for the period of April 1, 2014-September 30, 2014.
4th Quarter 2014- Sampled on time (11/18/2014-11/20/2014), reported on time (1/22/2015) and report was complete. This industry reported a total flow of 713,422 gallons for the fourth quarter. Aramark had a pH violation on Day 2 (11/19/2014). The pH reading for 11/19/2014 was 10.66 su. Resamping was performed on 12/10/2014, 12/11/2014, and 12/12/2014 with results of 7.45 su, 6.82 su, and 6.13 su, respectively. This industry is in SNC for the period of July 1, 2014-December 31, 2014. Aramark continues to work towards compliance. The Authority will continue to work with this industry.

Compression Polymers (Corey Street)- Non Categorical IndustrialUser

4th Quarter 2013- Sampled on time (10/21/2013-10/23/2013), reported on time (12/12/2013) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.

Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (05/20/2014) with no violations.

1st Quarter 2014- Sampled on time (01/13/2014-01/15/2014), reported on time (04/28/2014) and report was complete. This industry reported a total flow of 5,702,200 gallons for the first quarter. No violations. This industry is not in SNC for the period of October 1, 2013-March 31, 2014.

2nd Quarter 2014- Sampled on time (05/5/2014-05/7/2014), reported on time (07/17/2014) and report was complete. This industry reported a total flow of 4,631,000 gallons for the second quarter. No violations. This industry is not in SNC for the period of January 1, 2014-June 30, 2014.

3rd Quarter 2014- Sampled on time (08/04/2014-08/06/2014), reported on time (10/03/2014) and report was complete. This industry reported a total flow of 4,051,000 gallons for the fourth quarter No violations. This industry is not in SNC for the period of April 1, 2014-September 30, 2014.

4th Quarter 2014- Sampled on time (10/27/2014-10/29/2014), reported on time (1/09/2015) and report was complete. This industry reported a total flow of 4,034,300 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014.

Compression Polymers (Keyser Avenue)- Non Categorical IU

4th Quarter 2013- Sampled on time (10/21/2013-10/23/2013), reported on time (12/12/2013) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.

Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (05/20/2014) with no violations.

1st Quarter 2014- Sampled on time (01/13/2014-01/15/2014), reported on time (04/28/2014) and report was complete. This industry reported a total flow of 3,759,800 gallons for the first quarter. No violations. This industry is not in SNC for the period of October 1, 2013-March 31, 2014.

2nd Quarter 2014- Sampled on time (04/21/2014-04/23/2014), reported on time (07/17/2014) and report was complete. This industry reported a total flow of 3,363,200 gallons for the second quarter. No violations. This industry is not in SNC for the period of January 1, 2014-June 30, 2014.

3rd Quarter 2014- Sampled on time (08/11/2014-08/13/2014), reported on time (10/03/2014) and report was complete. This industry reported a total flow of 3,332,300 gallons for the third quarter. No violations. This industry is not in SNC for the period of April 1, 2014-September 30, 2014

4th Quarter 2014- Sampled on time (10/28/2014-10/30/2014), reported on time (1/9/2015) and report was complete. This industry reported a total flow of 3,277,600 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014.

CSD CoPackers-(Former Crystal Soda Water Company Facility)-Non Categorical IU

4th Quarter 2013- Sampled on time (11/13/2013-11/15/2013), reported on time (12/18/2013) and report was complete. CSD Copackers had pH violations on Day 1 (11/13/2013) and Day 2 (11/14/2013). The pH reading for 11/13/2013 was 5.32 su and 5.60 su for 11/14/2013. Resampling was performed on 11/20/2013, 11/21/2013, and 11/22/2013 with pH results of 7.20 su, 7.80 su, and 6.99 su, respectively. A notice of violation was issued for pH, along with a requirement to submit to the Authority a completed compliance plan. This industry is not in SNC for the period of July 1, 2013-December 31, 2013. A calculated surcharge for elevated BOD was issued.

Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (10/02/2014) with no violations.

1st Quarter 2014- Sampled on time (01/27/2014-01/29/2014), reported on time (03/24/2014) and report was complete. This industry reported a total flow of 442,400 gallons for the first quarter. CSD Copackers had pH violations on Day 2 (01/28/2014) and Day 3 (01/29/2014). The pH reading for 01/28/2014 was 11.05 su and 3.42 su for 01/29/2014. Resampling was performed on 02/10/2014, 02/11/2014, and 02/12/2014 with pH results of 7.30 su, 6.57 su, and 7.27 su. A Notice of Violation was issued for pH. This industry is not in SNC for the period of October 1, 2013-March 31, 2014. A calculated surcharge for elevated BOD was issued.

2nd Quarter 2014- Sampled on time (06/16/2014-06/18/2014), reported on time (07/28/2014) and report was complete. This industry reported a total flow of 713,200 gallons for the second quarter. No violations. This industry is not in SNC for the period of January 1, 2014-June 30, 2014. A calculated surcharge for elevated BOD was issued.

3rd Quarter 2014- Sampled on time (09/15/2014-09/17/2014), reported on time (10/23/2014) and report was complete. This industry reported a total flow of 322,230 gallons for the third quarter. No violations. This industry is not in SNC for the period of April 1, 2014-September 30, 2014. A calculated surcharge for elevated BOD was issued.

4th Quarter 2014- Sampled on time (11/19/2014-11/21/2014), reported on time (1/23/2015) and report was complete. This industry reported a total flow of 257,950 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014. A calculated surcharge for elevated BOD was issued.

David Elliot Poultry Farm-Non Categorical IU

4th Quarter 2013- Sampled on time (10/16/2013-10/18/2013), reported late (2/06/2014), and report was complete. David Elliot Poultry Farm submitted the report on February 6, 2014, when it was due on January 28, 2014. Therefore, a Notice of Violation was issued for a late report. David Elliot Poultry Farm also had a pH violation on Day 3 (10/18/2013) of the sampling event with a reported value of 9.84 su, and the pH limit is 6.0-9.0. Resampling was performed on 10/22/2013, 10/23/2013, 10/24/2013, and 10/25/2013 with reported values of 7.05 su, 7.05 su, 7.06 su, and 7.00 su respectively. A Notice of Violation was issued for pH along with a requirement to submit to the Authority a completed compliance plan. This industry is not in SNC for the period of July 1, 2013-December 31, 2013. A calculated surcharge for elevated BOD was issued.

Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (07/09/2014) with no violations. There was an elevated BOD level which would

translate into an industrial surcharge for David Elliot Poultry Farms. A calculated surcharge for elevated ammonia was issued.
1st Quarter 2014- Sampled on time (02/19/2014-02/21/2014), reported on time (04/28/2014) and report was complete. This industry reported a monthly average flow of 3,457,998 gallons for the first quarter. No violations. This industry is not in SNC for the period of October 1, 2013-March 31, 2014. A calculated surcharge for elevated BOD was issued.
2nd Quarter 2014- Sampled on time (05/14/2014-05/16/2014), reported on time (07/28/2014) and report was complete. This industry reported a monthly average flow of 3,327,000 gallons for the second quarter. No violations. This industry is not in SNC for the period of January 1, 2014-June 30, 2014. A calculated surcharge for elevated BOD was issued.
3rd Quarter 2014- Sampled on time (07/30/2014-08/01/2014) and report was complete. This industry reported a total flow of 3,723,000 gallons for the third quarter. Report was received late on 10/30/2014. The third quarter report is due on 10/28/2014. A Notice of Violation was issued for a late report in the third quarter reporting period. This industry is not in SNC for the period of April 1, 2014- September 30, 2014. A calculated surcharge for elevated BOD was issued.
4th Quarter 2014- Sampled on time (11/05/2014-11/07/2014), reported on time (1/14/2015) and report was complete. This industry reported an average monthly flow of 1,256,500 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014. A calculated surcharge for elevated BOD was issued.

Enzyme Development Corporation- Non Categorical IU
4th Quarter 2013- Sampled on time (12/09/13-12/11/13), reported on time (01/28/2014) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.
Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (05/22/2014). There were two violations for pH on 05/22/2014. This industry reported a pH of 5.03 su at 16:10 hours and a pH of 2.93 su at 16:45 hours and pH limit is 6.0-9.0. A Notice of Violation was issued for pH along with a requirement to submit to the authority a completed compliance plan.
1st Quarter 2014- This industry samples semi-annually and therefore has not submitted a first quarter report for 2014. This industry is not in SNC for the period of October 1, 2013 to March 31, 2014.
2nd Quarter 2014- Sampled on time (05/19/2014-05/21/2014), reported on time (07/28/2014) and report was complete. This industry reported a total flow of 149,300 gallons for the second quarter. Enzyme Development Corporation had a pH violation on Day 1 (05/19/2014). The pH reading for 05/19/2014 was 5.16 su. Resampling was preformed on 05/22/2014 with a pH result of 7.41 su. A Notice of Violation was issued for pH, along with a requirement to submit to the authority a completed compliance plan. This industry is not in SNC for the period of January 1, 2014-June 30, 2014. A calculated surcharge for elevated BOD was issued.

3rd Quarter 2014- This industry samples semi-annually and therefore has not submitted a third quarter report for 2014. This industry is not in SNC for the period of April 1, 2014 to September 30, 2014.
4th Quarter 2014- Sampled on time (11/10/14-11/12/14), reported on time (01/23/2015) and report was complete. This industry reported a total flow of 124,650 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014

General Dynamics Formerly Chamberlain Manufacturing Co. (Oily waste Outfall)-Categorical IU
4th Quarter 2013- General Dynamic's OWP outfall did not discharge any "wash water" into the SSA collection system during the fourth quarter of 2013. A certified confirmation of the same was received for the fourth quarter of 2013 on 01/28/2014. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.
1st Quarter 2014- General Dynamic's OWP outfall did not discharge any "wash water" into the SSA collection system during the first quarter of 2014. A certified confirmation of the same was received for the first quarter of 2014 on 04/28/2014.
This industry is not in SNC for the period of October 01, 2013 to March 31, 2014.
2nd Quarter 2014- General Dynamic's OWP outfall did not discharge any "wash water" into the SSA collection system during the second quarter of 2014. A certified confirmation of the same was received for the second quarter of 2014 on July 28, 2014
3rd Quarter 2014- General Dynamic's OWP outfall did not discharge any "wash water" into the SSA collection system during the third quarter of 2014. A certified confirmation of the same was received for the third quarter of 2014 on October 28, 2014.
4th Quarter 2014- General Dynamic's OWP outfall did not discharge any "wash water" into the SSA collection system during the fourth quarter of 2014. A certified confirmation of the same was received for the fourth quarter of 2014 on January 28, 2015.

General Dynamics Formerly Chamberlain Manufacturing Co. (Production outfall)-Categorical IU
4th Quarter 2013- Sampled on time (12/16-12/18/2013), reported on time (01/28/2014) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.
Annual POTW Sampling 2014- The SSA performed the annual inspection (11/04/2014) and sampling on time (08/05/2014) with no violations.
1st Quarter 2014- Sampled on time (03/24/2014-03/26/2014), reported on time (04/28/2014) and report was complete. This industry reported a total flow of 3,031,600 gallons for the first quarter. No violations. This industry is not in SNC for the period of October 1, 2013-March 31, 2014.
2nd Quarter 2014- Sampled on time (06/17/2014-06/19/2014), reported on time (07/28/2014) and report was complete. This industry reported a total flow of 2,424,780 gallons for the second quarter. No violations. This industry is not in SNC for the period of January 1, 2014-June 30, 2014.
3rd Quarter 2014- Sampled on time (09/22/2014-09/24/2014), reported on time (10/28/2014) and report was complete. This industry reported a total flow of 3,267,270

gallons for the third quarter. No violations. This industry is not in SNC for the period of April 1, 2014-September 30, 2014.
4th Quarter 2014- Sampled on time (12/16/2014-12/18/2014), reported on time (01/28/2015) and report was complete. This industry reported a total flow of 2,391,080 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014.

JCM Manufacturing (Formerly Lemark, Inc.)- Categorical IU
4th Quarter 2013- has gone to a zero process discharge. JCM will continue to submit quarterly reports which will reflect a zero process discharge. Report was submitted on time (01/07/2014) and report was complete. This industry is not in SNC for July 1, 2013-December 31, 2013.
1st Quarter 2014- has gone to a zero process discharge. JCM will continue to submit quarterly reports which will reflect a zero process discharge. Report was submitted on time (04/21/2014) and report was complete. This industry is not in SNC for the period of October 1, 2013-March 31, 2014.
2nd Quarter 2014- has gone to a zero process discharge. JCM will continue to submit quarterly reports which will reflect a zero process discharge. Report was submitted on time (07/21/2014) and report was complete. This industry is not in SNC for the period of January 1, 2013-June 30, 2014
3rd Quarter 2014- has gone to a zero process discharge. JCM will continue to submit quarterly reports which will reflect a zero process discharge. Report was submitted on time (10/16/2014) and report was complete. This industry is not in SNC for the period of April 1, 2014-September 30, 2014.
4th Quarter 2014- has gone to a zero process discharge. JCM will continue to submit quarterly reports which will reflect a zero process discharge. Report was submitted on time (01/27/2015) and report was complete. This industry is not in SNC for the period of July 1, 2014-December 31, 2014.

Keystone Sanitary Landfill- Non Categorical IU
4th Quarter 2013- Sampled on time (12/28/2013-12/30/2013), reported on time (01/27/2014) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.
Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (12/12/2014) with no violations. There was an elevated ammonia levels which would translate into an industrial surcharge for Apex Waste Management.
1st Quarter 2014- Sampled on time (03/26/2014-03/28/2014), reported on time (04/25/2014) and report was complete. This industry reported a total flow of 7,040,708 gallons for the first quarter. No violations. This industry is not in SNC for the period of October 1, 2013-March 31, 2014.
2nd Quarter 2014- Sampled on time (06/17/2014-06/19/2014), reported on time (07/25/2014) and report was complete. This industry reported a total flow of 8,722,395 gallons for the second quarter. No violations. This industry is not in SNC for the period of January 1, 2014-June 30, 2014.
3rd Quarter 2014- Sampled on time (09/23/2014-09/25/2014) and report was complete. This industry reported a total flow of 9,532,352 gallons for the third quarter. Report was

received late on 10/30/2014. The third quarter report is due on 10/28/2014. A Notice of Violation was issued for a late report in the third quarter reporting period. This industry is not in SNC for the period of April 1, 2014-September 30, 2014.
4th Quarter 2014- Sampled on time (12/08/2014-12/10/2014), reported on time (01/12/2015) and report was complete. This industry reported a total flow of 8,098,473 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014- December 31, 2014. A calculated surcharge for ammonia was issued.

Master Halco- Categorical IU
4th Quarter 2013- Sampled on time (12/17/2013-12/19/2013), reported on time (01/28/2014) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.
Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (10/21/2014) with no violations. There was an elevated ammonia levels which would translate into an industrial surcharge for Apex Waste Management.
1st Quarter 2013- Sampled on time (03/04/2014-03/06/2014) and reported on time (04/17/2014). This industry reported a total flow of 464,195 gallons for the first quarter. Master Halco had a reporting violation for failure to submit BOD results that occurred on Day 1 (03/04/14) of the sampling event. After numerous phone calls to locate this missing Day 1 BOD analysis, a Notice of Violation was issued for failure to monitor all pollutants as required by permit with an attached monetary fine. On May 19, 2014 Master Halco sent a revised analytical report which included this missing Day 1 BOD analysis. Master Halco explained it was inadvertently left off the initial lab report. This industry is not in SNC for the period of October 1, 2013- March 31, 2014.
2nd Quarter 2014- Sampled on time (06/10/2014-06/12/2014), reported on time (07/28/2014) and report was complete. This industry reported a total flow of 669,905 gallons for the second quarter. Master Halco had zinc violations on Day 1, Day 2, and Day 3 of the second quarter sampling event. The Zinc reading on Day 1 (06/10/2014) was 29 mg/l, 8.3mg/l on Day 2 (06/11/2014), and 120 mg/l on Day 3 (06/12/2014). The Zinc permit limit is 1.60 mg/l. In this 6-month reporting period, 50% of the measurements exceed the TRC value and therefore is in SNC. Master Halco did not resample for Zinc in the second quarter 2014. A Notice of Violation will be issued for Zinc and failure to resample, along with a requirement to submit to the authority a completed compliance plan. This industry is in SNC for the period of January 1, 2014-June 30, 2014. A calculated surcharge for elevated ammonia was issued.

Upon finding this highly elevated zinc parameter, Master Halco immediately notified the Scranton Sewer Authority. Numerous meetings/discussions led to an action plan which is believed to address this non-compliance. If this non-compliance reoccurs, the SSA will elevate enforcement as described in the enforcement response guide. All future details will be forwarded in forthcoming MIPP quarterly reports.
3rd Quarter 2014- Sampled on time (07/15/2014-07/17/2014), reported on time (10/28/2014) and report was complete. This industry reported a total flow of 416,533 gallons for the third quarter. Master Halco had zinc violations on Day 2 and Day 3 of the third quarter sampling event. The Zinc reading on Day 2 (07/16/2014) was 2.2 mg/l and 2.3mg/l on Day 3 (07/17/2014). The Zinc permit limit is 1.60 mg/l. Resampling was

performed on 08/12/2014, 08/13/2014, and 08/14/2014 with Zinc results of <0.010 mg/l for each resampling day. This industry is in SNC for the period of April 1, 2014- September 30, 2014. The Authority has had numerous discussions with Master Halco in regard to their non-compliance. They have been working to meet compliance and have made numerous changes and progress. It was also discussed with Master Halco that the Authority will be issuing an Administrative Order. An Administrative Order and monetary fine were issued to Master Halco on November 24, 2014.
4th Quarter 2014- Sampled on time (10/07/2014-10/09/2014), reported on time (01/13/2015) and report was complete. This industry reported a total flow of 485,297 gallons for the fourth quarter. No violations. This industry is in SNC for the period of July 1, 2014- December 31, 2014. An Administrative Order and monetary fine were issued to Master Halco on November 24, 2014. Master Halco continues to work towards compliance. The Authority will continue to work with this industry.

Noble Biomaterials (Formerly Sauquoit Industries, Inc.)-Categorical IU
4th Quarter 2013- Sampled on time (11/04/2013-11/06/2013), reported on time (01/22/2014) and report was complete. No violations. Additional sampling was performed for the silver parameter on 10/02/2013 with <0.025 mg/l, on 10/09/2013 with <0.025 mg/l, on 10/16/2013 with <0.025 mg/l, on 10/23/2013 with <0.025 mg/l, 10/30/2013 with <0.025 mg/l, on 11/13/2013 with <0.026 mg/l, on 11/20/13 with <0.025 mg/l, on 12/04/2013 with 0.032 mg/l, and on 12/11/2013 with <0.025 mg/l. No silver violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.
Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (07/01/2014). There was a violation for pH on 07/1/2014. This industry reported a pH of 4.75 su and pH limit is 6.0-9.0. A Notice of Violation was issued for pH along with a requirement to submit to the authority a completed compliance plan.
1st Quarter 2014- Sampled on time (02/03/2014-02/05/2014), reported on time (04/28/2014) and report was complete. This industry reported a total flow of 6,235,810gallons for the first quarter. Additional sampling was performed for the silver parameter on 01/08/2014 with <0.025 mg/l, on 01/15/2014 with <0.025 mg/l, on 01/22/2014 with <0.025 mg/l, on 01/29/2014 with <0.025 mg/l, 02/12/2014 with <0.025 mg/l, on 02/19/2014 with <0.025 mg/l, on 02/26/2014 with <0.025 mg/l, on 03/06/2014 with <0.025 mg/l, on 03/12/2014 with <0.025 mg/l, on 03/20/2014 with <0.025 mg/l, and on 03/26/2014 with <0.025 mg/l. No violations. This industry is not in SNC for the period of October 1, 2013-March 31, 2014.
2nd Quarter 2014- Sampled on time (05/05/2014-05/07/2014), reported on time (07/28/2014) and report was complete. This industry reported a total flow of 6,731,070 gallons for the second quarter. Additional sampling was performed for the silver parameter on 03/26/2014 with <0.025 mg/l, on 04/02/2014 with <0.025 mg/l, on 04/09/2014 with 0.030 mg/l, on 04/16/2014 with <0.025 mg/l, 04/23/2014 with <0.025 mg/l, on 04/30/2014 with 0.025 mg/l, on 05/15/2014 with 0.027 mg/l, on 05/21/2014 with 0.027 mg/l, on 05/28/2014 with <0.025 mg/l, on 06/04/2014 with 0.026 mg/l, on 06/11/2014 with <0.025 mg/l, on 06/18/2014 with <0.025 mg/l, and on 06/25/2014 with <0.025 mg/l. No violations. This industry is not in SNC for the period of January 1, 2014-June 30, 2014. A calculated surcharge for elevated ammonia was issued.

3rd Quarter 2014- Sampled on time (08/04/2014-08/06/2014), reported on time (10/15/2014) and report was complete. This industry reported a total flow of 7,205,050 gallons for the third quarter. Additional sampling was performed for the silver parameter on 07/01/2014 with <0.025 mg/l, on 07/09/2014 with <0.025 mg/l, on 07/16/2014 with <0.025 mg/l, on 07/23/2014 with <0.025 mg/l, 08/13/2014 with <0.025 mg/l, on 08/20/2014 with 0.094 mg/l, on 08/27/2014 with <0.025 mg/l, on 09/03/2014 with 0.343 mg/l, on 09/09/2014 with <0.025 mg/l, on 09/17/2014 with 0.<0.025 mg/l, on 09/24/2014 with <0.025 mg/l, and on 10/01/2014 with <0.025 mg/l. No violations. This industry is not in SNC for the period of April 1, 2014-September 30, 2014. A calculated surcharge for elevated ammonia was issued.
4th Quarter 2014- Sampled on time (11/03/2014-11/06/2014), reported on time (01/20/2015) and report was complete. Additional sampling was performed for the silver parameter on 10/08/2014 with <0.025 mg/l, on 10/15/2014 with <0.025 mg/l, on 10/22/2014 with <0.025 mg/l, on 10/29/2014 with 0.026 mg/l, on 11/12/2014 with <0.025 mg/l, on 11/19/2014 with <0.025 mg/l, on 12/03/2014 with <0.025 mg/l, on 12/10/2014 with <0.025 mg/l, and on 12/17/2014 with <0.025 mg/l. This industry reported a total flow of 7,111,780 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014. A calculated surcharge for elevated ammonia was issued.

Steamtown National Historic Site-Categorical IU
4th Quarter 2013- Sampled on time (11/04/2013), reported on time (12/12/2013) and report was complete. No violations. This industry is not in SNC for the period of July 1, 2013- December 31, 2013.
Annual POTW Sampling 2014- The SSA performed the annual inspection and sampling on time (06/04/2014) with no violations.
1st Quarter 2014- Sampled on time (02/03/2014), reported on time (03/20/2014) and report was complete. This industry reported a total flow of 2,250 gallons for the first quarter. No violations. This industry is not in SNC for the period of October 01, 2013-March 31, 2014. A calculated surcharge for elevated BOD was issued.
2nd Quarter 2014- Sampled on time (04/24/2014), reported on time (07/28/2014) and report was complete. This industry reported a total flow of 1,950 gallons for the second quarter. Steamtown National Historic Site had a pH violation on Day 1 (04/24/2014). The pH reading for 04/24/2014 was 5.75 su, and the pH limit is 6.0-9.0 su. Resampling was performed on 06/17/2014 with a pH result of 7.09 su. A Notice of Violation was issued for pH, along with a requirement to submit to the authority a completed compliance plan. This industry is not in SNC for the period of January 01, 2014-June 30, 2014. A calculated surcharge for elevated BOD will be issued.
3rd Quarter 2014- Sampled on time (08/18/2014), reported on time (10/28/2014) and report was complete. This industry reported a total flow of 3,300 gallons for the third quarter. No violations. This industry is not in SNC for the period of April 1, 2014-September 30, 2014.
4th Quarter 2014- Sampled on time (11/04/2014), reported on time (1/28/2015) and report was complete. This industry reported a total flow of 3000 gallons for the fourth quarter. No violations. This industry is not in SNC for the period of July 1, 2014-December 31, 2014.

United Gilsonite Laboratories-Categorical IU

4th Quarter 2013- This industry did not discharge any "wash water" into the SSA during the fourth quarter of 2013. A certified confirmation of the same was received for the fourth quarter 2013 on 01/08/2013.

1st Quarter 2014- This industry did not discharge any "wash water" into the SSA during the first quarter of 2014. A certified confirmation of the same was received for the first quarter 2014 on 04/11/2014.

2nd Quarter 2014- This industry did not discharge any "wash water" into the SSA during the second quarter of 2014. A certified confirmation of the same was received for the second quarter 2014 on 07/17/2014.

3rd Quarter 2014- This industry did not discharge any "wash water" into the SSA during the third quarter of 2014. A certified confirmation of the same was received for the third quarter 2014 on 10/09/2014.

4th Quarter 2014- This industry did not discharge any "wash water" into the SSA during the third quarter of 2014. A certified confirmation of the same was received for the third quarter 2014 on 1/28/2015.

2014
Pre-Treatment Performance Summary

www.scrantonsewer.org Scranton Sewer Authority
Phone: 570-348-5330 312 Adams Avenue, Scranton, PA 18503 Fax: 570-348-5359

PRE-TREATMENT PERFORMANCE SUMMARY

1. General Information-

Control Authority Name:	Scranton Sewer Authority
Address:	312 Adams Ave.
City:	Scranton, PA 18503
Contact Person:	Eugene P. Barrett
Contact Phone Number:	(570)348-5337
Email address:	epbar@ssauth.org
NPDES Number:	PA-0026492
Permit Effective Date:	October 1, 2012
Permit Expiration Date:	September 30, 2014
Reporting Period:	January 1, 2014- December 31, 2014

Total Categorical Industrial Users (CIUs):	5
Total "Middle Tier" CIUs:	0
Total Nonsignificant CIUs:	0
Total Significant Noncategorical Industrial Users (SNCIUs):	9

2. Compliance Monitoring Program

- No. of SIU's with Current Control Documents..... 15
- No. of SIU's Facilities Inspected..... 14
- No. of SIU's Facilities Sampled..... 12
- No. of SIU's Submitted Self Monitoring Reports..... 14
- No. of SIU's Dropped from the Program in Current Period 0
- No. of SIU's Added to the Program in 2014 0

3. Significant Industrial User Compliance

- No. of SIU's Violating a Compliance Schedule/No. on a Schedule 0/1
- No. of SIU's in SNC for the July to December Period 2
- No. of SIU's in SNC at anytime During Calendar Year 2
- No. of SIU's in SNC that were also in SNC During the Previous Calendar Year 0
- No. of NSCIUs that violated any standards or requirements 0

4. Enforcement Actions

• Notices/Letters of Violation Issued to SIUs	15
Enforceable Compliance Schedules Issued to SIU's	1
• Civil/Criminal Suits Filed	0
• No. of SIU's from which Penalties have been collected	2
• Other Actions (sewer bans, etc)	0

I certify that the information contained in this report and attachments is complete and accurate to the best of my knowledge.

Eugene P. Barrett
Executive Director
Scranton Sewer Authority

Part A. Pretreatment Performance Summary

Section 1 Attachment

A. Categorical Users:

Metal Finishers

- General Dynamics Ordinance and Tactical Systems
  (Formerly Chamberlain Manufacturing Corporation)
  Scranton Ammunition Plant
  156 Cedar Avenue
  Scranton, PA 18505
  Industrial Activities: Metal Processing
  Permit No. 96-006

- JCM Manufacturing/Lemark, Incorporated
  Mill Street
  Dunmore, PA 18512
  Industrial Activity: Metal Processing and Finishing
  Permit No. 2003-01

- Master Halco, Inc.
  1000 North South Rd.
  Scranton, PA 18504
  Industrial Activity: Manufacturing of Fence Building Materials
  Permit No. 2006-01

- Noble Biomaterials
  (Formerly Sauquoit Industries)
  300 Palm Street
  Scranton, PA 18505
  Industrial Activities: Metal and Fiber Finishing
  Permit No.96-007

- Steamtown National Historic Site
  150 S. Washington Avenue
  Scranton, PA 18503
  Industrial Activity: Restoration of Locomotives
  Permit No. 98-003

B. Non-Categorical Users:

- Apex Waste Management
  13 Peggy Parkway
  Dunmore, PA 18512
  Industrial Activity: Solid Waste Disposal and Recycling
  Permit No. 98-001

- Aramark Cleanroom Services, Inc.
  1037 Hemlock Street
  Scranton, PA 18505
  Industrial Activity: Textile Washing Under a Controlled Environment
  Permit No. 2005-002

- Compression Polymers
  801 Corey Street
  Scranton, PA 18505
  Industrial Activity: Plastics Manufacturing
  Permit No. 07-001

- Compression Polymers
  888 Keyser Avenue
  Scranton, PA 18504
  Industrial Activity: Plastics Manufacturing
  Permit No. 2007-001

- CSD Copackers Company, Inc.
  100 West Poplar Street
  Scranton, PA 18509
  Industrial Activity: Soft Drink Manufacturing
  Permit No. 2012-001

- David Elliot Poultry Farm (Binyan, L.P.)
  300 Breck Street
  Scranton, PA 18505
  Industrial Activity: Slaughtering and Packaging Chicken and Turkey
  Permit No. 2000-003

- Enzyme Development Corporation
  314 S. Sherman Avenue
  Scranton, PA 18504
  Industrial Activity: Blending Of Enzymes for the Food Industry
  Permit No. 97-004

- Keystone Sanitary Landfill
  Dunham Drive, PO Box 249
  Dunmore, PA 18512
  Industrial Activity: Sanitary Landfill
  Permit No. 97-007

- United Gilsonite Laboratories
  1396 Jefferson Avenue
  Scranton, PA 18509
  Industrial Activity: Latex Paint Blending
  Permit No. 97-005

C. Changes to the Pretreatment Program:

Under the direction of the EPA, starting with the 2014 annual MIPP sampling events at each Industrial User, the Authority took additional grab samples throughout the IUs production schedule. These samples will be compared to previous events. This effort/audit will confirm and document the appropriate number of grab samples for that user. Any concerns such as the variability of the Industrial Users' flow and pollutant levels will be confirmed.

Section 2 Attachment

List of User Control Documents

Metal Finishers

- General Dynamics Ordinance and Tactical Systems
  (Formerly Chamberlain Manufacturing Corporation)
  Scranton Ammunition Plant
  156 Cedar Avenue
  Scranton, PA 18505
  Industrial Activities: Metal Processing
  Permit No. 96-006
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- Noble Biomaterials
  (Formerly Sauquoit Industries)
  300 Palm Street
  Scranton, PA 18505
  Industrial Activities: Metal and Fiber Finishing
  Permit No.96-007
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- JCM Manufacturing (Formerly Lemark, Inc.)
  500 Mill Street
  Dunmore, PA 18512
  Industrial Activity: Metal Processing and Finishing
  Permit No. 2003-01
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- Steamtown National Historic Site
  150 S. Washington Avenue
  Scranton, PA 18503
  Industrial Activity: Restoration of Locomotives
  Permit No. 98-003
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- Master Halco, Inc.
  1000 North South Rd.
  Scranton, PA 18504
  Industrial Activity: Manufacturing of Fence Building Materials
  Permit No. 2006-01
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

D. Non-Categorical Users:

- Aramark Cleanroom Services, Inc.
  1037 Hemlock Street
  Scranton, PA 18505
  Industrial Activity: Textile Washing Under a Controlled Environment
  Permit No. 2005-002
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- Apex Waste Services Inc.
  13 Peggy Parkway
  Dunmore, PA 18512
  Industrial Activity: Solid Waste Disposal and Recycling
  Permit No. 98-001
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- Compression Polymers
  801 Corey Street
  Scranton, PA 18505
  Industrial Activity: Plastics Manufacturing
  Permit No. 2007-002
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- Compression Polymers
  888 Keyser Avenue
  Scranton, PA 18505
  Industrial Activity: Plastics Manufacturing
  Permit No. 2007-003
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- CSD Copackers
  100 West Poplar Street
  Scranton, PA 18509
  Industrial Activity: Soft Drink Manufacturing
  Permit No. 2012-001 CSD Copackers
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- David Elliot Poultry Farm (Binyan, L.P.)
  300 Breck Street
  Scranton, PA 18505
  Industrial Activity: Slaughtering and Packaging Chicken and Turkey
  Permit No. 2000-003
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- Enzyme Development Corporation
  314 S. Sherman Avenue
  Scranton, PA 18504
  Industrial Activity: Blending Of Enzymes for the Food Industry
  Permit No. 97-004
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- Keystone Sanitary Landfill
  Dunham Drive, PO Box 249
  Dunmore, PA 18512
  Industrial Activity: Sanitary Landfill
  Permit No. 97-007
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

- United Gilsonite Laboratories
  1396 Jefferson Avenue
  Scranton, PA 18509
  Industrial Activity: Latex Paint blending
  Permit No. 97-005
  Industrial permit issued: April 1, 2012 and expires: March 31, 2017

Sampling, Inspection and Self-Monitoring Events

SIU	Inspections conducted	POTW samples	Self-monitoring Events by User
Apex Waste Management	1	1	4 (1/quarter)
Aramark Cleanroom Services	1	1	4 (1/quarter)
General Dynamics (PRO-production outfall)	1	1	4 (1/quarter)
General Dynamics (OWP-oily waste production outfall)	1	NA	4 (1/quarter)*
Compression Polymers, Inc. (Corey Street Outfall)	1	1	4 (1/quarter)
Compression Polymers, Inc. (Keyser Ave Outfall)	1	1	4 (1/quarter)
CSD Copackers	1	1	4 (1/quarter)
David Elliot Poultry Farm	1	1	4 (1/quarter)
Enzyme Development	1	1	2 (2/year)
Master Halco, Inc.	1	1	4 (1/quarter)**
Keystone Sanitary Landfill	1	1	4 (1/quarter)
JCM Manufacturing	1	NA	4 (1/quarter)***
Noble Biomaterials	1	1	4 (1/quarter)
Steamtown National Historic Site	1	1	4 (1/quarter)
UGL	1	NA	4 (1/quarter)****

*** General Dynamics (sample point OWP) submitted quarterly reports complete and on time for all four quarters in 2014. No self-monitoring events were performed because General Dynamics created a filtered and closed process loop for their OWP effluent and all remaining process waste from sample point OWP was hauled off-site and manifests were submitted to the Authority with their quarterly reports.**

**** JCM Manufacturing submitted quarterly reports complete and on time for all four quarters in 2014. No self-monitoring events were performed because JCM hauled all industrial process waste off-site and manifests were submitted to the Authority with their quarterly reports.**

***** UGL submitted quarter reports complete and on time for all four quarters in 2014. No self-monitoring events were performed because UGL hauled all industrial process waste off-site and manifests were submitted to the Authority with their quarterly reports.**

The Authority inspected all 15 permitted SIU outfalls during the 2014 calendar year. The SSA collected samples from 12 of these permitted industrial outfalls because 3 SIU outfalls have gone to zero discharge. Please see the Industrial Users Comment Report for details of sampling and inspection.

Section 3 Attachment

Significant Users in SNC for Anytime During the 2014 Reporting Period (October 2013- December 2014)

There were 2 SIU's in SNC at anytime during the 2014 reporting period, which includes October 2013 through December 2013.

Master Halco was issued an Administrative Order and monetary fine in the amount of $1,500 in the fourth quarter 2014 for continued zinc violations. In the fourth quarter 2014, this monetary fine was collected. An Administrative Order has been issued to Master Halco as a result of the SNC. This industry worked diligently to fix the source of the zinc issues as stated in the Industrial Users Comment Report. Master Halco has been working to meet compliance and have made numerous changes and progress. They have utilized inside resources along with a third party environmental company to modify their process and chemistry. Master Halco continues to work towards compliance. The Scranton Sewer Authority will continue to work with this industry.

Aramark Cleanroom Services is in SNC for continued pH violations since the second quarter 2014. The authority has met with the industry numerous times throughout the quarter. Initially the authority proposed to issue an administrative order to implement treatment to meet compliance within 180 days; however, as a result of these meetings and Aramark's internal work to identify the source of the pH non compliance, it was decided to order installation of a pH adjusting system. This system was installed third quarter 2014 and Aramark has been working towards meeting compliance. The Authority will continue to work with this industry.

There were two industries in SNC for the year 2014:
Master Halco is in SNC since second quarter 2014, and Aramark Cleanroom Services is in SNC since second Quarter 2014.

The following facilities were listed in the Scranton Times/ Tribune as being Significant Non-compliant industries for the year 2014. This ad will be forwarded to EPA.

- **Master Halco**
- **Aramark Cleanroom Services**

Section 4 Attachments

The following industries were issued written Notice of Violation Notices for the year 2014.

- Aramark was issued a NOV for failure to submit flows, pH violation, and failure to resample violation in the First Quarter 2014, a NOV for pH violations in the Second Quarter 2014, a NOV for pH violations in the Fourth Quarter 2014 and a pH NOV in the Annual POTW 2014 sample.
- CSD Copackers was issued a NOV for pH in the First Quarter 2014.
- David Elliot Poultry Farm was issued a NOV for late report violations in the Third Quarter 2014.
- Enzyme Development Corporation was issued a NOV for pH violations in the Second Quarter of 2014, and a pH NOV in the Annual POTW 2014 sample.
- Keystone Sanitary Landfill was issued a NOV for late report violations in the Third Quarter 2014.
- Master Halco was issued a NOV for failure to report all pollutants as required by permit violation with an attached monetary fine for the First Quarter 2014 and a NOV for zinc violations in the Second Quarter 2014. In the Fourth Quarter 2014, Master Halco was placed under Administrative Order for repeated Zinc Violations.
- Noble Biomaterials was issued a NOV for a pH violation for the Annual POTW 2014. .
- Steamtown National Historic Site was issued a NOV for pH violations in the Second Quarter 2014.

The following industries were issued an Administrative Order for the year 2014.

- Master Halco was issued an Administrative Order for continued zinc violations. Master Halco has violated it's permit limit of Zinc during the second and third quarter of 2014 for the sampling events on the following dates: 6/10/2014 daily limit, 06/11/2014 daily limit, 06/12/2014 daily limit, 07/16/2014 daily limit, and 07/17/2014 daily limit. Master Halco has violated Part 2 (Monitoring Requirements) Part 3 (Reporting Requirements) and Section B. (Automatic Resampling) of its Industrial Wastewater Discharge Permit # 2006-01 for the first, second and third quarters of 2014.

  This order was entered on November 24, 2014. It states that within 15 days from the receipt of this document, Master Halco is to submit proper documentation in an outline format describing steps to achieve compliance. Within 180 days from the receipt of this document, Master Halco is to install pretreatment technology which will adequately treat Master Halco's wastewater to a level which will permanently comply with its wastewater discharge permit. Additionally, Master Halco is to report on a monthly basis, the wastewater quality with respect to Zinc and the corresponding flow and process information as described in their wastewater discharge permit for a period of nine months from the effective date of this order and up to three months after the effective operation of the newly installed pretreatment facility, whichever is shorter.

  Master Halco has put significant resources into meeting compliance. They have utilized inside resources along with a third party environmental consulting company to modify their process and chemistry. Throughout these updates, the SSA has met and assisted Master Halco numerous times. The Authority will continue to work with this industry.

Part B. Pretreatment Developments

Pretreatment Performance Summary Pretreatment Developments

There were three NPDES violations that occurred at the treatment plant for the year 2014. None of these violations were in any way related to the pretreatment program.

Scranton Sewer Authority (SSA) exceeded its annual average limits for total nitrogen and total phosphorous for the 2014 water year. A Non-Compliance Reporting Form was included in the September 2014 Discharge Monitoring Report. This non-compliance was expected because the completion deadline for SSA's nutrient removal upgrade was not until August 1, 2014, 11 months into the 2014 water year. SSA discharged 986,260 pounds of total nitrogen (against a limit of 356,292) and 72,247 pounds of total phosphorous (against a limit of 48,706). SSA's federal Consent Decree addressed this

expected non-compliance by imposing a stipulated penalty requiring that SSA spend $100,000 purchasing nutrient credits for the 2014 water year using "reasonable diligence in obtaining the best value for any money it spends purchasing credits." Consent Decree ¶ 15.b. To comply with this stipulated penalty provision, SSA exercised reasonable diligence to assess the market for nutrient credits. At the conclusion of the review, SSA entered into a confidential credit-purchase agreement with a certified generator to purchase a quantity of 2014 Nitrogen Credits and 2014 Phosphorus Credits for the Susquehanna basin at a commercially reasonable price. The credits were delivered to SSA on October 1, and the Department of Environmental Protection issued registration numbers for the credits on October 2. SSA made payment in the amount of $100,000 on October 9 to complete the transaction and comply with the Consent Decree. The credit use was reported in November 2014 on SSA's 2014 Annual Nutrient Summary.

The third violation occurred on January 28, 2014 when the SSA reported an overflow from CSO 003 that occurred during a wet weather event in early December 2013. The report was not delivered within 30 days of the overflow – that is, by January 7, 2014. SSA has been in discussions with the Environmental Protection Agency and the Department of Environmental Protection to resolve this isolated instance of non-compliance under the Consent Decree's framework. An agreed-upon formal resolution is expected shortly.

There were no interferences, plant upsets, or NPDES violations which could be attributed to industrial waste in 2014.

Attached is a hardcopy and CD of the EPA monitoring data spreadsheets. On June 10, 2014, the Scranton Sewer Authority sampled the facility's influent as part of the Second Quarter Sampling event. This event's analysis yielded one goal exceedance with a cadmium value of 0.0041 mg/L with a goal of 0.0024mg/L. This cadmium value is a 41.46% exceedance of the goal. On September 25, 2014, the Scranton Sewer Authority also sampled the facility's influent as part of the Third Quarter Sampling event. This event's analysis yielded one goal exceedance with a cadmium value of 0.0044 mg/l. This cadmium value is a 45.45% exceedance of the goal. On December 17, 2014, the Scranton Sewer Authority sampled the facility's influent as part of the Yearly Sampling event. This event's analysis yielded one goal exceedance with a cadmium value of 0.012 mg/l. This cadmium value is 80% exceedance of the goal. On March 18, 2014, the Scranton Sewer Authority sampled the facilities Final Effluent as part of the First Quarter Sampling event. This event's analysis yielded one goal exceedance with a copper value of 0.036 mg/l with a goal of 0.0297 mg/l. This copper value is 17.5% exceedance of the goal. On September 25, 2014, the Scranton Sewer Authority also sampled the facility's Final Effluent as part of the Third Quarter Sampling event. This event's analysis yielded two goal exceedances. The first exceedance was a reported cadmium value of 0.0012 with a goal exceedance of 0.0008 mg/l. This cadmium value is 33.3% exceedance of the goal. The second exceedance was copper with a reported value of 0.11 mg/l. This copper value is 73% exceedance of the goal. On December 17, 2014, the Scranton Sewer Authority sampled the facility's effluent as part of the Yearly Sampling event. This event's analysis yielded one goal exceedance with a cadmium value of 0.0024 mg/l. This

cadmium value is 33.3% exceedance of the goal. Both copper and cadmium are being investigated by looking into industrial data specifically metal finishers. These parameters can also be associated with an older water distribution system as we have seen elevated copper values in background potable water throughout the Scranton water system. In the First Quarter 2015, the Scranton Sewer Authority began a sampling event within the Scranton collection system to attempt to track the above mentioned elevated parameters. Moving forward we will continue to monitor additional wastewater samples within our sewer collection system.

The Authority continues to utilize the sewer billings to include informational documentation, SSA web site, mailings, newspaper, facility tours and the LRCA as a way to educate the public.

No trucked or hauled waste was accepted at the plant or at any other place within the collection system (to our knowledge) in the 2014 year.

General Dynamics (sample point OWP) submitted quarterly reports complete and on time for all four quarters in 2014. No self-monitoring events were performed because General Dynamic created a filtered and closed process loop for their OWP effluent and all remaining process waste from sample point OWP was hauled off-site and manifests were submitted to the Authority with their quarterly reports. General Dynamics utilized and continues to utilize Ashland Distribution (Nexeo Solutions), Binghamton, NY, Safety Kleen, Wilkes Barre, PA, Environmental Recovery Corporation, Lancaster, PA, U S Environmental, Downingtown, PA, and Aegis Resource Management, Harrisburg, PA. General Dynamics is an ammunition manufacturer and falls under the metal finishers standards.

UGL submitted quarterly reports complete and on time for all four quarters in 2014. No self-monitoring events were performed because UGL hauled all industrial process waste off-site and manifest were submitted to the Authority with their quarterly reports. Since UGL ceased discharging treated water to the SSA, untreated waste water and oil materials are shipped to Waste Recovery Solutions, Inc., Myerstown, PA. UGL is a paint manufacturer.

Appendix 8

Yearly Influent, Effluent and Sludge Data

2014
Yearly Influent Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2014

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB

YEARLY INFLUENT

Parameter	Result	PQL	Units	Method	Analyzed	Time	Analyst	
MBAS	2.37	0.040	mg/L	SM_{20} 5540 C	19-Dec-14	13:30	03470-02	
True Color	110	1	units	SM_{20} 2120-B	18-Dec-14	14:00	03470-02	
Nitrite as N	< 0.010	0.010	mg/L	SM_{20} 4500-NO_2-B	19-Dec-14	15:30	03470-06	
Nitrate as N	< 1.00	1.00	mg/L	SM_{20} 4500-NO_3-D	19-Dec-14	10:00	03470-02	
TKN	46.8	10.0	mg/L	SM_{20} 4500-N_{ORG} C	28-Dec-14		03470-02	X1
Total Phosphorus	3.17	0.10	mg/L	SM_{20} 4500-P B,E	19-Dec-14		03470-02	
Ammonia as N	42.7	10.0	mg/L	SM_{20} 4500-NH_3 D	02-Jan-15		03470-02	
Organic Nitrogen	4.10	1.00	mg/L	n/a	02-Jan-15		03470-02	
Oil & Grease, Total *	9.2	6.1	mg/L	EPA 1664A	07-Jan-15		03470-01	
Oil & Grease, Floatable *	ND	n/a	%	*SSA*	07-Jan-15		03470-01	
NPM (TPH) *	< 6.1	6.1	mg/L	EPA 1664A	07-Jan-15		03470-01	
Cyanide, Total *	< 0.0050	0.0050	mg/L	EPA 335.4	29-Dec-14		22-293	
Phenols, Total	< 0.050	0.050	mg/L	EPA 420.1	19-Dec-14		65-00282	

X1 TKN Prep SM_{20} 4500 N_{org}C/SM_{20} 4500 NH_3B
SSA Scranton Sewer Authority Procedure
n/a Not Applicable
* Sample Collected 18-Dec-14 Time 9:00

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2014

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Method: EPA 625
Analyst: 22-283
Analyzed: 26-Dec-14

YEARLY INFLUENT

SEMI-VOLATILE ORGANICS

Parameter	RESULT	PQL	Units
Acenaphthene	< 1.6	1.6	µg/L
Acenaphthylene	< 1.6	1.6	µg/L
Anthracene	< 1.6	1.6	µg/L
Benzidine	< 54.3	54.3	µg/L
Benzo(a)anthracene	< 1.6	1.6	µg/L
Benzo(a)pyrene	< 1.6	1.6	µg/L
Benzo(b)fluoranthene	< 1.6	1.6	µg/L
Benzo(g,h,i)perylene	< 1.6	1.6	µg/L
Benzo(k)fluoranthene	< 1.6	1.6	µg/L
4-Bromophenylphenyl ether	< 3.3	3.3	µg/L
Butylbenzylphthalate	< 3.3	3.3	µg/L
4-Chloro-3-methylphenol	< 8.7	8.7	µg/L
bis(2-Chloroethoxy)methane	< 3.3	3.3	µg/L
bis(2-Chloroethyl) ether	< 3.3	3.3	µg/L
bis(2-Chloroisopropyl) ether	< 3.3	3.3	µg/L
2-Chloronaphthalene	< 3.3	3.3	µg/L
2-Chlorophenol	< 8.7	8.7	µg/L
4-Chlorophenylphenyl ether	< 3.3	3.3	µg/L
Chrysene	< 1.6	1.6	µg/L

Parameter	RESULT	PQL	Units
Di-n-Butylphthalate	< .3.3	3.3	µg/L
Di-n-Octylphthalate	< 8.7	8.7	µg/L
Dibenz(a,h)anthracene	< 1.6	1.6	µg/L
3,3-Dichlorobenzidine	< 17.4	17.4	µg/L
Diethylphthalate	< 8.7	8.7	µg/L
1,2-Diphenylhydrazine	< 3.3	3.3	µg/L
bis (2-Ethylhexyl)phthalate	6.7	3.3	µg/L
2,4-Dimethylphenol	< 8.7	8.7	µg/L
Dimethylphthalate	< 8.7	8.7	µg/L
2,4-Dinitrophenol	< 17.4	17.4	µg/L
2,4-Dinitrotoluene	< 3.3	3.3	µg/L
2,6-Dinitrotoluene	< 3.3	3.3	µg/L
Fluoranthene	< 1.6	1.6	µg/L
Fluorene	< 1.6	1.6	µg/L
Hexachlorobenzene	< 3.3	3.3	µg/L
Hexachlorobutadiene	< 3.3	3.3	µg/L
Hexachlorocyclopentadiene	< 8.7	8.7	µg/L
Hexachloroethane	< 3.3	3.3	µg/L

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2014

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Method: EPA 625
Analyst: 22-293
Analyzed: 26-Dec-14

YEARLY INFLUENT

SEMI-VOLATILE ORGANICS

Parameter	RESULT	PQL	Units
Indeno(1,2,3-cd)pyrene	< 1.6	1.3	µg/L
Isophorone	< 3.3	3.3	µg/L
2-Methyl-4,6-dinitrophenol	< 8.7	8.7	µg/L
Naphthalene	< 1.6	1.6	µg/L
Nitrobenzene	< 3.3	3.3	µg/L
2-Nitrophenol	< 8.7	8.7	µg/L
4-Nitrophenol	< 8.7	8.7	µg/L
N-nitrosodiethylamine	< 3.3	3.3	µg/L
N-Nitrosodi-n-propylamine	< 3.3	3.3	µg/L
N-Nitrosodiphenylamine	< 3.3	3.3	µg/L
Pentachlorophenol	< 17.4	17.4	µg/L
Phenanthrene	< 1.6	1.6	µg/L
Phenol	< 8.7	8.7	µg/L
Pyrene	< 1.6	1.6	µg/L
1,2,4-Trichlorobenzene	< 3.3	3.3	µg/L
2,4,6-Trichlorophenol	< 8.7	8.7	µg/L

Parameter	RESULT	PQL	Units
Surrogates			
2,4,6-Tribromophenol (S)	93	38-134	%
2-Fluorobiphenyl (S)	79.9	37-113	%
2-Fluorophenol (S)	53.6	17-73	%
Nitrobenzene-d5 (S)	81.6	37-124	%
Phenol-d5 (S)	36.7	11-53	%
Terphenyl-d14 (S)	78.6	33-126	%

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2014

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 18-Dec-14
Time Sampled: 9:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Analyzed: 24-Dec-14
Analyst: 22-293
Method EPA 624

YEARLY INFLUENT

VOLATILE ORGANICS

Parameter	RESULT	PQL	Units
Acrolein	< 150	150	µg/L
Acrylonitrile	< 25.0	25.0	µg/L
Benzene	< 5.0	5.0	µg/L
Bromodichloromethane	< 5.0	5.0	µg/L
Bromoform	< 10.0	10.0	µg/L
Bromomethane	< 10.0	10.0	µg/L
Carbon Tetrachloride	< 5.0	5.0	µg/L
Chlorobenzene	< 5.0	5.0	µg/L
Chlorodibromomethane	< 5.0	5.0	µg/L
Chloroethane	< 5.0	5.0	µg/L
2-Chloroethylvinyl ether	< 10.0	10.0	µg/L
Chloroform	< 5.0	5.0	µg/L
Chloromethane	< 5.0	5.0	µg/L
1,2-Dichlorobenzene	< 5.0	5.0	µg/L
1,3-Dichlorobenzene	< 5.0	5.0	µg/L
1,4-Dichlorobenzene	< 5.0	5.0	µg/L
1,1-Dichloroethane	< 5.0	5.0	µg/L
1,2-Dichloroethane	< 5.0	5.0	µg/L
1,1-Dichloroethene	< 5.0	5.0	µg/L
trans-1,2-Dichloroethene	< 5.0	5.0	µg/L
1,2-Dichloropropane	< 5.0	5.0	µg/L
cis-1,3-Dichloropropene	< 5.0	5.0	µg/L
trans-1,3-Dichloropropene	< 5.0	5.0	µg/L
1,3-Dichloropropene, total	< 5.0	5.0	µg/L
Ethylbenzene	< 5.0	5.0	µg/L
Methylene Chloride	< 5.0	5.0	µg/L
1,1,2,2-Tetrachloroethane	< 5.0	5.0	µg/L
Tetrachloroethene	< 5.0	5.0	µg/L
Toluene	< 5.0	5.0	µg/L
1,1,1-Trichloroethane	< 5.0	5.0	µg/L
1,1,2-Trichloroethane	< 5.0	5.0	µg/L
Trichloroethene	< 5.0	5.0	µg/L
Trichlorofluoromethane	< 5.0	5.0	µg/L
Vinyl Chloride	< 10.0	10.0	µg/L
Surrogates			
1,2-Dichloroethane-d4 (S)	96	72-142	%
4-Bromofluorobenzene (S)	113	73-119	%
Dibromofluoromethane (S)	78.7	74-132	%
Toluene-d8 (S)	90.2	75-133	%

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2014

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB

YEARLY INFLUENT

Parameter	RESULT	POL	Units	Method	Analyzed	Time	Analyst
Aluminum	**1.01**	0.100	mg/L	EPA 200.7	15-Jan-15		03470-01
Antimony	**0.0011**	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Arsenic	**0.0076**	0.0015	mg/L	EPA 200.8	30-Dec-14		22-293
Beryllium	**< 0.005**	0.005	mg/L	EPA 200.7	09-Jan-15		03470-01
Cadmium	**0.012**	0.00050	mg/L	EPA 200.8	30-Dec-14		22-293
Chromium, Total	**0.0076**	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Chromium, Hexavalent	**< 0.025**	0.025	mg/L	SM_{20} 3500 Cr B	18-Dec-14	14:45	03470-02
Copper	**0.038**	0.0025	mg/L	EPA 200.8	30-Dec-14		22-293
Iron	**2.37**	0.100	mg/L	EPA 200.7	09-Jan-15		03470-01
Lead	**0.0097**	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Manganese	**0.236**	0.025	mg/L	EPA 200.7	09-Jan-15		03470-01
Mercury	**< 0.00020**	0.00020	mg/L	EPA 245.1	06-Jan-15		22-293
Molybdenum	**0.0016**	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Nickel	**0.010**	0.0025	mg/L	EPA 200.8	30-Dec-14		22-293
Selenium	**< 0.0020**	0.0020	mg/L	EPA 200.8	30-Dec-14		22-293
Silver	**< 0.0010**	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Thallium	**< 0.00050**	0.00050	mg/L	EPA 200.8	30-Dec-14		22-293
Zinc	**0.13**	0.0025	mg/L	EPA 200.8	30-Dec-14		22-293

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2014

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Method: EPA 8081A
Analyst: 65-00282

YEARLY INFLUENT

PESTICIDES

Parameter	Result	PQL	Units	Analyzed	
Aldrin	< 0.027	0.027	µg/L	31-Dec-14	
alpha-BHC	< 0.027	0.027	µg/L	31-Dec-14	
beta-BHC	< 0.027	0.027	µg/L	31-Dec-14	
delta-BHC	< 0.027	0.027	µg/L	31-Dec-14	
gamma-BHC (Lindane)	< 0.027	0.027	µg/L	31-Dec-14	
alpha-Chlordane	< 0.027	0.027	µg/L	31-Dec-14	
gamma-Chlordane	< 0.027	0.027	µg/L	31-Dec-14	
4,4'-DDD	< 0.055	0.055	µg/L	31-Dec-14	
4,4'-DDE	< 0.055	0.055	µg/L	31-Dec-14	
4,4'-DDT	< 0.055	0.055	µg/L	31-Dec-14	
Dieldrin	< 0.055	0.055	µg/L	31-Dec-14	
Endosulfan I	0.040	0.027	µg/L	07-Jan-15	
Endosulfan II	< 0.055	0.055	µg/L	31-Dec-14	
Endosulfan sulfate	< 0.055	0.055	µg/L	31-Dec-14	
Endrin	< 0.055	0.055	µg/L	31-Dec-14	
Endrin aldehyde	< 0.055	0.055	µg/L	31-Dec-14	
Endrin ketone	< 0.055	0.055	µg/L	31-Dec-14	
Heptachlor	< 0.027	0.027	µg/L	31-Dec-14	
Heptachlor epoxide	< 0.027	0.027	µg/L	31-Dec-14	
Methoxychlor	< 0.27	0.27	µg/L	31-Dec-14	
Toxaphene	< 0.55	0.55	µg/L	31-Dec-14	
Surrogates					
Tetrachloro-m-xylene (S)	62	14-136	%	31-Dec-14	CH
Decachlorobiphenyl (S)	43	15-125	%	31-Dec-14	CH

CH The continuing calibration for this compound is outside the labs acceptance limits. The results may be biased high.

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2014

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Method: EPA 8082

YEARLY INFLUENT

PCB					
PCB-1016	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1221	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1232	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1242	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1248	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1254	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1260	< 0.27	0.27	µg/L	08-Jan-15	65-00282
Surrogates					
Tetrachloro-m-xylene (S)	69	29-105	%	08-Jan-15	65-00282
Decachlorobiphenyl (S)	37	10-110	%	08-Jan-15	65-00282

22-293 AIS, 65-00282 Pace

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

QUANTUMLABS

Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise St
Dickson City, PA 18519-1593
Phone: (570) 489-6964 Fax: (570) 489-6965

PAGE 1 OF 2

PA DEP 35-03470 info@quantumlabs.net

Report To: Scranton Sewer Authority
312-314 Adams Ave.
Scranton, PA 18503

Contact: Chris Wesolowski

Phone: Fax:

Bill To:

Email Address:

Special Requirements

PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other ______

pH ______ Temp ______

Cooler Temperature: ______

TAT: RUSH ______ NORMAL

PROJECT:

DW - Drinking Water, WW - Waste Water, GW - Ground Water, SL - Sludge, SW - Surface Water, SO - Soil, NPW - Non-Potable Water, HZ - Hazardous

P - Plastic, CG - Glass, AG - Amber Glass, O - Other

PO #

Invoice #

Location Sample Description	Composite Sample Start Date	Composite Sample Start Time	Composite Sample End/Grab Date	Composite Sample End/Grab Time	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	PCB	SVOC PPL	Pests	Phenols	MBAS Color	Cr 6	NO2-N	NO3-N				Quantum ID
Influent	12/17	8	12/18	8	WW	4 1L	AG	C	X	X	X									016-121814
↓	↓			↓	↓	1 500ml	H2SO4 AG	C				X								017-
	↓			↓	↓	1 1L	P	C					X	X	X	X				018- ↓

Comments:

Sampler/Affl: [signature]

Shipped ______ / Hand Delivered (circled)

Intact Containers (Y) N — Within Holding Times (Y) N
COC Complete (Y) N — Labels Match COC (Y) N
Properly Preserved (Y) N — Rec'd on Ice (Y) N

Relinquished By: [signature] Date: 12/18/14 Time: 1145 — Received By: [signature] Date: 12/18/14 Time: 1145

Relinquished By: Date: Time: — Received in Lab By: [signature] Date: 12/18/14 Time: 1250

CHAIN OF CUSTODY

QUANTUMLABS

Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise St
Dickson City, PA 18519-1593
Phone: (570) 489-6964 **Fax: (570) 489-6965**

PAGE 2 OF 2

PA DEP 35-03470 info@quantumlabs.net

Report To:	Scranton Sewer Authority
	312-314 Adams Ave
	Scranton, PA 18503
Contact:	Chris Wesolowski
Phone:	Fax:
Bill To:	
Email Address:	

Special Requirements

PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other ______
pH ______ Temp ______
Cooler Temperature: ______
TAT: RUSH ______ NORMAL

PROJECT:

DW - Drinking Water · WW - Waste Water · GW - Ground Water · SL - Sludge · SW - Surface Water · SO - Soil · NPW - Non-Potable Water · HZ - Hazardous

P - Plastic · CG - Glass · AG - Amber Glass · O - Other

PO #

Invoice #

Location Sample Description	Composite Sample Start Date	Composite Sample Start Time	Composite Sample End/Grab Date	Composite Sample End/Grab Time	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	Al As Cd Cu	Mn Mo Se Tl	Fe Sb Be Cr	Pb Hg Ni Ag	Zn	NH3-N TKN	org N Total P	O&G/TPH/Phenol	Total Cyanide	VOC PPL		Quantum ID
Influent	12/17	8	12/18	8	WW	1 1L	HNO3 P	C	X	X	X	X	X							019 - 121814
↓			↓		↓	1 500ml	H2SO4 P	C						X	X					020 -
			12/18	900		2 1L	H2SO4 AG	G								X				021 -
				↓		1 500ml	NaOH P	G									X			022 -
						3 40ml	HCl G	G										X		023 - ↓

Comments:

Sampler/Affil: [illegible]

Shipped ______ (Hand Delivered)

Relinquished By: Date: 12/18/14 Time: 1145

Relinquished By: Date: Time:

Received By: [illegible signature] Date: 12/18/14 Time: 1145

Received in Lab By: [illegible signature] Date: 12/18/14 Time: 1250

Intact Containers	(Y)	N	Within Holding Times	(Y)	N
COC Complete	(Y)	N	Labels Match COC	(Y)	N
Properly Preserved	(Y)	N	Rec'd on Ice	(Y)	N

2014
Yearly Effluent Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB

YEARLY EFFLUENT

Parameter	Result	PQL	Unit	Method	Analyzed	Time Analyzed	Lab ID	
MBAS	0.987	0.040	mg/L	SM_{20} 5540 C	19-Dec-14	13:30	03470-02	
True Color	60	1	units	SM_{20} 2120-B	18-Dec-14	14:00	03470-02	
Nitrite as N	0.048	0.010	mg/L	SM_{20} 4500-NO_2-B	19-Dec-14	15:30	03470-06	
Nitrate as N	8.14	1.00	mg/L	SM_{20} 4500-NO_3-D	19-Dec-14	10:00	03470-02	
TKN	2.88	1.0	mg/L	SM_{20} 4500-N_{ORG} C	28-Dec-14		03470-02	X1
Total Phosphorus	0.83	0.04	mg/L	SM_{20} 4500-P B,E	19-Dec-14		03470-06	
Ammonia as N	< 1.00	1.00	mg/L	SM_{20} 4500-NH_3 D	02-Jan-15		03470-02	
Organic Nitrogen	2.88	1.00	mg/L	n/a	02-Jan-15		03470-02	
Oil & Grease, Total *	< 6.2	6.2	mg/L	EPA 1664A	07-Jan-15		03470-01	
Oil & Grease, Floatable *	ND	n/a	%	*SSA*	07-Jan-15		03470-01	
NPM (TPH) *	< 6.2	6.2	mg/L	EPA 1664A	07-Jan-15		03470-01	
Cyanide, Total *	< 0.0050	0.0050	mg/L	EPA 335.4	29-Dec-14		22-293	
Phenols, Total	< 0.050	0.050	mg/L	EPA 420.1	19-Dec-14		65-00282	

X1 TKN Prep SM_{20} 4500 N_{org}C/SM_{20} 4500 NH_3B
SSA Scranton Sewer Authority Procedure
n/a Not Applicable
* Sample Collected 18-Dec-14 Time 9:00

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Method: EPA 625
Analyst: 22-293
Analyzed: 26-Dec-14

YEARLY EFFLUENT

SEMI-VOLATILE ORGANICS

Parameter	RESULT	PQL	Units	Parameter	RESULT	PQL	Units
Acenaphthene	< 1.7	1.7	µg/L	Di-n-Butylphthalate	< .3.4	3.4	µg/L
Acenaphthylene	< 1.7	1.7	µg/L	Di-n-Octylphthalate	< 9.2	9.2	µg/L
Anthracene	< 1.7	1.7	µg/L	Dibenz(a,h)anthracene	< 1.7	1.7	µg/L
Benzidine	< 67.5	67.5	µg/L	3,3-Dichlorobenzidine	< 18.4	18.4	µg/L
Benzo(a)anthracene	< 1.7	1.7	µg/L	Diethylphthalate	< 9.2	9.2	µg/L
Benzo(a)pyrene	< 1.7	1.7	µg/L	1,2-Diphenylhydrazine	< 3.4	3.4	µg/L
Benzo(b)fluoranthene	< 1.7	1.7	µg/L	bis (2-Ethylhexyl)phthalate	< 3.4	3.4	µg/L
Benzo(g,h,i)perylene	< 1.7	1.7	µg/L	2,4-Dimethylphenol	< 9.2	9.2	µg/L
Benzo(k)fluoranthene	< 1.7	1.7	µg/L	Dimethylphthalate	< 9.2	9.2	µg/L
4-Bromophenylphenyl ether	< 3.4	3.4	µg/L	2,4-Dinitrophenol	< 18.4	18.4	µg/L
Butylbenzylphthalate	< 3.4	3.4	µg/L	2,4-Dinitrotoluene	< 3.4	3.4	µg/L
4-Chloro-3-methylphenol	< 9.2	9.2	µg/L	2,6-Dinitrotoluene	< 3.4	3.4	µg/L
bis(2-Chloroethoxy)methane	< 3.4	3.4	µg/L	Fluoranthene	< 1.7	1.7	µg/L
bis(2-Chloroethyl) ether	< 3.4	3.4	µg/L	Fluorene	< 1.7	1.7	µg/L
bis(2-Chloroisopropyl) ether	< 3.4	3.4	µg/L	Hexachlorobenzene	< 3.4	3.4	µg/L
2-Chloronaphthalene	< 3.4	3.4	µg/L	Hexachlorobutadiene	< 3.4	3.4	µg/L
2-Chlorophenol	< 9.2	9.2	µg/L	Hexachlorocyclopentadiene	< 9.2	9.2	µg/L
4-Chlorophenylphenyl ether	< 3.4	3.1	µg/L	Hexachloroethane	< 3.4	3.4	µg/L
Chrysene	< 1.7	1.7	µg/L				

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Method: EPA 625
Analyst: 22-293
Analyzed: 26-Dec-14

YEARLY EFFLUENT

SEMI-VOLATILE ORGANICS

Parameter	RESULT	PQL	Units
Indeno(1,2,3-cd)pyrene	< 1.7	1.7	µg/L
Isophorone	< 3.4	3.4	µg/L
2-Methyl-4,6-dinitrophenol	< 9.2	9.2	µg/L
Naphthalene	< 1.7	1.7	µg/L
Nitrobenzene	< 3.4	3.4	µg/L
2-Nitrophenol	< 9.2	9.2	µg/L
4-Nitrophenol	< 9.2	9.2	µg/L
N-nitrosodiethylamine	< 3.4	3.4	µg/L
N-Nitrosodi-n-propylamine	< 3.4	3.4	µg/L
N-Nitrosodiphenylamine	< 3.4	3.4	µg/L
Pentachlorophenol	< 18.4	18.4	µg/L
Phenanthrene	< 1.7	1.7	µg/L
Phenol	< 9.2	9.2	µg/L
Pyrene	< 1.7	1.7	µg/L
1,2,4-Trichlorobenzene	< 3.4	3.4	µg/L
2,4,6-Trichlorophenol	< 9.2	9.2	µg/L

Parameter	RESULT	PQL	Units
Surrogates			
2,4,6-Tribromophenol (S)	83.5	38-134	%
2-Fluorobiphenyl (S)	66.7	37-113	%
2-Fluorophenol (S)	46.3	17-73	%
Nitrobenzene-d5 (S)	67.9	37-124	%
Phenol-d5 (S)	31.4	11-53	%
Terphenyl-d14 (S)	92.5	33-125	%

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 18-Dec-14
Time Sampled: 9:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Analyzed: 24-Dec-14
Analyst: 22-293
Method EPA 624

YEARLY EFFLUENT

VOLATILE ORGANICS

Parameter	RESULT	PQL	Units
Acrolein	< 150	150	µg/L
Acrylonitrile	< 25.0	25.0	µg/L
Benzene	< 5.0	5.0	µg/L
Bromodichloromethane	< 5.0	5.0	µg/L
Bromoform	< 10.0	10.0	µg/L
Bromomethane	< 10.0	10.0	µg/L
Carbon Tetrachloride	< 5.0	5.0	µg/L
Chlorobenzene	< 5.0	5.0	µg/L
Chlorodibromomethane	< 5.0	5.0	µg/L
Chloroethane	< 5.0	5.0	µg/L
2-Chloroethylvinyl ether	< 10.0	10.0	µg/L
Chloroform	< 5.0	5.0	µg/L
Chloromethane	< 5.0	5.0	µg/L
1,2-Dichlorobenzene	< 5.0	5.0	µg/L
1,3-Dichlorobenzene	< 5.0	5.0	µg/L
1,4-Dichlorobenzene	< 5.0	5.0	µg/L
1,1-Dichloroethane	< 5.0	5.0	µg/L
1,2-Dichloroethane	< 5.0	5.0	µg/L
1,1-Dichloroethene	< 5.0	5.0	µg/L
trans-1,2-Dichloroethene	< 5.0	5.0	µg/L
1,2-Dichloropropane	< 5.0	5.0	µg/L
cis-1,3-Dichloropropene	< 5.0	5.0	µg/L
trans-1,3-Dichloropropene	< 5.0	5.0	µg/L
1,3-Dichloropropene, total	< 5.0	5.0	µg/L
Ethylbenzene	< 5.0	5.0	µg/L
Methylene Chloride	< 5.0	5.0	µg/L
1,1,2,2-Tetrachloroethane	< 5.0	5.0	µg/L
Tetrachloroethene	< 5.0	5.0	µg/L
Toluene	< 5.0	5.0	µg/L
1,1,1-Trichloroethane	< 5.0	5.0	µg/L
1,1,2-Trichloroethane	< 5.0	5.0	µg/L
Trichloroethene	< 5.0	5.0	µg/L
Trichlorofluoromethane	< 5.0	5.0	µg/L
Vinyl Chloride	< 10.0	10.0	µg/L
Surrogates			
1,2-Dichloroethane-d4 (S)	94.1	72-142	%
4-Bromofluorobenzene (S)	115	73-119	%
Dibromofluoromethane (S)	79.9	74-132	%
Toluene-d8 (S)	105	75-133	%

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB

YEARLY EFFLUENT

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst
Aluminum	0.054	0.050	mg/L	EPA 200.7	09-Jan-15		03470-01
Antimony	< 0.0010	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Arsenic	0.0047	0.0015	mg/L	EPA 200.8	30-Dec-14		22-293
Beryllium	< 0.005	0.005	mg/L	EPA 200.7	09-Jan-14		03470-01
Cadmium	0.0024	0.00050	mg/L	EPA 200.8	30-Dec-14		22-293
Chromium, Total	0.0034	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Chromium, Hexavalent	< 0.025	0.025	mg/L	SM_{20} 3500 Cr B	18-Dec-14	14:45	03470-02
Copper	0.0083	0.0025	mg/L	EPA 200.8	30-Dec-14		22-293
Iron	0.307	0.050	mg/L	EPA 200.7	09-Jan-15		03470-01
Lead	< 0.0010	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Manganese	0.161	0.025	mg/L	EPA 200.7	09-Jan-15		03470-01
Mercury	< 0.00020	0.00020	mg/L	EPA 245.1	06-Jan-15		22-293
Molybdenum	< 0.0010	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Nickel	0.0063	0.0025	mg/L	EPA 200.8	30-Dec-14		22-293
Selenium	< 0.0020	0.0020	mg/L	EPA 200.8	30-Dec-14		22-293
Silver	< 0.0010	0.0010	mg/L	EPA 200.8	30-Dec-14		22-293
Thallium	< 0.00050	0.00050	mg/L	EPA 200.8	30-Dec-14		22-293
Zinc	0.066	0.0025	mg/L	EPA 200.8	30-Dec-14		22-293

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Method: EPA 8081A
Analyst: 65-00282

YEARLY EFFLUENT

PESTICIDES

Parameter	Result	PQL	Units	Analyzed	
Aldrin	< 0.027	0.027	µg/L	31-Dec-14	
alpha-BHC	< 0.027	0.027	µg/L	31-Dec-14	
beta-BHC	< 0.027	0.027	µg/L	31-Dec-14	
delta-BHC	< 0.027	0.027	µg/L	31-Dec-14	
gamma-BHC (Lindane)	< 0.027	0.027	µg/L	31-Dec-14	
alpha-Chlordane	< 0.027	0.027	µg/L	31-Dec-14	
gamma-Chlordane	< 0.027	0.027	µg/L	31-Dec-14	
4,4'-DDD	< 0.054	0.054	µg/L	31-Dec-14	
4,4'-DDE	< 0.054	0.054	µg/L	31-Dec-14	
4,4'-DDT	< 0.054	0.054	µg/L	31-Dec-14	
Dieldrin	< 0.054	0.054	µg/L	31-Dec-14	
Endosulfan I	< 0.027	0.027	µg/L	31-Dec-14	
Endosulfan II	< 0.054	0.054	µg/L	31-Dec-14	
Endosulfan sulfate	< 0.054	0.054	µg/L	31-Dec-14	
Endrin	< 0.054	0.054	µg/L	31-Dec-14	
Endrin aldehyde	< 0.054	0.054	µg/L	31-Dec-14	
Endrin ketone	< 0.054	0.054	µg/L	31-Dec-14	
Heptachlor	< 0.027	0.027	µg/L	31-Dec-14	
Heptachlor epoxide	< 0.027	0.027	µg/L	31-Dec-14	
Methoxychlor	< 0.27	0.27	µg/L	31-Dec-14	
Toxaphene	< 0.54	0.54	µg/L	31-Dec-14	
Surrogates					
Tetrachloro-m-xylene (S)	72	14-136	%	31-Dec-14	CH
Decachlorobiphenyl (S)	70	15-125	%	31-Dec-14	CH

CH The continuing calibration for this compound is outside the labs acceptance limits. The results may be biased high.

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 16, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Waste Water
Date Sampled: 17/18-Dec-14
Time Sampled: Comp. 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Method: EPA 8082

YEARLY EFFLUENT

Parameter	Result	PQL	Units	Analyzed	Analyst
PCB					
PCB-1016	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1221	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1232	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1242	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1248	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1254	< 0.27	0.27	µg/L	08-Jan-15	65-00282
PCB-1260	< 0.27	0.27	µg/L	08-Jan-15	65-00282
Surrogates					
Tetrachloro-m-xylene (S)	75	29-105	%	08-Jan-15	65-00282
Decachlorobiphenyl (S)	64	10-110	%	08-Jan-15	65-00282

65-00282 Pace, 22-293 ALS

Joe R. Mussari III
Laboratory Director

824 Enterprise Street Dickson City, PA 18519
phone: 570.489.6964 fax: 570.489.6965
www.QUANTUMLABS.net
PA DEP Accreditation #25-03476

CHAIN OF CUSTODY

QUANTUMLABS

Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise St
Dickson City, PA 18519-1593
Phone: (570) 489-6964 Fax: (570) 489-6965

PAGE 1 OF 2

X

PA DEP 35-03470 info@quantumlabs.net

Special Requirements

PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other ______
pH ______ Temp ______
Cooler Temperature: ______

TAT: RUSH ______ NORMAL

Report To: Scranton Sewer Authority
312 - 314 Adams Ave.
Scranton, PA 18503
Contact: Chris Weselowski
Phone: Fax:
Bill To:
Email Address:

DW - Drinking Water | WW - Waste Water
GW - Ground Water | SL - Sludge
SW - Surface Water | SO - Soil
NPW - Non-Potable Water | HZ - Hazardous

P - Plastic CG - Glass AG - Amber Glass O - Other

PO #

Invoice #

PROJECT:

Location Sample Description	Composite Sample Start Date	Composite Sample Start Time	Composite Sample End/Grab Date	Composite Sample End/Grab Time	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	PCB	SVOC PPL	Pests	Phenols	MBAS Color	Cr6	NO2-N	NO3-N				Quantum ID
Final Effluent	12/17	8	12/18	8	WW	4 1L	AG	C	X	X	X									024 - 12/8/14
↓					↓	1 500ml	H2SO4 AG	C				X								025 -
					↓	1 1L	P	C					X	X	X	X				026 - ↓

Comments:

Sampler/Affl: [signature]

Shipped ______ Hand Delivered

Relinquished By: [signature] Date: 12/18/14 Time: 1145

Relinquished By: Date: Time:

Received By: [signature] Date: 12/18/14 Time: 1145

Received in Lab By: [signature] Date: 12/18/14 Time: 1150

Intact Containers (Y) N
COC Complete (Y) N
Properly Preserved (Y) N

Within Holding Times (Y) N
Labels Match COC (Y) N
Rec'd on Ice (Y) N

CHAIN OF CUSTODY

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise St
Dickson City, PA 18519-1593
Phone: (570) 489-6964 Fax: (570) 489-6965

PA DEP 35-03470 info@quantumlabs.net

Report To: Scranton Sewer Authority
312-314 Adams Ave.
Scranton, PA 18503
Contact: Chris Weslowski
Phone: Fax:
Bill To:
Email Address:

Special Requirements
PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other _____
pH _____ Temp _____
Cooler Temperature: _____
TAT: RUSH _____ NORMAL

DW - Drinking Water WW - Waste Water
GW - Ground Water SL - Sludge
SW - Surface Water SO - Soil
NPW - Non-Potable HZ - Hazardous

Water P - Plastic CG - Glass AG - Amber Glass O - Other

PO #
Invoice #

PROJECT:

Location / Sample Description	Composite Sample Start Date	Composite Sample Start Time	Composite Sample End/Grab Date	Composite Sample End/Grab Time	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	ANALYSIS TO BE PERFORMED: Al As Cd Cu Mn Mo Se Tl	Fe Sb Be Cr	Pb Hg Ni Ag	Zn	NH3-N TKN	Org N Total P	Oil & Grease TPH	Total Cyanide	VOC 624	Quantum ID
Final Effluent	12/17	800	12/18	800	WW	1 1L	HNO3 P	C	X	X	X	X	X							027 — 12/18/14
"	12/18		12/18	900		1 500ml	H2SO4 P	C						X	X					028 —
						2 1L	HCl/H2SO4 AG	G								X				029 —
						1 500ml	NaOH P	G									X			030 —
						3 40ml	HCl O	G										X		031 —

Comments:

Intact Containers (Y) N
COC Complete (Y) N
Properly Preserved (Y) N
Within Holding Times (Y) N
Labels Match COC (Y) N
Rec'd on ice (Y) N

Sampler/Affl: [signature]
Relinquished By: [signature] Date: 12/18/14 Time: 1145
Relinquished By: Date: Time:
Shipped _____ Hand Delivered
Received By: [signature] Date: 12/18/14 Time: 1145
Received in Lab By: [signature] Date: 12/18/14 Time: 1250

2014
Yearly Sludge Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 15, 2015

ANALYTICAL REPORT

Scranton Sewer Authority
312-314 Adams Avenue
Scranton, PA 18503

Sample Matrix: Sludge
Date Sampled: 18-Dec-14
Time Sampled: 9:00
Sampled by: D. Potter/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received by: WEB

YEARLY SLUDGE

Parameter	RESULT	PQL	Units	Method	Analyzed	Analyst
Aluminum	1199	114	mg/kg	EPA 200.7	15-Jan-15	03470-01
Antimony	< 2.28	2.28	mg/kg	EPA 200.7	15-Jan-15	03470-01
Arsenic	< 2.28	2.28	mg/kg	EPA 200.7	15-Jan-15	03470-01
Beryllium	< 1.14	1.14	mg/kg	EPA 200.7	15-Jan-15	03470-01
Cadmium	< 1.14	1.14	mg/kg	EPA 200.7	15-Jan-15	03470-01
Chromium, Total	5.61	1.14	mg/kg	EPA 200.7	15-Jan-15	03470-01
Hexavalent Chromium	< 0.99	1.0	mg/kg	EPA 7196A	29-Dec-14	65-00282
Copper	43.9	1.14	mg/kg	EPA 200.7	15-Jan-15	03470-01
Iron	2772	114	mg/kg	EPA 200.7	15-Jan-15	03470-01
Lead	13.6	2.28	mg/kg	EPA 200.7	15-Jan-15	03470-01
Manganese	117	114	mg/kg	EPA 200.7	15-Jan-15	03470-01
Mercury	< 0.095	0.095	mg/kg	EPA 7471A	30-Dec-14	65-00282
Molybdenum	< 2.28	2.28	mg/kg	EPA 200.7	15-Jan-15	03470-01
Nickel	4.17	2.28	mg/kg	EPA 200.7	15-Jan-15	03470-01
Selenium	< 2.28	2.28	mg/kg	EPA 200.7	15-Jan-15	03470-01
Silver	< 1.14	1.14	mg/kg	EPA 200.7	15-Jan-15	03470-01
Thallium	< 2.28	2.28	mg/kg	EPA 200.7	15-Jan-15	03470-01
Zinc	108	2.28	mg/kg	EPA 200.7	15-Jan-15	03470-01

Results reported on an as received basis

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 15, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix:	Sludge
Date Sampled:	18-Dec-14
Time Sampled:	9:00
Sampled By:	D. Potter/SSA
Date Received:	18-Jan-14
Time Received:	12:50
Received By:	WEB
Analyzed:	23-Dec-14
Analyst:	22-293
Method:	SW 846 8260B

Yearly Sludge

Parameter	RESULT	PQL	Units
VOLATILE ORGANICS			
Acrolein	< 458	458	µg/kg
Acrylonitrile	< 91.5	91.5	µg/kg
Benzene	< 18.3	18.3	µg/kg
Bromodichloromethane	< 18.3	18.3	µg/kg
Bromoform	< 18.3	18.3	µg/kg
Bromomethane	< 18.3	18.3	µg/kg
2-Butanone	8270	91.5	µg/kg
Carbon Tetrachloride	< 18.3	18.3	µg/kg
Chlorobenzene	< 18.3	18.3	µg/kg
Chlorodibromomethane	< 18.3	18.3	µg/kg
Chloroethane	< 45.8	45.8	µg/kg
2-Chloroethylvinyl ether	< 1370	1370	µg/kg
Chloroform	< 18.3	18.3	µg/kg
Chloromethane	< 18.3	18.3	µg/kg
1,1-Dichloroethane	< 18.3	18.3	µg/kg
1,2-Dichloroethane	< 18.3	18.3	µg/kg
1,1-Dichloroethene	< 18.3	18.3	µg/kg
trans-1,2-Dichloroethene	< 18.3	18.3	µg/kg
1,2-Dichloropropane	< 18.3	18.3	µg/kg
1,3-Dichloropropene, Total	< 36.6	36.6	µg/kg
Ethylbenzene	< 18.3	18.3	µg/kg
Methylene Chloride	< 18.3	18.3	µg/kg
1,1,2,2-Tetrachloroethane	< 18.3	18.3	µg/kg
Tetrachloroethylene	< 18.3	18.3	µg/kg
Toluene	< 18.3	18.3	µg/kg
1,1,1-Trichloroethane	< 18.3	18.3	µg/kg
1,1,2-Trichloroethane	< 18.3	18.3	µg/kg
Trichloroethene	< 18.3	18.3	µg/kg
Vinyl Chloride	< 18.3	18.3	µg/kg
Surrogates			
4-Bromofluorobenzene (S)	110	51-128	%
Dibromofluoromethane (S)	115	62-123	%
Toluene-d8 (S)	116	59-131	%
1,2-Dichloroethane-d4 (S)	108	56-124	%

Results reported on a dry weight basis

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 15, 2015

ANALYTICAL REPORT

Scranton Sewer Authority
312-314 Adams Avenue
Scranton, PA 18503

Sample Matrix: Sludge
Date Sampled: 18-Dec-14
Time Sampled: 9:00
Sampled By: D. Potter/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Analyzed: 30-Dec-14
Method: SW846 8270D
Analyst: 22-293

YEARLY SLUDGE

SEMI-VOLATILE ORGANIC COMPOUNDS

Parameter	RESULT	PQL	Units	Parameter	RESULT	PQL	Units
Acenaphthene	< 995	995	µg/kg	4-Chlorophenylphenyl ether	< 995	995	µg/kg
Acenaphthylene	< 995	995	µg/kg	Chrysene	1330	995	µg/kg
Anthracene	< 995	995	µg/kg	Di-n-butylphthalate	< 995	995	µg/kg
Benzidine	< 7960	7960	µg/kg	Di-n-octylphthalate	< 2690	2690	µg/kg
Benzo(a)anthracene	< 995	995	µg/kg	Dibenz(a,h)anthracene	< 995	995	µg/kg
Benzo(a)pyrene	< 995	995	µg/kg	1,2-Dichlorobenzene	< 995	995	µg/kg
Benzo(b)fluoranthene	1700	995	µg/kg	1,3-Dichlorobenzene	< 995	995	µg/kg
Benzo(g,h,i)perylene	< 995	995	µg/kg	1,4-Dichlorobenzene	< 995	995	µg/kg
Benzo(k)fluoranthene	< 995	995	µg/kg	3,3-Dichlorobenzidine	< 1490	1490	µg/kg
4-Bromophenylphenyl ether	< 995	995	µg/kg	2,4-Dichlorophenol	< 1990	1990	µg/kg
Butylbenzylphthalate	< 995	995	µg/kg	Diethylphthalate	< 995	995	µg/kg
4-Chloro-3-methylphenol	< 2690	2690	µg/kg	2,4-Dimethylphenol	< 2690	2690	µg/kg
bis(2-Chloroethoxy)methane	< 995	995	µg/kg	Dimethylphthalate	< 995	995	µg/kg
bis(2-Chloroethyl) ether	< 995	995	µg/kg	2,4-Dinitrophenol	< 1990	1990	µg/kg
bis(2-Chloroisopropyl) ether	< 995	995	µg/kg	2,4-Dinitrotoluene	< 995	995	µg/kg
2-Chloronaphthalene	< 995	995	µg/kg	2,6-Dinitrotoluene	< 995	995	µg/kg
2-Chlorophenol	< 2690	2690	µg/kg	1,2-Diphenylhydrazine	< 995	995	

Results reported on a dry weight basis

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 15, 2015

ANALYTICAL REPORT

Scranton Sewer Authority
312-314 Adams Avenue
Scranton, PA 18503

Sample Matrix: Sludge
Date Sampled: 18-Dec-14
Time Sampled: 9:00
Sampled By: D. Potter/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received By: WEB
Analyzed: 30-Dec-14
Method: EPA 8270D
Analyst: 22-293

YEARLY SLUDGE

SEMI-VOLATILE ORGANIC COMPOUNDS

Parameter	RESULT	PQL	Units
Bis(2-Ethylhexyl)phthalate	11900	995	µg/kg
Fluoranthene	2460	995	µg/kg
Fluorene	< 995	995	µg/kg
Hexachlorobenzene	< 995	995	µg/kg
Hexachlorobutadiene	< 995	995	µg/kg
Hexachlorocyclopentadiene	< 2690	2690	µg/kg
Hexachloroethane	< 995	995	µg/kg
Indeno(1,2,3-cd)pyrene	< 995	995	µg/kg
Isophorone	< 995	995	µg/kg
2-Methyl-4,6-dinitrophenol	< 2690	2690	µg/kg
Naphthalene	< 995	995	µg/kg
Nitrobenzene	< 995	995	µg/kg
2-Nitrophenol	< 2690	2690	µg/kg
4-Nitrophenol	< 2690	2690	µg/kg
N-Nitroso-di-n-propylamine	< 995	995	µg/kg
N-Nitrosodiphenylamine	< 995	995	µg/kg

Parameter	RESULT	PQL	Units
N-Nitrosodiphenylamine	< 995	995	µg/kg
Pentachlorophenol	< 1990	1990	µg/kg
Phenanthrene	1330	995	µg/kg
Phenol	12700	2690	µg/kg
Pyrene	1320	995	µg/kg
1,2,4-Trichlorobenzene	< 995	995	µg/kg
2,4,6-Trichlorophenol	< 1990	1990	µg/kg
Surrogates			
Nitrobenzene-d5 (S)	67	41-110	%
2-Fluorobiphenyl (S)	67.7	45-105	%
Terphenyl-d14 (S)	75.7	38-113	%
Phenol-d5 (S)	63.9	40-110	%
2-Fluorophenol (S)	57.1	35-104	%
2,4,6-Tribromophenol (S)	79.5	37-123	%

Results reported on a dry weight basis

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 15, 2015

ANALYTICAL RESULTS

Scranton Sewer Authority
312-314 Adams Avenue
Scranton, PA 18503

Sample Matrix: Sludge
Date Sampled: 18-Dec-14
Time Sampled: 9:00
Sampled by: D. Potter/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received by: WEB
Method: EPA 8081A
Analyst: 65-00282
Analyzed: 30-Dec-14

YEARLY SLUDGE

PESTICIDES

Parameter	RESULT	PQL	Units		Parameter	RESULT	PQL	Units	
Aldrin	< 93.3	93.3	µg/kg	1C	Endosulfan sulfate	< 187	187	µg/kg	1C
alpha-BHC	< 93.3	93.3	µg/kg	1C	Endrin	< 187	187	µg/kg	1C
beta-BHC	< 93.3	93.3	µg/kg	1C	Endrin aldehyde	< 187	187	µg/kg	1C
delta-BHC	< 93.3	93.3	µg/kg	1C	Endrin ketone	< 187	187	µg/kg	1C
gamma-BHC (Lindane)	< 93.3	93.3	µg/kg	1C	Heptachlor	< 93.3	93.3	µg/kg	1C
alpha-Chlordane	< 93.3	93.3	µg/kg	1C	Heptachlor epoxide	< 93.3	93.3	µg/kg	1C
gamma-Chlordane	< 93.3	93.3	µg/kg	1C	Methoxychlor	< 933	933	µg/kg	1C
4,4'-DDD	< 187	187	µg/kg	1C	Toxaphene	< 933	933	µg/kg	1C
4,4'-DDE	< 187	187	µg/kg	1C					
4,4'-DDT	< 187	187	µg/kg	1C	**Surrogates**				
Dieldrin	< 187	187	µg/kg	1C	Tetrachloro-m-xylene (S)	82	37-113	%	1C
Endosulfan I	< 93.3	93.3	µg/kg	1C	Decachlorobiphenyl (S)	85	39-122	%	1C
Endosulfan II	< 187	187	µg/kg	1C					

1C Sample was diluted due to the presence of high levels of non-target analytes or other matrix interferences resulting in elevated reporting limits for all analytes.

Results reported on an as received basis

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

January 15, 2015

ANALYTICAL REPORT

Scranton Sewer Authority
312-314 Adams Avenue
Scranton, PA 18503

Sample Matrix: Sludge
Date Sampled: 18-Dec-14
Time Sampled: 9:00
Sampled by: D. Potter/SSA
Date Received: 18-Dec-14
Time Received: 12:50
Received by: WEB

YEARLY SLUDGE

Parameter	RESULT	PQL	Units	Method	Analyzed	Analyst
Cyanide, Total *	1.3	0.91	mg/kg	EPA 9014	29-Dec-14	65-00282
Phenolics, Total *	9.7	1.0	mg/kg	EPA 9065	22-Dec-14	65-00282
Total Solids	22.9	0.01	%	SM_{20} 2540B	18-Dec-14	03470-06
PCBs *						
1016	< 0.10	0.10	mg/kg	EPA 8082	09-Jan-15	65-00282
1221	< 0.10	0.10	mg/kg	EPA 8082	09-Jan-15	65-00282
1232	< 0.10	0.10	mg/kg	EPA 8082	09-Jan-15	65-00282
1242	< 0.10	0.10	mg/kg	EPA 8082	09-Jan-15	65-00282
1248	< 0.10	0.10	mg/kg	EPA 8082	09-Jan-15	65-00282
1254	< 0.10	0.10	mg/kg	EPA 8082	09-Jan-15	65-00282
1260	< 0.10	0.10	mg/kg	EPA 8082	09-Jan-15	65-00282
Total	< 0.10	0.10	mg/kg	EPA 8082	09-Jan-15	65-00282
Surrogates						
Tetrachloro-m-xylene (S)	86	30-107	%	EPA 8082	09-Jan-15	65-00282
Decachlorobiphenyl (S)	87	10-115	%	EPA 8082	09-Jan-15	65-00282

Results reported on an as received basis

Joe R. Mussari, II
Laboratory Director

CHAIN OF CUSTODY

QUANTUMLABS

Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
324 Enterprise St
Dickson City, PA 18519-1593
Phone: (570) 489-6964 Fax: (570) 489-6965

PA DEP 35-03470 info@quantumlabs.net

PAGE 1 OF 1

Special Requirements

PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other ______

pH ______ Temp ______

Cooler Temperature: ______

TAT: RUSH ______ NORMAL

PROJECT:

Report To: Scranton Sewer Authority
312 - 314 Adams Ave.
Scranton, PA 18503
Contact: Chris Wesolowski
Phone: Fax:
Bill To:
Email Address:
PO #
Invoice #

DW - Drinking Water; WW - Waste Water; GW - Ground Water; SL - Sludge; SW - Surface Water; SO - Soil; NPW - Non-Potable Water; HZ - Hazardous

P - Plastic; CG - Glass; AG - Amber Glass; O - Other

Location Sample Description	Composite Sample Start Date	Composite Sample Start Time	Composite Sample End/Grab Date	Composite Sample End/Grab Time	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	Al, Sb, As, Zn, Tl	Be, Cd, Cr, Cu	Fe, Pb, Mn, Hg	Mo, Ni, Se, Ag	PCB	SVOC PPL	Pests	Cyanide	Phenols	Cr 6	VOC PPL	Quantum ID
Sludge			12/18/14	0900	SL	1 / 1L	[illegible]		X	X	X	X	X	X	X	X	X	X	X	036-12/8/14

Comments:

Sampler/Affil: [illegible] PRINT /

Shipped ______ (Hand Delivered)

Intact Containers (Y) N — Within Holding Times (Y) N
COC Complete (Y) N — Labels Match COC (Y) N
Properly Preserved (Y) N — Rec'd on Ice (Y) N

Relinquished By: [signature] Date: 12/18/14 Time: 11:45 — Received By: [signature] Date: 12/18/14 Time: 1145

Relinquished By: Date: Time: — Received In Lab By: [signature] Date: 12/18/14 Time: 1250

Appendix 9

Quarterly Influent, Effluent and Sludge Data

2014
First Quarter Influent Data

QUANTUMLABS

Analytical & Environmental Laboratories, Inc.

April 25, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled: 18-19-Mar-14
Time Sampled: 24 Hour Composite I 7:30 - 7:30
Sampled By: BV/SSA
Date Received: 19-Mar-14
Time Received: 13:05
Received By: WEB
Sample Matrix: Waste Water

INFLUENT/ FIRST QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst
ARSENIC	< 0.0010	0.0010	mg/L	EPA 6020	02-Apr-14		68-00547
CADMIUM	0.00022	0.00010	mg/L	EPA 6020	02-Apr-14		68-00547
CHROMIUM, Total	< 0.025	0.025	mg/L	EPA 200.7	18-Apr-14		03470-01
CHROMIUM, Hexavalent	< 0.025	0.025	mg/L	SM_{20} 3500-Cr B	19-Mar-14	17:00	03470-02
COPPER	0.045	0.0010	mg/L	EPA 6020	02-Apr-14		68-00547
LEAD	0.0023	0.0010	mg/L	EPA 6020	02-Apr-14		68-00547
MERCURY	< 0.0002	0.0002	mg/L	EPA 245.1	25-Mar-14		03470-02
NICKEL	< 0.025	0.050	mg/L	EPA 200.7	18-Apr-14		03470-01
SILVER	0.00077	0.00010	mg/L	EPA 6020	02-Apr-14		68-00547
ZINC	0.18	0.0050	mg/L	EPA 6020	02-Apr-14		68-00547
TOLUENE *	< 0.005	0.005	mg/L	EPA 8260B	30-Mar-14		03470-01
XYLENES, Total *	< 0.015	0.015	mg/L	EPA 8260B	30-Mar-14		03470-01
CHLOROFORM *	0.005	0.005	mg/L	EPA 8260B	30-Mar-14		03470-01
Surrogates							
Dibromofluoromethane (S)	113	70-130	%	EPA 8260B	30-Mar-14		03470-01
1,2-Dichloroethane-d4 (S)	127	70-130	%	EPA 8260B	30-Mar-14		03470-01
Toluene-d8 (S)	99	70-130	%	EPA 8260B	30-Mar-14		03470-01
4-Bromofluorobenzene (S)	119	70-130	%	EPA 8260B	30-Mar-14		03470-01

68-00547 Pace

* Grab Sample 19-Mar-14 Time 7:30

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

April 25, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled: 18-19-Mar-14
Time Sampled: 24 Hour Composite I 7:30 - 7:30
Sampled By: BV/SSA
Date Received: 19-Mar-14
Time Received: 13:05
Received By: WEB
Sample Matrix: Waste Water

INFLUENT/ FIRST QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst	
NITRATE as N	< 1.00	1.00	mg/L	SM_{20} 4500 NO_3 D	20-Mar-14	7:30	03470-02	
NITRITE as N	< 0.010	0.010	mg/L	SM_{20} 4500 NO_2 B	20-Mar-14	7:00	03470-02	
TKN	36.5	10.0	mg/L	SM_{20} 4500-NH_3D	02-Apr-14		03470-02	X1
AMMONIA as N	23.5	10.0	mg/L	SM_{20} 4500 NH_3 D	26-Mar-14		03470-02	
ORGANIC NITROGEN	13.0	10.0	mg/L	n/a	02-Apr-14		03470-02	
TOTAL NITROGEN	36.5	10.0	mg/L	n/a	02-Apr-14		03470-02	
PHOSPHOROUS, Total	3.99	0.20	mg/L	SM_{20} 4500 P B.5E	09-Apr-14		03470-02	
MBAS	1.13	0.04	mg/L	SM_{20} 5540 C	20-Mar-14	14:00	03470-02	
COLOR, True	175	1	units	SM_{20} 2120 B	19-Mar-14	14:30	03470-02	
* OIL and GREASE, Total	9.8	5.6	mg/L	EPA 1664A	14-Apr-14		03470-01	
* NPM (TPH)	< 10.0	10.0	mg/L	EPA 1664A	14-Apr-14		03470-01	
* CYANIDE, Total	0.013	0.010	mg/L	SM 4500-CN-E	20-Mar-14		65-00282	

65-00282 Pace
X1 TKN Prep SM_{20} 4500 N_{org}C/SM_{20} 4500 NH_3B
* Grab Sample 19-Mar-14 Time 7:30

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

Page 1 of 1

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise Street
Dickson City, PA 18519-1593
Phone: (570) 489-6964

PA DEP 35-03470 info@quantumlabs.net Fax: (570) 489-6965

Report to: Scranton Sewer Authority
312-314 Adams Ave
Scranton PA 18503
Contact: Jay Nardone
Phone: Fax:

Bill to:

Email Address:

Special Requirements
PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43
Other
pH Temp
Cooler Temperature: 9.1 °C
TAT: RUSH NORMAL

PROJECT: 1st Quarter 2014

DW - Drinking Water **WW** - Waste Water
GW - Ground Water **SO** - Soil
SW - Surface Water **SL** - Sludge
NPW - Non-Potable Water **SD** - Solid

P - Plastic **CG** - Glass **AG** - Amber Glass **O** - Other **PO #**

Location / Sample Description	Date Sampled	Time Sampled	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	ANALYSIS TO BE PERFORMED	Quantum ID
Influent	3/18/14	730	WW	1 500ml	P	C	NO_2-N, NO_3-N	012 - 03/19/14
				1 500ml	H_2SO_4 P	C	Cr6 MBAS Color	013 -
				1 500ml	HNO_3 P	C	NH_3-N, TKN	014 -
				2 L	H_2SO_4	G	Total P, Oxy-N	015 -
				1 500ml	NaOH P	G	Total N	016 -
				3 40ml	HCl G	G	As, Cd, Cr, Cu, Pb, Hg, Ni, Ag, Zn, O&G, TPH, Total Cyanide, Total Phenolics	017 -

Comments:

Sampler:
Relinquished By: Date: 3/19/14 Time:
Relinquished By: Date: Time:

Shipped Hand Delivered

Intact Containers (Y) N Within Holding Times (Y) N
COC Complete (Y) N Labels Match COC (Y) N
Properly Preserved (Y) N Rec'd on Ice (Y) N

Received By: Date: 3/19/14 Time: 1225
Received In Lab By: Date: 3/19/14 Time: 1305

2014
First Quarter Effluent Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

April 18, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled: 18-19-Mar-14
Time Sampled: 24 Hour Composite I 7:30 - 7:30
Sampled By: BV/SSA
Date Received: 19-Mar-14
Time Received: 13:05
Received By: WEB
Sample Matrix: Waste Water

EFFLUENT/ FIRST QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst
ARSENIC	0.0039	0.0010	mg/L	EPA 6020	02-Apr-14		68-00547
CADMIUM	0.00017	0.00010	mg/L	EPA 6020	02-Apr-14		68-00547
CHROMIUM, Total	< 0.025	0.025	mg/L	EPA 200.7	18-Apr-14		03470-01
CHROMIUM, Hexavalent	< 0.025	0.025	mg/L	SM_{20} 3500-Cr B	19-Mar-14	17:00	03470-02
COPPER	0.036	0.0010	mg/L	EPA 6020	02-Apr-14		68-00547
LEAD	0.0031	0.0010	mg/L	EPA 6020	02-Apr-14		68-00547
MERCURY	< 0.0002	0.0002	mg/L	EPA 245.1	25-Mar-14		03470-02
NICKEL	< 0.025	0.050	mg/L	EPA 200.7	18-Apr-14		03470-01
SILVER	0.00088	0.00010	mg/L	EPA 6020	02-Apr-14		68-00547
ZINC	0.12	0.0050	mg/L	EPA 6020	02-Apr-14		68-00547
TOLUENE *	< 0.005	0.005	mg/L	EPA 8260B	30-Mar-14		03470-01
XYLENES, Total *	< 0.015	0.015	mg/L	EPA 8260B	30-Mar-14		03470-01
CHLOROFORM *	0.009	0.005	mg/L	EPA 8260B	30-Mar-14		03470-01
Surrogates							
Dibromofluoromethane (S)	116	70-130	%	EPA 8260B	30-Mar-14		03470-01
1,2-Dichloroethane-d4 (S)	126	70-130	%	EPA 8260B	30-Mar-14		03470-01
Toluene-d8 (S)	99	70-130	%	EPA 8260B	30-Mar-14		03470-01
4-Bromofluorobenzene (S)	114	70-130	%	EPA 8260B	30-Mar-14		03470-01

68-00547 Pace

* Grab Sample 19-Mar-14 Time 7:30

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

April 18, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled: 18-19-Mar-14
Time Sampled: 24 Hour Composite I 7:30 - 7:30
Sampled By: BV/SSA
Date Received: 19-Mar-14
Time Received: 13:05
Received By: WEB
Sample Matrix: Waste Water

EFFLUENT/ FIRST QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst	
NITRATE as N	32.4	10.0	mg/L	SM_{20} 4500 NO_3 D	20-Mar-14	7:30	03470-02	
NITRITE as N	0.058	0.010	mg/L	SM_{20} 4500 NO_2 B	20-Mar-14	7:00	03470-02	
TKN	6.40	1.00	mg/L	SM_{20} 4500-NH_3D	02-Apr-14		03470-02	X1
AMMONIA as N	< 1.00	1.00	mg/L	SM_{20} 4500 NH_3 D	26-Mar-14		03470-02	
ORGANIC NITROGEN	6.40	1.00	mg/L	n/a	02-Apr-14		03470-02	
TOTAL NITROGEN	38.8	10.0	mg/L	n/a	02-Apr-14		03470-02	
PHOSPHOROUS, Total	2.20	0.10	mg/L	SM_{20} 4500 P B.5E	09-Apr-14		03470-02	
MBAS	0.112	0.02	mg/L	SM_{20} 5540 C	20-Mar-14	14:00	03470-02	
COLOR, True	100	1	units	SM_{20} 2120 B	19-Mar-14	14:30	03470-02	
* OIL and GREASE, Total	< 5.6	5.6	mg/L	EPA 1664A	14-Apr-14		03470-01	
* NPM (TPH)	< 5.6	5.6	mg/L	EPA 1664A	14-Apr-14		03470-01	
* CYANIDE, Total	< 0.010	0.010	mg/L	SM 4500-CN-E	20-Mar-14		65-00282	

65-00282 Pace
X1 TKN Prep SM_{20} 4500 N_{org}C/SM_{20} 4500 NH_3B
* Grab Sample 19-Mar-14 Time 7:30

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise Street
Dickson City, PA 18519-1593
Phone: (570) 489-6964

PA DEP 35-03470 info@quantumlabs.net Fax: (570) 489-6965

Special Requirements

PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other ____

pH ____ Temp 9.6 C

Cooler Temperature: 9.6°C

TAT: RUSH ____ NORMAL

PROJECT: 1st Quarter 2014

Report to: Scranton Sewer Authority
312-314 Adams Ave
Scranton PA 18503
Contact: Jay Nordend
Phone: Fax:
Bill to:
Email Address:

DW - Drinking Water; GW - Ground Water; SW - Surface Water; NPW - Non-Potable Water; WW - Waste Water; SO - Soil; SL - Sludge; SD - Solid

P - Plastic; CG - Glass; AG - Amber Glass; O - Other

PO #

Invoice #

ANALYSIS TO BE PERFORMED

Location Sample Description	Date Sampled	Time Sampled	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	NO_2-N, NO_3-N	F, Cl, MBAS, Color	NH_3-N, TKN	Total P, Org N	Total N	As, Cd, Cr	Cu, Pb, Hg	Ni, Ag, Zn	O&G, TPH	Total Cyanide	Toluene, Xylenes, Naphthalene	Quantum ID
Final Effluent	3/18-3/19/14	730	WW	1 500ml	P	C	X	X										019-031914
	3/18-3/19/14	730	↓	1 500ml	H_2SO_4 P	C			X	X	X							020-
	3/18-3/19/14	730	↓	1 500ml	HNO_3 P	C						X	X	X				021-
	3/19/14	730	↓	2 1L	H_2SO_4 AG	G									X			022-
	3/19/14	730	↓	1 500ml	NaOH P	G										X		023-
	3/19/14	730	↓	3 40ml	HCl G	G											X	024-

Comments:

Sampler: [signature]

Relinquished By: [signature] Date: 3/19/14 Time:

Shipped ____ / Hand Delivered (circled)

Relinquished By: Date: Time:

Intact Containers (Y) N — Within Holding Times (Y) N
COC Complete (Y) N — Labels Match COC (Y) N
Properly Preserved (Y) N — Rec'd on Ice (Y) N

Received By: [signature] Date: 3/19/14 Time: 1225

Received In Lab By: [signature] Date: 3/19/14 Time: 1305

2014
First Quarter Sludge Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

April 18, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled: 19-Mar-14
Time Sampled: 9:02
Sampled By: BV/SSA
Date Received: 19-Mar-14
Time Received: 13:05
Received By: WEB
Sample Matrix: Sludge

SLUDGE / FIRST QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Analyst	
ARSENIC	< 2.41	2.41	mg/kg	EPA 200.7	18-Apr-14	03470-01	L2
CADMIUM	< 1.20	1.20	mg/kg	EPA 200.7	18-Apr-14	03470-01	L2
CHROMIUM, Total	5.52	1.20	mg/kg	EPA 200.7	18-Apr-14	03470-01	L2
COPPER	30.3	1.20	mg/kg	EPA 200.7	18-Apr-14	03470-01	L2
HEXAVALENT CHROMIUM	< 1.0	1.0	mg/kg	EPA 7196A	01-Apr-14	65-00282	L2
LEAD	7.73	2.41	mg/kg	EPA 200.7	18-Apr-14	03470-01	L2
MERCURY	< 0.098	0.098	mg/kg	EPA 7471A	31-Mar-14	65-00282	L2
NICKEL	3.97	2.41	mg/kg	EPA 200.7	18-Apr-14	03470-01	L2
SILVER	2.08	1.20	mg/kg	EPA 200.7	18-Apr-14	03470-01	L2
ZINC	73.5	2.40	mg/kg	EPA 200.7	18-Apr-14	03470-01	L2
Total Solids	33.8	0.01	%	SM_{20} 2540G	24-Mar-14	03470-06	
Percent Moisture	66.2	0.01	%	SM_{20} 2540G	24-Mar-14	03470-06	
CYANIDE, Total	3.5	0.57	mg/kg	SM 4500-CN-E	24-Mar-14	65-00282	L2
Toluene *	< 0.27	0.27	mg/kg	EPA 8260B	25-Mar-14	65-00282	L2
Surrogates							
Toluene-d8 (S)	105	81-117	%	EPA 8260B	25-Mar-14	65-00282	
4-Bromofluorobenzene (S)	102	74-121	%	EPA 8260B	25-Mar-14	65-00282	
1,2-Dichloroethane-d4 (S)	96	80-120	%	EPA 8260B	25-Mar-14	65-00282	

65-00282 Pace

* Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
L2 Results reported on a "wet-weight" basis.

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.
Dickson City Industrial Park
824 Enterprise Street
Dickson City, PA 18519-1533
Phone: (570) 489-6964

PA DEP 35-03470 info@quantumlabs.net Fax: (570) 489-6965

Special Requirements
PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43
Other
pH Temp
Cooler Temperature: 9.5°C
TAT: RUSH NORMAL

Report to: Scranton Sewer Authority
312-314 Adams Ave
Scranton PA 18503
Contact: Jay Nardone
Phone: Fax:
Bill to:
Email Address:

DW - Drinking Water **WW** - Waste Water
GW - Ground Water **SO** - Soil
SW - Surface Water **SL** - Sludge
NPW - Non-Potable Water **SD** - Solid

P - Plastic **CG** - Glass **AG** - Amber Glass **O** - Other

PROJECT: 1st Quarter 2014 PO #

Location / Sample Description	Date Sampled	Time Sampled	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	ANALYSIS TO BE PERFORMED: As, Cd, Cr	Cu, Pb, Hg	Ni, Ag, Zn	Total Cyanide	Ext	Toluene	Invoice # / Quantum ID
Sludge	3/19/14	905	SL	1 16oz	G	G	X	X	X	X	X	X	018-031914

Comments:

Sampler:
Relinquished By: Date: 3/19/14 Time:
Relinquished By: Date: Time:

Shipped Hand Delivered

Intact Containers: Y N Within Holding Times: Y N
COC Complete: Y N Labels Match COC: Y N
Properly Preserved: Y N Rec'd on Ice: Y N

Received By: Date: 3/19/14 Time: 1225
Received In Lab By: Date: 3/19/14 Time: 1305

2014
Second Quarter Influent Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

July 17, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled:	10/11-Jun-14
Time Sampled:	24 Hour Composite I 8:00 - 8:00
Sampled By:	BV/SSA
Date Received:	11-Jun-14
Time Received:	13:15
Received By:	KK
Sample Matrix:	Waste Water

INFLUENT/ SECOND QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst
ARSENIC	0.0087	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
CADMIUM	0.0041	0.00010	mg/L	EPA 6020	18-Jun-14		68-00547
CHROMIUM, Total	0.0088	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
CHROMIUM, Hexavalent	< 0.025	0.025	mg/L	SM_{20} 3500-Cr B	11-Jun-14	15:30	03470-02
COPPER	0.0373	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
LEAD	0.0040	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
MERCURY	< 0.0002	0.0002	mg/L	EPA 245.1	25-Jun-14		03470-02
MOLYBDENUM	0.0014	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
NICKEL	0.0089	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
SILVER	0.00062	0.00010	mg/L	EPA 6020	18-Jun-14		68-00547
ZINC	0.102	0.0050	mg/L	EPA 6020	18-Jun-14		68-00547
TOLUENE *	< 0.005	0.005	mg/L	EPA 8260B	17-Jun-14		03470-01
XYLENES, Total *	< 0.015	0.015	mg/L	EPA 8260B	17-Jun-14		03470-01
CHLOROFORM *	< 0.005	0.005	mg/L	EPA 8260B	17-Jun-14		03470-01
Surrogates							
Dibromofluoromethane (S)	116	70-130	%	EPA 8260B	17-Jun-14		03470-01
1,2-Dichloroethane-d4 (S)	129	70-130	%	EPA 8260B	17-Jun-14		03470-01
Toluene-d8 (S)	100	70-130	%	EPA 8260B	17-Jun-14		03470-01
4-Bromofluorobenzene (S)	123	70-130	%	EPA 8260B	17-Jun-14		03470-01

* Grab Sample 11-Jun-14 Time 8:00

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

July 17, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled: 10/11-Jun-14
Time Sampled: 24 Hour Composite I 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 11-Jun-14
Time Received: 13:15
Received By: KK
Sample Matrix: Waste Water

INFLUENT/ SECOND QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst	
NITRATE as N	< 1.00	1.00	mg/L	SM_{20} 4500 NO_3 D	12-Jun-14	7:45	03470-02	
NITRITE as N	< 0.010	0.010	mg/L	SM_{20} 4500 NO_2 B	12-Jun-14	7:00	03470-02	
TKN	51.0	10.0	mg/L	SM_{20} 4500-NH_3D	13-Jun-14		03470-02	X1
AMMONIA as N	30.0	10.0	mg/L	SM_{20} 4500 NH_3 D	13-Jun-14		03470-02	
ORGANIC NITROGEN	21.0	10.0	mg/L	n/a	13-Jun-14		03470-02	
TOTAL NITROGEN	51.0	10.0	mg/L	n/a	13-Jun-14		03470-02	
PHOSPHOROUS, Total	4.00	0.20	mg/L	SM_{20} 4500 P B.6E	17-Jun-14		03470-02	
MBAS	2.61	0.100	mg/L	SM_{20} 5540 C	11-Jun-14	14:30	03470-02	
COLOR, True	150	10	units	SM_{20} 2120 B	11-Jun-14	13:30	03470-02	
OIL and GREASE, Total *	9.0	5.7	mg/L	EPA 1664A	20-Jun-14		03470-01	
NPM (TPH) *	< 5.7	5.7	mg/L	EPA 1664A	20-Jun-14		03470-01	
CYANIDE, Total *	< 0.010	0.010	mg/L	SM 4500-CN-E	19-Jun-14		65-00282	

X1 TKN Prep SM_{20} 4500 N_{org}C/SM_{20} 4500 NH_3B
* Grab Sample 11-Jun-14 Time 8:00

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.
Dickson City Industrial Park
824 Enterprise Street
Dickson City, PA 18519-1593
Phone: (570) 489-6964
PA DEP 35-03470 info@quantumlabs.net Fax: (570) 489-6965

Special Requirements

PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other ______
pH ______ Temp ______
Cooler Temperature: 4.7°C
TAT: RUSH ______ NORMAL

Report to: Scranton Sewer Authority
312-314 Adams Ave.
Scranton, Pa. 18503
Contact: Jay Nardone
Phone: Fax:
Bill to:
Email Address:

DW - Drinking Water **WW** - Waste Water
GW - Ground Water **SO** - Soil
SW - Surface Water **SL** - Sludge
NPW - Non-Potable Water **SD** - Solid

P - Plastic **CG** - Glass **AG** - Amber Glass **O** - Other **PO #**

PROJECT:

Invoice #

ANALYSIS TO BE PERFORMED

Location Sample Description	Date Sampled	Time Sampled	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	NO_3-N, NO_2-N	Cl^-, MBAS, [illegible]	NH_3-N TKN	Total P Org N	Total N	As Cd Cr Mo	Cu Pb Hg	Ni Ag Zn	O&G / TPH	Total Cyanide	Toluene/[illegible]/Chloroform	Quantum ID
Influent	6/10/14 - 6/11/14	0800 - 0800	WW	1 500 mL	P	C	X	X										018-061114
	↓	↓		1 500 mL	H_2SO_4 P	C			X	X	X							019-
	↓	↓		1 500 mL	HNO_3 P	C						X	X	X				020-
	6/11/14	0800		2 1L	H_2SO_4 G	G									X			021-
	↓	↓		1 500 mL	NaOH P	G										X		022-
	↓	↓		3 40 mL	HCl G	G											X	023- ↓

Comments: 019-061114 - Leak at top of bottle

Intact Containers Y (N) Within Holding Times (Y) N
COC Complete (Y) N Labels Match COC (Y) N
Properly Preserved (Y) N Rec'd on Ice (Y) N

Sampler: [illegible signature] Shipped (Hand Delivered)
Relinquished By: [illegible signature] Date: 6/11/14 Time: 12:15 Received By: [illegible signature] Date: 6/11/14 Time: 1215
Relinquished By: Date: Time: Received In Lab By: [illegible signature] Date: 6/11/14 Time: 1315

2014
Second Quarter Effluent Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

July 17, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled: 10/11-Jun-14
Time Sampled: 24 Hour Composite I 8:00 - 8:00
Sampled By: BV/SSA
Date Received: 11-Jun-14
Time Received: 13:15
Received By: KK
Sample Matrix: Waste Water

EFFLUENT/ SECOND QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst
ARSENIC	0.0068	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
CADMIUM	< 0.00010	0.00010	mg/L	EPA 6020	18-Jun-14		68-00547
CHROMIUM, Total	0.0043	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
CHROMIUM, Hexavalent	< 0.025	0.025	mg/L	SM_{20} 3500-Cr B	11-Jun-14	15:30	03470-02
COPPER	0.0134	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
LEAD	< 0.0010	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
MERCURY	< 0.0002	0.0002	mg/L	EPA 245.1	25-Jun-14		03470-02
MOLYBDENUM	0.0012	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
NICKEL	0.0076	0.0010	mg/L	EPA 6020	18-Jun-14		68-00547
SILVER	< 0.00010	0.00010	mg/L	EPA 6020	18-Jun-14		68-00547
ZINC	0.0567	0.0050	mg/L	EPA 6020	18-Jun-14		68-00547
TOLUENE *	< 0.005	0.005	mg/L	EPA 8260B	17-Jun-14		03470-01
XYLENES, Total *	< 0.015	0.015	mg/L	EPA 8260B	17-Jun-14		03470-01
CHLOROFORM *	< 0.005	0.005	mg/L	EPA 8260B	17-Jun-14		03470-01
Surrogates							
Dibromofluoromethane (S)	112	70-130	%	EPA 8260B	17-Jun-14		03470-01
1,2-Dichloroethane-d4 (S)	129	70-130	%	EPA 8260B	17-Jun-14		03470-01
Toluene-d8 (S)	98	70-130	%	EPA 8260B	17-Jun-14		03470-01
4-Bromofluorobenzene (S)	120	70-130	%	EPA 8260B	17-Jun-14		03470-01

* Grab Sample 11-Jun.-14 Time 8:00

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

July 17, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled:	10/11-Jun-14
Time Sampled:	24 Hour Composite I 8:00 - 8:00
Sampled By:	BV/SSA
Date Received:	11-Jun-14
Time Received:	13:15
Received By:	KK
Sample Matrix:	Waste Water

EFFLUENT/ SECOND QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst	
NITRATE as N	15.2	2.00	mg/L	SM_{20} 4500 NO_3 D	12-Jun-14	7:45	03470-02	
NITRITE as N	0.188	0.020	mg/L	SM_{20} 4500 NO_2 B	12-Jun-14	7:00	03470-02	
TKN	< 1.00	1.00	mg/L	SM_{20} 4500-NH_3D	13-Jun-14		03470-02	X1
AMMONIA as N	< 1.00	1.00	mg/L	SM_{20} 4500 NH_3 D	13-Jun-14		03470-02	
ORGANIC NITROGEN	< 1.00	1.00	mg/L	n/a	13-Jun-14		03470-02	
TOTAL NITROGEN	15.4	2.00	mg/L	n/a	13-Jun-14		03470-02	
PHOSPHOROUS, Total	2.40	0.10	mg/L	SM_{20} 4500 P B.5E	17-Jun-14		03470-02	
MBAS	0.080	0.040	mg/L	SM_{20} 5540 C	11-Jun-14	14:30	03470-02	
COLOR, True	45	10	units	SM_{20} 2120 B	11-Jun-14	13:30	03470-02	
OIL and GREASE, Total *	< 5.2	5.2	mg/L	EPA 1664A	20-Jun-14		03470-01	
NPM (TPH) *	< 5.2	5.2	mg/L	EPA 1664A	20-Jun-14		03470-01	
CYANIDE, Total *	< 0.010	0.010	mg/L	SM 4500-CN-E	19-Jun-14		65-00282	

X1 TKN Prep SM_{20} 4500 N_{org}C/SM_{20} 4500 NH_3B
* Grab Sample 11-Jun-14 Time 8:00

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise Street
Dickson City, PA 18519-1693
Phone: (570) 489-6964

PA DEP 35-03470 info@quantumlabs.net Fax: (570) 489-6965

Special Requirements

PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43
Other ________
pH ______ Temp ______
Cooler Temperature: 5.2°C
TAT: RUSH ______ NORMAL

Report to: Scranton Sewer Authority
312-314 Adams Ave.
Scranton, Pa. 18503
Contact: Jay Nardone
Phone: Fax:
Bill to:
Email Address:

DW - Drinking Water WW - Waste Water
GW - Ground Water SO - Soil
SW - Surface Water SL - Sludge
NPW - Non-Potable Water SD - Solid

P - Plastic CG - Glass AG - Amber Glass O - Other PO #

PROJECT:

Invoice #

Location Sample Description	Date Sampled	Time Sampled	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	NO_3-N, NO_2-N	Cl^-, MBAS Color	NH_3-N TKN	Total P Org. N	Total N	As Cd Cr Mo	Cr Pb Hg	Ni Ag Zn	O&G / TPH	Total Cyanide	Toluene/Xylene/Chloroform	Quantum ID
Final Effluent	6/10/14 – 6/11/14	0800 – 0800	WW	1 500 mL	P	C	X	X										012-061114
	↓	↓	↓	1 500 mL	H_2SO_4 P	C			X	X	X							013-
	↓	↓	↓	1 500 mL	HNO_3 P	C						X	X	X				014-
	6/11/14	0800	↓	2 1L	H_2SO_4 G	G									X			015-
	↓	↓	↓	1 500 mL	NaOH P	G										X		016-
	↓	↓	↓	3 40 mL	HCl G	G											X	017-

Comments:

Sampler: [illegible signature]
Relinquished By: [illegible signature] Date: 6/11/14 Time: 1215
Relinquished By: Date: Time:

Shipped ______ / Hand Delivered (circled)

Received By: Kyle Kovalchick Date: 6/11/14 Time: 1215
Received In Lab By: Kyle Kovalchick Date: 6/11/14 Time: 1315

Intact Containers	(Y)	N	Within Holding Times	(Y)	N
COC Complete	(Y)	N	Labels Match COC	(Y)	N
Properly Preserved	(Y)	N	Rec'd on Ice	(Y)	N

2014
Second Quarter Sludge Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

July 21, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Date Sampled: 11-Jun-14
Time Sampled: 8:00
Sampled By: BV/SSA
Date Received: 11-Jun-14
Time Received: 13:15
Received By: KK
Sample Matrix: Sludge

SLUDGE / SECOND QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Analyst	
ARSENIC	< 3.70	3.70	mg/kg	EPA 200.7	18-Jul-14	03470-01	L2
CADMIUM	< 1.85	1.85	mg/kg	EPA 200.7	18-Jul-14	03470-01	L2
CHROMIUM, Total	6.94	1.85	mg/kg	EPA 200.7	18-Jul-14	03470-01	L2
COPPER	49.1	1.85	mg/kg	EPA 200.7	18-Jul-14	03470-01	L2
HEXAVALENT CHROMIUM	< 0.98	0.98	mg/kg	EPA 7196A	20-Jun-14	65-00282	L2
LEAD	14.9	3.70	mg/kg	EPA 200.7	18-Jul-14	03470-01	L2
MERCURY	0.12	0.094	mg/kg	EPA 7471A	21-Jul-14	65-00282	L2
NICKEL	4.32	3.70	mg/kg	EPA 200.7	18-Jul-14	03470-01	L2
SILVER	1.91	1.85	mg/kg	EPA 200.7	18-Jul-14	03470-01	L2
ZINC	133	3.70	mg/kg	EPA 200.7	18-Jul-14	03470-01	L2
TOTAL SOLIDS	26.3	0.01	%	SM_{20} 2540G	12-Jun-14	03470-06	
PERCENT MOISTURE	73.7	0.01	%	SM_{20} 2540G	12-Jun-14	03470-06	
CYANIDE, Total	1.7	0.60	mg/kg	SM 4500-CN-E	21-Jun-14	65-00282	L2
TOLUENE	1.170	0.268	mg/kg	EPA 8260B	25-Jun-14	65-00282	L2
Surrogates							
Toluene-d8 (S)	89	81-117	%	EPA 8260B	25-Jun-14	65-00282	
4-Bromofluorobenzene (S)	96	74-121	%	EPA 8260B	25-Jun-14	65-00282	
1,2-Dichloroethane-d4 (S)	104	80-120	%	EPA 8260B	25-Jun-14	65-00282	

L2 Results reported on a "wet-weight" basis.

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

Page 1 of 1

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
624 Enterprise Street
Dickson City, PA 18519-1533
Phone: (570) 489-6964

PA DEP 35-03470 info@quantumlabs.net **Fax: (570) 489-6965**

Report to: Scranton Sewer Authority
312-314 Adams Ave.
Scranton Pa 18503
Contact: Jay Mardone
Phone: Fax:
Bill to:
Email Address:

Special Requirements
PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43
Other
pH Temp
Cooler Temperature: 9.6 °C
TAT: RUSH NORMAL

PROJECT:

DW - Drinking Water **WW** - Waste Water
GW - Ground Water **SO** - Soil
SW - Surface Water **SL** - Sludge
NPW - Non-Potable Water **SD** - Solid

P - Plastic **CG** - Glass **AG** - Amber Glass **O** - Other

PO #

Invoice #

Location / Sample Description	Date Sampled	Time Sampled	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	ANALYSIS TO BE PERFORMED: As Cd Cr	Cu Pb Hg	Ni Ag Zn	Total Cyanide	Cr6	Toluene	Quantum ID
Sludge	6/11/14	0800	SL	2 16oz	G	G	X	X	X	X	X	X	024-06114

Comments:

Intact Containers: (Y) N Within Holding Times: (Y) N
COC Complete: (Y) N Labels Match COC: (Y) N
Properly Preserved: (Y) N Rec'd on Ice: (Y) N

Sampler:
Relinquished By: Date: 6/11/14 Time: 12:15
Relinquished By: Date: Time:

Shipped / Hand Delivered

Received By: Date: 6/11/14 Time: 1215
Received In Lab By: Date: 6/11/14 Time: 1315

2014
Third Quarter Influent Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

October 24, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix:	Waste Water
Date Sampled:	25/26-Sep-14
Time Sampled:	24 Hour Composite 8:30 - 8:30
Sampled By:	J. Burton/SSA
Date Received:	26-Sep-14
Time Received:	12:40
Received By:	WEB

INFLUENT/ THIRD QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst
ARSENIC	**0.0084**	0.0015	mg/L	EPA 200.8	02-Oct-14		22-293
CADMIUM	**0.0044**	0.00050	mg/L	EPA 200.8	02-Oct-14		22-293
CHROMIUM, Total	**0.0075**	0.0010	mg/L	EPA 200.8	02-Oct-14		22-293
CHROMIUM, Hexavalent	**< 0.025**	0.025	mg/L	SM_{20} 3500-Cr B	26-Sep-14	15:00	03470-02
COPPER	**0.039**	0.0025	mg/L	EPA 200.8	02-Oct-14		22-293
LEAD	**0.0070**	0.0010	mg/L	EPA 200.8	02-Oct-14		22-293
MERCURY	**< 0.0002**	0.0002	mg/L	EPA 245.1	17-Oct-14		03470-02
MOLYBDENUM	**0.0019**	0.0010	mg/L	EPA 200.8	02-Oct-14		22-293
NICKEL	**0.0078**	0.0025	mg/L	EPA 200.8	02-Oct-14		22-293
SILVER	**< 0.0010**	0.0010	mg/L	EPA 200.8	02-Oct-14		22-293
ZINC	**0.11**	0.0025	mg/L	EPA 200.8	02-Oct-14		22-293
TOLUENE *	**< 0.005**	0.005	mg/L	EPA 8260B	10-Oct-14		03470-01
XYLENES, Total *	**< 0.015**	0.015	mg/L	EPA 8260B	10-Oct-14		03470-01
CHLOROFORM *	**< 0.005**	0.005	mg/L	EPA 8260B	10-Oct-14		03470-01
Surrogates							
Dibromofluoromethane (S)	107	70-130	%	EPA 8260B	10-Oct-14		03470-01
1,2-Dichloroethane-d4 (S)	85	70-130	%	EPA 8260B	10-Oct-14		03470-01
Toluene-d8 (S)	102	70-130	%	EPA 8260B	10-Oct-14		03470-01
4-Bromofluorobenzene (S)	105	70-130	%	EPA 8260B	10-Oct-14		03470-01

* Grab Sample 26-Sep-14 Time 8:30

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

October 24, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix:	Waste Water
Date Sampled:	25/26-Sep-14
Time Sampled:	24 Hour Composite 8:30 - 8:30
Sampled By:	J. Burton/SSA
Date Received:	26-Sep-14
Time Received:	12:40
Received By:	WEB

INFLUENT/ THIRD QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst	
NITRATE as N	< 1.00	1.00	mg/L	SM_{20} 4500 NO_3 D	26-Sep-14	13:45	03470-02	
NITRITE as N	< 0.010	0.010	mg/L	SM_{20} 4500 NO_2 B	26-Sep-14	13:30	03470-02	
TKN	69.8	10.0	mg/L	SM_{20} 4500-NH_3D	07-Oct-14		03470-02	X1
AMMONIA as N	45.4	10.0	mg/L	SM_{20} 4500 NH_3 D	10-Oct-14		03470-02	
ORGANIC NITROGEN	24.4	10.0	mg/L	n/a	10-Oct-14		03470-02	
TOTAL NITROGEN	69.8	10.0	mg/L	n/a	10-Oct-14		03470-02	
PHOSPHOROUS, Total	4.06	0.10	mg/L	SM_{20} 4500 P B.5E	02-Oct-14		03470-02	
MBAS	2.56	0.100	mg/L	SM_{20} 5540 C	26-Sep-14	14:15	03470-02	
COLOR, True	140	1	units	SM_{20} 2120 B	26-Sep-14	14:00	03470-02	
OIL and GREASE, Total *	8.7	6.8	mg/L	EPA 1664A	20-Oct-14		03470-01	
NPM (TPH) *	< 6.8	6.8	mg/L	EPA 1664A	20-Oct-14		03470-01	
CYANIDE, Total *	< 0.0050	0.0050	mg/L	EPA 335.4	06-Oct-14		22-293	

X1 TKN Prep SM_{20} 4500 N_{org}C/SM_{20} 4500 NH_3B
* Grab Sample 26-Sep-14 Time 8:30

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise St
Dickson City, PA 18519-1593
Phone: (570) 489-6964 Fax: (570) 489-6965

PAGE 1 OF 1

PA DEP 35-03470 info@quantumlabs.net

Special Requirements
PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other _____
pH _____ Temp _____
Cooler Temperature: 9.9°C
TAT: RUSH _____ NORMAL

PROJECT: 3rd Quarter 2014

Report To: Scranton Sewer Authority
312-314 Adams Ave
Scranton PA 18503
Contact: Jay Nardone
Phone: Fax:
Bill To:
Email Address:

DW - Drinking Water WW - Waste Water
GW - Ground Water SL - Sludge
SW - Surface Water SO - Soil
NPW - Non-Potable HZ - Hazardous

P - Plastic CG - Glass AG - Amber Glass O - Other

PO #
Invoice #

Location / Sample Description	Composite Sample Start Date	Composite Sample Start Time	Composite Sample End/Grab Date	Composite Sample End/Grab Time	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	ANALYSIS TO BE PERFORMED	Quantum ID
Influent	9/25/14	8:30	9/26/14	8:30	WW	1 500 ml	P	C	X X	006 - 09/26/14
						1 500 ml	H_2SO_4	C	X X X	007 -
	9/25/14	8:30	9/26/14	8:30		2 1 Liter	HNO_3 P3	C	X X	008 -
Inf Grab			9/26/14	8:30		500 ml	H_2SO_4 AG	G	X	009 -
Inf Grab			9/26/14	8:30		1500 ml	NaOH P	G	X	010 -
Inf Grab	9/25/14	8:30	9/26/14	8:30	✓	3 40 ml	HCl CG	G	X	011 - ↓

Comments: [redacted]

Intact Containers Y N Within Holding Times Y N
COC Complete Y N Labels Match COC Y N
Properly Preserved Y N Rec'd on Ice Y N

Sampler/Affl: Jim Barber PRINT / SSA Shipped _____ Hand Delivered

Relinquished By: [signature] Date: 9/26/14 Time: 12:10 Received By: [signature] Date: 9/26/14 Time: 1205

Relinquished By: Date: Time: Received in Lab By: [signature] Date: 9/26/14 Time: 1240

2014
Third Quarter Effluent Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

October 24, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix:	Waste Water
Date Sampled:	25/26-Sep-14
Time Sampled:	24 Hour Composite 8:00 - 8:00
Sampled By:	J. Burton/SSA
Date Received:	26-Sep-14
Time Received:	12:40
Received By:	WEB

EFFLUENT/ THIRD QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst
ARSENIC	0.0071	0.0015	mg/L	EPA 200.8	02-Oct-14		22-293
CADMIUM	0.0012	0.00050	mg/L	EPA 200.8	02-Oct-14		22-293
CHROMIUM, Total	0.0041	0.0010	mg/L	EPA 200.8	02-Oct-14		22-293
CHROMIUM, Hexavalent	< 0.025	0.025	mg/L	SM_{20} 3500-Cr B	26-Sep-14	15:00	03470-02
COPPER	0.011	0.0025	mg/L	EPA 200.8	02-Oct-14		22-293
LEAD	< 0.0010	0.0010	mg/L	EPA 200.8	02-Oct-14		22-293
MERCURY	< 0.0002	0.0002	mg/L	EPA 245.1	17-Oct-14		03470-02
MOLYBDENUM	< 0.0010	0.0010	mg/L	EPA 200.8	02-Oct-14		22-293
NICKEL	0.0056	0.0025	mg/L	EPA 200.8	02-Oct-14		22-293
SILVER	< 0.0010	0.0010	mg/L	EPA 200.8	02-Oct-14		22-293
ZINC	0.080	0.0025	mg/L	EPA 200.8	02-Oct-14		22-293
TOLUENE *	< 0.005	0.005	mg/L	EPA 8260B	10-Oct-14		03470-01
XYLENES, Total *	< 0.015	0.015	mg/L	EPA 8260B	10-Oct-14		03470-01
CHLOROFORM *	< 0.005	0.005	mg/L	EPA 8260B	10-Oct-14		03470-01
Surrogates							
Dibromofluoromethane (S)	109	70-130	%	EPA 8260B	10-Oct-14		03470-01
1,2-Dichloroethane-d4 (S)	88	70-130	%	EPA 8260B	10-Oct-14		03470-01
Toluene-d8 (S)	102	70-130	%	EPA 8260B	10-Oct-14		03470-01
4-Bromofluorobenzene (S)	100	70-130	%	EPA 8260B	10-Oct-14		03470-01

* Grab Sample 26-Sep-14 Time 8:15

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

October 24, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix:	Waste Water
Date Sampled:	25/26-Sep-14
Time Sampled:	24 Hour Composite 8:00 - 8:00
Sampled By:	J. Burton/SSA
Date Received:	26-Sep-14
Time Received:	12:40
Received By:	WEB

EFFLUENT/ THIRD QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Time	Analyst	
NITRATE as N	4.10	1.00	mg/L	SM_{20} 4500 NO_3 D	26-Sep-14	13:45	03470-02	
NITRITE as N	0.018	0.010	mg/L	SM_{20} 4500 NO_2 B	26-Sep-14	13:30	03470-02	
TKN	< 1.00	1.00	mg/L	SM_{20} 4500-NH_3D	07-Oct-14		03470-02	X1
AMMONIA as N	< 1.00	1.00	mg/L	SM_{20} 4500 NH_3 D	10-Oct-14		03470-02	
ORGANIC NITROGEN	< 1.00	1.00	mg/L	n/a	10-Oct-14		03470-02	
TOTAL NITROGEN	4.28	1.00	mg/L	n/a	10-Oct-14		03470-02	
PHOSPHOROUS, Total	2.53	0.10	mg/L	SM_{20} 4500 P B.5E	02-Oct-14		03470-02	
MBAS	0.090	0.040	mg/L	SM_{20} 5540 C	26-Sep-14	14:15	03470-02	
COLOR, True	90	1	units	SM_{20} 2120 B	26-Sep-14	14:00	03470-02	
OIL and GREASE, Total *	< 5.5	5.5	mg/L	EPA 1664A	20-Oct-14		03470-01	
NPM (TPH) *	< 5.5	5.5	mg/L	EPA 1664A	20-Oct-14		03470-01	
CYANIDE, Total *	< 0.0050	0.0050	mg/L	EPA 335.4	06-Oct-14		22-293	

X1 TKN Prep SM_{20} 4500 N_{org}C/SM_{20} 4500 NH_3B
* Grab Sample 26-Sep-14 Time 8:15

Joe R. Mussari III
Laboratory Director

824 Enterprise Street Dickson City, PA 18519
phone: 570.489.6964 fax: 570.489.6965
www.QUANTUMLABS.net
PA DEP Accreditation 35-03470

CHAIN OF CUSTODY

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise St
Dickson City, PA 18519-1593
Phone: (570) 489-6964 Fax: (570) 489-6965

PAGE 1 OF 1

PA DEP 35-03470 info@quantumlabs.net

Special Requirements
PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other _____
pH _____ Temp _____
Cooler Temperature: 9.8°C
TAT: RUSH _____ NORMAL

PROJECT: 3rd Quarter 2014

Report To: Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503
Contact: Jay Nardone
Phone: Fax:
Bill To:
Email Address:

DW - Drinking Water WW - Waste Water
GW - Ground Water SL - Sludge
SW - Surface Water SO - Soil
NPW - Non-Potable HZ - Hazardous

Water P - Plastic CG - Glass AG - Amber Glass O - Other

PO #
Invoice #

Location / Sample Description	Composite Sample Start Date	Composite Sample Start Time	Composite Sample End/Grab Date	Composite Sample End/Grab Time	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	ANALYSIS TO BE PERFORMED	Quantum ID
Final Effluent	9/25/14	800	9/26/14	800	WW	1 500 ml	P	C	X NH3-N, NO3-N X Cl, MBAS, Color	012-092614
/	/	/	/	/		1 500 ml	H_2SO_4	C	X NH3-N; TKN X Total PO4-P X Total N	013-
Final Effluent	9/25/14	800	9/26/14	800		1 500 ml	HNO_3 P	C	X As, Cd, Cr X Cu, Pb, Hg, Mo X Ni, Ag, Zn	014-
Final Effluent			9/26/14	815		2 1L	H_2SO_4 AG	G	625 - TPH	015-
/			9/26/14	815		1 500 ml	NaOH P	G	Total CN	016-
Final Effluent			9/26/14	815	↓	3 40 ml	HCl CG	G	Toluene, Xylenes, Chlorobenzene	017- ↓

Comments: [redacted]

Intact Containers Y N Within Holding Times Y N
COC Complete Y N Labels Match COC Y N
Properly Preserved Y N Rec'd on Ice Y N

Sampler/Affl: Tim Burton PRINT / Sign Shipped _____ / Hand Delivered

Relinquished By: [signature] Date: 9/26/14 Time: 12:10
Received By: [signature] Date: 9/26/14 Time: 1205

Relinquished By: Date: Time:
Received in Lab By: [signature] Date: 9/26/14 Time: 1240

2014
Third Quarter Sludge Data

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

October 27, 2014

ANALYTICAL REPORT

Jay Nardone
Scranton Sewer Authority
312-314 Adams Ave
Scranton, PA 18503

Sample Matrix: Sludge
Date Sampled: 26-Sep-14
Time Sampled: 9:30
Sampled By: J. Burton/SSA
Date Received: 26-Sep-14
Time Received: 12:40
Received By: WEB

SLUDGE / THIRD QUARTER 2014

Parameter	RESULT	PQL	Units	Method	Analyzed	Analyst
ARSENIC	< 2.97	2.97	mg/kg	EPA 200.7	27-Oct-14	03470-01
CADMIUM	< 1.48	1.48	mg/kg	EPA 200.7	27-Oct-14	03470-01
CHROMIUM, Total	5.77	1.48	mg/kg	EPA 200.7	27-Oct-14	03470-01
COPPER	41.6	1.48	mg/kg	EPA 200.7	27-Oct-14	03470-01
HEXAVALENT CHROMIUM	< 0.99	0.99	mg/kg	EPA 7196A	10-Oct-14	65-00282
LEAD	13.6	2.97	mg/kg	EPA 200.7	27-Oct-14	03470-01
MERCURY	< 0.10	0.10	mg/kg	EPA 7471A	03-Oct-14	65-00282
NICKEL	2.90	1.48	mg/kg	EPA 200.7	27-Oct-14	03470-01
SILVER	2.13	1.48	mg/kg	EPA 200.7	27-Oct-14	03470-01
ZINC	105	5.93	mg/kg	EPA 200.7	27-Oct-14	03470-01
TOTAL SOLIDS	30.6	0.01	%	SM_{20} 2540G	30-Sep-14	03470-06
PERCENT MOISTURE	69.4	0.01	%	SM_{20} 2540G	30-Sep-14	03470-06
CYANIDE, Total	< 0.87	0.87	mg/kg	EPA 9014	07-Oct-14	65-00282
TOLUENE	0.627	0.418	mg/kg	EPA 8260B	14-Oct-14	65-00282
Surrogates						
Toluene-d8 (S)	107	81-117	%	EPA 8260B	14-Oct-14	65-00282
4-Bromofluorobenzene (S)	101	74-121	%	EPA 8260B	14-Oct-14	65-00282
1,2-Dichloroethane-d4 (S)	98	80-120	%	EPA 8260B	14-Oct-14	65-00282

Results reported on a "wet-weight" basis.

Joe R. Mussari III
Laboratory Director

CHAIN OF CUSTODY

QUANTUMLABS
Analytical & Environmental Laboratories, Inc.

Dickson City Industrial Park
824 Enterprise St
Dickson City, PA 18519-1503
Phone: (570) 489-6964 Fax: (570) 489-6965

PA DEP 35-03470 info@quantumlabs.net

Special Requirements
PA DEP ASTM TCLP
RCRA UST FORM U
FORM 43

Other _____
pH _____ Temp _____
Cooler Temperature: 14.3°C
TAT: RUSH _____ NORMAL

Report To: Scranton Sewer Authority
312-314 Adams Ave.
Scranton, PA. 18503
Contact: Jay Nardone
Phone: Fax:
Bill To:
Email Address:

DW - Drinking Water WW - Waste Water
GW - Ground Water SL - Sludge
SW - Surface Water SO - Soil
NPW - Non-Potable HZ - Hazardous

Water P - Plastic CG - Glass AG - Amber Glass O - Other

PROJECT: PO #

Location / Sample Description	Composite Sample Start Date	Composite Sample Start Time	Composite Sample End/Grab Date	Composite Sample End/Grab Time	Matrix	# of Cont / Size	PRSV / Cont Type	Grab / Composite	ANALYSIS TO BE PERFORMED: As, Cd, Cu	Cr, Pb, Hg	Ni, Ag, Zn	Total CN	Cr6	toluene	Invoice # / Quantum ID
Sludge			9/26/14	0930	SL	2 16oz	G	G	X	X	X	X	X	X	018-092614

Comments:

Intact Containers Y N Within Holding Times Y N
COC Complete Y N Labels Match COC Y N
Properly Preserved Y N Rec'd on Ice Y N

Sampler/Affl: J. Reese PRINT /
Shipped _____ / Hand Delivered

Relinquished By: [signature] Date: 9/26/14 Time: 12:10
Received By: [signature] Date: 9/26/14 Time: 1205

Relinquished By: Date: Time:
Received in Lab By: [signature] Date: 9/26/14 Time: 1240

Appendix 10

Solids Inventory Management

Solids Management Inventory 2014

Month	Plant Flow, MGD	Influent BOD, mg/L	Final Eff CBOD mg/L	WAS Daily avg Flow, MGD	Total Solids Landfilled, wet tons
Jan-14	13.348	109	4.8	0.417	1094.42
Feb-14	12.793	128	6.7	0.382	956.77
Mar-14	14.889	111	6.5	0.450	1233.41
Apr-14	16.454	99	7.5	0.321	1266.52
May-14	14.625	98	5.7	0.488	1252.13
Jun-14	12.518	134	6	0.588	1080.71
Jul-14	12.349	124	4.8	0.480	1120.68
Aug-14	11.678	116	4.8	0.589	929.25
Sep-14	10.813	161	4.6	0.441	1022.91
Oct-14	12.413	124	4.1	0.489	1177.31
Nov-14	10.31	142	4.6	0.289	736.95
Dec-14	11.835	114	5.7	0.530	1116.6