Attachment 2

Parts A and B with attachments for Washington Suburban Sanitary Commission (WSSC) SIUs discharging to Blue Plains

PART A
PRETREATMENT PERFORMANCE SUMMARY

I. General Information

Control Authority Name	*Washington Suburban Sanitary Commission*				
Address	*14501 Sweitzer Lane*				
City	*Laurel*	State	*MD*	Zip+4	*20707-5901*
Contact Person	*Philip Rindge*		Telephone No.	*301-206-8594*	
Contact Title	*Section Manager*		E-mail Address	*Philip.Rindge@wsscwater.com*	
NPDES No.	*DC 0021199*		Reporting Period	*01-01-19 to 12-31-19*	
Issuance Date	*07/26/18*		Expiration Date	*08/25/23*	
Total CIUs	*11(as of 12/31/2019)*		Total MTCIUs	*NA*	
Total SNIUs	*18*		Total NSCIUs	*NA*	

CIUs - Categorical Industrial Users
MTCIUs – Middle Tier Categorical Industrial Users
SNIUs - Significant Noncategorical Industrial Users
NSCIUs – Nonsignificant Categorical Industrial Users

II. Compliance Monitoring Program

1.	No. of SIUs with current Control Documents	29
2.	No. of SIU Facilities Inspected	29
3.	No. of SIU Facilities Sampled	29
4.	No. of SIUs Submitting Self-Monitoring Reports	29

III. Significant Industrial User Compliance

1.	No. of SIUs Violating a Compliance Schedule / No. on a Schedule	0/6
2.	No. of SIUs in SNC for the July to December Period	1
3.	No. of SIUs in SNC At Any Time During the Calendar Year	2
4.	No. of SIUs in SNC Also in SNC During the Previous Calendar Year	0
5.	No. of NSCIUs that violated any standards or requirements	NA

IV. Enforcement Actions

1.	Notices/Letters of Violation Issued to SIUs	20
2.	Enforceable Compliance Schedules Issued to SIUs	24
3.	Civil/Criminal Suits Filed	0
4.	No. of SIUs from which Penalties have been Collected	1
5.	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 (see Part B.V of the instructions).

Philip Rindge	Industrial Discharge Control Section Manger
Name of Authorized Representative (Print)	Title (Print)
Philip Rindge	3/12/2020
Signature of Authorized Representative	Date

PART B
PRETREATMENT DEVELOPMENTS

I. Summary of Trucked Wastes

There are two waste hauler disposal sites located within the Washington Suburban Sanitary Commission (WSSC Water) that discharge to Blue Plains Advanced Wastewater Treatment Plant (AWTP): Muddy Branch Disposal Site located in Montgomery County, MD and Tanglewood Disposal Site located in Prince George's County, MD. Of these two sites, only the Muddy Branch Disposal Site has been designated to accept fats, oil and grease (FOG) wastewaters. WSSC Water continues to use the surveillance cameras at each site and the cameras are in operation twenty-four hours per day. WSSC Water Investigators are able to connect to the cameras while at their desk to monitor the sites and download surveillance images. WSSC Water will issue enforcement actions as outlined in WSSC Water's enforcement response plan to violators of WSSC Water's waste hauler permit conditions. In addition, WSSC Water will notify the waste hauler community by email, when there are urgent matters such as the shutdown of a disposal site.

WSSC Water continues to implement a manifest program (first implemented in 2013) to quantify the amount of septage and grease that haulers discharge at its sites. In addition, WSSC Water prohibits the discharge of septage and grease from counties located outside of the Blue Plains service area. The manifest program assists WSSC Water in determining whether the hauled waste was generated within the Blue Plains service area as well as determining the volumes discharged.

Table 1 (below) outlines the summary for the number of septage and FOG waste events and total volumes discharged in 2019.

Table 1: 2019 Summary of Hauled Waste Discharged to DC Water

	Septage Waste		**FOG Waste**	
	Number of Events	***Volume (gallons/year)***	***Number of Events***	***Volume (gallons/year)***
Muddy Branch Disposal Site	2,162	2,980,290	6,312	8,019,643
Tanglewood Disposal Site	61	79,920	Not applicable	

On February 19, 2016, DC Water amended the IMA requirement for WSSC Water to conduct random sample collection of hauled waste at the Tanglewood disposal site. The amendment revised the requirement to conduct two random sample events to one random sample per year of a hauler at the disposal point. WSSC Water has made every effort to conduct a random sample of hauled waste at the site and also tried to schedule a sampling event with haulers. WSSC Water was only able to collect one hauled waste sample at the site because of the very limited disposal events at this location.

Table 2 (below) outlines the summary for all of the dates that IDC attempted to collect hauled waste samples at the Tanglewood Disposal Site in 2019.

Table 2: 2019 Summary for Sampling Attempts at Tanglewood

1st Quarter Dates Attempted	2nd Quarter Dates Attempted	3rd Quarter Dates Attempted	4th Quarter Dates Attempted
01/03/19		07/11/19	10/09/19
01/10/19		08/06/19	10/16/19
01/17/19*		08/12/19	10/28/19
		08/20/19	11/05/19
		08/26/19	11/19/19
		09/10/19	11/25/19
		09/12/19	12/11/19
		09/18/19	12/18/19

WSSC Water collected one random hauled waste sample at Tanglewood Disposal Site on January 17th. Although only one sample event is required per calendar year, IDC restarted the sampling attempts during the third quarter of 2019 in an attempt to collect a second sample. The number of hauled waste disposal events at the Tanglewood Disposal Site in 2015, 2016, 2017, and 2018, there were 211, 133, 28, and 81 disposal events, respectively. In 2019, the number of disposal events decreased to 61 and the total volume of hauled waste discharged also decreased, a total of 79,920 gallons was discharged.

WSSC Water collected two random hauled waste samples at Muddy Branch during 2019: March 28th and October 3rd.

As of December 31, 2019, WSSC Water permitted 51 waste hauler companies with 121 waste hauler vehicles. Of the 121 waste hauler vehicles permitted, 70 vehicles are zero dischargers (i.e. vehicles do not discharge at WSSC Water's waste disposal sites). Additionally, WSSC Water permitted 13 bus companies with 37 buses.

WSSC Water has put on hold its plan for new hauled waste disposal sites due to budgetary restrictions.

Oaks Sanitary Landfill, a significant industrial user (SIU), continues to truck its leachate for disposal to a designated manhole located at the Montgomery County's Shady Grove Processing Facility and Transfer Station located in Derwood, MD. This location discharges to the WSSC Water collection system, ultimately treated at the Blue Plains AWTP. WSSC Water regulates the landfill by a Discharge Authorization Permit, which contains requirements for monitoring, reporting, and pretreating their waste. The amount of wastewater discharged on a monthly basis varies based on seasonal changes. During 2019, there was a total of 5,787,849 gallons discharged over 190 days, the flow data is listed in Table 3 below. Oaks Sanitary Landfill's permit specifies that the facility cannot exceed a discharge of 80,000 gallons per day of hauled leachate or discharge above a rate of 200 gallons per minute.

Table 3

	Minimum	Average	Maximum
Daily Discharges	6,117	30,462	49,416
Monthly Discharges	105,009	482,321	1,043,913
Values are in gallons			

Ritchie Land Reclamation, LLC (Ritchie Land), an SIU, has been hauling its leachate to either the Muddy Branch or the Tanglewood disposal site since June 2016. WSSC Water obtained DC Water's approval to revise the facility's permit to authorize discharge at either the Muddy Branch or the Tanglewood disposal site in April 2016. WSSC Water issued the revised permit on June 2, 2016. Like Oaks Sanitary Landfill, Ritchie Land's discharge varies seasonally. During 2019, there was a total of 20,464,600 gallons discharged over 266 days, the flow data is listed in Table 4 below. Ritchie Land's permit specifies that the facility cannot exceed a discharge of 140,000 gallons per day of hauled waste.

Table 4

	Minimum	Average	Maximum
Daily Discharges	11,000	76,935	139,200
Monthly Discharges	654,800	1,705,383	2,819,000
Values are in gallons			

One nonsignificant industrial user, Dickerson Generating Station (NRG Energy, Inc.) continues to truck its sewerage sludge to the Muddy Branch disposal site. The Dickerson Generating Station operates a small wastewater treatment plant to treat the domestic wastewaters generated on site. DC Water has authorized Dickerson Generating Station to discharge the sewerage sludges from its wastewater treatment plant. Dickerson Generating Station is required to analyze and submit quarterly sludge results. In 2019, Dickerson Generating Station hauled a total of 2,500 gallons (June 2019) of sewerage sludge to the Muddy Branch disposal site.

II. Pretreatment Program Changes

The Industrial Discharge Control Section has experienced staff changes during 2019.

- September: I-Hsin McConnell the IDC Section Manger was promoted to Regulatory Services Division Manager.
- October: Tonya Penn-Huff retired and Joseph Bieberich resigned.
- December: Philip Rindge one of the IDC Industrial Investigations Supervisors was promoted to Section Manger.
- Since the beginning of 2020: Jeffrey Hillebrand resigned and Peter Holland an Industrial Investigator was promoted to Industrial Investigations Supervisor. Elizabeth Shearn, Marianna Eberle, Roberto Azevedo, and Brenden Hogan joined IDC as Industrial Investigators.

WSSC Water continues our efforts for ensuring compliance with the new Dental Office Point Source Category (40 CFR Part 441) for 2018. Based on the 2017 survey results, WSSC Water determined that our original list of dentists did not include all dental facilities within WSSC Water's service area. In addition, the original list includes dentists who receive their Maryland Dental License within WSSC Water's jurisdiction but might not have a dental practice within the service area. As such, in 2018, WSSC Water cross-referenced our original list with an internal WSSC Water local business list generated from our TOKAY System and the EPA Region 3 provided list of dentists subject to 40 CFR Part 441 generated from Reference USA. This effort resulted in a new master list of dental facilities, not just dentist names, located within WSSC Water's service area. MDE supplied Dental list was compared to the WSSC Water list and 69 facilities were added. In addition, as new facilities were identified through WSSC Water Plans Review or self-reporting, they were added to our list. WSSC Water also agreed to oversee the

Bowie and Poolesville service areas for the MDE. The following is a summary of WSSC Water's findings:

- 945 dental facilities within WSSC Water's service area
- 640 dental facilities provided responses as of 3/9/2020 (67.7%)
    - 327 of these facilities have certified that they are exempt from the rule
    - 35 of these facilities certified that they are not subject to the rule
    - 144 of these facilities will need a 2020 follow-up
    - 34 of these facilities will need a 2027 follow-up
    - 85 of these facilities indicated that they have installed the required
    - 15 of these facilities submitted incomplete surveys
- 305 dental facilities have provided no response to date.

WSSC Water plans to schedule site visits for the 305 facilities for which we did not receive a response, as well as the 15 that still have incomplete surveys, and the 144 that require 2020 follow-up (464 total).

III. Miscellaneous Developments

SIU Information

On April 1, 2019, DAP No. 00056 was inactivated for Venator Americas LLC located at 7011 Muirkirk Rd, Beltsville based on discontinued operations at the site.

On May 23, 2019, DAP No. 14027 was issued to United Therapeutics Corporation (DDOMAL) a new facility located at 1101 Spring Street, Silver Spring.

On July 16, 2019, DAP No. 08017 was inactivated for National Archives & Records Administration located at 8601 Adelphi Rd, College Park based on the facility on longer meeting the criteria of a significant industrial user, average laboratory process wastewater <100 gpd.

Other Miscellaneous Information

On February 27th and March 6th, 2019, WSSC Water's IDC staff conducted SIU Training Sessions for our permitted users. The training session provided an overview of WSSC Water's pretreatment program requirements and how that translates to each user's permit requirements. Topics discussed during the training sessions included:

- Preparing for a Facility Inspection
- Preparing and Reporting pH Data
- Discharge Authorization Permit renewals
- Significant Non-Compliance

On March 14, 2019, WSSC Water held our 11th Annual Pretreatment Recognition Award ceremony. WSSC Water's Pretreatment Recognition Award, revamped in 2018, recognizes all industries that have demonstrated consistent compliance under three levels of recognition (Bronze, Silver, and Gold). Winners for each level were recognized during the second annual awards luncheon held at the WSSC Water Headquarters Building.

Additionally, the IDC Section publishes an annual Pretreatment Bulletin to keep our SIU community informed of important topics. Topics included in this year's 2019 bulletin included:

- Pretreatment Recognition Award Luncheon and Award Winners
- WSSC Celebrates a Century of Service
- Local Limits Modified to Ensure High Quality Effluent
- Innovative Use of Biosolids Turns Poop to Power
- PFOS and PFOA – Emerging Pollutants of Concern
- Why Does a pH Meter Need to be Calibrated?

The IDC staff is Hazwoper certified and are required to take additional safety classes related to the hazards of their job.

WSSC Water follows the Office of National Drug Control Policy's guidelines for disposal of prescription drugs.

LIST OF ATTACHMENTS For PART A

Attachment A	List of Categorical Industrial Users and Applicable Categories
Attachment B	List of Non-Categorical Significant Industrial Users
Attachment C	List of Significant Industrial User Control Documents
Attachment D	Compliance Monitoring, Investigations, and Self-Monitoring Summary
Attachment E	List of Facilities Not Inspected or Sampled and Submitting less than the Required Number of Self-Monitoring Events
Attachment F	List of Significant Industrial Users in SNC
Attachment G	List of Significant Industrial Users on Formal Compliance Schedules
Attachment H	Copy of Newspaper Listing of Significant Industrial Users in SNC During the Calendar Year
Attachment I	List of Significant Industrial Users Issued Notices of Violation
Attachment J	List of Significant Industrial Users Issued Administrative Orders and Significant Industrial Users That Have Been Sued for Pretreatment Violations
Attachment K	List of Industrial Users Assessed Penalties
Attachment L	Description of All Actions Included in Administrative Orders and List of Significant Industrial Users That Had SNC Violations But Were Not Subject to Enforcement

BLUE PLAINS DISCHARGERS

CATEGORICAL INDUSTRIAL USERS

December 2019

INDUSTRY NAME & ADDRESS	CATEGORY	STANDARDS
Adelphi Laboratory Center[1] 2800 Powder Mill Road Adelphi, MD 20783	Metal Finishing Battery Manufacturing Semiconductor Manufacturing	PSNS 433.17; 40 CFR Part 461 (no discharge); PSNS 469.18; {As, Ag, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], Pb, PCB, Zn}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
ATK Space Systems, Inc. 11313 Frederick Avenue Beltsville, MD 20705	Metal Finishing	PSNS 433.17; {As, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], PCB}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
Eaton Corporation 11642 Old Baltimore Pike Beltsville, MD 20705	Metal Finishing	PSNS 433.17; {As, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], PCB}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
Emergent BioSolutions 9920 Medical Center Drive Rockville, MD 20850	Pharmaceutical Manufacturing	PSNS 439.47; {As, Ag, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], Pb, PCB, Zn}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
Human Genome Sciences, Inc. Large Scale Manufacturing 9911 Belward Campus Drive Rockville, MD 20850	Pharmaceutical Manufacturing	PSNS 439.17 CWF alternate limits; {As, Ag, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], Pb, PCB, Zn}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
Human Genome Sciences, Inc. Small Scale Manufacturing 9910 Belward Campus Drive Rockville, MD 20850	Pharmaceutical Manufacturing	PSNS 439.17 CWF alternate limits; {As, Ag, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], Pb, PCB, Zn}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
Maryland Metal Plating & Polishing 4110 Howard Avenue Kensington, MD 20895	Metal Finishing	PSNS 433.17; {As, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], PCB}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]

BLUE PLAINS DISCHARGERS

CATEGORICAL INDUSTRIAL USERS
December 2019

INDUSTRY NAME & ADDRESS	CATEGORY	STANDARDS
Mid-Atlantic Finishing, Inc. 4656 Addison Road Capitol Heights, MD 20743	Metal Finishing	PSNS 433.17; {As, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], PCB}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
United Therapeutics Corporation[1] 1040 Spring Street Silver Spring, MD 20910	Pharmaceutical Manufacturing	PSNS 439.47; PSNS 439.27 {As, Ag, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], Pb, PCB, Zn}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
United Therapeutics Corporation (DDOMAL)	Pharmaceutical Manufacturing	PSNS 439.27 {As, Ag, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], Pb, PCB, Zn}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]
University of Maryland/DOD Physical Sciences Laboratory 8050 Greenmeade Drive College Park, MD 20740	Electrical & Electronic Components – Semiconductor	PSNS 469.18; {As, Ag, Cd, CN, Cu, Hg, Mo, Ni, O&G[2], Pb, PCB, Zn}[3]; [FOG[4], pH, Tetrachloroethylene, Trichloroethylene, Temp][5]

1 Facility has categorical and non-categorical monitoring points
2 Oil & Grease (Nonpolar, Petroleum)
3 Blue Plains' Local Limits
4 Fats, Oils & Grease (Polar)
5 WSSC Water's Local Limits

BLUE PLAINS DISCHARGERS

CATEGORICAL DISCHARGE LIMITATIONS

40 CFR 433.17 PSNS

POLLUTANT	DAILY MAXIMUM mg/l	MONTHLY AVERAGE mg/l
Cadmium	0.11 (0.07)*	0.07
Chromium	2.77	1.71
Copper	3.38 (2.3)*	2.07
Lead	0.69	0.43
Nickel	3.98 (2.2)*	2.38
Silver	0.43	0.24
Zinc	2.61	1.48
Cyanide, T	1.20 (0.56)*	0.65
TTO	2.13	(N/A)

40 CFR 469.18 PSNS

POLLUTANT	DAILY MAXIMUM mg/l	30-CONSEC. DAY AVG. mg/l
TTO	1.37	(N/A)

* More stringent Blue Plains' local limits where applicable.

BLUE PLAINS DISCHARGERS

CATEGORICAL DISCHARGE LIMITATIONS (Continued)

40 CFR 439.17 PSNS

POLLUTANT	DAILY MAXIMUM mg/l	MONTHLY AVERAGE mg/l
Cyanide	33.5 (0.56)*	9.4
Acetone	20.7	8.2
4-Methyl-2-pentanone (MIBK)	20.7	8.2
Isobutyraldehyde	20.7	8.2
n-Amyl acetate	20.7	8.2
n-Butyl acetate	20.7	8.2
Ethyl acetate	20.7	8.2
Isopropyl acetate	20.7	8.2
o-Dichlorobenzene	20.7	8.2
Tetrahydrofuran	9.2	3.4
Benzene	3.0	0.7
Chlorobenzene	3.0	0.7
Toluene	0.3	0.1
Xylenes	3.0	0.7
n-Hexane	3.0	0.7
n-Heptane	3.0	0.7
Methylene chloride	3.0	0.7
Chloroform†	0.1	0.03
1,2-Dichloroethane	20.7	8.2
Diethyl amine	255	100
Triethylamine	255	100
Ammonia, nitrogen	84.1	29.4
Methyl formate	20.7	8.2
Isopropyl ether	20.7	8.2

40 CFR 439.27 PSNS and 439.47 PSNS

POLLUTANT	DAILY MAXIMUM mg/l	MONTHLY AVERAGE mg/l
Acetone	20.7	8.2
n-Amyl Acetate	20.7	8.2
Ethyl acetate	20.7	8.2
Isopropyl acetate	20.7	8.2
Methylene chloride	3.0	0.7

* More stringent Blue Plains' local limits where applicable.

BLUE PLAINS DISCHARGERS

NON-CATEGORICAL SIGNIFICANT INDUSTRIAL USERS
December 2019

INDUSTRY NAME & ADDRESS	CATEGORY	STANDARDS
Coca-Cola Bottling Company Consolidated 1710 Elton Road Silver Spring, MD 20903	Bottling Company	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
District Photo, Inc. 10619 Baltimore Avenue Beltsville, MD 20705	Photoprocessor	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
Fort Detrick-Forest Glen Annex 9100 Brookville Road Silver Spring, MD 20910	Federal Facility	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
GlaxoSmithKline LLC 14200 Shady Grove Road Rockville, MD 20850	Pharmaceutical Research and Development	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
Marva Maid of Landover 6300 Sheriff Road Landover, MD 20785	Dairy	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
MedImmune, Inc. 1 MedImmune Way Gaithersburg, MD 20878	Pharmaceutical Research and Development	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
National Archives and Records Administration[5] 8601 Adelphi Road College Park, MD 20740	Federal Facility	{As, Cd, Hg, Mo, Ni, Zn, CN, O&G[1], PCB}[2]; [Ag, Cr, Cu, Pb, pH, TTO][4]
National Institute of Standards and Technology 00 Muddy Branch Road Gaithersburg, MD 20899	Federal Facility	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]

BLUE PLAINS DISCHARGERS

NON-CATEGORICAL SIGNIFICANT INDUSTRIAL USERS
December 2019

INDUSTRY NAME & ADDRESS	CATEGORY	STANDARDS
National Institutes of Health 9000 Rockville Pike Bethesda, MD 20892	Federal Facility	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
National Institutes of Health – 5625 Fishers Lane 5625 Fishers Lane Rockville, MD 20852	Federal Facility	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
Naval Support Activity Bethesda 8901 Wisconsin Avenue Bethesda, MD 20889	Federal Facility	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
Nixon Uniform Service, Inc. 11860 Old Baltimore Pike Beltsville, MD 20705	Industrial Laundry	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
Oaks Sanitary Landfill 6001 Olney-Laytonsville Road Laytonville, MD 20706	Sanitary Landfill	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp, TSS][4]
Pepsi Beverages Company 2611 Pepsi Place Cheverly, MD 20781	Bottling Company	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
Ritchie Land Reclamation, LLC 2001 Ritchie Marlboro Road Upper Marlboro, MD 20774	Solid Waste Landfill	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
UniFirst Corporation 6201 Sheriff Road Landover, MD 20785	Industrial Laundry	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]

BLUE PLAINS DISCHARGERS

NON-CATEGORICAL SIGNIFICANT INDUSTRIAL USERS
December 2019

INDUSTRY NAME & ADDRESS	CATEGORY	STANDARDS
Venator Americas LLC.[6] 7011 Muirkirk Road Beltsville, MD 20705	Pigment Production	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
Washington Metropolitan Area Transit Authority (Greenbelt) 5801 Sunnyside Avenue Beltsville, MD 20705	Rail Car Maintenance and Cleaning	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
Washington Metropolitan Area Transit Authority (Shady Grove) 15903 Somerville Dr. Rockville, MD 20855	Rail Car Maintenance and Cleaning	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]
WSSC Potomac Water Filtration Plant 12200 River Road Potomac, MD 20854	Water Filtration Plant	{Ag, As, Cd, Cu, Hg, Mo, Ni, Pb, Zn, CN, O&G[1], PCB}[2]; [FOG[3], pH, Tetrachloroethylene, Trichloroethylene, Temp][4]

1 Oil & Grease (Nonpolar Petroleum)
2 Blue Plains' local limits
3 Fats, Oils & Grease (Polar)
4 WSSC Water's local limits
5 Permit inactivated on July 7, 2019
6 Permit inactivated on April 1, 2019.

BLUE PLAINS DISCHARGERS

NONCATEGORICAL SIGNIFICANT INDUSTRIAL USERS
LOCAL DISCHARGE LIMITATIONS

POLLUTANT	LIMIT
Arsenic	0.23 mg/l*
Cadmium	0.07 mg/l*
Copper	2.3 mg/l*
Cyanide	0.56 mg/l*
Lead	1.0 mg/l*
Mercury	<0.001 mg/l*
Molybdenum	0.89 mg/l*
Nickel	2.2 mg/l*
Silver	1.3 mg/l*
Zinc	3.4 mg/l*
Polychlorinated Biphenyls	Non-detect[1]*
Tetrachloroethylene	0.0945 mg/l#
Trichloroethylene	0.026 mg/l#
Ammonia	Monitoring Only#
BOD (5-day, 20°c)	Monitoring Only#
Fats, Oil & Grease (Polar)	200 mg/l#
Oil & Grease (Nonpolar, Petroleum)	100 mg/l*
pH	6.0 - 10.0 standard units#
Dissolved Solids	Monitoring Only#
Suspended Solids	Monitoring Only#
Total Solids	N/A
Total Phosphorus	Monitoring Only#
Temperature	140° F#

*DC WATER Local Limits implemented for pollutants based on wastewater treatment plant performance in place of WSSC Local Limits
#WSSC Water Local Limit implemented for pollutants based on the collection system.

[1] Total PCBs shall be measured using EPA Method 608 with a detection limit of at least 0.001 mg/l.

BLUE PLAINS DISCHARGERS
SIGNIFICANT INDUSTRIAL USER CONTROL DOCUMENTS
2019

	Industrial User	Issuance Date	Effective Date	Expiration Date
1	Adelphi Laboratory Center	05/19/16	05/22/16	06/30/20
2	ATK Space Systems, Inc.	06/20/16	06/21/16	06/20/20
3	Coca-Cola Bottling Company Consolidated	06/06/16	06/06/16	06/05/20
4	District Photo, Inc.	06/09/16	06/13/16	06/12/20
5	Eaton Corporation	06/27/16	06/28/16	06/27/20
6	Emergent BioSolutions	10/03/16	10/03/16	10/02/20
7	Fort Detrick-Forest Glen Annex	09/22/16	09/22/16	09/21/20
8	GlaxoSmithKline LLC	01/09/17	01/10/17	01/09/21
9	Human Genome Sciences, Inc. Large Scale Manufacturing	03/29/19	4/1/19	3/31/23
10	Human Genome Sciences, Inc. Small Scale Manufacturing	10/20/16	10/22/16	10/21/20
11	Marva Maid of Landover	07/26/16	07/28/16	07/27/20
12	Maryland Metal Plating & Polishing, Inc.	06/09/16	06/12/16	06/11/20
13	MedImmune, Inc.	01/31/20	02/04/20	02/03/24
14	Mid-Atlantic Finishing, Inc.	05/22/16	05/22/16	05/21/20
15	National Institute of Standards and Technology	05/26/16	06/01/16	05/31/20
16	National Institutes of Health	06/02/16	06/06/16	06/05/20
17	National Institutes of Health – 5625 Fishers Lane	05/19/17	05/19/17	05/18/21
18	Naval Support Activity Bethesda	08/29/16	08/31/16	08/30/20
19	Nixon Uniform Service, Inc.	06/27/16	06/28/16	06/27/20
20	Oaks Sanitary Landfill	08/29/16	08/31/16	08/30/20
21	Pepsi Beverages Company	06/20/16	06/22/16	06/21/20
22	Ritchie Land Reclamation, LLC	02/06/17	02/08/17	02/07/21
23	UniFirst Corporation	05/26/16	05/30/16	05/29/20
24	United Therapeutics Corporation	09/13/19	09/30/19	09/29/23
25	United Therapeutics Corporation (DDOMAL)	05/23/19	05/23/19	05/23/23
26	University of MD/DOD, Physical Sciences Laboratory	06/23/16	06/27/16	06/26/20
27	Washington Metropolitan Area Transit Authority (Greenbelt)	08/28/19	09/04/19	09/03/23
28	Washington Metropolitan Area Transit Authority (Shady Grove)	03/23/18	03/23/18	03/22/22
29	WSSC Potomac Water Filtration Plant	09/08/16	10/05/16	10/04/20

WSSCWATER
DELIVERING THE ESSENTIAL

CATEGORICAL INDUSTRIAL USERS (CIU)
COMPLIANCE MONITORING, INVESTIGATIONS, AND SELF-MONITORING
SUMMARY FOR CY 2019

INDUSTRY NAME AND ADDRESS	ID #	NUMBER OF SAMPLING VISITS	NUMBER OF INSPECTION VISITS	NUMBER OF SELF-MONITORING EVENTS	NUMBER OF SELF-MONITORING EVENTS REQUIRED
Adelphi Laboratory Center 2800 Powder Mill Road Adelphi, MD 20783	00166	0-Outfall 001 3[2]-Outfall FAC	2	0[1] 8 3 add'l pH	4 8
ATK Space Systems, Inc. 11313 Frederick Avenue Beltsville, MD 20705	08027	2-Outfall 001 2-Outfall 002	1	8 8	8 8
Eaton Corporation 11642 Old Baltimore Pike Beltsville, MD 20705	00405	5[3]-Outfall 003 2-Outfall 004	2	8 8	8 8
Emergent BioSolutions 9920 Medical Center Drive Rockville, MD 20850	10618	4[3]	2	6[4] 1 add'l Acetone per NOV 4 add'l Acetone per SNC	8
Human Genome Sciences, Inc. Large Scale Manufacturing 9911 Belward Campus Drive Rockville, MD 20850	10116	7[3]	4	10 10 add'l pH events 2 add'l Diethylamine and Triethylamine	8
Human Genome Sciences, Inc. Small Scale Manufacturing 9910 Belward Campus Drive Rockville, MD 20850	08093	9[3]	4	8 11 add'l pH	8
Maryland Metal Plating & Polishing, Inc. 4110 Howard Avenue Kensington, MD 20895	07777	4[3]	3	9	8

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CATEGORICAL INDUSTRIAL USERS (CIU)
COMPLIANCE MONITORING, INVESTIGATIONS, AND SELF-MONITORING
SUMMARY FOR CY 2019

INDUSTRY NAME AND ADDRESS	ID #	NUMBER OF SAMPLING VISITS	NUMBER OF INSPECTION VISITS	NUMBER OF SELF-MONITORING EVENTS	NUMBER OF SELF-MONITORING EVENTS REQUIRED
Mid-Atlantic Finishing, Inc. 4656 Addison Road Capitol Heights, MD 20743	07771	5[3]	2	8	8
United Therapeutics, Corporation 1040 Spring Street Silver Spring, MD 20910	13288	3[3]-Outfall 001 1-Outfall 002 2-Outfall 003 2-Outfall 004 2-Outfall 005	2	8 8 add'l pH 1 1 1 8 1 add'l 1666 sample	8 1[5] 1[5] 1[5] 8
United Therapeutics Corporation (DDOMAL) 1101 Spring Street Silver Spring, MD 20910	14027	2	2	6	6[6]
University of MD/DOD, Physical Sciences Laboratory 8050 Greenmeade Drive College Park, MD 20740	07987	6[3]	1	8 4 add'l pH	8

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NON-CATEGORICAL SIGNIFICANT INDUSTRIAL USERS (SIU) COMPLIANCE SAMPLING AND INVESTIGATION SUMMARY CY 2019

INDUSTRY NAME AND ADDRESS	ID #	NUMBER OF SAMPLING VISITS	NUMBER OF INSPECTION VISITS	NUMBER OF SELF-MONITORING EVENTS	NUMBER OF SELF-MONITORING EVENTS REQUIRED
Coca-Cola Bottling Company Consolidated 1710 Elton Road Silver Spring, MD 20903	00080	4[3]	2	8 1 add'l pH	8
District Photo, Inc. 10619 Baltimore Avenue Beltsville, MD 20705	03812	9[7]	2	8	8
Fort Detrick-Forest Glen Annex 9100 Brookville Road Silver Spring, MD 20910	08091	6[3]	2	8	8
GlaxoSmithKline LLC 14200 Shady Grove Road Rockville, MD 20850	14006	6[3]	2	8	8
Marva Maid of Landover 1805 South Club Drive Landover, MD 20785	00238	7[3]	4	10 8 add'l pH	8
MedImmune, Inc. 1 MedImmune Way Gaithersburg, MD 20878	10801	6[3]	3	8	8
National Institute of Standards and Technology 00 Muddy Branch Road Gaithersburg, MD 20899	05813	6[3]	2	8 1 add'l day full suite1 add'l day metals 6 add'l day pH	8
National Institutes of Health 9000 Rockville Pike Bethesda, MD 20892	08111	6[2]	2	8	8

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NON-CATEGORICAL SIGNIFICANT INDUSTRIAL USERS (SIU) COMPLIANCE SAMPLING AND INVESTIGATION SUMMARY CY 2019

INDUSTRY NAME AND ADDRESS	ID #	NUMBER OF SAMPLING VISITS	NUMBER OF INSPECTION VISITS	NUMBER OF SELF-MONITORING EVENTS	NUMBER OF SELF-MONITORING EVENTS REQUIRED
National Institutes of Health – 5625 Fishers Lane 5625 Fishers Lane Rockville, MD 20854	08108	6[3]	1	8 3 add'l Hg per SNC	8
Naval Support Activity Bethesda 8901 Wisconsin Avenue Bethesda, MD 20889	06501	6[3]	3	8	8
Nixon Uniform Service, Inc. 11860 Old Baltimore Pike Beltsville, MD 20705	08095	6[3]	2	8 3 add'l pH per NOV 8 add'l pH	8
Oaks Sanitary Landfill 6001 Olney-Laytonsville Rd. Laytonsville, MD 20706	07741	2	2	12[5]	8
Pepsi Beverages Company One Pepsi Place Cheverly, MD 20781	00140	7[3]	2	8 8 add'l pH partial days	8
Ritchie Land Reclamation, LLC 2001 Ritchie Marlboro Road Upper Marlboro, MD 20774	08101	2 – Outfall FAC 2 – Outfall 001	2	8 8	8 8
UniFirst Corporation 6201 Sheriff Road Landover, MD 20785	00100	7[3,8]	2	8	8
Washington Metropolitan Area Transit Authority (Greenbelt) 5801 Sunnyside Avenue Beltsville, MD 20705	10123	6[3]	2	8	8

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NON-CATEGORICAL SIGNIFICANT INDUSTRIAL USERS (SIU) COMPLIANCE SAMPLING AND INVESTIGATION SUMMARY CY 2019

INDUSTRY NAME AND ADDRESS	ID #	NUMBER OF SAMPLING VISITS	NUMBER OF INSPECTION VISITS	NUMBER OF SELF-MONITORING EVENTS	NUMBER OF SELF-MONITORING EVENTS REQUIRED
Washington Metropolitan Area Transit Authority (Shady Grove) 15903 Somerville Drive Rockville, MD 20855	08107	7[7]	4	10 2 add'l full days for missing OG	8
WSSC Potomac Water Filtration Plant 12200 River Road Potomac, MD 20854	14011	6[3]	2	8	8

[1] No flow from this monitoring point, pretreatment system is down, wastewater being hauled off-site for treatment
[2] Industry was sampled for 1 full event, remainder of events were pH only
[3] Industry was sampled for 2 full events, remainder of events were pH only
[4] No flow during the first quarter 2019
[5] Monitoring Requirement is once a calendar year per 40 CFR 439.2
[6] Permit issued 5/23/2019, only discharging for 3 quarters during 2019
[7] Industry was sampled for 3 full events, remainder of events were pH only
[8] One of the sampling visits consisted of just grabs (O&G, Cn, VOA)

BLUE PLAINS DISCHARGERS

FACILITIES NOT INSPECTED AND REASON
CY 2019

FACILITY	REASON
None	

FACILITIES NOT SAMPLED AND REASON
CY 2019

FACILITY	REASON
None	

FACILITIES CONDUCTING LESS THAN THE REQUIRED NUMBER OF SELF-MONITORING EVENTS
CY 2019

FACILITY	REASON
Adelphi Laboratory Center	No flow from monitoring point 001, pretreatment system is down, wastewater being hauled off-site for treatment
Emergent BioSolutions	No process flow 1st quarter

BLUE PLAINS DISCHARGERS
SIGNIFICANT INDUSTRIAL USERS IN SNC
2019[1]

INDUSTRIAL USER	EVALUATION FOR SNC	PERIOD	ACTIONS PLANNED OR TAKEN	CURRENT STATUS
Marva Maid-Landover	SNC for FOG (Daily Max TRC)	January 2019 – June 2019	Notices of Violation, Directives, and Publication	Interim[2]
Emergent BioSolutions	SNC for Acetone (Daily Max and Monthly Avg TRC)	April 2019 – Sept 2019	Notice of Violation, Directive, and Publication	Compliance
Marva Maid-Landover	SNC for FOG (Daily Max TRC)	July 2019 – December 2019	Notices of Violation, Directives, and Publication	Interim

[1] The evaluation periods include: October 2018-March 2019, January 2019-June 2019, April 2019-September 2019, and July 2019-December 2019.
[2] Marva Maid has continued to be non-complaint with the FOG limit during December, January, and February. Corrective measures implemented have not corrected the issue and additional enforcement actions have be taken in 2020

SIGNIFICANT INDUSTRIAL USER IN SNC FOR THIS REPORTING YEAR AND LAST REPORTING YEAR

INDUSTRIAL USER	REASON FOR SNC
None	

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BLUE PLAINS DISCHARGERS
SIGNIFICANT INDUSTRIAL USERS ON FORMAL COMPLIANCE SCHEDULES
2019

INDUSTRIAL USERS	TYPE OF SCHEDULE	DATE OF VIOLATION	DATE COMPLIANCE SCHEDULE ISSUED	REASON	FINAL COMPLIANCE DATE (FCD)	CURRENT STATUS	COMPLIANCE EXPECTED BY FCD
Eaton Corporation	Directive	N/A	1/10/2019	Pretreatment System Modification	3/31/2019	Compliance	N/A
Emergent BioSolutions	Directive	9/25/19 9/30/2019	12/5/2019	Corrective Measures	12/16/2019	Compliance	N/A
Emergent BioSolutions	Directive	N/A	11/18/2019	Corrective Measures	8/31/2020	Interim	8/31/2020
Fort Detrick-Forest Glen Annex	Directive	N/A	9/24/2019	Corrective Measures	10/31/2019	Compliance	N/A
Human Genome Sciences, Inc. Large Scale Manufacturing	Directive	N/A	5/2/2019	Extension Request	5/30/2019	Compliance	N/A
Human Genome Sciences, Inc. Large Scale Manufacturing	Directive	N/A	8/2/2019	Extension Request	9/16/2019	Compliance	N/A
Human Genome Sciences, Inc. Large Scale Manufacturing	Directive	N/A	8/28/2019	Corrective Measures	10/16/2019	Compliance	N/A
Human Genome Sciences, Inc. Large Scale Manufacturing	Directive	10/7/2019	11/13/2019	Corrective Measures	11/27/2019	Compliance	N/A
Human Genome Sciences, Inc. Large Scale Manufacturing	Directive	10/31/2019	12/4/2019	Corrective Measures	3/31/2020	Interim	3/31/2020
Human Genome Sciences, Inc. Large Scale Manufacturing	Directive	N/A	12/11/2019	Corrective Measures	1/2/2020	Interim	1/2/2020
Human Genome Sciences, Inc. Small Scale Manufacturing	Directive	8/8/2019	9/9/2019	Corrective Measures	9/15/2019	Compliance	N/A

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BLUE PLAINS DISCHARGERS
SIGNIFICANT INDUSTRIAL USERS ON FORMAL COMPLIANCE SCHEDULES
2019

INDUSTRIAL USERS	TYPE OF SCHEDULE	DATE OF VIOLATION	DATE COMPLIANCE SCHEDULE ISSUED	REASON	FINAL COMPLIANCE DATE (FCD)	CURRENT STATUS	COMPLIANCE EXPECTED BY FCD
Human Genome Sciences, Inc. Small Scale Manufacturing	Directive	N/A	9/9/2019	Submit Slug Control Plan	10/9/2019	Compliance	N/A
Human Genome Sciences, Inc. Small Scale Manufacturing	Directive	10/9/2019	10/16/2019	Provide Information	11/11/2019	Compliance	N/A
Human Genome Sciences, Inc. Small Scale Manufacturing	Directive	9/22/2019	11/13/2019	Corrective Measures	11/27/2019	Compliance	N/A
Marva Maid – Landover	Directive	5/15/2019 5/16/2019 7/19/2019 8/12/2019 9/10/2019	10/29/2019	Corrective Measures	11/14/2019	Interim	*
MedImmune, Inc.	Directive	N/A	1/16/2019	Corrective Measures	4/30/2019	Compliance	N/A
MedImmune, Inc.	Directive	8/13/2019 8/14/2019 9/4/2019 9/18/2019	1/2/2020	Corrective Measures	5/31/2020	Interim	5/31/2020
National Institute Of Standards and Technology	Directive	1/7/2019	1/21/2019	Corrective Measures	3/6/2019	Compliance	N/A
National Institutes Of Health	Directive	6/11/2019 6/12/2019	8/26/2019	Corrective Measures	8/30/2019	Compliance	N/A
Naval Support Activity Bethesda	Directive	11/30/2018	2/20/2019	Corrective Measures	4/30/2019	Compliance	N/A

WSSCWATER
DELIVERING THE ESSENTIAL

BLUE PLAINS DISCHARGERS
SIGNIFICANT INDUSTRIAL USERS ON FORMAL COMPLIANCE SCHEDULES
2019

INDUSTRIAL USERS	TYPE OF SCHEDULE	DATE OF VIOLATION	DATE COMPLIANCE SCHEDULE ISSUED	REASON	FINAL COMPLIANCE DATE (FCD)	CURRENT STATUS	COMPLIANCE EXPECTED BY FCD
Nixon Uniform Service, Inc.	Directive	1/7/2019 1/8/2019	2/20/2019	Corrective Measures	4/22/2019	Compliance	N/A
Nixon Uniform Service, Inc.	Directive	5/8/2019	6/28/2019	Corrective Measures	7/31/2019	Compliance	N/A
Washington Metropolitan Area Transit Authority Greenbelt	Directive	N/A	12/23/2019	Corrective Measures	6/19/2020	Interim	6/19/2020
Washington Metropolitan Area Transit Authority Shady Grove	Directive	N/A	12/23/2019	Corrective Measures	6/19/2020	Interim	6/19/2020

* Marva Maid has continued to be non-complaint with the FOG limit during December, January, and February. Corrective measures implemented have not corrected the issue and additional enforcement actions have be taken in 2020.

COPY OF NEWSPAPER LISTING OF SIGNIFICANT INDUSTRIAL USERS (SIUs) IN SIGNIFICANT NONCOMPLIANCE (SNC) DURING THE CALENDAR YEAR 2019

WSSC has not yet published the list of SIUs in SNC for the calendar year. A copy of the newspaper listing will be forwarded to DC Water no later than June 30, 2020.

BLUE PLAINS DISCHARGERS
SIGNIFICANT INDUSTRIAL USERS (SIUs) ISSUED
NOTICES OF VIOLATION IN 2019

CATEGORICAL SIUs	NUMBER ISSUED
Emergent BioSolutions	1[1]
Human Genome Sciences, Inc., Large Scale Manufacturing	2
Human Genome Sciences, Inc., Small Scale Manufacturing	2

NON-CATEGORICAL SIUs	
Marva Maid	6[1]
MedImmune, LLC	3[1]
National Institute of Standards and Technology	1
National institute of Health	1[1]
Naval Support Activity Bethesda	1
Nixon Uniform Service, Inc.	2[1]
Pepsi Beverages Company	1[1]

TOTAL = 20 NOVs

[1] Notice of Violation issued for multiple non-compliance occurrences.

BLUE PLAINS DISCHARGERS

SIGNIFICANT INDUSTRIAL USERS ISSUED ADMINSTRATIVE ORDERS IN 2019

INDUSTRIAL USER	ACTION	NUMBER ISSUED
None		

SIGNIFICANT INDUSTRIAL USERS THAT HAVE BEEN SUED FOR PRETREATMENT VIOLATIONS IN 2019

INDUSTRIAL USER	DATE FILED	REASON FOR SUIT	STATUS
None			

BLUE PLAINS DISCHARGERS

SIGNIFICANT INDUSTRIAL USERS ASSESSED PENALTIES IN 2019

INDUSTRIAL USER	PENALTY AMOUNT	REASON	AMOUNT COLLECTED
Marva Maid - Landover	$250	FOG, Polar	$250
Marva Maid - Landover	$500	FOG, Polar	$0*
Marva Maid - Landover	$750	FOG, Polar	$0*
Marva Maid - Landover	$1000	FOG, Polar	$0*
Pepsi Beverages Company	$250	pH Max (>10.0)	$0*

TOTAL ASSESSED: $2750 in 2019 **TOTAL COLLECTED:** $250 in 2019

*Citations assesses late in 2019 were paid in 2020.

PENALTIES ASSESSED IN 2018 AND COLLECTED IN 2019

INDUSTRIAL USER	AMOUNT COLLECTED
None	

BLUE PLAINS DISCHARGERS

DESCRIPTION OF ALL ACTIONS INCLUDED AS ADMINISTRATIVE ORDERS IN 2019

DESCRIPTION OF ANY "OTHER ACTION"

No "other actions" were taken.

LIST OF SIUs THAT HAD SNC VIOLATIONS BUT WERE NOT SUBJECT TO ENFORCEMENT IN 2019

INDUSTRIAL USER	REASON FOR NO ACTION
None	

Attachment 3

Parts A and B with attachments for Fairfax County SIUs discharging to Blue Plains

PART A
PRETREATMENT PERFORMANCE SUMMARY

I. General Information

Control Authority Name			Fairfax County, VA (contributing jurisdiction) D.C. Water, Blue Plains Advanced Wastewater Treatment Plant		
Address			5000 Overlook Avenue, S.W.		
City	Washington, D.C.	State	District of Columbia	Zip+4	20032
Contact Person	John Botts		Telephone No.	703-550-9740, ext.429	
Contact Title	Pretreatment Manager		E-mail Address	*John.Botts@fairfaxcounty.gov*	
NPDES No.	DC 0021199		Reporting Period	01-01-19 to 12-31-19	
Issuance Date	07/26/18		Expiration Date	08/25/23	
Total CIUs	1		Total MTCIUs	Not applicable	
Total SNIUs	3		Total NSCIUs	Not applicable	

CIUs - Categorical Industrial Users
SNIUs - Significant Noncategorical Industrial Users
MTCIUs – Middle Tier Categorical Industrial Users
NSCIUs – Nonsignificant Categorical Industrial Users

II. Compliance Monitoring Program

1.	No. of SIUs with current Control Documents	4
2.	No. of SIU Facilities Inspected	4
3.	No. of SIU Facilities Sampled	4
4.	No. of SIUs Submitting Self-Monitoring Reports	4

III. Significant Industrial User Compliance

1.	No. of SIUs Violating a Compliance Schedule / No. on a Schedule	0/0
2.	No. of SIUs in SNC for the July to December Period	0
3.	No. of SIUs in SNC At Any Time During the Calendar Year	0
4.	No. of SIUs in SNC Also in SNC During the Previous Calendar Year	0
5.	No. of NSCIUs that violated any standards or requirements	0

IV. Enforcement Actions

1.	Notices/Letters of Violation Issued to SIUs	2
2.	Enforceable Compliance Schedules Issued to SIUs	0
3.	Civil/Criminal Suits Filed	0
4.	No. of SIUs from which Penalties have been Collected	0
5.	Other Actions (verbal Notice of Violation)	2

I certify that the information contained in this report and attachments is complete and accurate to the best of my knowledge (see Part B.V of the instructions).

Shahram Mohsenin — Name of Authorized Representative (Print)

Director, DPWES, WPMD — Title (Print)

Signature of Authorized Representative

2/26/2020 — Date

PART A
PRETREATMENT PERFORMANCE SUMMARY

I. General Information

Control Authority Name	*Fairfax County, VA (Contributing Jurisdiction) Blue Plains Wastewater Treatment Plant*				
Address	*5000 Overlook Avenue, S.W.*				
City	*Washington, D.C.*	State		Zip+4	
Contact Person	*John Botts*		Telephone No.	*703-550-9740, ext.429*	
Contact Title	*Pretreatment Manager*		E-mail Address	*John.Botts@fairfaxcounty.gov*	
NPDES No.	*DC 0021199*		Reporting Period	*01-01-19 to 12-31-19*	
Issuance Date	*07/26/18*		Expiration Date	*08/25/23*	
Total CIUs	*1*		Total MTCIUs	*Not applicable*	
Total SNIUs	*3*		Total NSCIUs	*Not applicable*	

CIUs - Categorical Industrial Users
MTCIUs – Middle Tier Categorical Industrial Users
SNIUs - Significant Noncategorical Industrial Users
NSCIUs – Nonsignificant Categorical Industrial Users

II. Compliance Monitoring Program

1.	No. of SIUs with current Control Documents	4
2.	No. of SIU Facilities Inspected	4
3.	No. of SIU Facilities Sampled	4
4.	No. of SIUs Submitting Self-Monitoring Reports	4

III. Significant Industrial User Compliance

1.	No. of SIUs Violating a Compliance Schedule / No. on a Schedule	0/0
2.	No. of SIUs in SNC for the July to December Period	0
3.	No. of SIUs in SNC At Any Time During the Calendar Year	0
4.	No. of SIUs in SNC Also in SNC During the Previous Calendar Year	0
5.	No. of NSCIUs that violated any standards or requirements	0

IV. Enforcement Actions

1.	Notices/Letters of Violation Issued to SIUs	2
2.	Enforceable Compliance Schedules Issued to SIUs	0
3.	Civil/Criminal Suits Filed	0
4.	No. of SIUs from which Penalties have been Collected	0
5.	Other Actions (sewer bans, etc.)	2

I certify that the information contained in this report and attachments is complete and accurate to the best of my knowledge (see Part B.V of the instructions).

SHAHRAM MOHSENIN
Name of Authorized Representative (Print)

Director, Wastewater Planning + Monitoring Division
Title (Print)

Signature of Authorized Representative

3/13/2020
Date

Attachment I - General Information

1. SIU List and Designation
2. Changes to SIU List

ATTACHMENT I — GENERAL INFORMATION

JURISDICTION Fairfax County, Virginia
SERVICE AREA Blue Plains Advanced Wastewater Treatment Plant

1. SIU List and designation

USER ID	USER NAME	SPECIFY CATEGORY; IF NOT CATEGORICAL INDICATE NOT CIU
A30222	George Bush Center for Intelligence (GBCI) (formerly CIA) 930 Dolly Madison Blvd* McLean, VA 22101	SIU, NOT CIU
A30320	Fairfax Water (formerly Fairfax County Water Authority) James J. Corbalis, Jr. Water Treatment Plant 1295 Fred Morin Road Herndon, VA 20180	SIU, NOT CIU
A30920	U.S. Geological Survey 12201 Sunrise Valley Drive* Reston, VA 20192	SIU, NOT CIU
001G	Precision Sheet Metal Supply, Inc. (within the Town of Herndon)** 354 Victory Drive Herndon, VA 20180	CIU 40 CFR §433 (Metal Finishing-New Source)

* Addresses listed are users' premises addresses. Users A30222 and A30920 have mailing addresses that differ from their premise's addresses.
** Permit for Precision Sheet Metal Supply, Inc. (001G) is issued and administered by the Town of Herndon

2. Changes to SIU list

Fairfax County conducts a continuous annual industrial waste survey in lieu of a survey once during the VPDES permit cycle (i.e., every five years) for the County's Noman M. Cole, Jr. Pollution Control Plant (NMCPCP). The survey is conducted county-wide and includes the sanitary sewer service area for the portion of the county that discharges to D.C. Water's Blue Plains Advanced Wastewater Treatment Plant (AWTP). Information for the survey is obtained through coordination with various County agencies, review of Fairfax Water's non-residential customer database, business inspections, applications for discharges to sanitary sewer, and a commercial database of businesses. During calendar year 2019, Fairfax County did not identify any new SIUs in Fairfax County that discharge to the Blue Plains AWTP. The industrial waste survey report for 2019, which includes SIUs and surveyed businesses, is provided in Appendix A.

Fairfax County continues to convey wastewater from the entire Town of Herndon to D.C. Water's Blue Plains AWTP under an agreement executed in 1990. The Town of Herndon has developed a pretreatment program to administer permits, assess compliance, and, as needed, take enforcement action to regulate sources of non-domestic wastewater located within the Town. The Interjurisdictional Pretreatment Agreement with the Town of Herndon (dated 1995) requires Fairfax County's review of pretreatment permits issued by the Town, and the submittal of pretreatment reports by the Town to the County. The Town of Herndon currently administers the permit for the single SIU, Precision Sheet Metal Supply, Inc., located in the Town.

The Town of Herndon did not identify new SIUs within its jurisdictional boundaries during 2019 (see Appendix B).

Fairfax County continues to convey wastewater from a portion of Arlington County to the Blue Plains AWTP under an agreement executed in 1994. Arlington County did not identify new SIUs in the noted area during 2019 (see Appendix C).

No brine wastes (oil and gas drilling fluids) were known to be discharged to the County's portion of the Blue Plains AWTP service area in 2019.

Attachment II - Compliance Monitoring Program

1. **Control mechanism**
2. **Permits administratively extended**
3. **Facilities not inspected and reason**
4. **Facilities not sampled and reason**
5. **Number of POTW sampling events and inspections, number of self-monitoring events, and reports**

ATTACHMENT II — COMPLIANCE MONITORING PROGRAM

JURISDICTION Fairfax County, Virginia
SERVICE AREA Blue Plains Advanced Wastewater Treatment Plant

1. Control mechanism

USER NAME & NO.	TYPE OF CONTROL MECHANISM	PERMIT DATES			PERMIT ACTIONS DURING THE REPORTING PERIOD
		ISSUANCE	EFFECTIVE	EXPIRATION	
A30222 GBCI	Individual permit	12-29-17	01-01-18	12-31-22	None
A30320 Fairfax Water	Individual permit	12-20-17	01-01-18	12-31-20	None
A30920 USGS	Individual permit	12-20-17	01-01-18	12-31-20	None
001G Precision Sheet Metal*	Individual permit	11-20-18	11-20-18	11-20-23	None

* User's CIU permit incorporates concentration-based limits as specified by 40 CFR Part 433.13 (metal finishing sub-category) and applicable local limits. Total toxic organics (TTO) monitoring requirement is waived because TTOs are not present; initial TTO monitoring conducted in 1991 and follow-up annual inspections confirm TTOs are not discharged. User implements an approved toxic organics management plan and submits a semi-annual statement certifying that TTOs are not present in the discharge in conformance with 40 CFR 433.12(a).

2. Permits administratively extended — NONE

3. Facilities not inspected and reason — NONE

4. Facilities not sampled and reason — NONE

ATTACHMENT II — COMPLIANCE MONITORING PROGRAM (Continued)

5. Number of POTW sampling events and inspections for, and number of self-monitoring events and self-monitoring reports submitted by, each SIU.

USER NO.	NO. BY POTW DURING THE YEAR		NO. BY USER DURING THE YEAR			
			SELF-MONITORING EVENTS		SELF-MONITORING REPORTS	
	SAMPLINGS	INSPECTIONS	CONDUCTED	REQUIRED	SUBMITTED	REQUIRED
A30222 GBCI	2	1	2	2	2	2
A30320 Fairfax Water	2	1	2	2	4	4
A30920 USGS	2	1	2	2	2	2
001G Precision Sheet Metal	1	1	2*	2*	4	4

* User 001G samples and analyzes the discharge from the regulated process for compliance with categorical standards semi-annually. In addition, User 001G tests pH twice daily during any day the regulated process is operated.

Attachment III - Significant Industrial User Compliance

1. Users in significant noncompliance (SNC), listed by quarter
2. Users on compliance schedules (formal and informal)
3. Summary of users' compliance status

ATTACHMENT III- SIGNIFICANT INDUSTRIAL USER COMPLIANCE

JURISDICTION Fairfax County, Virginia
SERVICE AREA Blue Plains Advanced Wastewater Treatment Plant

1. **Users in significant noncompliance (SNC), listed by quarter — NONE**

2. **Users on compliance schedules (formal and informal) — NONE**

3. **Summary of users' compliance status**

USER NO.	COMPLIANCE SUMMARY
A30222 GBCI	User consistently achieved compliance with pretreatment standards and inconsistently achieved compliance with pretreatment requirements in 2019. User submitted a second semi-annual periodic compliance report on February 5, 2020 without a chemical inventory. Fairfax County will take enforcement action in 2020. User was in compliance with the permit, Fairfax County's Sanitary Sewers and Sewage Disposal Code, and Blue Plains Service Area local limits at the end of the 2019 reporting period.
A30320 Fairfax Water	User consistently achieved compliance with pretreatment standards and requirements in 2019. User was in compliance with the permit, Fairfax County's Sanitary Sewers and Sewage Disposal Code, and Blue Plains Service Area local limits at the end of the 2019 reporting period.
A30920 USGS	User consistently achieved compliance with pretreatment standards and inconsistently achieved compliance with pretreatment requirements in 2019. User was issued a verbal NOV on August 9, 2019 and a written NOV on August 12, 2019 for late submission of the first semi-annual compliance report. User submitted an acceptable Corrective Action Plan on August 27, 2019. User submitted a second semi-annual periodic compliance report on February 5, 2020 with a laboratory report containing an analytical method for which the laboratory was not certified to perform. Fairfax County will take enforcement action in 2020. User was in compliance with the permit, Fairfax County's Sanitary Sewers and Sewage Disposal Code, and Blue Plains Service Area local limits at the end of the 2019 reporting period.

ATTACHMENT III- SIGNIFICANT INDUSTRIAL USER COMPLIANCE (Continued)

USER NO.	COMPLIANCE SUMMARY
001G Precision Sheet Metal	User consistently achieved compliance with pretreatment standards and inconsistently achieved compliance with pretreatment requirements in 2019. User was issued a verbal NOV by Fairfax County on May 14, 2019 and a written NOV by Town of Herndon on May 14, 2019 for an incomplete Chain of Custody and not using the permit-required method for analysis of n-Hexane Extractable Material - Silica Gel Treated (HEM-SGT). User submitted an acceptable corrective action plan and subsequently submitted results of additional monitoring using the correct analytical method. The results indicated compliance with the non-polar oil and grease local limit for the Blue Plains AWTP. User was in compliance with the permit, Fairfax County's Sanitary Sewers and Sewage Disposal Code, and Blue Plains Service Area local limits at the end of the 2019 reporting period.

Attachment IV - Enforcement Actions

1. Users requiring formal compliance schedules
2. Users issued written notices/letters of violation
3. Number of criminal suits filed in court
4. Users assessed penalties (if assessed, amount, reason, and if paid)
5. Users issued administrative orders
6. Users subject to "other actions" (written NOV to sewage handling contractors registered by Fairfax County)
7. Copy of newspaper listing of users in significant non-compliance
8. Users with violations but not subject to enforcement

ATTACHMENT IV — ENFORCEMENT ACTIONS

JURISDICTION Fairfax County, Virginia
SERVICE AREA Blue Plains Advanced Wastewater Treatment Plant

1. **Users issued notices/letters of violation**

USER NUMBER & NAME	DATE OF NOV ISSUANCE	TYPE OF ACTION
A30920 USGS	August 12, 2019	Written NOV
001G Precision Sheet Metal	May 14, 2019	Written NOV Issued By Town of Herndon

2. **Users issued administrative orders — NONE**

3. **Users requiring formal compliance schedules — NONE**

4. **Users issued non-formal compliance schedules - NONE**

5. **Number of civil and criminal suits filed in court — NONE**

6. **Users assessed penalties (if assessed, amount, reason, and if paid) — NONE**

7. **Users subject to "other actions" (verbal Notice of Violation)**

USER NAME & NO.	DATE OF ACTION	TYPE OF ACTION
A30920 USGS	August 9, 2019	Verbal NOV
001G Precision Sheet Metal	May 14, 2019	Verbal NOV Issued By Fairfax County

ATTACHMENT IV — ENFORCEMENT ACTIONS (Continued)

8. **Copy of newspaper listing of users in significant non-compliance (submit by March 31 as an addendum if listing is published after report submission) — NONE**

9. **Users with violations but not subject to enforcement — NONE**

PART B
PRETREATMENT DEVELOPMENTS

I. Summary of POTW Operations

Trucked or Hauled Wastewater

As of April 2017, Fairfax County no longer discharges hauled wastewater via its sanitary sewer system to the Blue Plains AWTP. Hauler waste manifests show that the majority of the septage collected in the northern part of the county is being hauled to the Upper Occoquan Service Authority's Regional Water Reclamation Plant in Centreville, Virginia, and the Blue Plains AWTP. Both of these facilities are closer geographically to northern Fairfax County than the county's septage receiving facility located at the Noman M. Cole, Jr. Pollution Control Plant in Lorton, Virginia.

Dental Amalgam Rule Implementation

Fairfax County is in the process of implementing the U.S. Environmental Protection Agency's Dental Amalgam Rule, which was promulgated on June 14, 2017. The dental facility dischargers cited by the rule are not classified as SIUs. Virginia's Department of Environmental Quality (DEQ) provided an online system for dental facilities to use to file one-time compliance reports by October 12, 2020[1] as required by the rule. DEQ has been providing Fairfax County with periodic summaries of the reports filed by dental facilities located in the County. Fairfax County prepared and issued a notice to educate dental providers about the requirements to file the compliance report and ensure proper operation and maintenance of an approved dental amalgam separator. Fairfax County is also coordinating with its Building Plan Review office to identify new dental facilities that are subject to the rule.

II. Pretreatment Program Changes

Funding, Staffing, and Equipment

No significant changes in the operation of the pretreatment program were planned or implemented during 2019; including funding and equipment. Pretreatment program staff consist of six full-time equivalents, including the pretreatment manager, one program coordinator, and four inspector positions. The pretreatment manager and one inspector are responsible for code compliance assessment and enforcement in the Blue Plains service area. Approximately half of the inspector's time and fifteen percent of the pretreatment manager's time was attributed to pretreatment activities within the Blue Plains service area in 2019. The pretreatment program uses gas meters, pH meters, dissolved oxygen meters, conductivity meters, and manual and automatic samplers to monitor users for compliance with the county code and Blue Plains local limits. Monitoring samples are analyzed by Fairfax County's environmental laboratory, a certified Virginia Environmental Laboratory Accreditation Laboratory (VELAP), which is equipped with a gas chromatography - mass spectrometer (GC-MS), inductively coupled plasma optical emission spectrometer (ICP-OES), atomic absorption spectrometer with flame and graphite furnace, PC-BOD biochemical oxygen demand analysis system, Lachat 8500

[1] Or within 90 days of transfer of ownership for existing sources or within 90 days of start of discharge for new sources.

series flow injection analyzer, Horizon Technology SPE-DEX 3100 oil and grease instrument, Tekran 2600 CVAFS Mercury Analysis System, and HACH DR UV/VIS spectrophotometers for analyzing samples of user discharges.

Legal Authority

a. State of Virginia

The pretreatment program modifications approved by DEQ in 1994, 2010, and 2012 remain in effect. There have been no changes to the County's Sewer Use Ordinance, Standard Form Wastewater Discharge Permit, or Enforcement Response Plan, since submittal of the 2018 annual pretreatment program report to D.C. Water on March 15, 2019.

b. Interjurisdictional Pretreatment Agreements (IPA)

The Town of Herndon's sanitary sewer system discharges to the Blue Plains AWTP via Fairfax County's conveyance system, pursuant to a sewer service agreement between Fairfax County and the Town. Fairfax County and the Town developed an interjurisdictional pretreatment agreement when a CIU was identified within the Town. The agreement was signed by the Fairfax County Board of Supervisors on February 22, 1996. Preceding the agreement's execution, the Town adopted a pretreatment ordinance with substantially the same provisions as the County's pretreatment ordinance. The Town Code was updated in 2012 to incorporate provisions of the EPA Pretreatment Streamlining Rule (September 27, 2005) and Virginia law (§15.2-2122 of the Code of Virginia).

An area within Arlington County, consisting of the Gulf Run, Donaldson Run, and Pimmit Run sewersheds, discharges to the Blue Plains AWTP, via Fairfax County, pursuant to a sewer service agreement between Arlington and Fairfax counties enacted in 1994. Fairfax and Arlington counties entered into an interjurisdictional pretreatment agreement in 1994.

c. Blue Plains Local Limits

Fairfax County, Town of Herndon, and Arlington County enforce the local limits adopted by the District of Columbia for service areas that are tributary to the Blue Plains AWTP. Revised local limits for the Blue Plains AWTP became effective September 10, 2010. Fairfax County began enforcement of the local limits upon adoption and incorporated the limits in wastewater discharge permits of SIUs in the Blue Plains service area.

III. Miscellaneous Developments

None.

APPENDICES

Attachment 4

Parts A and B with attachments for Loudoun Water SIUs discharging to Blue Plains

PART A
PRETREATMENT PERFORMANCE SUMMARY*

I. General Information

Control Authority Name	Loudoun Water				
Address	44865 Loudoun Water Way				
City	Ashburn	State	VA	Zip+4	20147-6109
Contact Person	Frank Stokes Jr.		Telephone No.	571-291-7834	
Contact Title	Regulatory Programs Manager		E-mail Address	fstokes@loudounwater.org	
NPDES No.	DC 0021199		Reporting Period	01-01-19 to 12-31-19	
Issuance Date	07/26/18		Expiration Date*	08/25/23	
Total CIU's	1		Total MTCIU's	0	
Total SNIU's	0		Total NSCIU's	0	

CIUs - Categorical Industrial Users
SNIUs - Significant Noncategorical Industrial Users
MTCIUs – Middle Tier Categorical Industrial Users
NSCIUs – Nonsignificant Categorical Industrial Users

II. Compliance Monitoring Program

1.	No. of SIU's with current Control Documents.....	1
2.	No. of SIU's Facilities Inspected.....	1
3.	No. of SIU's Facilities Sampled.....	1
4.	No. of SIU's Submitting Self-Monitoring Reports.....	1

III. Significant Industrial User Compliance

1.	No. of SIU's Violating a Compliance Schedule / No. on a Schedule.....	0
2.	No. of SIU's in SNC for the July to December Period.....	0
3.	No. of SIU's in SNC At Any Time During the Calendar Year.....	0
4.	No. of SIU's in SNC That Were Also in SNC During the Previous Calendar Year	0
5.	No. of NSCIUs that violated any standards or requirements	0

IV. Enforcement Actions

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

I certify that the information contained in this report and attachments are complete and accurate to the best of my knowledge (see Part B.V of the instructions).

Frank Stokes Jr.	Manager, Regulatory Programs
Name of Authorized Representative (Print)	Title (Print)
Signature of Authorized Representative	February 18, 2020
	Date

Attachment for Section I

CATEGORICAL INDUSTRIAL USER (CIU)	CATEGORY
TTM Technologies North America LLC 1200 Severn Way, Sterling VA 20166-8904	Metal Finisher

Attachment for Section II

SIGNIFICANT INDUSTRIAL USER (SIU)	CONTROL DOCUMENT ISSUANCE DATE	CONTROL DOCUMENT EFFECTIVE DATE	CONTROL DOCUMENT EXPIRATION DATE	CONDUCTED BY POTW DURING THE 2018 CALENDAR YEAR		SELF MONITOR EVENTS CONDUCTED BY SIU	SELF MONITOR EVENTS REQ'D
				SAMPLING VISITS	INSPECTIONS		
TTM Technologies North America LLC	12/31/2015	11/1/2015	10/31/2020	1	1	12	12

Attachment for Section III

There were no compliance schedules issued, and no categorical industrial user entered significant non-compliance during this reporting period.

Attachment for Section IV

SIGNIFICANT INDUSTRIAL USER (SIU)	USER PERMIT # NO.	NUMBER OF NOTICES OF VIOLATIONS DURING THE 2010 CALENDAR YEAR
TTM Technologies North America LLC	005	0

ATTACHMENT FOR PART B – PRETREATMENT DEVELOPMENTS

I. Summary of POTW Operations

There was no septage discharged at the S-17 Manhole site which conveys to DC Water during this calendar year.

II. Pretreatment Program Changes

The Virginia Department of Environmental Quality approved the Pretreatment Program for the Broad Run Water Reclamation Facility on May 17, 2019.

The VADEQ Office is also working closely with the Virginia Dental Association on the Amalgam Separator "Dental Rule" and reporting requirements.
In addition, Loudoun Water has mailed 170 informational letters to Dentists within the Loudoun Water service area on the new Reporting Requirements for Virginia dental Offices that apply or remove amalgam to complete the Virginia Dental Rule Compliance Form on the VADEQ website.

II. Miscellaneous Developments

None

Attachment 5

Part A for the Town of Vienna

PART A
PRETREATMENT PERFORMANCE SUMMARY

I. General Information

Control Authority Name	*Town of Vienna*				
Address	*127 Center Street South*				
City	*Vienna*	State	*VA*	Zip+4	*22180*
Contact Person	*David Donahue*		Telephone No.	*703-319-8610*	
Contact Title	*Deputy Director, DPW*		E-mail Address	*david.donahue@viennava .gov*	
NPDES No.	*DC 0021199*		Reporting Period	*01-01-19 to 12-31-19*	
Issuance Date	*07/26/18*		Expiration Date	*08/25/23*	
Total CIUs	*0*		Total MTCIUs	*0*	
Total SNIUs	*0*		Total NSCIUs	*0*	

CIUs - Categorical Industrial Users
MTCIUs – Middle Tier Categorical Industrial Users
SNIUs - Significant Noncategorical Industrial Users
NSCIUs – Nonsignificant Categorical Industrial Users

II. Compliance Monitoring Program

1.	No. of SIUs with current Control Documents.....	0
2.	No. of SIU Facilities Inspected.....	0
3.	No. of SIU Facilities Sampled.....	0
4.	No. of SIUs Submitting Self-Monitoring Reports.....	0

III. Significant Industrial User Compliance

1.	No. of SIUs Violating a Compliance Schedule / No. on a Schedule.....	0
2.	No. of SIUs in SNC for the July to December Period.....	0
3.	No. of SIUs in SNC At Any Time During the Calendar Year.....	0
4.	No. of SIUs in SNC Also in SNC During the Previous Calendar Year	0
5.	No. of NSCIUs that violated any standards or requirements	0

IV. Enforcement Actions

1.	Notices/Letters of Violation Issued to SIUs.....	0
2.	Enforceable Compliance Schedules Issued to SIUs.....	0
3.	Civil/Criminal Suits Filed.....	0
4.	No. of SIUs from which Penalties have been Collected.....	0
5.	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 (see Part B.V of the instructions).

David Donahue	Deputy Director, DPW
Name of Authorized Representative (Print)	Title (Print)
Signature of Authorized Representative	2/19/2020
	Date

Attachment 6

Influent, Effluent, and Sludge Data Tables
(local limits/conventional pollutants)

Annual Influent and Biosolids Data
(priority pollutants)

Quarterly Influent, Effluent, and Biosolids Data
(additional toxic organics data)

Facility Name:	DC WATER AND SEWER AUTHORITY									
Facility ID:	DCP021199	**UNITS:**	MG/L							
Location:	**INFLUENT**			Date			Date			Date
	Pollutant	Goals	Frequency	1/31/2019	2/28/2019	3/19/2019	3/20/2019	3/31/2019	4/30/2019	5/6/2019
01002	ARSENIC- TOTAL	0.0262	4				**0.000468**			
00310	BOD- 5-DAY	585.156	0	157.9	179.3		210.3	161.4	179.5	
01027	CADMIUM- TOTAL	0.0056	4				**0.000186**			
01034	CHROMIUM- TOTAL	1.3889	1				0.00273			
01042	COPPER- TOTAL	0.3043	4				0.0498			
00720	CYANIDE- TOTAL	0.1167	4				0.00723			
01051	LEAD- TOTAL	0.0994	4				0.00349			
71900	MERCURY- TOTAL	0.0043	4			0.0000109				**0.0000060**
01062	MOLYBDENUM- TOTAL	0.072	4				0.00493			
01067	NICKEL- TOTAL	0.1882	4				0.00819			
00610	NITROGEN- AMMONIA	52.7869	0	20.53	20.5		24.79	20.77	24.65	
04166	PCB- TOTAL	Monitor	4				<0.0017			
00665	PHOSPHORUS- TOTAL	11.1498	0	3.91	4.43		4.66	4.10	4.53	
01147	SELENIUM- TOTAL	0.0574	1				**0.000756**			
01077	SILVER- TOTAL	0.1047	4				**0.000533**			
00530	SOLIDS- TOTAL SUSPENDED	690.567	0	224.9	249.3		340.8	229.6	225.3	
01092	ZINC- TOTAL	0.381	4				0.1171			

Facility Name:	DC WATER AND SEWER AUTHORITY									
Facility ID:	DCP021199									
Location:	**INFLUENT**	Date			Date	Date				
	Pollutant	5/16/2019	5/31/2019	6/30/2019	7/24/2019	7/26/2019	7/31/2019	8/31/2019	9/30/2019	10/31/2019
01002	ARSENIC- TOTAL	**0.000577**				**0.00111**				
00310	BOD- 5-DAY	151.4	156.9	172.4		244.9	195	238.8	239.5	186
01027	CADMIUM- TOTAL	**0.000188**				0.000176				
01034	CHROMIUM- TOTAL	0.00268				0.00523				
01042	COPPER- TOTAL	0.0418				0.059				
00720	CYANIDE- TOTAL	0.00297				0.0012				
01051	LEAD- TOTAL	**0.006758**				0.00798				
71900	MERCURY- TOTAL				**0.0000062**					
01062	MOLYBDENUM- TOTAL	0.00556				0.00898				
01067	NICKEL- TOTAL	0.00654				0.00723				
00610	NITROGEN- AMMONIA	22.61	21.1	24.43		23.66	23.32	27.95	28.04	31.82
04166	PCB- TOTAL	<0.00057				<0.00055				
00665	PHOSPHORUS- TOTAL	4.258	4.01	4.31		4.676	4.55	4.51	4.62	4.56
01147	SELENIUM- TOTAL	**0.000461**				**0.000675**				
01077	SILVER- TOTAL	**0.000643**				**0.000635**				
00530	SOLIDS- TOTAL SUSPENDED	140.28	237.6	251.5		326	297.8	241.6	230.2	251.3
01092	ZINC- TOTAL	0.0957				0.14				

Facility Name:	DC WATER AND SEWER AUTHORITY							
Facility ID:	DCP021199							
Location:	**INFLUENT**	Date	Date	Date	Date	Date		Entry Count
	Pollutant	11/19/2019	11/21/2019	11/30/2019	12/31/2019		DTfl	116
01002	ARSENIC- TOTAL		**0.000948**					4
00310	BOD- 5-DAY		207.7	195.6	184.4			16
01027	CADMIUM- TOTAL		**0.000237**					4
01034	CHROMIUM- TOTAL		0.01218					4
01042	COPPER- TOTAL		0.0511					4
00720	CYANIDE- TOTAL		0.01244					4
01051	LEAD- TOTAL		0.00274					4
71900	MERCURY- TOTAL	0.0000294						4
01062	MOLYBDENUM- TOTAL		0.01006					4
01067	NICKEL- TOTAL		0.01264					4
00610	NITROGEN- AMMONIA		32.28	30.76	26.59			16
04166	PCB- TOTAL		<0.00053					4
00665	PHOSPHORUS- TOTAL		4.506	4.77	4.12			16
01147	SELENIUM- TOTAL		**0.000672**					4
01077	SILVER- TOTAL		**0.000815**					4
00530	SOLIDS- TOTAL SUSPENDED		288.8	246	263.5			16
01092	ZINC- TOTAL		0.1066					4
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0

Facility Name:	DC WATER AND SEWER AUTHORITY
Facility ID:	DCP021199
Location:	**INFLUENT**
	Pollutant
01002	ARSENIC- TOTAL
00310	BOD- 5-DAY
01027	CADMIUM- TOTAL
01034	CHROMIUM- TOTAL
01042	COPPER- TOTAL
00720	CYANIDE- TOTAL
01051	LEAD- TOTAL
71900	MERCURY- TOTAL
01062	MOLYBDENUM- TOTAL
01067	NICKEL- TOTAL
00610	NITROGEN- AMMONIA
04166	PCB- TOTAL
00665	PHOSPHORUS- TOTAL
01147	SELENIUM- TOTAL
01077	SILVER- TOTAL
00530	SOLIDS- TOTAL SUSPENDED
01092	ZINC- TOTAL

Total

Facility Name:	DC WATER AND SEWER AUTHORITY								
Facility ID:	DCP021199	**UNITS:**	MG/L						
Location:	**EFFLUENT**			Date	Date	Date	Date	Date	Date
	Pollutant	Goals	Frequency	1/9/2019	3/13/2019	3/21/2019	5/8/2019	5/15/2019	7/1/2019
01002	ARSENIC- TOTAL	0.8408	4			<0.00032		<0.00032	
00310	BOD- 5-DAY	No Goal	0						
01027	CADMIUM- TOTAL	0.0028	4			<0.00012		<0.00012	
01034	CHROMIUM- TOTAL	0.95	0			<0.00029		**0.00082**	
01042	COPPER- TOTAL	0.0443	4			0.0052		0.0051	
00720	CYANIDE- TOTAL	0.0397	4			0.0078		0.01	
01051	LEAD- TOTAL	0.0455	4			<0.00011		**0.00021**	
71900	MERCURY- TOTAL	0.0035	4	0.00000145	0.00000089		0.0000012		0.00000058
01062	MOLYBDENUM- TOTAL	Monitor	4			0.0057		0.0039	
01067	NICKEL- TOTAL	0.49	4			0.0075		0.0054	
00610	NITROGEN- AMMONIA	No Goal	0						
04166	PCB- TOTAL	Monitor	4			<0.0017		<0.00052	
00665	PHOSPHORUS- TOTAL	No Goal	0						
01147	SELENIUM- TOTAL	0.0382	0			**0.00031**		**0.00016**	
01077	SILVER- TOTAL	0.0175	4			<0.00003		<0.00003	
00530	SOLIDS- TOTAL SUSPENDED	No Goal	0						
01092	ZINC- TOTAL	0.3741	4			0.022		0.0097	

Facility Name:	DC WATER AND SEWER AUTHORITY							
Facility ID:	DCP021199							
Location:	**EFFLUENT**	Date	Date	Date	Date	Date		Entry Count
	Pollutant	7/26/2019	9/4/2019	11/14/2019	11/21/2019		DTfl	54 Total
01002	ARSENIC- TOTAL	**0.00044**			<0.00032			4
00310	BOD- 5-DAY							0
01027	CADMIUM- TOTAL	<0.00012			<0.00012			4
01034	CHROMIUM- TOTAL	**0.00095**			**0.00029**			4
01042	COPPER- TOTAL	0.0037			0.0036			4
00720	CYANIDE- TOTAL	0.0093			0.011			4
01051	LEAD- TOTAL	<0.00011			<0.00011			4
71900	MERCURY- TOTAL		0.00000065	0.00000063				6
01062	MOLYBDENUM- TOTAL	0.0067			0.0054			4
01067	NICKEL- TOTAL	0.0052			0.0038			4
00610	NITROGEN- AMMONIA							0
04166	PCB- TOTAL	<.00053			<0.00049			4
00665	PHOSPHORUS- TOTAL							0
01147	SELENIUM- TOTAL	**0.001**			**0.00021**			4
01077	SILVER- TOTAL	<0.00003			<0.00003			4
00530	SOLIDS- TOTAL SUSPENDED							0
01092	ZINC- TOTAL	0.01			0.0094			4
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0
								0

Facility Name:	DC WATER AND SEWER AUTHORITY										
Facility ID:	DCP021199	**UNITS:**	MG/KG								
Location:	**SLUDGE**		DRY WT	Date	Date	Date	Date	Date	Date	Date	
	Pollutant	Goals	Frequency	1/3/2019	1/8/2019	2/5/2019	2/7/2019	3/5/2019	3/7/2019	3/21/2019	
01002	ARSENIC- TOTAL	41	4	6.7	6.3	7.2	7.3	7	7.2		
00310	BOD- 5-DAY	No Goal	0								
01027	CADMIUM- TOTAL	25	4	2.3	2.5	2.6	2.9	2.2	3.1		
01034	CHROMIUM- TOTAL	Monitor	1	73.3	96.8	81.7	68.9	78.5	75.9		
01042	COPPER- TOTAL	1000	4	412	454	503	403	451	462		
00720	CYANIDE- TOTAL	Monitor	4							3.7	
01051	LEAD- TOTAL	300	4	27.3	33.1	27.1	26.6	23.6	30.7		
71900	MERCURY- TOTAL	10	4	0.7	0.63	0.68	0.62	0.76	0.75		
01062	MOLYBDENUM- TOTAL	75	4	16.5	17.9	18	18.6	14.4	17.7		
01067	NICKEL- TOTAL	200	4	28.1	32.4	30.6	27	29.5	32.6		
00610	NITROGEN- AMMONIA	No Goal	0								
04166	PCB- TOTAL	4	4	<0.19		<0.21	<0.21	<1.1	<0.20		
00665	PHOSPHORUS- TOTAL	No Goal	0								
01147	SELENIUM- TOTAL	100	1	**6.1**	**5.6**	**6.4**	**7.2**	**5.7**	**7.6**		
01077	SILVER- TOTAL	Monitor	4	6	9.8	7.5	6.1	4.7	6		
00530	SOLIDS- TOTAL SUSPENDED	No Goal	0								
01092	ZINC- TOTAL	2500	4	725	790	818	706	836	814		

Facility Name:	DC WATER AND SEWER AUTHORITY									
Facility ID:	DCP021199									
Location:	**SLUDGE**	Date	Date	Date	Date	Date	Date	Date	Date	Date
	Pollutant	4/2/2019	4/4/2019	5/2/2019	5/7/2019	5/15/2019	6/4/2019	6/6/2019	7/1/2019	7/9/2019
01002	ARSENIC- TOTAL	5.7	8	**5**	4.6		5	5.1	**4.3**	4.5
00310	BOD- 5-DAY									
01027	CADMIUM- TOTAL	2.3	2.7	2.6	2.3		2.2	2	2.4	2.5
01034	CHROMIUM- TOTAL	65.5	65.5	58.6	60.9		63.8	57	73.6	60.2
01042	COPPER- TOTAL	363	384	376	377		375	325	433	393
00720	CYANIDE- TOTAL					2.8				
01051	LEAD- TOTAL	30.9	29.7	31.1	30.6		36.8	31.2	31.1	37.8
71900	MERCURY- TOTAL	0.74	0.7	0.71	0.53		0.53	0.6	0.56	0.6
01062	MOLYBDENUM- TOTAL	13.9	16	15.6	13.6		14.6	12.9	19.6	19.2
01067	NICKEL- TOTAL	24.4	26.8	26.3	24.9		23.3	22.5	27.4	23.1
00610	NITROGEN- AMMONIA									
04166	PCB- TOTAL	<0.20	<0.19	<0.19	<0.18		<0.19	<0.18	<0.18	<0.17
00665	PHOSPHORUS- TOTAL									
01147	SELENIUM- TOTAL	**5.8**	**7.2**	**5.4**	**4.5**		**5.3**	5.6	**5.6**	**3.9**
01077	SILVER- TOTAL	5.7	6.5	5.6	6.9		5.3	4.5	4.8	6.4
00530	SOLIDS- TOTAL SUSPENDED									
01092	ZINC- TOTAL	635	673	715	677		632	596	762	746

Facility Name:	DC WATER AND SEWER AUTHORITY									
Facility ID:	DCP021199									
Location:	**SLUDGE**	Date	Date	Date	Date	Date	Date	Date	Date	Date
	Pollutant	7/25/2019	8/6/2019	8/8/2019	9/5/2019	9/10/2019	10/3/2019	10/8/2019	11/5/2019	11/7/2019
01002	ARSENIC- TOTAL		**4**	**4.1**	**3.6**	**3.6**	**3.5**	**3.9**	5.2	5.1
00310	BOD- 5-DAY									
01027	CADMIUM- TOTAL		2.6	2.6	2.8	3.9	2.4	2.5	2.3	2.7
01034	CHROMIUM- TOTAL		64.8	64.7	75.2	67.5	64	60.4	62.7	66.4
01042	COPPER- TOTAL		437	469	473	425	436	423	401	419
00720	CYANIDE- TOTAL	0.99								
01051	LEAD- TOTAL		33.7	32.7	46.4	40	23.8	27.7	30.4	35.8
71900	MERCURY- TOTAL		0.58	0.43	0.49	0.36	0.56	0.39	0.53	0.53
01062	MOLYBDENUM- TOTAL		19.3	18.6	22.3	20.4	22.5	24.1	23.4	27
01067	NICKEL- TOTAL		25	24.3	24.6	28.7	22.3	22.1	25	26
00610	NITROGEN- AMMONIA									
04166	PCB- TOTAL		<0.19	<0.17	<0.19	<0.18	<1.8	<0.18	<0.18	
00665	PHOSPHORUS- TOTAL									
01147	SELENIUM- TOTAL		**3.8**	**3.8**	**4.4**	**5**	**4.9**	**4.7**	**4**	**5**
01077	SILVER- TOTAL		6.1	6.4	5.8	8.7	8.2	8.8	7.5	8.4
00530	SOLIDS- TOTAL SUSPENDED									
01092	ZINC- TOTAL		827	818	890	790	828	792	715	753

Facility Name:	DC WATER AND SEWER AUTHORITY					
Facility ID:	DCP021199					
Location:	**SLUDGE**	Date	Date	Date		Entry Count
	Pollutant	11/21/2019	12/3/2019	12/5/2019	DTfl	290 Total
01002	ARSENIC- TOTAL		**4**	**4**		24
00310	BOD- 5-DAY					0
01027	CADMIUM- TOTAL		2.4	2.3		24
01034	CHROMIUM- TOTAL		52.8	54.3		24
01042	COPPER- TOTAL		377	385		24
00720	CYANIDE- TOTAL	1.4				4
01051	LEAD- TOTAL		30.1	24.3		24
71900	MERCURY- TOTAL		0.43	0.45		24
01062	MOLYBDENUM- TOTAL		18.7	19.3		24
01067	NICKEL- TOTAL		23.3	24.1		24
00610	NITROGEN- AMMONIA					0
04166	PCB- TOTAL		**0.4**	<1.0		22
00665	PHOSPHORUS- TOTAL					0
01147	SELENIUM- TOTAL		**4.6**	**5.1**		24
01077	SILVER- TOTAL		5.9	6.1		24
00530	SOLIDS- TOTAL SUSPENDED					0
01092	ZINC- TOTAL		753	836		24
						0
						0
						0
						0
						0
						0
						0
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						0
						0
						0
						0
						0
						0

Influent Priority Pollutant Data

ALS Environmental

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August 1, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Wastewater (WW)**	Workorder:	**3047810**
Purchase Order:	**190108**	Workorder ID:	**WW/Influent Annual**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Thursday, July 25, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3047810 WW/Influent Annual

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3047810001	Influent A-Potomac CS-Annual	Waste Water	7/25/2019 11:15	7/25/2019 22:45	Collected by Client
3047810002	Influent B-Potomac SS-Annual	Waste Water	7/25/2019 11:20	7/25/2019 22:45	Collected by Client
3047810003	Influent C-Boiling-Annual	Waste Water	7/25/2019 11:40	7/25/2019 22:45	Collected by Client

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SAMPLE SUMMARY

Workorder: 3047810 WW/Influent Annual

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3047810 WW/Influent Annual

Lab ID: **3047810001** Date Collected: 7/25/2019 11:15 Matrix: Waste Water
Sample ID: **Influent A-Potomac CS-Annual** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acrolein	ND	1	ug/L	12.5	6.6	EPA 624.1		7/27/19 06:52	PDK	D
Acrylonitrile	ND		ug/L	25.0	10.1	EPA 624.1		7/27/19 06:52	PDK	D
Benzene	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 06:52	PDK	D
Bromodichloromethane	ND		ug/L	2.5	0.90	EPA 624.1		7/27/19 06:52	PDK	D
Bromoform	ND		ug/L	2.5	1.9	EPA 624.1		7/27/19 06:52	PDK	D
Bromomethane	ND		ug/L	5.0	2.1	EPA 624.1		7/27/19 06:52	PDK	D
Carbon Tetrachloride	ND		ug/L	5.0	1.2	EPA 624.1		7/27/19 06:52	PDK	D
Chlorobenzene	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 06:52	PDK	D
Chlorodibromomethane	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 06:52	PDK	D
Chloroethane	ND		ug/L	5.0	2.4	EPA 624.1		7/27/19 06:52	PDK	D
2-Chloroethylvinyl ether	ND		ug/L	25.0	15.7	EPA 624.1		7/27/19 06:52	PDK	D
Chloroform	4.8		ug/L	2.5	0.75	EPA 624.1		7/27/19 06:52	PDK	D
Chloromethane	ND		ug/L	5.0	1.7	EPA 624.1		7/27/19 06:52	PDK	D
1,2-Dichlorobenzene	ND		ug/L	5.0	1.9	EPA 624.1		7/27/19 06:52	PDK	D
1,3-Dichlorobenzene	ND		ug/L	5.0	2.2	EPA 624.1		7/27/19 06:52	PDK	D
1,4-Dichlorobenzene	ND		ug/L	5.0	2.2	EPA 624.1		7/27/19 06:52	PDK	D
1,1-Dichloroethane	ND		ug/L	2.5	0.25	EPA 624.1		7/27/19 06:52	PDK	D
1,2-Dichloroethane	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 06:52	PDK	D
1,1-Dichloroethene	ND		ug/L	2.5	0.65	EPA 624.1		7/27/19 06:52	PDK	D
trans-1,2-Dichloroethene	ND		ug/L	2.5	0.40	EPA 624.1		7/27/19 06:52	PDK	D
1,2-Dichloropropane	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 06:52	PDK	D
cis-1,3-Dichloropropene	ND		ug/L	2.5	1.4	EPA 624.1		7/27/19 06:52	PDK	D
trans-1,3-Dichloropropene	ND		ug/L	2.5	1.1	EPA 624.1		7/27/19 06:52	PDK	D
1,3-Dichloropropene, Total	ND		ug/L	5.0	2.4	EPA 624.1		7/27/19 06:52	PDK	D
Ethylbenzene	ND		ug/L	2.5	1.0	EPA 624.1		7/27/19 06:52	PDK	D
Methylene Chloride	2.9J	J	ug/L	5.0	0.70	EPA 624.1		7/27/19 06:52	PDK	D
1,1,2,2-Tetrachloroethane	ND		ug/L	2.5	1.9	EPA 624.1		7/27/19 06:52	PDK	D
Tetrachloroethene	ND		ug/L	2.5	1.4	EPA 624.1		7/27/19 06:52	PDK	D
Toluene	2.7		ug/L	2.5	1.2	EPA 624.1		7/27/19 06:52	PDK	D
1,1,1-Trichloroethane	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 06:52	PDK	D
1,1,2-Trichloroethane	ND		ug/L	2.5	0.65	EPA 624.1		7/27/19 06:52	PDK	D
Trichloroethene	ND		ug/L	2.5	1.5	EPA 624.1		7/27/19 06:52	PDK	D
Trichlorofluoromethane	ND		ug/L	2.5	1.6	EPA 624.1		7/27/19 06:52	PDK	D
Vinyl Chloride	ND		ug/L	2.5	1.7	EPA 624.1		7/27/19 06:52	PDK	D

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91		%	72 - 142	EPA 624.1			7/27/19 06:52	PDK	D

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ANALYTICAL RESULTS

Workorder: 3047810 WW/Influent Annual

Lab ID: **3047810001** Date Collected: 7/25/2019 11:15 Matrix: Waste Water

Sample ID: **Influent A-Potomac CS-Annual** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
4-Bromofluorobenzene (S)	116		%	73 - 119		EPA 624.1			7/27/19 06:52	PDK	D
Dibromofluoromethane (S)	89.6		%	74 - 132		EPA 624.1			7/27/19 06:52	PDK	D
Toluene-d8 (S)	96.1		%	75 - 133		EPA 624.1			7/27/19 06:52	PDK	D
WET CHEMISTRY											
Cyanide, Total	ND		mg/L	0.0020	0.00090	KELADA-01			7/31/19 15:17	RXB	A
Oil/Grease Hexane Extractable	17.8		mg/L	3.9	1.3	EPA 1664B			7/29/19 15:30	ELS	B
Oil/Grease Silica Gel Treated	18.3		mg/L	3.9	1.3	EPA 1664B			7/29/19 15:30	ELS	B
Phenolics	0.036		mg/L	0.005	0.002	EPA 420.4	7/30/19 14:35	C_D	7/31/19 06:14	C_D	F

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3047810 WW/Influent Annual

Lab ID: **3047810002** Date Collected: 7/25/2019 11:20 Matrix: Waste Water

Sample ID: **Influent B-Potomac SS-Annual** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acrolein	ND	1	ug/L	12.5	6.6	EPA 624.1		7/27/19 07:15	PDK	D
Acrylonitrile	ND		ug/L	25.0	10.1	EPA 624.1		7/27/19 07:15	PDK	D
Benzene	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 07:15	PDK	D
Bromodichloromethane	ND		ug/L	2.5	0.90	EPA 624.1		7/27/19 07:15	PDK	D
Bromoform	ND		ug/L	2.5	1.9	EPA 624.1		7/27/19 07:15	PDK	D
Bromomethane	ND		ug/L	5.0	2.1	EPA 624.1		7/27/19 07:15	PDK	D
Carbon Tetrachlorlde	ND		ug/L	5.0	1.2	EPA 624.1		7/27/19 07:15	PDK	D
Chlorobenzene	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 07:15	PDK	D
Chlorodibromomethane	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 07:15	PDK	D
Chloroethane	ND		ug/L	5.0	2.4	EPA 624.1		7/27/19 07:15	PDK	D
2-Chloroethylvinyl ether	ND		ug/L	25.0	15.7	EPA 624.1		7/27/19 07:15	PDK	D
Chloroform	3.2		ug/L	2.5	0.75	EPA 624.1		7/27/19 07:15	PDK	D
Chloromethane	ND		ug/L	5.0	1.7	EPA 624.1		7/27/19 07:15	PDK	D
1,2-Dichlorobenzene	ND		ug/L	5.0	1.9	EPA 624.1		7/27/19 07:15	PDK	D
1,3-Dichlorobenzene	ND		ug/L	5.0	2.2	EPA 624.1		7/27/19 07:15	PDK	D
1,4-Dichlorobenzene	ND		ug/L	5.0	2.2	EPA 624.1		7/27/19 07:15	PDK	D
1,1-Dichloroethane	ND		ug/L	2.5	0.25	EPA 624.1		7/27/19 07:15	PDK	D
1,2-Dichloroethane	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 07:15	PDK	D
1,1-Dichloroethene	ND		ug/L	2.5	0.65	EPA 624.1		7/27/19 07:15	PDK	D
trans-1,2-Dichloroethene	ND		ug/L	2.5	0.40	EPA 624.1		7/27/19 07:15	PDK	D
1,2-Dichloropropane	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 07:15	PDK	D
cis-1,3-Dichloropropene	ND		ug/L	2.5	1.4	EPA 624.1		7/27/19 07:15	PDK	D
trans-1,3-Dichloropropene	ND		ug/L	2.5	1.1	EPA 624.1		7/27/19 07:15	PDK	D
1,3-Dichloropropene, Total	ND		ug/L	5.0	2.4	EPA 624.1		7/27/19 07:15	PDK	D
Ethylbenzene	ND		ug/L	2.5	1.0	EPA 624.1		7/27/19 07:15	PDK	D
Methylene Chloride	2.7J	J	ug/L	5.0	0.70	EPA 624.1		7/27/19 07:15	PDK	D
1,1,2,2-Tetrachloroethane	ND		ug/L	2.5	1.9	EPA 624.1		7/27/19 07:15	PDK	D
Tetrachloroethene	ND		ug/L	2.5	1.4	EPA 624.1		7/27/19 07:15	PDK	D
Toluene	ND		ug/L	2.5	1.2	EPA 624.1		7/27/19 07:15	PDK	D
1,1,1-Trichloroethane	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 07:15	PDK	D
1,1,2-Trichloroethane	ND		ug/L	2.5	0.65	EPA 624.1		7/27/19 07:15	PDK	D
Trichloroethene	ND		ug/L	2.5	1.5	EPA 624.1		7/27/19 07:15	PDK	D
Trichlorofluoromethane	ND		ug/L	2.5	1.6	EPA 624.1		7/27/19 07:15	PDK	D
Vinyl Chloride	ND		ug/L	2.5	1.7	EPA 624.1		7/27/19 07:15	PDK	D

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91.9		%	72 - 142	EPA 624.1			7/27/19 07:15	PDK	D

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ANALYTICAL RESULTS

Workorder: 3047810 WW/Influent Annual

Lab ID: **3047810002** Date Collected: 7/25/2019 11:20 Matrix: Waste Water

Sample ID: **Influent B-Potomac SS-Annual** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
4-Bromofluorobenzene (S)	113		%	73 - 119		EPA 624.1		7/27/19 07:15	PDK	D
Dibromofluoromethane (S)	91.9		%	74 - 132		EPA 624.1		7/27/19 07:15	PDK	D
Toluene-d8 (S)	96.4		%	75 - 133		EPA 624.1		7/27/19 07:15	PDK	D
WET CHEMISTRY										
Cyanide, Total	0.0015J	J	mg/L	0.0020	0.00090	KELADA-01		7/31/19 15:17	RXB	A
Oil/Grease Hexane Extractable	13.4		mg/L	3.9	1.3	EPA 1664B		7/29/19 15:30	ELS	B
Oil/Grease Silica Gel Treated	2.4J	J	mg/L	3.9	1.3	EPA 1664B		7/29/19 15:30	ELS	B
Phenolics	0.033		mg/L	0.005	0.002	EPA 420.4	7/30/19 14:35 C_D	7/31/19 06:14	C_D	F

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3047810 WW/Influent Annual

Lab ID: **3047810003** Date Collected: 7/25/2019 11:40 Matrix: Waste Water
Sample ID: **Influent C-Boiling-Annual** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
VOLATILE ORGANICS										
Acrolein	ND	1	ug/L	12.5	6.6	EPA 624.1		7/27/19 07:39	PDK	D
Acrylonitrile	ND		ug/L	25.0	10.1	EPA 624.1		7/27/19 07:39	PDK	D
Benzene	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 07:39	PDK	D
Bromodichloromethane	ND		ug/L	2.5	0.90	EPA 624.1		7/27/19 07:39	PDK	D
Bromoform	ND		ug/L	2.5	1.9	EPA 624.1		7/27/19 07:39	PDK	D
Bromomethane	ND		ug/L	5.0	2.1	EPA 624.1		7/27/19 07:39	PDK	D
Carbon Tetrachloride	ND		ug/L	5.0	1.2	EPA 624.1		7/27/19 07:39	PDK	D
Chlorobenzene	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 07:39	PDK	D
Chlorodibromomethane	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 07:39	PDK	D
Chloroethane	ND		ug/L	5.0	2.4	EPA 624.1		7/27/19 07:39	PDK	D
2-Chloroethylvinyl ether	ND		ug/L	25.0	15.7	EPA 624.1		7/27/19 07:39	PDK	D
Chloroform	3.9		ug/L	2.5	0.75	EPA 624.1		7/27/19 07:39	PDK	D
Chloromethane	ND		ug/L	5.0	1.7	EPA 624.1		7/27/19 07:39	PDK	D
1,2-Dichlorobenzene	ND		ug/L	5.0	1.9	EPA 624.1		7/27/19 07:39	PDK	D
1,3-Dichlorobenzene	ND		ug/L	5.0	2.2	EPA 624.1		7/27/19 07:39	PDK	D
1,4-Dichlorobenzene	ND		ug/L	5.0	2.2	EPA 624.1		7/27/19 07:39	PDK	D
1,1-Dichloroethane	ND		ug/L	2.5	0.25	EPA 624.1		7/27/19 07:39	PDK	D
1,2-Dichloroethane	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 07:39	PDK	D
1,1-Dichloroethene	ND		ug/L	2.5	0.65	EPA 624.1		7/27/19 07:39	PDK	D
trans-1,2-Dichloroethene	ND		ug/L	2.5	0.40	EPA 624.1		7/27/19 07:39	PDK	D
1,2-Dichloropropane	ND		ug/L	2.5	1.3	EPA 624.1		7/27/19 07:39	PDK	D
cis-1,3-Dichloropropene	ND		ug/L	2.5	1.4	EPA 624.1		7/27/19 07:39	PDK	D
trans-1,3-Dichloropropene	ND		ug/L	2.5	1.1	EPA 624.1		7/27/19 07:39	PDK	D
1,3-Dichloropropene, Total	ND		ug/L	5.0	2.4	EPA 624.1		7/27/19 07:39	PDK	D
Ethylbenzene	ND		ug/L	2.5	1.0	EPA 624.1		7/27/19 07:39	PDK	D
Methylene Chloride	2.3J	J	ug/L	5.0	0.70	EPA 624.1		7/27/19 07:39	PDK	D
1,1,2,2-Tetrachloroethane	ND		ug/L	2.5	1.9	EPA 624.1		7/27/19 07:39	PDK	D
Tetrachloroethene	ND		ug/L	2.5	1.4	EPA 624.1		7/27/19 07:39	PDK	D
Toluene	1.6J	J	ug/L	2.5	1.2	EPA 624.1		7/27/19 07:39	PDK	D
1,1,1-Trichloroethane	ND		ug/L	2.5	0.60	EPA 624.1		7/27/19 07:39	PDK	D
1,1,2-Trichloroethane	ND		ug/L	2.5	0.65	EPA 624.1		7/27/19 07:39	PDK	D
Trichloroethene	ND		ug/L	2.5	1.5	EPA 624.1		7/27/19 07:39	PDK	D
Trichlorofluoromethane	ND		ug/L	2.5	1.6	EPA 624.1		7/27/19 07:39	PDK	D
Vinyl Chloride	ND		ug/L	2.5	1.7	EPA 624.1		7/27/19 07:39	PDK	D

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91.1		%	72 - 142	EPA 624.1			7/27/19 07:39	PDK	D

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ANALYTICAL RESULTS

Workorder: 3047810 WW/Influent Annual

Lab ID: **3047810003** Date Collected: 7/25/2019 11:40 Matrix: Waste Water

Sample ID: **Influent C-Boiling-Annual** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
4-Bromofluorobenzene (S)	111		%	73 - 119		EPA 624.1			7/27/19 07:39	PDK	D
Dibromofluoromethane (S)	90.3		%	74 - 132		EPA 624.1			7/27/19 07:39	PDK	D
Toluene-d8 (S)	96.1		%	75 - 133		EPA 624.1			7/27/19 07:39	PDK	D
WET CHEMISTRY											
Cyanide, Total	0.0012J	J	mg/L	0.0020	0.00090	KELADA-01			7/31/19 15:17	RXB	A
Oil/Grease Hexane Extractable	6.5		mg/L	4.0	1.3	EPA 1664B			7/29/19 15:30	ELS	B
Oil/Grease Silica Gel Treated	1.7J	J	mg/L	4.0	1.3	EPA 1664B			7/29/19 15:30	ELS	B
Phenolics	0.008		mg/L	0.005	0.002	EPA 420.4	7/30/19 14:35	C_D	7/31/19 06:14	C_D	F

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ANALYTICAL RESULTS

Workorder: 3047810 WW/Influent Annual

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3047810001	1	Influent A-Potomac CS-Annual	EPA 624.1	Acrolein
The reporting limits for GCMS volatile analytes were raised due to the dilution of the sample caused by matrix.				
3047810002	1	Influent B-Potomac SS-Annual	EPA 624.1	Acrolein
The reporting limits for GCMS volatile analytes were raised due to the dilution of the sample caused by matrix.				
3047810003	1	Influent C-Boiling-Annual	EPA 624.1	Acrolein
The reporting limits for GCMS volatile analytes were raised due to the dilution of the sample caused by matrix.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3047810 WW/Influent Annual

Lab ID	Sample ID	Analysis Method	Prep Method
3047810001	Influent A-Potomac CS-Annual	EPA 1664B	
3047810001	Influent A-Potomac CS-Annual	EPA 420.4	420.4/9066
3047810001	Influent A-Potomac CS-Annual	EPA 624.1	
3047810001	Influent A-Potomac CS-Annual	KELADA-01	
3047810002	Influent B-Potomac SS-Annual	EPA 1664B	
3047810002	Influent B-Potomac SS-Annual	EPA 420.4	420.4/9066
3047810002	Influent B-Potomac SS-Annual	EPA 624.1	
3047810002	Influent B-Potomac SS-Annual	KELADA-01	
3047810003	Influent C-Boiling-Annual	EPA 1664B	
3047810003	Influent C-Boiling-Annual	EPA 420.4	420.4/9066
3047810003	Influent C-Boiling-Annual	EPA 624.1	
3047810003	Influent C-Boiling-Annual	KELADA-01	

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

CC AL

3047810

zxzx of xyxy

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Client Name: DCWASA - OTHERS
Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Elaine Wilson
Phone#: 202-787-4177
Project Name/#: WW/Influent Annual
Bill To: Accounts Payable Office- 4th Floor

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required: _____ Approved By: _____
Email? [X] -Y
Fax? [ ] -Y No.: _____

(receiving Lab)
Cooler Temp: 0°C Therm ID: 525
No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?	A		SB
(if present) Seals Intact?	Y		
Received on Ice?	Y		SB
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Cyanide	TPH plus total O&G	VOC - 624	200.8 (As, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn, Sb, Ba, Tl)	Chloride	Semivolatiles - EPA 625 - including TCDD dioxin	Pesticides/PCBs EPA 608	Total Phenolic Compounds	Asbestos	Sample/COC Comments
			Container Type		PL	AG/CG	CG	PL	PL	AG	AG	AG	PL	
			Container Size		100 mL	250 mL	40 mL	125 mL	250 mL	1L	1L	1L	1L	
			Preservative		NaOH	H2SO4	HCl	HNO3	None	None	None	H2SO4	None	
			ANALYSES/METHOD REQUESTED											
			Enter Number of Containers Per Sample or Field Results Below.											
19 - Influent A - Potomac CS - Annual	7/25/19	1115	G	WW	1	2	2					1		
19 - Influent A - Potomac CS - Annual			C	WW				1	1	1	1		1	24-h composite
19 - Influent B - Potomac SS - Annual	7/25/19	1120	G	WW	1	2	2					1		
19 - Influent B - Potomac SS - Annual			C	WW				1	1	1	1		1	24-h composite
19 - Influent C - Boiling - Annual	7/25/19	1140	G	WW	1	2	2					1		
19 - Influent C - Boiling - Annual			C	WW				1	1	1	1		1	24-h composite

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther: _____

Project Comments: Need lowest detection limit available for all metals, report J Flags

LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	7/25/19	1515	2 ALS	7/25/19	1550
3 ALS	7/25/19		4		
5 ALS courier			6		
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Special Processing: USACE [ ] Navy [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]
Reportable to PADEP? Yes [ ] PWSID # _____
Sample Disposal: Lab [ ] Special [ ]
EDDS: Format Type: _____

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; Ol=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

ALS

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DC Wasa	3047816	QV	7/26/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #:								
Temperature (°C):	0 C							
Thermometer ID:	528							
Radiological (µCi):								

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

ALS Environmental

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August 13, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Wastewater (WW)**	Workorder:	**3048061**
Purchase Order:	**190108**	Workorder ID:	**WW/Influent-Annual 07/26/19**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Friday, July 26, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3048061001	Influent A-Potomac CS-Annual	Waste Water	7/26/2019 09:00	7/26/2019 21:00	Collected by Client
3048061002	Influent B-Potomac SS-Annual	Waste Water	7/26/2019 09:10	7/26/2019 21:00	Collected by Client
3048061003	Influent C-Boiling-Annual	Waste Water	7/26/2019 09:20	7/26/2019 21:00	Collected by Client

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SAMPLE SUMMARY

Workorder: 3048061 WW/Influent-Annual 07/26/19

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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PROJECT SUMMARY

Workorder: 3048061 WW/Influent-Annual 07/26/19

Workorder Comments

See attached subcontract results from EMSL Analytical Inc #3048061. SJS 08/13/19

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061001** Date Collected: 7/26/2019 09:00 Matrix: Waste Water

Sample ID: **Influent A-Potomac CS-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
SEMIVOLATILES											
Acenaphthene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Acenaphthylene	ND		ug/L	1.6	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Anthracene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Benzidine	ND		ug/L	4.3	2.7	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Benzo(a)anthracene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Benzo(a)pyrene	ND		ug/L	1.6	0.38	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Benzo(b)fluoranthene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Benzo(g,h,i)perylene	ND		ug/L	1.6	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Benzo(k)fluoranthene	ND		ug/L	1.6	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
4-Bromophenyl-phenylether	ND		ug/L	3.2	0.48	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Butylbenzylphthalate	3.8		ug/L	3.2	0.62	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
4-Chloro-3-methylphenol	ND		ug/L	3.2	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
bis(2-Chloroethoxy)methane	ND		ug/L	3.2	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
bis(2-Chloroethyl)ether	ND		ug/L	3.2	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
bis(2-Chloroisopropyl)ether	ND		ug/L	3.2	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2-Chloronaphthalene	ND		ug/L	3.2	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2-Chlorophenol	ND		ug/L	3.2	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
4-Chlorophenyl-phenylether	ND		ug/L	3.2	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Chrysene	ND		ug/L	1.6	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Di-n-Butylphthalate	ND		ug/L	3.2	0.61	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Di-n-Octylphthalate	ND		ug/L	3.2	0.93	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Dibenzo(a,h)anthracene	ND		ug/L	1.6	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
3,3-Dichlorobenzidine	ND		ug/L	3.2	1.1	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2,4-Dichlorophenol	ND		ug/L	3.2	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Diethylphthalate	2.7J	J	ug/L	3.2	0.59	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2,4-Dimethylphenol	ND		ug/L	3.2	0.50	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Dimethylphthalate	ND		ug/L	3.2	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2,4-Dinitrophenol	ND		ug/L	6.5	3.0	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2,4-Dinitrotoluene	ND		ug/L	3.2	0.48	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2,6-Dinitrotoluene	ND		ug/L	3.2	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
1,2-Diphenylhydrazine	ND		ug/L	3.2	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
bis(2-Ethylhexyl)phthalate	9.2		ug/L	3.2	0.85	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Fluoranthene	ND		ug/L	1.6	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Fluorene	ND		ug/L	1.6	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Hexachlorobenzene	ND		ug/L	3.2	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Hexachlorobutadiene	ND		ug/L	3.2	0.52	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Hexachlorocyclopentadiene	ND		ug/L	3.2	0.78	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B

ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061001** Date Collected: 7/26/2019 09:00 Matrix: Waste Water

Sample ID: **Influent A-Potomac CS-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Hexachloroethane	ND		ug/L	3.2	0.39	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Indeno(1,2,3-cd)pyrene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Isophorone	ND		ug/L	3.2	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2-Methyl-4,6-dinitrophenol	ND		ug/L	6.5	1.3	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Naphthalene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Nitrobenzene	ND		ug/L	3.2	0.55	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2-Nitrophenol	ND		ug/L	3.2	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
4-Nitrophenol	ND		ug/L	3.2	1.4	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
N-Nitrosodimethylamine	ND		ug/L	3.2	1.2	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
N-Nitroso-dl-n-propylamine	ND		ug/L	3.2	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
N-Nitrosodiphenylamine	ND		ug/L	3.2	0.52	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Pentachlorophenol	ND		ug/L	6.5	1.9	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Phenanthrene	ND		ug/L	1.6	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Phenol	4.2J	J	ug/L	8.6	0.27	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Pyrene	ND		ug/L	1.6	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
1,2,4-Trichlorobenzene	ND		ug/L	3.2	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2,4,6-Trichlorophenol	ND		ug/L	3.2	0.50	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	77.4		%	47 - 128	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2-Fluorobiphenyl (S)	77.7		%	52 - 118	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
2-Fluorophenol (S)	51.3		%	20 - 87	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Nitrobenzene-d5 (S)	77.4		%	27 - 139	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Phenol-d5 (S)	36.3		%	10 - 81	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Terphenyl-d14 (S)	80.7		%	46 - 133	EPA 625.1	7/31/19 11:10	J1H	8/1/19 04:50	DHF	B
Pesticides and PCBs										
Aldrin	ND	1	ug/L	0.021	0.0075	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
beta-BHC	ND		ug/L	0.021	0.013	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
delta-BHC	ND		ug/L	0.021	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
gamma-BHC	ND		ug/L	0.021	0.013	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Chlordane	ND		ug/L	0.21	0.075	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
alpha-Chlordane	ND		ug/L	0.021	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
gamma-Chlordane	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
4,4'-DDD	ND		ug/L	0.021	0.020	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
4,4'-DDE	ND		ug/L	0.021	0.020	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
4,4'-DDT	ND		ug/L	0.021	0.0075	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Dieldrin	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Endosulfan I	ND		ug/L	0.021	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061001** Date Collected: 7/26/2019 09:00 Matrix: Waste Water

Sample ID: **Influent A-Potomac CS-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Endosulfan II	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Endosulfan Sulfate	ND		ug/L	0.021	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Endrin	ND		ug/L	0.021	0.014	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Endrin Aldehyde	ND		ug/L	0.021	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Endrin Ketone	ND		ug/L	0.021	0.017	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
alpha-HCH (alpha-BHC)	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Heptachlor	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Heptachlor Epoxide	ND		ug/L	0.021	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Methoxychlor	ND		ug/L	0.021	0.017	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Mirex	ND		ug/L	0.021	0.016	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Toxaphene	ND		ug/L	0.53	0.21	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Aroclor-1016	ND		ug/L	0.53	0.067	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Aroclor-1221	ND		ug/L	0.53	0.071	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Aroclor-1232	ND		ug/L	0.53	0.048	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Aroclor-1242	ND		ug/L	0.53	0.051	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Aroclor-1248	ND		ug/L	0.53	0.032	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Aroclor-1254	ND		ug/L	0.53	0.029	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Aroclor-1260	ND		ug/L	0.53	0.056	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	45		%	30 - 137		EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Decachlorobiphenyl (S)	60.4		%	30 - 137		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Decachlorobiphenyl (S)	51.7		%	30 - 137		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Tetrachloro-m-xylene (S)	72		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:24	KJH	D
Tetrachloro-m-xylene (S)	81.2		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
Tetrachloro-m-xylene (S)	81.3		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:03	RWS	D
WET CHEMISTRY											
Chloride	101		mg/L	5.0	0.59	EPA 300.0			7/27/19 13:57	CHW	G
METALS											
Antimony, Total	0.00046J	J	mg/L	0.0010	0.00010	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Arsenic, Total	0.00080J	J	mg/L	0.0015	0.00032	EPA 200.8	7/31/19 12:40	AHI	8/5/19 03:20	MSA	A1
Beryllium, Total	0.00010J	J	mg/L	0.00050	0.00004 0	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Cadmium, Total	0.00021		mg/L	0.00020	0.00012	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Chromium, Total	0.0025		mg/L	0.0010	0.00029	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Copper, Total	0.051		mg/L	0.0025	0.00038	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Iron, Total	2.0		mg/L	0.060	0.020	EPA 200.7	7/31/19 12:40	SXC	8/2/19 13:25	MNP	A
Lead, Total	0.0029		mg/L	0.0010	0.00011	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061001** Date Collected: 7/26/2019 09:00 Matrix: Waste Water

Sample ID: **Influent A-Potomac CS-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Manganese, Total	0.17		mg/L	0.0025	0.00011	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Molybdenum, Total	0.0087		mg/L	0.0010	0.00004 0	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Nickel, Total	0.0065		mg/L	0.0025	0.00012	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Selenium, Total	0.0012J	J	mg/L	0.0020	0.00015	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Silver, Total	0.0013		mg/L	0.00050	0.00003 0	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Thallium, Total	ND		mg/L	0.00050	0.00003 0	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Zinc, Total	0.13		mg/L	0.0025	0.00057	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:06	MSA	A1
Sub'd-EMSL Labs											
Asbestos	See attached					Subcontract			7/31/19 11:00	SUB	F

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061002** Date Collected: 7/26/2019 09:10 Matrix: Waste Water

Sample ID: **Influent B-Potomac SS-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
SEMIVOLATILES											
Acenaphthene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Acenaphthylene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Anthracene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Benzidine	ND		ug/L	4.4	2.7	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Benzo(a)anthracene	ND		ug/L	1.6	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Benzo(a)pyrene	ND		ug/L	1.6	0.38	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Benzo(b)fluoranthene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Benzo(g,h,i)perylene	ND		ug/L	1.6	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Benzo(k)fluoranthene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
4-Bromophenyl-phenylether	ND		ug/L	3.3	0.48	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Butylbenzylphthalate	5.5		ug/L	3.3	0.62	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
4-Chloro-3-methylphenol	ND		ug/L	3.3	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
bis(2-Chloroethoxy)methane	ND		ug/L	3.3	0.47	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
bis(2-Chloroethyl)ether	ND		ug/L	3.3	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
bis(2-Chloroisopropyl)ether	ND		ug/L	3.3	0.47	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2-Chloronaphthalene	ND		ug/L	3.3	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2-Chlorophenol	ND		ug/L	3.3	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
4-Chlorophenyl-phenylether	ND		ug/L	3.3	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Chrysene	ND		ug/L	1.6	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Di-n-Butylphthalate	ND		ug/L	3.3	0.61	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Di-n-Octylphthalate	ND		ug/L	3.3	0.94	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Dibenzo(a,h)anthracene	ND		ug/L	1.6	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
3,3-Dichlorobenzidine	ND		ug/L	3.3	1.1	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2,4-Dichlorophenol	ND		ug/L	3.3	0.47	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Diethylphthalate	2.1J	J	ug/L	3.3	0.60	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2,4-Dimethylphenol	ND		ug/L	3.3	0.50	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Dimethylphthalate	ND		ug/L	3.3	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2,4-Dinitrophenol	ND		ug/L	6.6	3.0	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2,4-Dinitrotoluene	ND		ug/L	3.3	0.48	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2,6-Dinitrotoluene	ND		ug/L	3.3	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
1,2-Diphenylhydrazine	ND		ug/L	3.3	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
bis(2-Ethylhexyl)phthalate	8.1		ug/L	3.3	0.86	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Fluoranthene	ND		ug/L	1.6	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Fluorene	ND		ug/L	1.6	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Hexachlorobenzene	ND		ug/L	3.3	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Hexachlorobutadiene	ND		ug/L	3.3	0.52	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Hexachlorocyclopentadiene	ND		ug/L	3.3	0.79	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B

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State Certifications: FL E87113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061002** Date Collected: 7/26/2019 09:10 Matrix: Waste Water
Sample ID: **Influent B-Potomac SS-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Hexachloroethane	ND		ug/L	3.3	0.39	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Indeno(1,2,3-cd)pyrene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Isophorone	ND		ug/L	3.3	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2-Methyl-4,6-dinitrophenol	ND		ug/L	6.6	1.3	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Naphthalene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Nitrobenzene	ND		ug/L	3.3	0.56	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2-Nitrophenol	ND		ug/L	3.3	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
4-Nitrophenol	ND		ug/L	3.3	1.5	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
N-Nitrosodimethylamine	ND		ug/L	3.3	1.2	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
N-Nitroso-di-n-propylamine	ND		ug/L	3.3	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
N-Nitrosodiphenylamine	ND		ug/L	3.3	0.52	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Pentachlorophenol	ND		ug/L	6.6	1.9	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Phenanthrene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Phenol	2.5J	J	ug/L	8.7	0.27	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Pyrene	ND		ug/L	1.6	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
1,2,4-Trichlorobenzene	ND		ug/L	3.3	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2,4,6-Trichlorophenol	ND		ug/L	3.3	0.50	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	82.1		%	47 - 128	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2-Fluorobiphenyl (S)	80		%	52 - 118	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
2-Fluorophenol (S)	49.7		%	20 - 87	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Nitrobenzene-d5 (S)	76		%	27 - 139	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Phenol-d5 (S)	37.9		%	10 - 81	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Terphenyl-d14 (S)	84.7		%	46 - 133	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:16	DHF	B
Pesticides and PCBs										
Aldrin	ND	1	ug/L	0.022	0.0077	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
beta-BHC	ND		ug/L	0.022	0.013	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
delta-BHC	ND		ug/L	0.022	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
gamma-BHC	ND		ug/L	0.022	0.013	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Chlordane	ND		ug/L	0.22	0.077	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
alpha-Chlordane	ND		ug/L	0.022	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
gamma-Chlordane	ND		ug/L	0.022	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
4,4'-DDD	ND		ug/L	0.022	0.021	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
4,4'-DDE	ND		ug/L	0.022	0.021	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
4,4'-DDT	ND		ug/L	0.022	0.0077	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Dieldrin	ND		ug/L	0.022	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Endosulfan I	ND		ug/L	0.022	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061002** Date Collected: 7/26/2019 09:10 Matrix: Waste Water

Sample ID: **Influent B-Potomac SS-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Endosulfan II	ND		ug/L	0.022	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Endosulfan Sulfate	ND		ug/L	0.022	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Endrin	ND		ug/L	0.022	0.014	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Endrin Aldehyde	ND		ug/L	0.022	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Endrin Ketone	ND		ug/L	0.022	0.017	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
alpha-HCH (alpha-BHC)	ND		ug/L	0.022	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Heptachlor	ND		ug/L	0.022	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Heptachlor Epoxide	ND		ug/L	0.022	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Methoxychlor	ND		ug/L	0.022	0.017	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Mirex	ND		ug/L	0.022	0.016	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Toxaphene	ND		ug/L	0.55	0.22	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Aroclor-1016	ND		ug/L	0.55	0.069	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Aroclor-1221	ND		ug/L	0.55	0.072	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Aroclor-1232	ND		ug/L	0.55	0.049	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Aroclor-1242	ND		ug/L	0.55	0.052	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Aroclor-1248	ND		ug/L	0.55	0.033	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Aroclor-1254	ND		ug/L	0.55	0.030	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Aroclor-1260	ND		ug/L	0.55	0.057	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	45.9		%	30 - 137		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Decachlorobiphenyl (S)	51.6		%	30 - 137		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Decachlorobiphenyl (S)	41.3		%	30 - 137		EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Tetrachloro-m-xylene (S)	66.4		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:35	KJH	D
Tetrachloro-m-xylene (S)	69		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
Tetrachloro-m-xylene (S)	72.5		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:15	RWS	D
WET CHEMISTRY											
Chloride	104		mg/L	5.0	0.59	EPA 300.0			7/27/19 14:15	CHW	G
METALS											
Antimony, Total	0.00099J	J	mg/L	0.0010	0.00010	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Arsenic, Total	0.0013J	J	mg/L	0.0015	0.00032	EPA 200.8	7/31/19 12:40	AHI	8/5/19 03:24	MSA	A1
Beryllium, Total	0.000054 J	J	mg/L	0.00050	0.00004 0	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Cadmium, Total	0.00015J	J	mg/L	0.00020	0.00012	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Chromium, Total	0.0044		mg/L	0.0010	0.00029	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Copper, Total	0.059		mg/L	0.0025	0.00038	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Iron, Total	3.5		mg/L	0.060	0.020	EPA 200.7	7/31/19 12:40	SXC	8/2/19 12:46	MNP	A
Lead, Total	0.0077		mg/L	0.0010	0.00011	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061002** Date Collected: 7/26/2019 09:10 Matrix: Waste Water

Sample ID: **Influent B-Potomac SS-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Manganese, Total	0.12		mg/L	0.0025	0.00011	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Molybdenum, Total	0.0079		mg/L	0.0010	0.000040	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Nickel, Total	0.0076		mg/L	0.0025	0.00012	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Selenium, Total	0.00041J	J	mg/L	0.0020	0.00015	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Silver, Total	0.00039J	J	mg/L	0.00050	0.000030	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Thallium, Total	ND		mg/L	0.00050	0.000030	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Zinc, Total	0.15		mg/L	0.0025	0.00057	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:13	MSA	A1
Sub'd-EMSL Labs											
Asbestos	See attached					Subcontract			7/31/19 11:00	SUB	F

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061003** Date Collected: 7/26/2019 09:20 Matrix: Waste Water

Sample ID: **Influent C-Boiling-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
SEMIVOLATILES											
Acenaphthene	ND		ug/L	1.6	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Acenaphthylene	ND		ug/L	1.6	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Anthracene	ND		ug/L	1.6	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Benzidine	ND		ug/L	4.2	2.6	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Benzo(a)anthracene	ND		ug/L	1.6	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Benzo(a)pyrene	ND		ug/L	1.6	0.37	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Benzo(b)fluoranthene	ND		ug/L	1.6	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Benzo(g,h,i)perylene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Benzo(k)fluoranthene	ND		ug/L	1.6	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
4-Bromophenyl-phenylether	ND		ug/L	3.1	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Butylbenzylphthalate	3.2		ug/L	3.1	0.60	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
4-Chloro-3-methylphenol	ND		ug/L	3.1	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
bis(2-Chloroethoxy)methane	ND		ug/L	3.1	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
bis(2-Chloroethyl)ether	ND		ug/L	3.1	0.39	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
bis(2-Chloroisopropyl)ether	ND		ug/L	3.1	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2-Chloronaphthalene	ND		ug/L	3.1	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2-Chlorophenol	ND		ug/L	3.1	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
4-Chlorophenyl-phenylether	ND		ug/L	3.1	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Chrysene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Di-n-Butylphthalate	ND		ug/L	3.1	0.59	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Di-n-Octylphthalate	ND		ug/L	3.1	0.90	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Dibenzo(a,h)anthracene	ND		ug/L	1.6	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
3,3-Dichlorobenzidine	ND		ug/L	3.1	1.1	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2,4-Dichlorophenol	ND		ug/L	3.1	0.45	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Diethylphthalate	2.5J	J	ug/L	3.1	0.58	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2,4-Dimethylphenol	ND		ug/L	3.1	0.48	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Dimethylphthalate	ND		ug/L	3.1	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2,4-Dinitrophenol	ND		ug/L	6.3	2.9	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2,4-Dinitrotoluene	ND		ug/L	3.1	0.46	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2,6-Dinitrotoluene	ND		ug/L	3.1	0.42	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
1,2-Diphenylhydrazine	ND		ug/L	3.1	0.39	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
bis(2-Ethylhexyl)phthalate	8.5		ug/L	3.1	0.83	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Fluoranthene	ND		ug/L	1.6	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Fluorene	ND		ug/L	1.6	0.39	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Hexachlorobenzene	ND		ug/L	3.1	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Hexachlorobutadiene	ND		ug/L	3.1	0.50	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Hexachlorocyclopentadiene	ND		ug/L	3.1	0.75	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061003** Date Collected: 7/26/2019 09:20 Matrix: Waste Water
Sample ID: **Influent C-Boiling-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Hexachloroethane	ND		ug/L	3.1	0.38	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Indeno(1,2,3-cd)pyrene	ND		ug/L	1.6	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Isophorone	ND		ug/L	3.1	0.44	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2-Methyl-4,6-dinitrophenol	ND		ug/L	6.3	1.3	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Naphthalene	ND		ug/L	1.6	0.41	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Nitrobenzene	ND		ug/L	3.1	0.53	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2-Nitrophenol	ND		ug/L	3.1	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
4-Nitrophenol	ND		ug/L	3.1	1.4	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
N-Nitrosodimethylamine	ND		ug/L	3.1	1.1	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
N-Nitroso-di-n-propylamine	ND		ug/L	3.1	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
N-Nitrosodiphenylamine	ND		ug/L	3.1	0.50	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Pentachlorophenol	ND		ug/L	6.3	1.8	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Phenanthrene	ND		ug/L	1.6	0.40	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Phenol	1.7J	J	ug/L	8.4	0.26	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Pyrene	ND		ug/L	1.6	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
1,2,4-Trichlorobenzene	ND		ug/L	3.1	0.43	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2,4,6-Trichlorophenol	ND		ug/L	3.1	0.48	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	78.8		%	47 - 128	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2-Fluorobiphenyl (S)	76.7		%	52 - 118	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
2-Fluorophenol (S)	48.3		%	20 - 87	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Nitrobenzene-d5 (S)	76.3		%	27 - 139	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Phenol-d5 (S)	36.8		%	10 - 81	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Terphenyl-d14 (S)	86.3		%	46 - 133	EPA 625.1	7/31/19 11:10	J1H	8/1/19 05:43	DHF	B
Pesticides and PCBs										
Aldrin	ND	1	ug/L	0.021	0.0075	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
beta-BHC	ND		ug/L	0.021	0.013	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
delta-BHC	ND		ug/L	0.021	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
gamma-BHC	ND		ug/L	0.021	0.013	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Chlordane	ND		ug/L	0.21	0.075	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
alpha-Chlordane	ND		ug/L	0.021	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
gamma-Chlordane	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
4,4'-DDD	ND		ug/L	0.021	0.020	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
4,4'-DDE	ND		ug/L	0.021	0.020	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
4,4'-DDT	ND		ug/L	0.021	0.0075	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Dieldrin	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Endosulfan I	ND		ug/L	0.021	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061003** Date Collected: 7/26/2019 09:20 Matrix: Waste Water

Sample ID: **Influent C-Boiling-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Endosulfan II	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Endosulfan Sulfate	ND		ug/L	0.021	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Endrin	ND		ug/L	0.021	0.014	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Endrin Aldehyde	ND		ug/L	0.021	0.015	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Endrin Ketone	ND		ug/L	0.021	0.017	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
alpha-HCH (alpha-BHC)	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Heptachlor	ND		ug/L	0.021	0.012	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Heptachlor Epoxide	ND		ug/L	0.021	0.011	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Methoxychlor	ND		ug/L	0.021	0.017	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Mirex	ND		ug/L	0.021	0.016	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Toxaphene	ND		ug/L	0.53	0.21	EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Aroclor-1016	ND		ug/L	0.53	0.067	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
Aroclor-1221	ND		ug/L	0.53	0.071	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
Aroclor-1232	ND		ug/L	0.53	0.048	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
Aroclor-1242	ND		ug/L	0.53	0.051	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
Aroclor-1248	ND		ug/L	0.53	0.032	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
Aroclor-1254	ND		ug/L	0.53	0.029	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
Aroclor-1260	ND		ug/L	0.53	0.056	EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	43.4		%	30 - 137		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Decachlorobiphenyl (S)	40.1		%	30 - 137		EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
Tetrachloro-m-xylene (S)	69.5		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Tetrachloro-m-xylene (S)	66.2		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/1/19 15:26	RWS	D
Tetrachloro-m-xylene (S)	68.8		%	30 - 144		EPA 608.3	7/30/19 18:15	J1H	8/2/19 01:47	KJH	D
WET CHEMISTRY											
Chloride	105		mg/L	5.0	0.59	EPA 300.0			7/27/19 14:33	CHW	G
METALS											
Antimony, Total	0.00073J	J	mg/L	0.0010	0.00010	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Arsenic, Total	0.0012J	J	mg/L	0.0015	0.00032	EPA 200.8	7/31/19 12:40	AHI	8/5/19 03:27	MSA	A1
Beryllium, Total	0.000099 J	J	mg/L	0.00050	0.00004 0	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Cadmium, Total	0.00017J	J	mg/L	0.00020	0.00012	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Chromium, Total	0.0079		mg/L	0.0010	0.00029	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Copper, Total	0.065		mg/L	0.0025	0.00038	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Iron, Total	8.5		mg/L	0.060	0.020	EPA 200.7	7/31/19 12:40	SXC	8/2/19 13:28	MNP	A
Lead, Total	0.012		mg/L	0.0010	0.00011	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Manganese, Total	0.16		mg/L	0.0025	0.00011	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID: **3048061003** Date Collected: 7/26/2019 09:20 Matrix: Waste Water

Sample ID: **Influent C-Boiling-Annual** Date Received: 7/26/2019 21:00

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Molybdenum, Total	0.010		mg/L	0.0010	0.000040	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Nickel, Total	0.0075		mg/L	0.0025	0.00012	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Selenium, Total	0.00048J	J	mg/L	0.0020	0.00015	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Silver, Total	0.00032J	J	mg/L	0.00050	0.000030	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Thallium, Total	ND		mg/L	0.00050	0.000030	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Zinc, Total	0.14		mg/L	0.0025	0.00057	EPA 200.8	7/31/19 12:40	AHI	8/1/19 08:10	MSA	A1
Sub'd-EMSL Labs											
Asbestos	See attached					Subcontract			7/31/19 11:00	SUB	F

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3048061 WW/Influent-Annual 07/26/19

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3048061001	1	Influent A-Potomac CS-Annual	EPA 608.3	Aldrin

The bracketing CCV for method 608.3 was outside the control limits for the following analytes:

gamma-BHC - the % recovery was reported as 139 and the control limits were 75 to 125.

beta-BHC - the % recovery was reported as 137 and the control limits were 75 to 125.

delta-BHC - the % recovery was reported as 125 and the control limits were 75 to 125.

Heptachlor- the % recovery was reported as 128 and the control limits were 75 to 125.

Endrin- the % recovery was reported as 137 and the control limits were 5 to 125.

4,4'-DDD- the % recovery was reported as 157 and the control limits were 75 to 125.

4,4'-DDT- the % recovery was reported as 54.4 and the control limits were 75 to 125.

3048061002	1	Influent B-Potomac SS-Annual	EPA 608.3	Aldrin

The bracketing CCV for method 608.3 was outside the control limits for the following analytes:

gamma-BHC - the % recovery was reported as 139 and the control limits were 75 to 125.

beta-BHC - the % recovery was reported as 137 and the control limits were 75 to 125.

delta-BHC - the % recovery was reported as 125 and the control limits were 75 to 125.

Heptachlor- the % recovery was reported as 128 and the control limits were 75 to 125.

Endrin- the % recovery was reported as 137 and the control limits were 5 to 125.

4,4'-DDD- the % recovery was reported as 157 and the control limits were 75 to 125.

4,4'-DDT- the % recovery was reported as 54.4 and the control limits were 75 to 125.

3048061003	1	Influent C-Boiling-Annual	EPA 608.3	Aldrin

The bracketing CCV for method 608.3 was outside the control limits for the following analytes:

gamma-BHC - the % recovery was reported as 139 and the control limits were 75 to 125.

beta-BHC - the % recovery was reported as 137 and the control limits were 75 to 125.

delta-BHC - the % recovery was reported as 125 and the control limits were 75 to 125.

Heptachlor- the % recovery was reported as 128 and the control limits were 75 to 125.

Endrin- the % recovery was reported as 137 and the control limits were 5 to 125.

4,4'-DDD- the % recovery was reported as 157 and the control limits were 75 to 125.

4,4'-DDT- the % recovery was reported as 54.4 and the control limits were 75 to 125.

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3048061 WW/Influent-Annual 07/26/19

Lab ID	Sample ID	Analysis Method	Prep Method
3048061001	Influent A-Potomac CS-Annual	EPA 200.7	EPA TRMD
3048061001	Influent A-Potomac CS-Annual	EPA 200.8	EPA TRMD
3048061001	Influent A-Potomac CS-Annual	EPA 300.0	
3048061001	Influent A-Potomac CS-Annual	EPA 608.3	EPA 608.3
3048061001	Influent A-Potomac CS-Annual	EPA 625.1	EPA 625.1
3048061001	Influent A-Potomac CS-Annual	Subcontract	
3048061002	Influent B-Potomac SS-Annual	EPA 200.7	EPA TRMD
3048061002	Influent B-Potomac SS-Annual	EPA 200.8	EPA TRMD
3048061002	Influent B-Potomac SS-Annual	EPA 300.0	
3048061002	Influent B-Potomac SS-Annual	EPA 608.3	EPA 608.3
3048061002	Influent B-Potomac SS-Annual	EPA 625.1	EPA 625.1
3048061002	Influent B-Potomac SS-Annual	Subcontract	
3048061003	Influent C-Boiling-Annual	EPA 200.7	EPA TRMD
3048061003	Influent C-Boiling-Annual	EPA 200.8	EPA TRMD
3048061003	Influent C-Boiling-Annual	EPA 300.0	
3048061003	Influent C-Boiling-Annual	EPA 608.3	EPA 608.3
3048061003	Influent C-Boiling-Annual	EPA 625.1	EPA 625.1
3048061003	Influent C-Boiling-Annual	Subcontract	

Analytical Laboratory Services, Inc.
Environmental ▪ Industrial Hygiene ▪ Field Services
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3048061

zxzx of xyxy

(Completed by Receiving Lab)

Client Name: DCWASA - OTHERS

Address: 5000 Overlook Ave, SW
Washington, D.C. 20032

Contact: Elaine Wilson

Phone#: 202-787-4177

Project Name/#: WW/Influent Annual

Bill To: Accounts Payable Office- 4th Floor

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALSI approval and surcharges.

Date Required: _____ Approved By: _____

Email? [X] -Y

Fax? [ ] -Y No.:

Cooler Temp: 4 Therm ID: 525

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Container Type	PL	AG/CG	CG	PL	PL	AG	AG	AG	PL		Sample/COC Comments
					Container Size	100 mL	250 mL	40 mL	125 mL	250 mL	1L	1L	1L	1L		
					Preservative	NaOH	H2SO4	HCl	HNO3	None	None	None	H2SO4	None		
					ANALYSES/METHOD REQUESTED	Cyanide	TPH plus total O&G	VOC - 624	200.8 (As, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn, Sb, Be, Tl)	Chloride	Semivolatiles - EPA 625 - including TCDD dioxin	Pesticides/PCBs EPA 608	Total Phenolic Compounds	Asbestos		
					Enter Number of Containers Per Sample or Field Results Below.											
19 - Influent A - Potomac CS - Annual			G	WW												
19 - Influent A - Potomac CS - Annual	7/26/19	0900	C	WW					1	1	2	2		1		24-h composite
19 - Influent B - Potomac SS - Annual			G	WW												
19 - Influent B - Potomac SS - Annual	7/26/19	0910	C	WW					1	1	2	2		1		24-h composite
19 - Influent C - Boiling - Annual			G	WW												
19 - Influent C - Boiling - Annual	7/26/19	0920	C	WW					1	1	2	2		1		24-h composite

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther: _____

Project Comments: Need lowest detection limit available for all metals, report J Flags

LOGGED BY(signature): _____ Date _____ Time _____

REVIEWED BY(signature): _____ Date _____ Time _____

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	DCWater	7/26/19	1044	2		7/26	1325
3		7/26	1637	4	COMMON COURIER / ALS COURIER		
5	COMMON COURIER / ALS COURIER			6		7/26/19	2100
7				8			
9				10			

Date Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]

PWSID # _____

Sample Disposal: Lab [ ] Special [ ]

EDOS: Format Type: _____

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

ALS

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DC - Wasa	3048061	QJ	7/27/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #:								
Temperature (°C):	4 C							
Thermometer ID:	525							
Radiological (µCi):								

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

ALS
301 Fulling Mill Rd
Middletown, PA 17057
P. 717-944-5541
F. 717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 041921912 — 1 of 1

ALS Quote #:

Client Name: ALS
Address: 301 Fulling Mill Road, Middletown PA 17057
Contact: Susan Scherer
Phone#: (717) 702-2245
Project Name/#: 3048061
Bill To: ALS

TAT: [ ] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.
Date Required: 8/8/2019 Approved?
Email? [x] -Y susan.scherer@alsglobal.com
Fax? [ ] -Y No.:

Container Type: PL — Container Size: 1L — Preservative: NONE

ANALYSES/METHOD REQUESTED: Asbestos TEM; Ozonate

Receipt Information (completed by Receiving Lab)
W.O. Temp: ____ Therm ID:
Courier/Tracking #:
Purchase Order #: 3048061
Project Comments:
ALS Field Services: ☐ Pickup ☐ Labor ☐ Composite Sampling ☐ Rental Equipment Other:

Enter Number of Containers Per Sample or Field Results Below.

#	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	Asbestos TEM	Ozonate	Sample/COC Comments
1	3048061001	7/26/19	0900	C	WW	1	x	Influent
2	3048061002	7/26/19	0910	C	WW	1	x	Influent
3	3048061003	7/26/19	0920	C	WW	1	x	Influent
4								
5								
6								
7								
8								
9								
10								

RECEIVED EMSL CINNAMINSON, NJ 2019 JUL 30 A 11:58

SAMPLED BY (Please Print):
Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [signature]	7-29-19	1530	2 [signature]	7-1-19	11:50
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [X] Standard [ ] CLP-like [ ] USACE/DOD [ ]
Reportable to PADEP? Yes [ ] No [ ]
PWSID #
EDDS: Format Type-
Special Processing: USACE [ ] Navy [ ]
Sample Disposal: Lab [X] Special [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [X] DC other

3.9°c

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID	041921912
Customer ID:	WRIG51
Customer PO:	3048061
Project ID:	

Attn:	Susan Scherer ALS Environmental 301 Fulling Mill Rd. Middletown, PA 17057	Phone: Fax: Received: Analyzed:	(717) 944-5541 (717) 944-1430 07/30/2019 08/12/2019
Proj:	3048061		

Test Report: Determination of Asbestos Structures > 10µm in Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm²)	Area Analyzed (mm²)	ASBESTOS: Asbestos Types	ASBESTOS: Fibers Detected	ASBESTOS: Analytical Sensitivity (MFL (million fibers per liter))	ASBESTOS: Concentration (MFL)	ASBESTOS: Confidence Limits (MFL)
3048061001 041921912-0001	7/31/2019 11:00 AM	5	1360	0.2640	None Detected	ND	1.00	<1.00	0.00 - 3.80
Collection Date/Time: 07/26/2019									
Due to excessive particulate the analytical sensitivity of 0.2 MFL as required by the method was not reached.									
3048061002 041921912-0002	7/31/2019 11:00 AM	0.50	1360	0.2640	None Detected	ND	10.00	<10.00	0.00 - 38.00
Collection Date/Time: 07/26/2019									
Due to excessive particulate the analytical sensitivity of 0.2 MFL as required by the method was not reached.									
3048061003 041921912-0003	7/31/2019 11:00 AM	0.50	1360	0.2640	None Detected	ND	10.00	<10.00	0.00 - 38.00
Collection Date/Time: 07/26/2019									
Due to excessive particulate the analytical sensitivity of 0.2 MFL as required by the method was not reached.									

Analyst(s)
Sarah Richey (3)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

Any questions please contact Benjamin Ellis.

Initial report from: 08/12/2019 20:00:59

Biosolids Priority Pollutant Data

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

August 6, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Biosolids 07/25/19**	Workorder:	**3047768**
Purchase Order:	**190108**	Workorder ID:	**Biosolids 07/25/19**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Thursday, July 25, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3047768 Biosolids 07/25/19

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3047768001	19-Digest BFP BOC JUL-SEP	Solid	7/25/2019 12:10	7/25/2019 22:45	Collected by Client
3047768002	19-Digest BFP BOC Annual	Solid	7/25/2019 12:10	7/25/2019 22:45	Collected by Client

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3047768 Biosolids 07/25/19

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

ALS Environmental

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PROJECT SUMMARY

Workorder: 3047768 Biosolids 07/25/19

Workorder Comments

See attached subcontract data from EMSL Analytical Inc. for Asbestos on ALS#3047768002. SJS 08/06/19

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	1110		ug/kg	80.5	37.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Benzene	14.4J	J	ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Bromochloromethane	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Bromodichloromethane	ND		ug/kg	16.1	5.7	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Bromoform	ND		ug/kg	16.1	4.2	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Bromomethane	ND		ug/kg	16.1	4.2	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
2-Butanone	592		ug/kg	80.5	25.8	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Carbon Disulfide	48.4		ug/kg	16.1	5.1	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Carbon Tetrachloride	ND		ug/kg	16.1	4.1	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chlorobenzene	ND		ug/kg	16.1	4.1	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chlorodibromomethane	ND		ug/kg	16.1	5.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chloroethane	ND		ug/kg	40.3	6.8	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chloroform	ND		ug/kg	16.1	4.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chloromethane	ND		ug/kg	16.1	4.4	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,2-Dibromo-3-chloropropane	ND		ug/kg	40.3	23.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,2-Dibromoethane	ND		ug/kg	16.1	4.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1-Dichloroethane	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,2-Dichloroethane	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1-Dichloroethene	ND		ug/kg	16.1	4.2	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
cis-1,2-Dichloroethene	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
trans-1,2-Dichloroethene	ND		ug/kg	16.1	4.2	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,2-Dichloropropane	ND		ug/kg	16.1	4.8	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
cis-1,3-Dichloropropene	ND		ug/kg	16.1	4.4	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
trans-1,3-Dichloropropene	ND		ug/kg	16.1	4.7	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Ethylbenzene	6.2J	J	ug/kg	16.1	5.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
2-Hexanone	ND		ug/kg	80.5	22.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
4-Methyl-2-Pentanone(MIBK)	40.9J	J	ug/kg	80.5	30.6	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Methylene Chloride	ND		ug/kg	16.1	6.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Styrene	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1,2,2-Tetrachloroethane	ND		ug/kg	16.1	4.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Tetrachloroethene	ND		ug/kg	16.1	4.8	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Toluene	115		ug/kg	16.1	5.4	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Total Xylenes	149		ug/kg	48.3	11.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1,1-Trichloroethane	ND		ug/kg	16.1	5.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1,2-Trichloroethane	ND		ug/kg	16.1	4.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Trichloroethene	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A

ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Chloride	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
o-Xylene	ND		ug/kg	16.1	4.7	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
mp-Xylene	149		ug/kg	32.2	6.7	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.9		%	56 - 124		SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
4-Bromofluorobenzene (S)	92.1		%	51 - 128		SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Dibromofluoromethane (S)	101		%	62 - 123		SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Toluene-d8 (S)	95.4		%	59 - 131		SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
DIOXIN SCREEN											
2,3,7,8-TCDD	ND	3	ug/kg	22.8	22.8	SW846 8270D	7/26/19 02:50	JTH	7/29/19 18:09	GEC	A
SEMIVOLATILES											
Acenaphthene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Acenaphthylene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Anthracene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(a)anthracene	69.3J	J	ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(a)pyrene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(b)fluoranthene	143J	J	ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(g,h,i)perylene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(k)fluoranthene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Bromophenyl-phenylether	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Butylbenzylphthalate	1990		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Carbazole	1120		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Chloro-3-methylphenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Chloroaniline	180J	J	ug/kg	652	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
bis(2-Chloroethoxy)methane	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
bis(2-Chloroethyl)ether	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
bis(2-Chloroisopropyl)ether	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Chloronaphthalene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Chlorophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Chlorophenyl-phenylether	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Chrysene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
mp-Cresol	557J	J	ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
o-Cresol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Di-n-Butylphthalate	232J	J	ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Di-n-Octylphthalate	ND		ug/kg	326	62.0	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Dibenzo(a,h)anthracene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Dibenzofuran	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
1,3-Dichlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
1,4-Dichlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
3,3-Dichlorobenzidine	ND		ug/kg	652	121	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4-Dichlorophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Diethylphthalate	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4-Dimethylphenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Dimethylphthalate	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4-Dinitrophenol	ND		ug/kg	1300	258	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4-Dinitrotoluene	ND		ug/kg	326	65.2	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,6-Dinitrotoluene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
bis(2-Ethylhexyl)phthalate	240J	J	ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Fluoranthene	230		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Fluorene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Hexachlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Hexachlorobutadiene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Hexachlorocyclopentadiene	ND		ug/kg	652	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Hexachloroethane	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Indeno(1,2,3-cd)pyrene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Isophorone	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Methyl-4,6-dinitrophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Methylnaphthalene	59.3J	J	ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Naphthalene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Nitroaniline	ND		ug/kg	652	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
3-Nitroaniline	ND		ug/kg	652	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Nitroaniline	ND		ug/kg	652	58.7	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Nitrobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Nitrophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Nitrophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
N-Nitrosodimethylamine	ND		ug/kg	326	160	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
N-Nitroso-di-n-propylamine	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
N-Nitrosodiphenylamine	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Pentachlorophenol	ND		ug/kg	652	150	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Phenanthrene	170		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Phenol	2870		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Pyrene	279		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
1,2,4-Trichlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4,5-Trichlorophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A

ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Trichlorophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	20.9		%	19 - 132		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Fluorobiphenyl (S)	42.1		%	40 - 110		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Fluorophenol (S)	32.1		%	26 - 116		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Nitrobenzene-d5 (S)	21.9	6	%	38 - 112		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Phenol-d5 (S)	37.8		%	35 - 111		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Terphenyl-d14 (S)	44.3	7	%	45 - 126		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
PESTICIDES											
Aldrin	ND	1,2	ug/kg	28.6	9.3	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
beta-BHC	ND		ug/kg	28.6	3.0	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
delta-BHC	ND		ug/kg	28.6	2.2	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
gamma BHC	ND		ug/kg	28.6	2.4	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
alpha-Chlordane	3.4J	J	ug/kg	28.6	3.0	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
gamma-Chlordane	ND		ug/kg	28.6	4.9	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
4,4'-DDD	ND		ug/kg	55.6	4.5	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
4,4'-DDE	8.6J	J	ug/kg	55.6	7.6	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
4,4'-DDT	ND		ug/kg	55.6	6.4	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Dieldrin	ND		ug/kg	55.6	6.4	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endosulfan I	ND		ug/kg	28.6	3.5	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endosulfan II	ND		ug/kg	55.6	11.6	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endosulfan Sulfate	ND		ug/kg	55.6	3.7	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endrin	ND		ug/kg	55.6	4.0	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endrin Aldehyde	ND		ug/kg	55.6	6.1	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endrin Ketone	ND		ug/kg	55.6	7.7	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
alpha-HCH (alpha-BHC)	ND		ug/kg	28.6	2.5	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Heptachlor	ND		ug/kg	28.6	2.9	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Heptachlor Epoxide	ND		ug/kg	28.6	2.9	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Methoxychlor	ND		ug/kg	55.6	7.4	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Toxaphene	ND		ug/kg	590	97.7	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	44.2		%	30 - 135		SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Tetrachloro-m-xylene (S)	49.6		%	30 - 111		SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
WET CHEMISTRY											
Cyanide, Total	0.99		mg/kg	0.99	0.36	SW846 9012B	7/29/19 11:30	C_D	7/30/19 14:28	AK	A1
Hexane Extractable Material	63100		mg/kg	669	200	SW846 9071B			7/29/19 06:15	MPP	A

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Moisture	70.7		%	0.1	0.01	S2540G-11		7/26/19 09:15	AXD	A
Silica Gel Treated HEM	12200		mg/kg	669	200	9071B/1664B		7/29/19 06:15	MPP	A
Total Solids	29.3		%	0.1	0.01	S2540G-11		7/26/19 09:15	AXD	A

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768002** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC Annual** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY											
Moisture	68.1		%	0.1	0.01	S2540G-11			7/26/19 09:15	AXD	
Phenolics	14.8	1	mg/kg	0.8	0.2	SW846 9066	7/26/19 06:20	C_D	7/26/19 08:16	C_D	B
Total Solids	31.9		%	0.1	0.01	S2540G-11			7/26/19 09:15	AXD	
SUBCONTRACTED ANALYSIS											
Asbestos	See attached					Subcontract			8/5/19 00:00	SUB	C

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3047768001	1	19-Digest BFP BOC JUL-SEP	SW846 8081B	Aldrin
Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. The following compounds were biased low in the bracketing CCV: Decachlorobiphenyl (-34%).				
3047768001	2	19-Digest BFP BOC JUL-SEP	SW846 8081B	Aldrin
This sample was analyzed at a dilution in the 8081 Pesticide analysis. Reporting limits were adjusted accordingly.				
3047768001	3	19-Digest BFP BOC JUL-SEP	SW846 8270D	2,3,7,8-TCDD
A SIM screen analysis was run for Dioxin and no peaks were observed.				
3047768001	6	19-Digest BFP BOC JUL-SEP	SW846 8270D	Nitrobenzene-d5
The surrogate Nitrobenzene-d5 for method SW846 8270D was outside of control limits. The % Recovery was reported as 21.9 and the control limits were 38 to 112. This result was reported at a dilution of 1.				
3047768001	7	19-Digest BFP BOC JUL-SEP	SW846 8270D	Terphenyl-d14
The surrogate Terphenyl-d14 for method SW846 8270D was outside of control limits. The % Recovery was reported as 44.3 and the control limits were 45 to 126. This result was reported at a dilution of 1.				
3047768002	1	19-Digest BFP BOC Annual	SW846 9066	Phenolics
The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3047768 Biosolids 07/25/19

Lab ID	Sample ID	Analysis Method	Prep Method
3047768001	19-Digest BFP BOC JUL-SEP	9071B/1664B	
3047768001	19-Digest BFP BOC JUL-SEP	S2540G-11	
3047768001	19-Digest BFP BOC JUL-SEP	SW846 8081B	SW846 3546
3047768001	19-Digest BFP BOC JUL-SEP	SW846 8260B	SW846 5035
3047768001	19-Digest BFP BOC JUL-SEP	SW846 8270D	SW846 3546
3047768001	19-Digest BFP BOC JUL-SEP	SW846 9012B	SW846 9012B
3047768001	19-Digest BFP BOC JUL-SEP	SW846 9071B	
3047768002	19-Digest BFP BOC Annual	S2540G-11	
3047768002	19-Digest BFP BOC Annual	SW846 9066	420.4/9066
3047768002	19-Digest BFP BOC Annual	Subcontract	

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

CC
AL

zxzx of xyxy

* 3 0 4 7 7 6 8 *

Client Name: DCWASA - Others
Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Mark Ramirez
Phone#: 202-787-4002
Project Name/#: Bio/Annual
Bill To: Accounts Payable Office- 4th Floor

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required: Approved By:
Email? [x] -Y
Fax? [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Container Type	Container Size	Preservative	Cyanide, % solids,O&G plus TPH - SW9071,Pesticides (SW846-8081)	semi-volatiles (SW846-8270) including TCDD dioxin, VOCs(SW 8260)	Asbestos	Phenols (SW846-9066)
					CG	CG				CG	CG
					4 OZ	8 oz				8 OZ	4 OZ
					None	None				None	None
					ANALYSES/METHOD REQUESTED						
					Enter Number of Containers Per Sample or Field Results Below.						
19 - Digest BFP BOC JUL-SEP	7/25/19	1210	G	SL	1	1*					
19 - Digest BFP BOC Annual	7/25/19	1210	G	SL					1	1	

Cooler Temp: 1.C Therm ID: 525
No. of Coolers: 1

	Y	N	Initial
Custody Seals Present?	X		SB
(If present) Seals Intact?	X		S
Received on Ice?	X		SB
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments
*plus hexachlorobenzene, hexachlorobutadiene and toxaphene

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther:

Project Comments: *Run % solids and report data as mg/kg dry weight

LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	7-25-19	1625	2 ALS	7/25/19	1250
3 ALS Courier	7/25/19		4		
5			6 ALS	7/26/19	0745
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Special Processing: USACE [ ] Navy [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]
Reportable to PADEP? Yes [ ] PWSID #
Sample Disposal: Lab [ ] Special [ ]
EDDS: Format Type-

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

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301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DWASA- OTHERS	3047768	JAS	7/25/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	(N/A)	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #:	—							
Temperature (°C):	1°C							
Thermometer ID:	525							
Radiological (µCi):	—							

COMMENTS (Required for all NO responses above and any sample non-conformance):

Solid matrix not reportable. JAS/AMS 7/25/19

Rev. 4/29/2019

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com/ cinnaslab@EMSL.com

EMSL Order:	041921931
Customer ID:	WRIG51
Customer PO:	3047768
Project ID:	

Attention: Susan Baer Scherer
ALS Environmental
301 Fulling Mill Rd
Middletown, PA 17057

Project: 3047768

Phone:	(717) 944-5541
Fax:	(717) 944-1430
Received:	07/30/2019 11:50 AM
Analysis Date:	08/05/2019
Collected:	12/18/2018

Test Report: Asbestos Analysis of Bulk Building Materials via EPA 600/R-93/116 Method using PLM and Milling Prep. Quantitation using 400 Point Count Procedure

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1 041921931-0001	3047768002	Brown Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	**None Detected**

Analyst(s)

Will Debrits (1)

Benjamin Ellis, Laboratory Manager
or other approved signatory

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical, Inc. bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc.'s liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC, ELAP Lab 10994, NYS ELAP 10872, NJ DEP 03018, PA ID# 68-00367

Initial report from: 08/05/2019 21:46:41

Printed: 8/5/2019 9:46:42PM

04192931

301 Fulling Mill Rd
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 1 of 1

ALS Quote #:

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Susan Scherer

Phone#: (717) 702-2245

Project Name/#: 3047768

Bill To: ALS

TAT [ ] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALS approval and surcharges.

Date Required: 8/8/2019 2wk TAT Approved?

Email? [x] -Y susan.scherer@alsglobal.com

Fax? [ ] -Y No:

Container Type: CG
Container Size: 4oz
Preservative: NONE

ANALYSES/METHOD REQUESTED

PLM 400 Point Count w Milling

Receipt Information (completed by Receiving Lab)

W.O. Temp: ____ Therm ID: ____

Courier/Tracking #:

Purchase Order #: 3047768

Project Comments:

ALS Field Services: [ ] Pickup [ ] Labor
[ ] Composite Sampling [ ] Rental Equipment
Other: ____

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	Enter Number of Containers Per Sample or Field Results Below.	Sample/COC Comments
1	3047768002	12/18/18	0935	G	S	1	
2							
3							
4							
5							
6							
7							
8							
9							
10							

RECEIVED
2019 JUL 30 P 12:03
CINNAMINSON, NJ

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	7-29-19	1530	2	7-30-19	1150
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [X] Standard [ ] CLP-like [ ] USACE/DOD [ ]

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [X] DC other

Reportable to PADEP? Yes [ ] No [ ]
PWSID # ____

Sample Disposal: Lab [X] Special [ ]

EDDS: Format Type- ____

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

August 8, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Revised Report - 8/8/2019 9:41:23 PM - See workorder comment section for explanation

Project Name:	**Bio/Twice Per Month 07/09/19**	Workorder:	**3044361**
Purchase Order:	**190108**	Workorder ID:	**Bio/Twice Per Month 07/09/19**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory between Tuesday, July 9, 2019 and Wednesday, July 31, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3044361 Bio/Twice Per Month 07/09/19

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3044361001	Digest BFP BOC	Solid	7/9/2019 08:00	7/31/2019 14:25	Collected by Client
3044361002	Digest BFP BOC	Solid	7/9/2019 10:30	7/9/2019 21:25	Collected by Client

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SAMPLE SUMMARY

Workorder: 3044361 Bio/Twice Per Month 07/09/19

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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PROJECT SUMMARY

Workorder: 3044361 Bio/Twice Per Month 07/09/19

Workorder Comments

This certificate of analysis was modified based on the email request from Elaine Wilson 07/31/19. SJS 08/01/19

Sue, we need reanalysis for TKN on this WO.

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ANALYTICAL RESULTS

Workorder: 3044361 Bio/Twice Per Month 07/09/19

Lab ID: **3044361001** Date Collected: 7/9/2019 08:00 Matrix: Solid

Sample ID: **Digest BFP BOC** Date Received: 7/31/2019 14:25

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY											
Ammonia-nitrogen, Total	4810		mg/kg	301	200	D6919-09	7/18/19 18:15	RXB	7/20/19 14:32	AK	A
Chloride	91.2J	J	mg/kg	300	2.7	300.0/9056A	7/12/19 09:00	CHW	7/12/19 15:50	CHW	A3
Moisture	66.7		%	0.1	0.01	S2540G-11			7/10/19 15:00	VXF	A
Neutralization Potential % CCE	2.42	1	%	1.63		AOAC 955.01			7/12/19 12:30	NJA	A
Nitrate-N	ND		mg/kg	30.0	1.2	300.0/9056A	7/12/19 09:00	CHW	7/12/19 15:50	CHW	A3
Phosphorus, Total	38400		mg/kg	1500	173	EPA 365.1	7/16/19 07:31	C_D	7/22/19 21:44	JAM	A4
Solids, Total Volatile	57.1		%	1.0	0.1	S2540G-11			7/12/19 08:25	AXD	A
Tot. Kjeldahl Nitrogen,(Moist)	19500	2	mg/kg	323	100	S4500NH3G-11	8/8/19 04:25	C_W	8/8/19 13:02	C_W	A
Total Kjeldahl Nitrogen	55500	3	mg/kg	970	400	S4500NH3G-11	8/8/19 04:25	C_W	8/8/19 14:42	C_W	A
Total Solids	33.3		%	0.1	0.01	S2540G-11			7/10/19 15:00	VXF	A
METALS											
Sulfur	13100		mg/kg	27.3	9.1	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Aluminum, Total	3910		mg/kg	109	35.5	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Antimony, Total	3.3		mg/kg	2.7	0.90	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Arsenic, Total	4.5		mg/kg	4.1	1.4	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Beryllium, Total	0.58J	J	mg/kg	1.4	0.45	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Boron, Total	ND		mg/kg	27.3	9.1	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Cadmium, Total	2.5		mg/kg	1.4	0.45	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Calcium, Total	22400		mg/kg	27.3	9.1	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Chromium, Total	60.2		mg/kg	2.7	0.90	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Copper, Total	393		mg/kg	6.8	2.2	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Iron, Total	85400		mg/kg	27.3	9.1	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Lead, Total	37.8		mg/kg	2.7	0.90	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Magnesium, Total	3460		mg/kg	27.3	9.1	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Manganese, Total	493		mg/kg	2.7	0.91	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Mercury, Total	0.60		mg/kg	0.15	0.047	SW846 7471B	7/11/19 14:20	AHI	7/12/19 12:45	AHI	A1
Molybdenum, Total	19.2		mg/kg	2.7	0.90	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Nickel, Total	23.1		mg/kg	6.8	2.2	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Potassium, Total	650		mg/kg	137	45.6	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Selenium, Total	3.9J	J	mg/kg	6.8	2.2	SW846 6020A	7/10/19 19:00	SXC	7/23/19 15:40	MO	A2
Silver, Total	6.4		mg/kg	2.7	0.90	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2
Sodium, Total	258		mg/kg	137	45.6	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Thallium, Total	14.5		mg/kg	8.2	2.7	SW846 6010C	7/10/19 19:00	SXC	7/11/19 10:34	SRT	A2
Zinc, Total	746		mg/kg	6.8	2.2	SW846 6020A	7/10/19 19:00	SXC	7/18/19 02:58	LXC	A2

ALS Environmental

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3044361 Bio/Twice Per Month 07/09/19

Lab ID: **3044361001** Date Collected: 7/9/2019 08:00 Matrix: Solid

Sample ID: **Digest BFP BOC** Date Received: 7/31/2019 14:25

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

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ANALYTICAL RESULTS

Workorder: 3044361 Bio/Twice Per Month 07/09/19

Lab ID: **3044361002** Date Collected: 7/9/2019 10:30 Matrix: Solid

Sample ID: **Digest BFP BOC** Date Received: 7/9/2019 21:25

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
PCBs											
Total Polychlorinated Biphenyl	ND		mg/kg	0.86	0.17	SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Aroclor-1016	ND		mg/kg	0.095	0.017	SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Aroclor-1221	ND		mg/kg	0.095	0.0086	SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Aroclor-1232	ND		mg/kg	0.095	0.017	SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Aroclor-1242	ND		mg/kg	0.095	0.026	SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Aroclor-1248	ND		mg/kg	0.095	0.017	SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Aroclor-1254	ND		mg/kg	0.095	0.017	SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Aroclor-1260	ND		mg/kg	0.095	0.017	SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	51.2		%	49 - 115		SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
Tetrachloro-m-xylene (S)	69.9		%	27 - 137		SW846 8082A	7/11/19 04:15	JTH	7/11/19 11:33	KJH	A
WET CHEMISTRY											
Moisture	66.6		%	0.1	0.01	S2540G-11			7/10/19 15:00	VXF	
Total Solids	33.4		%	0.1	0.01	S2540G-11			7/10/19 15:00	VXF	

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3044361 Bio/Twice Per Month 07/09/19

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3044361001	1	Digest BFP BOC	AOAC 955.01	Neutralization Potential % CCE
ALS-Middletown does not hold PADEP NELAP accreditation for this analyte by this method of analysis.				
3044361001	2	Digest BFP BOC	S4500NH3G-11	Tot. Kjeldahl Nitrogen,(Moist)
Analyte was analyzed past the 28 day holding time.				
3044361001	3	Digest BFP BOC	S4500NH3G-11	Total Kjeldahl Nitrogen
Analyte was analyzed past the 28 day holding time.				

ALS Environmental

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3044361 Bio/Twice Per Month 07/09/19

Lab ID	Sample ID	Analysis Method	Prep Method
3044361001	Digest BFP BOC	300.0/9056A	300.0/9056A
3044361001	Digest BFP BOC	AOAC 955.01	
3044361001	Digest BFP BOC	D6919-09	In House
3044361001	Digest BFP BOC	EPA 365.1	EPA 365.1
3044361001	Digest BFP BOC	S2540G-11	
3044361001	Digest BFP BOC	S4500NH3G-11	S4500NH3D
3044361001	Digest BFP BOC	SW846 6010C	SW846 3051
3044361001	Digest BFP BOC	SW846 6020A	SW846 3051
3044361001	Digest BFP BOC	SW846 7471B	SW846 7471B
3044361002	Digest BFP BOC	S2540G-11	
3044361002	Digest BFP BOC	SW846 8082A	SW846 3546

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated

* 3 0 4 4 3 6 1 *

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK

Client Name: DCWASA-Others

Address: 5000 Overlook Ave, SW
Washington, D.C. 20032

Contact: Mark Ramirez

Phone#: 202-787-4002

Project Name/#: Bio/Twice per Month

Bill To: Accounts Payable Office- 4th Floor

TAT [X] Normal-Standard TAT is 7 business days. [ ] Rush-Subject to ALSI approval and surcharges.

Date Required: Approved By:

Email? [ ] -Y

Fax? [ ] -Y No.:

Container Type	G	G	AG	AG							
Container Size	8 oz.	8 oz.	4 oz.	8 oz.							
Preservative	None	None	None	None							

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Al, B, Cd, Cu, Cr, Pb, Zn, Ni, Fe, Hg, Ag, Mn, Mo, Ca, Mg, S, K, Sb, Be, Tl, % CaCO3 Equiv., % TS, Chlorides, As, Se -use larger volume for lower RDL, Na *	TKN, TP, NH3-N, NO3-N, % TS, %TVS,	PCB - 8082						
					Enter Number of Containers Per Sample or Field Results Below.								
Digest BFP BOC	7/9/19	0800	G	SL	1	1							
Digest BFP BOC	7/9/19	1030	G	SL			1						

Cooler Temp: 02 Therm
No. of Coolers: (2) 525
Custody Seals Present? N
(if present) Seals Intact? Y
Received on Ice? Y
COC/Labels Complete/Accurate?
Cont. in Good Cond.?
Correct Containers?
Correct Sample Volumes?
Correct Preservation?
Headspace/Volatiles?
Courier/Tracking #:
Sample/COC Cor

* Na - Additional Parameter

ALSI Field Services: o
oComposite Sampling o
oOther:

Project Comments: *Run % solids and report data as mg/kg dry weight

LOGGED BY(signature): Date Time

REVIEWED BY(signature): Date Time

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1		7/9/19	1030	2	ALS Courier	7/9	1445
3		7/9		4			
5	ALS Courier			6		7/9/19	2125
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processi: USACE Navy

Reportable to PADEP? Yes [ ]

PWSID #

Sample Dispos: Lab Special

EDDS: Format Type-

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

ALS

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Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DC Wasa	3044361	QO	7/10/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	(N/A)	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 0 °C

Thermometer ID: S2S

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 1/10/2019

Additional Influent Toxic Organics and Metals Pollutant Data

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April 23, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Revised Report - 4/23/2019 3:23:24 PM - See workorder comment section for explanation

Project Name:	**Wastewater (WW)**	Workorder:	**3023962**
Purchase Order:	**190108**	Workorder ID:	**WW/Influent Quarterly**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Friday, March 22, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3023962 WW/Influent Quarterly

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3023962001	19-Q1-Infl A-Potomac CS	Waste Water	3/20/2019 10:50	3/22/2019 21:45	Collected by Client
3023962002	19-Q1-Infl B-Potomac SS	Waste Water	3/20/2019 11:00	3/22/2019 21:45	Collected by Client
3023962003	19-Q1-Infl C-Boiling	Waste Water	3/20/2019 11:20	3/22/2019 21:45	Collected by Client
3023962004	19-Q1-Infl A- Potomac CS	Waste Water	3/21/2019 09:40	3/22/2019 21:45	Collected by Client
3023962005	19-Q1-Infl B- Potomac SS	Waste Water	3/21/2019 09:25	3/22/2019 21:45	Collected by Client
3023962006	19-Q1-Infl C-Boiling	Waste Water	3/21/2019 10:00	3/22/2019 21:45	Collected by Client

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SAMPLE SUMMARY

Workorder: 3023962 WW/Influent Quarterly

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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PROJECT SUMMARY

Workorder: 3023962 WW/Influent Quarterly

Workorder Comments

This certificate of analysis was modified based on the chain of custody and email request from Elaine Wilson on 04/05/19. SJS 04/05/19

Sue, this report needs to be revised. You reported magnesium instead of manganese for these samples.

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962001** Date Collected: 3/20/2019 10:50 Matrix: Waste Water

Sample ID: **19-Q1-Infl A-Potomac CS** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.0072		mg/L	0.0020	0.00090	KELADA-01		3/28/19 17:48	RXB	A
Oil/Grease Hexane Extractable	23.0		mg/L	3.9	1.3	EPA 1664B		3/27/19 13:00	ELS	B
Oil/Grease Silica Gel Treated	2.8J	J	mg/L	3.9	1.3	EPA 1664B		3/27/19 13:00	ELS	B

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962002** Date Collected: 3/20/2019 11:00 Matrix: Waste Water

Sample ID: **19-Q1-Infl B-Potomac SS** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.0061		mg/L	0.0020	0.00090	KELADA-01		3/28/19 17:48	RXB	A
Oil/Grease Hexane Extractable	13.4		mg/L	3.9	1.3	EPA 1664B		3/27/19 13:00	ELS	B
Oil/Grease Silica Gel Treated	3.0J	J	mg/L	3.9	1.3	EPA 1664B		3/27/19 13:00	ELS	B

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962003** Date Collected: 3/20/2019 11:20 Matrix: Waste Water

Sample ID: **19-Q1-Infl C-Boiling** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.0081		mg/L	0.0020	0.00090	KELADA-01		3/28/19 17:48	RXB	A
Oil/Grease Hexane Extractable	21.5		mg/L	4.0	1.3	EPA 1664B		3/27/19 13:00	ELS	B
Oil/Grease Silica Gel Treated	2.8J	J	mg/L	4.0	1.3	EPA 1664B		3/27/19 13:00	ELS	B

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962004** Date Collected: 3/21/2019 09:40 Matrix: Waste Water

Sample ID: **19-Q1-Infl A- Potomac CS** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aldrin	ND	1	ug/L	0.020	0.0050	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
beta-BHC	ND		ug/L	0.020	0.0080	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
delta-BHC	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
gamma-BHC	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Chlordane	ND		ug/L	0.20	0.035	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
4,4'-DDD	ND		ug/L	0.020	0.0070	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
4,4'-DDE	ND		ug/L	0.020	0.0070	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
4,4'-DDT	ND		ug/L	0.020	0.0060	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Dieldrin	0.00058J	J	ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Endosulfan I	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Endosulfan II	ND		ug/L	0.020	0.0060	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Endosulfan Sulfate	ND		ug/L	0.020	0.0040	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Endrin	ND		ug/L	0.020	0.0080	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Endrin Aldehyde	ND		ug/L	0.020	0.010	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
alpha-HCH (alpha-BHC)	ND		ug/L	0.020	0.0020	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Heptachlor	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Heptachlor Epoxide	ND		ug/L	0.020	0.0040	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Mirex	ND		ug/L	0.020	0.0040	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Total Polychlorinated Biphenyl	ND		ug/L	3.5	1.7	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Toxaphene	ND		ug/L	1.0	0.19	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Aroclor-1016	ND		ug/L	0.50	0.32	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Aroclor-1221	ND		ug/L	0.50	0.33	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Aroclor-1232	ND		ug/L	0.50	0.23	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Aroclor-1242	ND		ug/L	0.50	0.24	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Aroclor-1248	ND		ug/L	0.50	0.15	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Aroclor-1254	ND		ug/L	0.50	0.14	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Aroclor-1260	ND		ug/L	0.50	0.26	EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	51.7		%	30 - 150		EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Decachlorobiphenyl (S)	45.5		%	30 - 150		EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Tetrachloro-m-xylene (S)	68.8		%	36 - 112		EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
Tetrachloro-m-xylene (S)	75.9		%	36 - 112		EPA 608	3/27/19 09:35	MXL	3/30/19 18:50	RWS	B
METALS											
Arsenic, Total	0.00085J	J	mg/L	0.0015	0.00032	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1
Cadmium, Total	0.00017J	J	mg/L	0.00020	0.00012	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962004** Date Collected: 3/21/2019 09:40 Matrix: Waste Water

Sample ID: **19-Q1-Infl A- Potomac CS** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Chromium, Total	0.0013		mg/L	0.0010	0.00029	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1
Copper, Total	0.040		mg/L	0.0025	0.00038	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1
Iron, Total	1.7		mg/L	0.060	0.020	EPA 200.7	3/30/19 13:10	AHI	4/3/19 17:50	MNP	A2
Lead, Total	0.0020		mg/L	0.0010	0.00011	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1
Manganese, Total	0.25		mg/L	0.0025	0.00011	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A
Molybdenum, Total	0.0049		mg/L	0.0010	0.000040	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1
Nickel, Total	0.0076		mg/L	0.0025	0.00012	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1
Selenium, Total	0.00067J	J	mg/L	0.0020	0.00015	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1
Silver, Total	0.00072		mg/L	0.00050	0.000030	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1
Zinc, Total	0.097		mg/L	0.0025	0.00057	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:12	LXC	A1

Susan J. Scherer

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962005** Date Collected: 3/21/2019 09:25 Matrix: Waste Water

Sample ID: **19-Q1-Infl B- Potomac SS** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aldrin	ND	1	ug/L	0.019	0.0047	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
beta-BHC	ND		ug/L	0.019	0.0075	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
delta-BHC	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
gamma-BHC	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Chlordane	ND		ug/L	0.19	0.033	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
4,4'-DDD	ND		ug/L	0.019	0.0066	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
4,4'-DDE	ND		ug/L	0.019	0.0066	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
4,4'-DDT	ND		ug/L	0.019	0.0057	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Dieldrin	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Endosulfan I	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Endosulfan II	ND		ug/L	0.019	0.0057	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Endosulfan Sulfate	ND		ug/L	0.019	0.0038	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Endrin	ND		ug/L	0.019	0.0075	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Endrin Aldehyde	ND		ug/L	0.019	0.0094	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
alpha-HCH (alpha-BHC)	ND		ug/L	0.019	0.0019	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Heptachlor	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Heptachlor Epoxide	ND		ug/L	0.019	0.0038	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Mirex	ND		ug/L	0.019	0.0038	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Total Polychlorinated Biphenyl	ND		ug/L	3.3	1.6	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Toxaphene	ND		ug/L	0.94	0.18	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Aroclor-1016	ND		ug/L	0.47	0.30	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Aroclor-1221	ND		ug/L	0.47	0.31	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Aroclor-1232	ND		ug/L	0.47	0.22	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Aroclor-1242	ND		ug/L	0.47	0.23	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Aroclor-1248	ND		ug/L	0.47	0.14	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Aroclor-1254	ND		ug/L	0.47	0.13	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Aroclor-1260	ND		ug/L	0.47	0.25	EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	46		%	30 - 150		EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Decachlorobiphenyl (S)	51.6		%	30 - 150		EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Tetrachloro-m-xylene (S)	70.8		%	36 - 112		EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
Tetrachloro-m-xylene (S)	63.8		%	36 - 112		EPA 608	3/27/19 09:35	MXL	3/30/19 19:00	RWS	B
METALS											
Arsenic, Total	0.00058J	J	mg/L	0.0015	0.00032	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1
Cadmium, Total	0.00017J	J	mg/L	0.00020	0.00012	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962005** Date Collected: 3/21/2019 09:25 Matrix: Waste Water

Sample ID: **19-Q1-Infl B- Potomac SS** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Chromium, Total	0.0022		mg/L	0.0010	0.00029	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1
Copper, Total	0.050		mg/L	0.0025	0.00038	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1
Iron, Total	1.2		mg/L	0.060	0.020	EPA 200.7	3/30/19 13:10	AHI	4/3/19 17:53	MNP	A2
Lead, Total	0.0027		mg/L	0.0010	0.00011	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1
Manganese, Total	0.16		mg/L	0.0025	0.00011	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A
Molybdenum, Total	0.0046		mg/L	0.0010	0.000040	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1
Nickel, Total	0.0073		mg/L	0.0025	0.00012	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1
Selenium, Total	0.00073J	J	mg/L	0.0020	0.00015	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1
Silver, Total	0.00047J	J	mg/L	0.00050	0.000030	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1
Zinc, Total	0.12		mg/L	0.0025	0.00057	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:15	LXC	A1

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962006** Date Collected: 3/21/2019 10:00 Matrix: Waste Water

Sample ID: **19-Q1-Infl C-Boiling** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aldrin	ND	1	ug/L	0.019	0.0047	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
beta-BHC	ND		ug/L	0.019	0.0076	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
delta-BHC	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
gamma-BHC	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Chlordane	ND		ug/L	0.19	0.033	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
4,4'-DDD	ND		ug/L	0.019	0.0066	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
4,4'-DDE	ND		ug/L	0.019	0.0066	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
4,4'-DDT	ND		ug/L	0.019	0.0057	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Dieldrin	0.010J	J	ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Endosulfan I	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Endosulfan II	ND		ug/L	0.019	0.0057	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Endosulfan Sulfate	ND		ug/L	0.019	0.0038	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Endrin	ND		ug/L	0.019	0.0076	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Endrin Aldehyde	ND		ug/L	0.019	0.0095	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
alpha-HCH (alpha-BHC)	ND		ug/L	0.019	0.0019	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Heptachlor	ND		ug/L	0.019	0.0028	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Heptachlor Epoxide	ND		ug/L	0.019	0.0038	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Mirex	ND		ug/L	0.019	0.0038	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Total Polychlorinated Biphenyl	ND		ug/L	3.3	1.6	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Toxaphene	ND		ug/L	0.95	0.18	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Aroclor-1016	ND		ug/L	0.47	0.30	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Aroclor-1221	ND		ug/L	0.47	0.31	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Aroclor-1232	ND		ug/L	0.47	0.22	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Aroclor-1242	ND		ug/L	0.47	0.23	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Aroclor-1248	ND		ug/L	0.47	0.14	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Aroclor-1254	ND		ug/L	0.47	0.13	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Aroclor-1260	ND		ug/L	0.47	0.25	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	36.8		%	30 - 150	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Decachlorobiphenyl (S)	35.7		%	30 - 150	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Tetrachloro-m-xylene (S)	60.5		%	36 - 112	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B
Tetrachloro-m-xylene (S)	64.3		%	36 - 112	EPA 608	3/27/19 09:35	MXL	3/30/19 19:11	RWS	B

METALS											
Arsenic, Total	0.0013J	J	mg/L	0.0015	0.00032	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1
Cadmium, Total	0.00021		mg/L	0.00020	0.00012	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

Lab ID: **3023962006** Date Collected: 3/21/2019 10:00 Matrix: Waste Water

Sample ID: **19-Q1-Infl C-Boiling** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Chromium, Total	0.0042		mg/L	0.0010	0.00029	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1
Copper, Total	0.057		mg/L	0.0025	0.00038	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1
Iron, Total	4.6		mg/L	0.060	0.020	EPA 200.7	3/30/19 13:10	AHI	4/3/19 17:56	MNP	A2
Lead, Total	0.0052		mg/L	0.0010	0.00011	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1
Manganese, Total	0.16		mg/L	0.0025	0.00011	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A
Molybdenum, Total	0.0052		mg/L	0.0010	0.000040	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1
Nickel, Total	0.0093		mg/L	0.0025	0.00012	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1
Selenium, Total	0.00084J	J	mg/L	0.0020	0.00015	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1
Silver, Total	0.00044J	J	mg/L	0.00050	0.000030	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1
Zinc, Total	0.13		mg/L	0.0025	0.00057	EPA 200.8	3/30/19 13:10	AHI	4/2/19 09:19	LXC	A1

Susan J. Scherer

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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3023962 WW/Influent Quarterly

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3023962004	1	19-Q1-Infl A- Potomac CS	EPA 608	Aldrin

Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 15% of the initial calibration for the 608 analysis. One or more analytes were outside the allowable range.

3023962005	1	19-Q1-Infl B- Potomac SS	EPA 608	Aldrin

Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 15% of the initial calibration for the 608 analysis. One or more analytes were outside the allowable range.

3023962006	1	19-Q1-Infl C-Boiling	EPA 608	Aldrin

Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 15% of the initial calibration for the 608 analysis. One or more analytes were outside the allowable range.

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3023962 WW/Influent Quarterly

Lab ID	Sample ID	Analysis Method	Prep Method
3023962001	19-Q1-Infl A-Potomac CS	EPA 1664B	
3023962001	19-Q1-Infl A-Potomac CS	KELADA-01	
3023962002	19-Q1-Infl B-Potomac SS	EPA 1664B	
3023962002	19-Q1-Infl B-Potomac SS	KELADA-01	
3023962003	19-Q1-Infl C-Boiling	EPA 1664B	
3023962003	19-Q1-Infl C-Boiling	KELADA-01	
3023962004	19-Q1-Infl A- Potomac CS	EPA 200.7	EPA TRMD
3023962004	19-Q1-Infl A- Potomac CS	EPA 200.8	EPA TRMD
3023962004	19-Q1-Infl A- Potomac CS	EPA 608	EPA 608
3023962005	19-Q1-Infl B- Potomac SS	EPA 200.7	EPA TRMD
3023962005	19-Q1-Infl B- Potomac SS	EPA 200.8	EPA TRMD
3023962005	19-Q1-Infl B- Potomac SS	EPA 608	EPA 608
3023962006	19-Q1-Infl C-Boiling	EPA 200.7	EPA TRMD
3023962006	19-Q1-Infl C-Boiling	EPA 200.8	EPA TRMD
3023962006	19-Q1-Infl C-Boiling	EPA 608	EPA 608

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

zxzx of xyxy

Client Name: DCWASA - Others
Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Elaine Wilson
Phone#: 202-787-4177
Project Name/#: WWInfluent Quarterly
Bill To: Accounts Payable Office- 4th Floor

TAT [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required: _____ Approved By: _____
Email? [x] -Y
Fax? [ ] -Y No.: _____

Container Type	PL	CG	PL	G					
Container Size	~~250 mL~~ 125	~~250mL~~ 250	~~250mL~~ 125	1 L	CLS 3/20/19				
Preservative	NaOH	H2SO4	HNO3	None					

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Cyanide	TPH plus total O& G - 1664	Total Metals: 200.8 (As, Cd, Cr, Cu,Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn)	PCBS - 608						Sample/COC Comments
					Enter Number of Containers Per Sample or Field Results Below.									
19-Q1-Infl A - Potomac CS	3/20/19	1050	G	WW	1	1								
19-Q1-Infl B - Potomac SS	3/20/19	1100	G	WW	1	1								
19-Q1-Infl C - Boiling	3/20/19	1120	G	WW	1	1								
19-Q1-Infl A - Potomac CS	3/21/19	0940	C	WW			1	2						24-h composite
19-Q1-Infl B - Potomac SS	3/21/19	0925	C	WW			1	2						24-h composite
19-Q1-Infl C - Boiling	3/21/19	1000	C	WW			1	2						24-h composite

Receipt Information (Receiving Lab)
Cooler Temp: 2°C Therm ID: 352
No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther: _____

Project Comments: Need Lowest detection limit available for all metals, report J flags

LOGGED BY(signature): Date: Time:
REVIEWED BY(signature): Date: Time:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 DCWA	3/21/19	1140	2	3/22	1415
3	3/22	1730	4 COMMON COURIER / ALS COURIER		
5 COMMON COURIER / ALS COURIER			6	3/22/19	2145
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Special Processing: USACE [ ] Navy [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]
Reportable to PADEP? Yes [ ]
PWSID # _____
Sample Disposal: Lab [ ] Special [ ]
EDDS: Format Type- _____

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: DCWASA | Work Order #: 3023962 | Initials: CLS | Date: 3/26/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		YES	(NO)
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #:	1							
Temperature (°C):	2							
Thermometer ID:	352							

COMMENTS (Required for all NO responses above and any sample non-conformance):
Bottle sizes fixed on COC by CLS 3/26/19

Rev. 1/10/2019

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May 30, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Wastewater (WW)**	Workorder:	**3034621**
Purchase Order:	**190108**	Workorder ID:	**WW/Influent Quarterly**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Thursday, May 16, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer
Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3034621 WW/Influent Quarterly

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3034621001	19-Q2-Infl A-Potomac CS	Waste Water	5/16/2019 09:30	5/16/2019 20:40	Collected by Client
3034621002	19-Q2-Infl B-Potomac SS	Waste Water	5/16/2019 09:35	5/16/2019 20:40	Collected by Client
3034621003	19-Q2-Infl C-Bolling	Waste Water	5/16/2019 09:45	5/16/2019 20:40	Collected by Client
3034621004	19-Q2-Infl A-Potomac CS Comp	Waste Water	5/16/2019 10:00	5/16/2019 20:40	Collected by Client
3034621005	19-Q2-Infl B-Potomac SS Comp	Waste Water	5/16/2019 10:05	5/16/2019 20:40	Collected by Client
3034621006	19-Q2-Infl C-Bolling SS Comp	Waste Water	5/16/2019 10:25	5/16/2019 20:40	Collected by Client

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SAMPLE SUMMARY

Workorder: 3034621 WW/Influent Quarterly

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3034621 WW/Influent Quarterly

Lab ID: **3034621001** Date Collected: 5/16/2019 09:30 Matrix: Waste Water

Sample ID: **19-Q2-Infl A-Potomac CS** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.0030		mg/L	0.0020	0.00090	KELADA-01		5/23/19 15:49	RXB	A
Oil/Grease Hexane Extractable	21.3		mg/L	3.9	1.3	EPA 1664B		5/20/19 12:00	ELS	B
Oil/Grease Silica Gel Treated	2.2J	J	mg/L	3.9	1.3	EPA 1664B		5/20/19 12:00	ELS	B

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ANALYTICAL RESULTS

Workorder: 3034621 WW/Influent Quarterly

Lab ID: **3034621002** Date Collected: 5/16/2019 09:35 Matrix: Waste Water

Sample ID: **19-Q2-Infl B-Potomac SS** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.0033		mg/L	0.0020	0.00090	KELADA-01		5/23/19 15:49	RXB	A
Oil/Grease Hexane Extractable	15.5		mg/L	3.9	1.3	EPA 1664B		5/20/19 12:00	ELS	B
Oil/Grease Silica Gel Treated	2.4J	J	mg/L	3.9	1.3	EPA 1664B		5/20/19 12:00	ELS	B

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ANALYTICAL RESULTS

Workorder: 3034621 WW/Influent Quarterly

Lab ID: **3034621003** Date Collected: 5/16/2019 09:45 Matrix: Waste Water

Sample ID: **19-Q2-Infl C-Bolling** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Cyanide, Total	0.0027		mg/L	0.0020	0.00090	KELADA-01		5/23/19 15:49	RXB	A
Oil/Grease Hexane Extractable	8.7		mg/L	4.1	1.3	EPA 1664B		5/20/19 12:00	ELS	B
Oil/Grease Silica Gel Treated	5.4		mg/L	4.1	1.3	EPA 1664B		5/20/19 12:00	ELS	B

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ANALYTICAL RESULTS

Workorder: 3034621 WW/Influent Quarterly

Lab ID: **3034621004** Date Collected: 5/16/2019 10:00 Matrix: Waste Water

Sample ID: **19-Q2-Infl A-Potomac CS Comp** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aroclor-1016	ND		ug/L	0.57	0.072	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
Aroclor-1221	ND		ug/L	0.57	0.075	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
Aroclor-1232	ND		ug/L	0.57	0.051	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
Aroclor-1242	ND		ug/L	0.57	0.055	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
Aroclor-1248	ND		ug/L	0.57	0.034	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
Aroclor-1254	ND		ug/L	0.57	0.031	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
Aroclor-1260	ND		ug/L	0.57	0.059	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	47.6		%	30 - 137		EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
Tetrachloro-m-xylene (S)	84.5		%	30 - 144		EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:41	EGO	A
METALS											
Arsenic, Total	ND		mg/L	0.0015	0.00032	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Cadmium, Total	ND		mg/L	0.00020	0.00012	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Chromium, Total	0.0010		mg/L	0.0010	0.00029	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Copper, Total	0.012		mg/L	0.0025	0.00038	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Iron, Total	0.32		mg/L			EPA 200.7			5/29/19 17:55	MNP	
Lead, Total	0.00046J	J	mg/L	0.0010	0.00011	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Molybdenum, Total	0.0050		mg/L	0.0010	0.000040	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Nickel, Total	0.0049		mg/L	0.0025	0.00012	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Selenium, Total	ND		mg/L	0.0020	0.00015	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Silver, Total	0.00041J	J	mg/L	0.00050	0.00003 0	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1
Zinc, Total	0.019		mg/L	0.0025	0.00057	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:12	LXC	D1

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ANALYTICAL RESULTS

Workorder: 3034621 WW/Influent Quarterly

Lab ID: **3034621005** Date Collected: 5/16/2019 10:05 Matrix: Waste Water

Sample ID: **19-Q2-Infl B-Potomac SS Comp** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aroclor-1016	ND		ug/L	0.54	0.068	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
Aroclor-1221	ND		ug/L	0.54	0.071	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
Aroclor-1232	ND		ug/L	0.54	0.048	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
Aroclor-1242	ND		ug/L	0.54	0.052	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
Aroclor-1248	ND		ug/L	0.54	0.032	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
Aroclor-1254	ND		ug/L	0.54	0.029	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
Aroclor-1260	ND		ug/L	0.54	0.056	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	45.6		%	30 - 137		EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
Tetrachloro-m-xylene (S)	80.6		%	30 - 144		EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:52	EGO	A
METALS											
Arsenic, Total	0.00083J	J	mg/L	0.0015	0.00032	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Cadmium, Total	0.00020J	J	mg/L	0.00020	0.00012	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Chromium, Total	0.0034		mg/L	0.0010	0.00029	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Copper, Total	0.058		mg/L	0.0025	0.00038	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Iron, Total	2.0		mg/L	0.060	0.020	EPA 200.7	5/23/19 10:20	AHI	5/29/19 13:36	MNP	D1
Lead, Total	0.0074		mg/L	0.0010	0.00011	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Manganese, Total	0.17		mg/L	0.0025	0.00011	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Molybdenum, Total	0.0050		mg/L	0.0010	0.000040	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Nickel, Total	0.0077		mg/L	0.0025	0.00012	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Selenium, Total	0.00064J	J	mg/L	0.0020	0.00015	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Silver, Total	0.00092		mg/L	0.00050	0.000030	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2
Zinc, Total	0.14		mg/L	0.0025	0.00057	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:15	LXC	D2

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ANALYTICAL RESULTS

Workorder: 3034621 WW/Influent Quarterly

Lab ID: **3034621006** Date Collected: 5/16/2019 10:25 Matrix: Waste Water
Sample ID: **19-Q2-Infl C-Bolling SS Comp** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aroclor-1016	ND		ug/L	0.55	0.069	EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
Aroclor-1221	ND		ug/L	0.55	0.073	EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
Aroclor-1232	ND		ug/L	0.55	0.049	EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
Aroclor-1242	ND		ug/L	0.55	0.053	EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
Aroclor-1248	ND		ug/L	0.55	0.033	EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
Aroclor-1254	ND		ug/L	0.55	0.030	EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
Aroclor-1260	ND		ug/L	0.55	0.057	EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	50.7		%	30 - 137		EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
Tetrachloro-m-xylene (S)	84.9		%	30 - 144		EPA 608.3	5/21/19 10:15	CAC	5/22/19 04:02	EGO	A
METALS											
Arsenic, Total	0.00058J	J	mg/L	0.0015	0.00032	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Cadmium, Total	0.00023		mg/L	0.00020	0.00012	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Chromium, Total	0.0034		mg/L	0.0010	0.00029	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Copper, Total	0.052		mg/L	0.0025	0.00038	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Iron, Total	2.6		mg/L	0.060	0.020	EPA 200.7	5/23/19 10:20	AHI	5/29/19 13:40	MNP	D1
Lead, Total	0.011		mg/L	0.0010	0.00011	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Manganese, Total	0.18		mg/L	0.0025	0.00011	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Molybdenum, Total	0.0064		mg/L	0.0010	0.000040	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Nickel, Total	0.0069		mg/L	0.0025	0.00012	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Selenium, Total	0.00056J	J	mg/L	0.0020	0.00015	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Silver, Total	0.00061		mg/L	0.00050	0.000030	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2
Zinc, Total	0.12		mg/L	0.0025	0.00057	EPA 200.8	5/24/19 10:30	AHI	5/27/19 05:24	LXC	D2

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3034621 WW/Influent Quarterly

Lab ID	Sample ID	Analysis Method	Prep Method
3034621001	19-Q2-Infl A-Potomac CS	EPA 1664B	
3034621001	19-Q2-Infl A-Potomac CS	KELADA-01	
3034621002	19-Q2-Infl B-Potomac SS	EPA 1664B	
3034621002	19-Q2-Infl B-Potomac SS	KELADA-01	
3034621003	19-Q2-Infl C-Bolling	EPA 1664B	
3034621003	19-Q2-Infl C-Bolling	KELADA-01	
3034621004	19-Q2-Infl A-Potomac CS Comp	EPA 200.7	
3034621004	19-Q2-Infl A-Potomac CS Comp	EPA 200.8	EPA TRMD
3034621004	19-Q2-Infl A-Potomac CS Comp	EPA 608.3	EPA 608.3
3034621005	19-Q2-Infl B-Potomac SS Comp	EPA 200.7	EPA TRMD
3034621005	19-Q2-Infl B-Potomac SS Comp	EPA 200.8	EPA TRMD
3034621005	19-Q2-Infl B-Potomac SS Comp	EPA 608.3	EPA 608.3
3034621006	19-Q2-Infl C-Bolling SS Comp	EPA 200.7	EPA TRMD
3034621006	19-Q2-Infl C-Bolling SS Comp	EPA 200.8	EPA TRMD
3034621006	19-Q2-Infl C-Bolling SS Comp	EPA 608.3	EPA 608.3

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

* 3 0 3 4 6 2 1 *

ZXZX of xyxy

(by Receiving Lab)

Client Name: DCWASA - Others
Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Elaine Wilson
Phone#: 202-787-4177
Project Name/#: WW/Influent Quarterly
Bill To: Accounts Payable Office- 4th Floor

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required: _____ Approved By: _____
Email? [x] -Y _____
Fax? [ ] -Y No.: _____

Cooler Temp: [illegible] °C Therm ID: 401
No. of Cooliers: _____

	Y	N	Initial
Custody Seals Present?			
(If present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Container Type	PL	CG	PL	G						
Container Size	100 mL	250mL	250 mL	1 L						
Preservative	NaOH	H2SO4	HNO3	None						

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Cyanide	TPH plus total O& G - 1664	Total Metals: 200.8 (As, Cd, Cr, Cu,Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn)	PCBS - 608							Sample/COC Comments
					Enter Number of Containers Per Sample or Field Results Below.										
19-Q2-Infl A - Potomac CS	5/16/19	0930	G	WW	1	1									
19-Q2-Infl B - Potomac SS	5/16/19	0935	G	WW	1	1									* Missing tot metals for
19-Q2-Infl C - Boiling	5/16/19	0945	G	WW	1	1									Potomac CS @1000 - qns 5/21/19
19-Q2-Infl A - Potomac CS	5/16/19	1000	C	WW			1*	2							24-h composite
19-Q2-Infl B - Potomac SS	5/16/19	1005	C	WW			1	2							24-h composite
19-Q2-Infl C - Boiling	5/16/19	1025	C	WW			1	2							24-h composite

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther: _____

Project Comments: Need Lowest detection limit available for all metals, report J flags

LOGGED BY(signature): _____ Date: _____ Time: _____
REVIEWED BY(signature): _____ Date: _____ Time: _____

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] DCWA	5-16-19	1100	2	[signature] ALS	5/16/19	1250
3	[signature] ALS	5/16/19		4	COMMON COURIER / ALS COURIER		
5	COMMON COURIER / ALS COURIER			6	[signature]	5/16/19	2040
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Special Processing: USACE [ ] Navy [ ] [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]
Reportable to PADEP? Yes [ ]
PWSID # _____
Sample Disposal: Lab [ ] Special [ ]
EDDS: Format Type- _____

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DC Wasa	3034162	QV	5/17/19

1. Were airbills / tracking numbers present and recorded?	NONE	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	YES	NO
3. Are Custody Seals on sample containers intact?	NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		YES	(NO)
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 1°C

Thermometer ID: 401

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

* Missing 1 Sample - see COC

Rev. 4/29/2019

Susan Scherer

From: Ryan Maisano <Ryan.Maisano@dcwater.com>
Sent: Monday, May 20, 2019 9:16 AM
To: Susan Scherer
Cc: Lab Results
Subject: RE: WW/Influent-Q2-Infl A - Potomac CS--collected 05/16/19 at 1000--Total Metals

Susan,
Please take from the 608 bottle. I checked out refrigerators and the bottle was not left here. I know it was in the refrigerator left for pick up because I double checked the bottles. It must have gotten lost in transport.

Thanks,

Ryan Maisano | Environmental Compliance Officer | Wastewater Treatment |
DC Water | ryan.maisano@dcwater.com | 5000 Overlook Avenue, SW |
Washington, DC 20032 |
(202) 787-4003 | (202) 787-4226 (fax)

Water is Life! | Web | Facebook | Twitter | YouTube | Flickr | LinkedIn | Pinterest

From: Lab Results
Sent: Friday, May 17, 2019 1:22 PM
To: Mark Ramirez <Mark.Ramirez@dcwater.com>; Elaine K Wilson <Elaine.Wilson@dcwater.com>; Greg Phillips <Gregory.Phillips@dcwater.com>; Ryan Maisano <Ryan.Maisano@dcwater.com>
Subject: FW: WW/Influent-Q2-Infl A - Potomac CS--collected 05/16/19 at 1000--Total Metals

---

From: Susan Scherer
Sent: Friday, May 17, 2019 1:21:19 PM (UTC-05:00) Eastern Time (US & Canada)
To: Elaine K Wilson
Cc: Lab Results
Subject: WW/Influent-Q2-Infl A - Potomac CS--collected 05/16/19 at 1000--Total Metals

EXTERNAL EMAIL. PLEASE USE CAUTION

Hi Elaine,
The ALS Sample Receiving noted the total metals bottle for Q2-Infl A - Potomac CS collected on 05/16/19 at 1000 was not received. Is there a possibility this container is still on site at your facility? If not, we could preserve a portion of the PCBs 608 with nitric acid for the total metals analysis. Please let me know. Thank you.

Susan Scherer
Project Manager, Environmental
Middletown, Pennsylvania, USA

T +1 717 944 5541 D +1 717 702 2245
E +1 717 944 1430
susan.scherer@alsglobal.com
301 Fulling Mill Rd.

Middletown, PA 17057

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December 6, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Wastewater (WW)**	Workorder:	**3071856**
Purchase Order:	**200124**	Workorder ID:	**WW/Influent Quarterly**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Friday, November 22, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3071856 WW/Influent Quarterly

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3071856001	19-Q4-Infl A-Potomac CS Grab	Waste Water	11/21/2019 09:15	11/22/2019 22:45	Collected by Client
3071856002	19-Q4-Infl B-Potomac SS Grab	Waste Water	11/21/2019 09:20	11/22/2019 22:45	Collected by Client
3071856003	19-Q4-Infl C-Boiling Grab	Waste Water	11/21/2019 09:30	11/22/2019 22:45	Collected by Client
3071856004	19-Q4-Infl A-Potomac CS Comp	Waste Water	11/21/2019 10:05	11/22/2019 22:45	Collected by Client
3071856005	19-Q4-Infl B-Potomac SS Comp	Waste Water	11/21/2019 10:00	11/22/2019 22:45	Collected by Client
3071856006	19-Q4-Infl C-Boiling Comp	Waste Water	11/21/2019 10:15	11/22/2019 22:45	Collected by Client

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SAMPLE SUMMARY

Workorder: 3071856 WW/Influent Quarterly

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3071856 WW/Influent Quarterly

Lab ID: **3071856001** Date Collected: 11/21/2019 09:15 Matrix: Waste Water

Sample ID: **19-Q4-Infl A-Potomac CS Grab** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	*Cntr*
WET CHEMISTRY										
Cyanide, Total	0.0081		mg/L	0.0020	0.00090	KELADA-01		12/3/19 06:57	C_D	A
Oil/Grease Hexane Extractable	18.3		mg/L	3.9	1.3	EPA 1664B		11/26/19 11:30	MPP	B
Oil/Grease Silica Gel Treated	ND		mg/L	3.9	1.3	EPA 1664B		11/26/19 11:30	MPP	B

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3071856 WW/Influent Quarterly

Lab ID: **3071856002** Date Collected: 11/21/2019 09:20 Matrix: Waste Water

Sample ID: **19-Q4-Infl B-Potomac SS Grab** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.0027		mg/L	0.0020	0.00090	KELADA-01		12/3/19 06:57	C_D	A
Oil/Grease Hexane Extractable	14.9		mg/L	3.9	1.3	EPA 1664B		11/26/19 11:30	MPP	B
Oil/Grease Silica Gel Treated	ND		mg/L	3.9	1.3	EPA 1664B		11/26/19 11:30	MPP	B

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ANALYTICAL RESULTS

Workorder: 3071856 WW/Influent Quarterly

Lab ID: **3071856003** Date Collected: 11/21/2019 09:30 Matrix: Waste Water

Sample ID: **19-Q4-Infl C-Boiling Grab** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.023		mg/L	0.0020	0.00090	KELADA-01		12/3/19 06:57	C_D	A
Oil/Grease Hexane Extractable	20.7		mg/L	4.1	1.3	EPA 1664B		11/26/19 11:30	MPP	B
Oil/Grease Silica Gel Treated	ND		mg/L	4.1	1.3	EPA 1664B		11/26/19 11:30	MPP	B

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ANALYTICAL RESULTS

Workorder: 3071856 WW/Influent Quarterly

Lab ID: **3071856004** Date Collected: 11/21/2019 10:05 Matrix: Waste Water
Sample ID: **19-Q4-Infl A-Potomac CS Comp** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aroclor-1016	ND		ug/L	0.53	0.067	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
Aroclor-1221	ND		ug/L	0.53	0.070	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
Aroclor-1232	ND		ug/L	0.53	0.048	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
Aroclor-1242	ND		ug/L	0.53	0.051	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
Aroclor-1248	ND		ug/L	0.53	0.032	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
Aroclor-1254	ND		ug/L	0.53	0.029	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
Aroclor-1260	ND		ug/L	0.53	0.055	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	46.2		%	30 - 137		EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
Tetrachloro-m-xylene (S)	86.8		%	30 - 144		EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:18	EGO	B
WET CHEMISTRY											
Total Kjeldahl Nitrogen	51.2		mg/L	10.0	4	S4500NH3G-11	11/2/19 14:26	RXB	12/3/19 20:00	RXB	D
METALS											
Arsenic, Total	0.00089J	J	mg/L	0.0015	0.00032	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Cadmium, Total	0.00031		mg/L	0.00020	0.00012	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Chromium, Total	0.024		mg/L	0.0010	0.00029	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Copper, Total	0.059		mg/L	0.0025	0.00038	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Iron, Total	1.9		mg/L	0.030	0.010	EPA 200.7	11/26/19 13:34	SXC	12/2/19 17:28	MNP	A1
Lead, Total	0.0031		mg/L	0.0010	0.00011	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Manganese, Total	0.15		mg/L	0.0025	0.00011	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Molybdenum, Total	0.011		mg/L	0.0010	0.000040	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Nickel, Total	0.020		mg/L	0.0025	0.00012	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Selenium, Total	0.0010J	J	mg/L	0.0020	0.00015	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Silver, Total	0.0018		mg/L	0.00050	0.000030	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2
Zinc, Total	0.12		mg/L	0.0025	0.00057	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:26	MSA	A2

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3071856 WW/Influent Quarterly

Lab ID: **3071856005** Date Collected: 11/21/2019 10:00 Matrix: Waste Water

Sample ID: **19-Q4-Infl B-Potomac SS Comp** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aroclor-1016	ND		ug/L	0.53	0.066	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
Aroclor-1221	ND		ug/L	0.53	0.069	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
Aroclor-1232	ND		ug/L	0.53	0.047	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
Aroclor-1242	ND		ug/L	0.53	0.051	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
Aroclor-1248	ND		ug/L	0.53	0.032	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
Aroclor-1254	ND		ug/L	0.53	0.028	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
Aroclor-1260	ND		ug/L	0.53	0.055	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	55.1		%	30 - 137		EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
Tetrachloro-m-xylene (S)	86.7		%	30 - 144		EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:30	EGO	B
WET CHEMISTRY											
Total Kjeldahl Nitrogen	40.7		mg/L	10.0	4	S4500NH3G-11	11/2/19 14:26	RXB	12/3/19 20:18	RXB	D
METALS											
Arsenic, Total	0.00099J	J	mg/L	0.0015	0.00032	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Cadmium, Total	0.00028		mg/L	0.00020	0.00012	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Chromium, Total	0.011		mg/L	0.0010	0.00029	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Copper, Total	0.058		mg/L	0.0025	0.00038	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Iron, Total	0.97		mg/L	0.030	0.010	EPA 200.7	11/26/19 13:34	SXC	12/2/19 17:25	MNP	A1
Lead, Total	0.0035		mg/L	0.0010	0.00011	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Manganese, Total	0.087		mg/L	0.0025	0.00011	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Molybdenum, Total	0.0092		mg/L	0.0010	0.000040	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Nickel, Total	0.012		mg/L	0.0025	0.00012	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Selenium, Total	0.00064J	J	mg/L	0.0020	0.00015	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Silver, Total	0.00057		mg/L	0.00050	0.000030	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2
Zinc, Total	0.13		mg/L	0.0025	0.00057	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:29	MSA	A2

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3071856 WW/Influent Quarterly

Lab ID: **3071856006** Date Collected: 11/21/2019 10:15 Matrix: Waste Water

Sample ID: **19-Q4-Infl C-Boiling Comp** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aroclor-1016	ND		ug/L	0.49	0.062	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
Aroclor-1221	ND		ug/L	0.49	0.065	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
Aroclor-1232	ND		ug/L	0.49	0.044	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
Aroclor-1242	ND		ug/L	0.49	0.047	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
Aroclor-1248	ND		ug/L	0.49	0.029	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
Aroclor-1254	ND		ug/L	0.49	0.026	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
Aroclor-1260	ND		ug/L	0.49	0.051	EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	47.8		%	30 - 137		EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
Tetrachloro-m-xylene (S)	81.5		%	30 - 144		EPA 608.3	12/2/19 08:10	CAC	12/3/19 08:42	EGO	B
WET CHEMISTRY											
Total Kjeldahl Nitrogen	34.2		mg/L	10.0	4	S4500NH3G-11	11/2/19 14:26	RXB	12/3/19 20:10	RXB	D
METALS											
Arsenic, Total	0.00096J	J	mg/L	0.0015	0.00032	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Cadmium, Total	0.00015J	J	mg/L	0.00020	0.00012	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Chromium, Total	0.0042		mg/L	0.0010	0.00029	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Copper, Total	0.040		mg/L	0.0025	0.00038	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Iron, Total	1.9		mg/L	0.030	0.010	EPA 200.7	11/26/19 13:34	SXC	12/2/19 17:22	MNP	A1
Lead, Total	0.0019		mg/L	0.0010	0.00011	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Manganese, Total	0.11		mg/L	0.0025	0.00011	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Molybdenum, Total	0.010		mg/L	0.0010	0.000040	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Nickel, Total	0.0076		mg/L	0.0025	0.00012	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Selenium, Total	0.00045J	J	mg/L	0.0020	0.00015	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Silver, Total	0.00026J	J	mg/L	0.00050	0.000030	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2
Zinc, Total	0.079		mg/L	0.0025	0.00057	EPA 200.8	11/30/19 09:50	AHI	12/3/19 04:32	MSA	A2

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3071856 WW/Influent Quarterly

Lab ID	Sample ID	Analysis Method	Prep Method
3071856001	19-Q4-Infl A-Potomac CS Grab	EPA 1664B	
3071856001	19-Q4-Infl A-Potomac CS Grab	KELADA-01	
3071856002	19-Q4-Infl B-Potomac SS Grab	EPA 1664B	
3071856002	19-Q4-Infl B-Potomac SS Grab	KELADA-01	
3071856003	19-Q4-Infl C-Boiling Grab	EPA 1664B	
3071856003	19-Q4-Infl C-Boiling Grab	KELADA-01	
3071856004	19-Q4-Infl A-Potomac CS Comp	EPA 200.7	EPA TRMD
3071856004	19-Q4-Infl A-Potomac CS Comp	EPA 200.8	EPA TRMD
3071856004	19-Q4-Infl A-Potomac CS Comp	EPA 608.3	EPA 608.3
3071856004	19-Q4-Infl A-Potomac CS Comp	S4500NH3G-11	S4500NH3G-11
3071856005	19-Q4-Infl B-Potomac SS Comp	EPA 200.7	EPA TRMD
3071856005	19-Q4-Infl B-Potomac SS Comp	EPA 200.8	EPA TRMD
3071856005	19-Q4-Infl B-Potomac SS Comp	EPA 608.3	EPA 608.3
3071856005	19-Q4-Infl B-Potomac SS Comp	S4500NH3G-11	S4500NH3G-11
3071856006	19-Q4-Infl C-Boiling Comp	EPA 200.7	EPA TRMD
3071856006	19-Q4-Infl C-Boiling Comp	EPA 200.8	EPA TRMD
3071856006	19-Q4-Infl C-Boiling Comp	EPA 608.3	EPA 608.3
3071856006	19-Q4-Infl C-Boiling Comp	S4500NH3G-11	S4500NH3G-11

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

* 3 0 7 1 8 5 6 *

zxzx of xyxy

Client Name: DCWASA - Others

Address: 5000 Overlook Ave, SW
Washington, D.C. 20032

Contact: Elaine Wilson

Phone#: 202-787-4177

Project Name/#: WW/Influent Quarterly

Bill To: Accounts Payable Office- 4th Floor

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALSI approval and surcharges.

Date Required: _____ Approved By: _____

Email? [x] -Y

Fax? [ ] -Y No.: _____

Container Type	PL	CG	PL	G	P					
Container Size	100 mL	250mL	250 mL	1 L	125 mL					
Preservative	NaOH	H2SO4	HNO3	None	H2SO4					

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Cyanide	TPH plus total Oil & G - 1664	Total Metals: 200.8 (As, Cd, Cr, Cu,Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn)	PCBS - 608	TKN						Sample/COC Comments
					Enter Number of Containers Per Sample or Field Results Below.										
19-Q4-Infl A - Potomac CS	11/21/19	0915	G	WW	1	1									
19-Q4-Infl B - Potomac SS	11/21/19	0920	G	WW	1	1									
19-Q4-Infl C - Bolling	11/21/19	0930	G	WW	1	1									
19-Q4-Infl A - Potomac CS	11/21/19	1005	C	WW			1	2	1						24-h composite
19-Q4-Infl B - Potomac SS	11/21/19	1000	C	WW			1	2	1						24-h composite
19-Q4-Infl C - Bolling	11/21/19	1015	C	WW			1	2	1						24-h composite

Cooler Temp: 1 Therm ID: S25

No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(If present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

ALSI Field Services: oPickup oLabor
oComposite Sampling oRental Equipment
oOther: _____

Project Comments: Need Lowest detection limit available for all metals, report J flags

LOGGED BY(signature): Date: Time:

REVIEWED BY(signature): Date: Time:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Shawn D'Water	11-22-19	1030	2	11/22	1757
3	11/22	1800	4 COMMON COURIER / ALS COURIER		
5 COMMON COURIER / ALS COURIER			6	11/23/19	2245
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ]

PWSID # _____

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- _____

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

ALS

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DC Wasa	3071856	QD	11/23/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 1

Thermometer ID: 525

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

Additional Effluent Toxic Organics Pollutant Data

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April 3, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Wastewater (WW)**	Workorder:	**3023954**
Purchase Order:	**190108**	Workorder ID:	**WW/EFFLUENT QUARTERLY**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Friday, March 22, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3023954 WW/EFFLUENT QUARTERLY

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3023954001	19-Q1-OUTFALL 002 GRAB	Waste Water	3/21/2019 11:05	3/22/2019 21:45	Collected by Client
3023954002	19-Q1-OUTFALL 002 COMP	Waste Water	3/21/2019 10:15	3/22/2019 21:45	Collected by Client

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SAMPLE SUMMARY

Workorder: 3023954 WW/EFFLUENT QUARTERLY

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3023954 WW/EFFLUENT QUARTERLY

Lab ID: **3023954001** Date Collected: 3/21/2019 11:05 Matrix: Waste Water

Sample ID: **19-Q1-OUTFALL 002 GRAB** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.0078		mg/L	0.0020	0.00090	KELADA-01		3/28/19 17:48	RXB	A
Oil/Grease Hexane Extractable	1.5J	J	mg/L	3.9	1.3	EPA 1664B		3/27/19 13:00	ELS	B
Oil/Grease Silica Gel Treated	ND		mg/L	3.9	1.3	EPA 1664B		3/27/19 13:00	ELS	B

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3023954 WW/EFFLUENT QUARTERLY

Lab ID: **3023954002** Date Collected: 3/21/2019 10:15 Matrix: Waste Water

Sample ID: **19-Q1-OUTFALL 002 COMP** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aldrin	ND		ug/L	0.020	0.0050	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
beta-BHC	ND		ug/L	0.020	0.0080	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
delta-BHC	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
gamma-BHC	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Chlordane	ND		ug/L	0.20	0.035	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
4,4'-DDD	ND		ug/L	0.020	0.0070	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
4,4'-DDE	ND		ug/L	0.020	0.0070	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
4,4'-DDT	ND		ug/L	0.020	0.0060	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Dieldrin	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Endosulfan I	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Endosulfan II	ND		ug/L	0.020	0.0060	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Endosulfan Sulfate	ND		ug/L	0.020	0.0040	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Endrin	ND		ug/L	0.020	0.0080	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Endrin Aldehyde	ND		ug/L	0.020	0.010	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
alpha-HCH (alpha-BHC)	ND		ug/L	0.020	0.0020	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Heptachlor	ND		ug/L	0.020	0.0030	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Heptachlor Epoxide	ND		ug/L	0.020	0.0040	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Mirex	ND		ug/L	0.020	0.0040	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Total Polychlorinated Biphenyl	ND		ug/L	3.5	1.7	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Toxaphene	ND		ug/L	1.0	0.19	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Aroclor-1016	ND		ug/L	0.50	0.32	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Aroclor-1221	ND		ug/L	0.50	0.33	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Aroclor-1232	ND		ug/L	0.50	0.23	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Aroclor-1242	ND		ug/L	0.50	0.24	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Aroclor-1248	ND		ug/L	0.50	0.15	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Aroclor-1254	ND		ug/L	0.50	0.14	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Aroclor-1260	ND		ug/L	0.50	0.26	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	74.9		%	30 - 150	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Decachlorobiphenyl (S)	66.9		%	30 - 150	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Tetrachloro-m-xylene (S)	73.9		%	36 - 112	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B
Tetrachloro-m-xylene (S)	70.8		%	36 - 112	EPA 608	3/27/19 09:35	MXL	3/30/19 18:18	RWS	B

METALS											
Arsenic, Total	ND		mg/L	0.0015	0.00032	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1
Cadmium, Total	ND		mg/L	0.00020	0.00012	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1

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ANALYTICAL RESULTS

Workorder: 3023954 WW/EFFLUENT QUARTERLY

Lab ID: **3023954002** Date Collected: 3/21/2019 10:15 Matrix: Waste Water

Sample ID: **19-Q1-OUTFALL 002 COMP** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Chromium, Total	ND		mg/L	0.0010	0.00029	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1
Copper, Total	0.0052		mg/L	0.0025	0.00038	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1
Lead, Total	ND		mg/L	0.0010	0.00011	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1
Molybdenum, Total	0.0057		mg/L	0.0010	0.000040	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1
Nickel, Total	0.0075		mg/L	0.0025	0.00012	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1
Selenium, Total	0.00031J	J	mg/L	0.0020	0.00015	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1
Silver, Total	ND		mg/L	0.00050	0.000030	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1
Zinc, Total	0.022		mg/L	0.0025	0.00057	EPA 200.8	3/30/19 13:10	AHI	4/3/19 08:12	LXC	A1

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3023954 WW/EFFLUENT QUARTERLY

Lab ID	Sample ID	Analysis Method	Prep Method
3023954001	19-Q1-OUTFALL 002 GRAB	EPA 1664B	
3023954001	19-Q1-OUTFALL 002 GRAB	KELADA-01	
3023954002	19-Q1-OUTFALL 002 COMP	EPA 200.8	EPA TRMD
3023954002	19-Q1-OUTFALL 002 COMP	EPA 608	EPA 608

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Environmental ▪ Industrial Hygiene ▪ Field Services
34 Dogwood Lane ▪ Middletown, PA 17057 ▪ 717.944.5541 ▪ Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

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* 3 0 2 3 9 5 4 *

zxzx of xyxy

Receipt [illegible] (by Receiving Lab)

Client Name: DCWASA - Other
Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Elaine Wilson
Phone#: 202-787-4177
Project Name/#: WW/Effluent Quarterly
Bill To: Accounts Payable Office- 4th Floor

TAT [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required: _____ Approved By: _____
Email? [x] -Y
Fax? [ ] -Y No.:

Cooler Temp: 2°C Therm ID: 352
No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(If present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Container Type			CG	PL	PL	G								
Container Size			250mL	250 mL	125 mL	1L								
Preservative			H2SO4	NaOH	HNO3	None								
ANALYSES/METHOD REQUESTED														
Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TPH plus total O & G - 1664	Cyanide	Total Metals: 200.8 (As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)	PCBs - 608						Sample/COC Comments
					Enter Number of Containers Per Sample or Field Results Below.									
19-Q1-Outfall 002	3/21/19	1105	G	WW	1	1								
19-Q1-Outfall 002	3/21/19	1015	C	WW			1	2						24-h composite 3/20 to 3/21

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther:_____

Project Comments: Need lowest detection limit available for all metals, report J Flags

LOGGED BY(signature): Date: Time:
REVIEWED BY(signature): Date: Time:

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] DCWater	3/21/19	1140	2	[signature] ALS	3/22	1415
3	[signature]	3/22	1720	4	COMMON COURIER / ALS COURIER		
5	COMMON COURIER / ALS COURIER			6	[signature]	3/22/19	2145
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Special Processing: USACE [ ] Navy [ ]
State Samples Collected in: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]
Reportable to PADEP? Yes [ ] PWSID # _____
Sample Disposal: Lab [ ] Special [ ]
EDDS: Format Type: _____

* G=Grab, C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: PWASA | Work Order #: 3023954 | Initials: CLS | Date: 3/26/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below.		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #: 1

Temperature (°C): 2

Thermometer ID: 352

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 1/10/2019

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May 28, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Wastewater (WW)**	Workorder:	**3034423**
Purchase Order:	**190108**	Workorder ID:	**WW/Effluent Quarterly**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Thursday, May 16, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3034423 WW/Effluent Quarterly

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3034423001	19-Q2-Outfall 002 Grab	Waste Water	5/15/2019 15:10	5/16/2019 20:40	Collected by Client
3034423002	19-Q2-Outfall 002 Comp	Waste Water	5/16/2019 10:30	5/16/2019 20:40	Collected by Client

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SAMPLE SUMMARY

Workorder: 3034423 WW/Effluent Quarterly

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3034423 WW/Effluent Quarterly

Lab ID: **3034423001** Date Collected: 5/15/2019 15:10 Matrix: Waste Water

Sample ID: **19-Q2-Outfall 002 Grab** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
WET CHEMISTRY										
Cyanide, Total	0.010		mg/L	0.0020	0.00090	KELADA-01		5/23/19 15:49	RXB	A
Oil/Grease Hexane Extractable	ND		mg/L	3.8	1.2	EPA 1664B		5/20/19 12:00	ELS	B
Oil/Grease Silica Gel Treated	ND		mg/L	3.8	1.2	EPA 1664B		5/20/19 12:00	ELS	B

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3034423 WW/Effluent Quarterly

Lab ID: **3034423002** Date Collected: 5/16/2019 10:30 Matrix: Waste Water
Sample ID: **19-Q2-Outfall 002 Comp** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Pesticides and PCBs											
Aldrin	ND		ug/L	0.021	0.0073	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
beta-BHC	ND		ug/L	0.021	0.012	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
delta-BHC	ND		ug/L	0.021	0.015	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
gamma-BHC	ND		ug/L	0.021	0.012	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Chlordane	ND		ug/L	0.21	0.073	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
alpha-Chlordane	ND		ug/L	0.021	0.010	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
gamma-Chlordane	ND		ug/L	0.021	0.011	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
4,4'-DDD	ND		ug/L	0.021	0.020	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
4,4'-DDE	ND		ug/L	0.021	0.020	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
4,4'-DDT	ND		ug/L	0.021	0.0073	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Dieldrin	ND		ug/L	0.021	0.011	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Endosulfan I	ND		ug/L	0.021	0.010	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Endosulfan II	ND		ug/L	0.021	0.011	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Endosulfan Sulfate	ND		ug/L	0.021	0.015	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Endrin	ND		ug/L	0.021	0.013	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Endrin Aldehyde	ND		ug/L	0.021	0.015	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Endrin Ketone	ND		ug/L	0.021	0.017	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
alpha-HCH (alpha-BHC)	ND		ug/L	0.021	0.011	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Heptachlor	ND		ug/L	0.021	0.011	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Heptachlor Epoxide	ND		ug/L	0.021	0.010	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Methoxychlor	ND		ug/L	0.021	0.017	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Mirex	ND		ug/L	0.021	0.016	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Toxaphene	ND		ug/L	0.52	0.21	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Aroclor-1016	ND		ug/L	0.52	0.065	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B
Aroclor-1221	ND		ug/L	0.52	0.068	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B
Aroclor-1232	ND		ug/L	0.52	0.047	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B
Aroclor-1242	ND		ug/L	0.52	0.050	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B
Aroclor-1248	ND		ug/L	0.52	0.031	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B
Aroclor-1254	ND		ug/L	0.52	0.028	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B
Aroclor-1260	ND		ug/L	0.52	0.054	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B

Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	60.5		%	30 - 137	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B
Decachlorobiphenyl (S)	81.2		%	30 - 137	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Decachlorobiphenyl (S)	79.6		%	30 - 137	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Tetrachloro-m-xylene (S)	78.8		%	30 - 144	EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
Tetrachloro-m-xylene (S)	75.2		%	30 - 144	EPA 608.3	5/21/19 10:15	CAC	5/22/19 03:20	EGO	B

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ANALYTICAL RESULTS

Workorder: 3034423 WW/Effluent Quarterly

Lab ID: **3034423002** Date Collected: 5/16/2019 10:30 Matrix: Waste Water

Sample ID: **19-Q2-Outfall 002 Comp** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Tetrachloro-m-xylene (S)	78.1		%	30 - 144		EPA 608.3	5/21/19 10:15	CAC	5/23/19 18:37	RWS	B
METALS											
Arsenic, Total	ND		mg/L	0.0015	0.00032	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Cadmium, Total	ND		mg/L	0.00020	0.00012	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Chromium, Total	0.00082J	J	mg/L	0.0010	0.00029	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Copper, Total	0.0051		mg/L	0.0025	0.00038	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Lead, Total	0.00021J	J	mg/L	0.0010	0.00011	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Molybdenum, Total	0.0039		mg/L	0.0010	0.000040	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Nickel, Total	0.0054		mg/L	0.0025	0.00012	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Selenium, Total	0.00016J	J	mg/L	0.0020	0.00015	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Silver, Total	ND		mg/L	0.00050	0.000030	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1
Zinc, Total	0.0097		mg/L	0.0025	0.00057	EPA 200.8	5/23/19 10:20	AHI	5/27/19 05:51	LXC	A1

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3034423 WW/Effluent Quarterly

Lab ID	Sample ID	Analysis Method	Prep Method
3034423001	19-Q2-Outfall 002 Grab	EPA 1664B	
3034423001	19-Q2-Outfall 002 Grab	KELADA-01	
3034423002	19-Q2-Outfall 002 Comp	EPA 200.8	EPA TRMD
3034423002	19-Q2-Outfall 002 Comp	EPA 608.3	EPA 608.3

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

CC
AL

3034423

zxzx of xyxy

Client Name: DCWASA - Other	Container Type	CG	PL	PL	G								.ceiving Lab)
Address: 5000 Overlook Ave, SW	Container Size	250mL	100 mL	125 mL	1L								Cooler Temp: 1.2 Therm ID: 401
Washington, D.C. 20032	Preservative	H2SO4	NaOH	HNO3	None								No. of Coolers: _____
Contact: Elaine Wilson	ANALYSES/METHOD REQUESTED												Y / N / Initial
Phone#: 202-787-4177													Custody Seals Present?
Project Name/#: WW/Effluent Quarterly													(if present) Seals Intact?
Bill To: Accounts Payable Office- 4th Floor													Received on Ice?
TAT [x] Normal-Standard TAT is 10-12 business days.													COC/Labels Complete/Accurate?
[ ] Rush-Subject to ALSI approval and surcharges.													Cont. in Good Cond.?
Date Required: _____ Approved By: _____													Correct Containers?
Email? [x] -Y													Correct Sample Volumes?
Fax? [ ] -Y No.:													Correct Preservation?
													Headspace/Volatiles?
Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	TPH plus total O & G - 1664	Cyanide	Total Metals: 200.8 (As, Cd, Cr, Cu, Pb, Mo, Ni, Se, Ag, Zn)	PCBs - 608						Courier/Tracking #:
					Enter Number of Containers Per Sample or Field Results Below.									Sample/COC Comments
19-Q2-Outfall 002	5/15/19	1510	G	WW	1	1								
19-Q2-Outfall 002	5/16/19	1030	C	WW			1	2						24-h composite 5/15 to 5/16

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther: _____

Project Comments: Need lowest detection limit available for all metals, report J Flags

LOGGED BY(signature): Date: Time:

REVIEWED BY(signature): Date: Time:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	5-16-19	1120	2 ALS	5/16/19	1250
3 ALS	5/16/19		4 COMMON COURIER / ALS COURIER		
5 COMMON COURIER / ALS COURIER			6	5/16/19	2040
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]

Special Processing: USACE [ ] Navy [ ]

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]

Reportable to PADEP? Yes [ ] PWSID # _____

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type- _____

* G=Grab; C=Composite **Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

ALS

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944 5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DC-Wasa	3034423	QD	5/17/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	N/A	(YES)	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #:								
Temperature (°C):	1.6							
Thermometer ID:	401							
Radiological (µCi):								

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

Additional Biosolids Toxic Organics and Metals Pollutant Data

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

March 31, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Bio/Quarterly 03/21/19**	Workorder:	**3023485**
Purchase Order:	**190108**	Workorder ID:	**Bio/Quarterly 03/21/19**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Friday, March 22, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Ms. Susan J Scherer
Project Coordinator

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SAMPLE SUMMARY

Workorder: 3023485 Bio/Quarterly 03/21/19

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3023485001	Digest BPF BOC 2019 Q1	Solid	3/21/2019 11:00	3/22/2019 21:45	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3023485 Bio/Quarterly 03/21/19

Lab ID: **3023485001** Date Collected: 3/21/2019 11:00 Matrix: Solid

Sample ID: **Digest BPF BOC 2019 Q1** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Benzene	17.8J	J	ug/kg	17.9	4.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Bromochloromethane	ND		ug/kg	17.9	4.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Bromodichloromethane	ND		ug/kg	17.9	6.3	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Bromoform	ND		ug/kg	17.9	4.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Bromomethane	ND		ug/kg	17.9	4.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
2-Butanone	2910		ug/kg	89.3	28.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Carbon Disulfide	389		ug/kg	17.9	5.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Carbon Tetrachloride	ND		ug/kg	17.9	4.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Chlorobenzene	ND		ug/kg	17.9	4.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Chlorodibromomethane	ND		ug/kg	17.9	6.1	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Chloroethane	ND		ug/kg	44.7	7.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Chloroform	ND		ug/kg	17.9	4.7	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Chloromethane	ND		ug/kg	17.9	4.9	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,2-Dibromo-3-chloropropane	ND		ug/kg	44.7	25.9	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,2-Dibromoethane	ND		ug/kg	17.9	4.8	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,1-Dichloroethane	ND		ug/kg	17.9	4.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,2-Dichloroethane	ND		ug/kg	17.9	4.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,1-Dichloroethene	ND		ug/kg	17.9	4.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
cis-1,2-Dichloroethene	ND		ug/kg	17.9	4.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
trans-1,2-Dichloroethene	ND		ug/kg	17.9	4.6	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,2-Dichloropropane	ND		ug/kg	17.9	5.4	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
cis-1,3-Dichloropropene	ND		ug/kg	17.9	4.9	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
trans-1,3-Dichloropropene	ND		ug/kg	17.9	5.2	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Ethylbenzene	11.6J	J	ug/kg	17.9	6.1	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
2-Hexanone	ND		ug/kg	89.3	25.0	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
4-Methyl-2-Pentanone(MIBK)	58.8J	J	ug/kg	89.3	34.0	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Methylene Chloride	15.6J	J	ug/kg	17.9	7.0	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Styrene	ND		ug/kg	17.9	4.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,1,2,2-Tetrachloroethane	ND		ug/kg	17.9	5.0	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Tetrachloroethene	ND		ug/kg	17.9	5.4	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Toluene	130		ug/kg	17.9	6.0	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Total Xylenes	127		ug/kg	53.6	12.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,1,1-Trichloroethane	ND		ug/kg	17.9	5.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
1,1,2-Trichloroethane	ND		ug/kg	17.9	5.0	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Trichloroethene	ND		ug/kg	17.9	4.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Vinyl Chloride	ND		ug/kg	17.9	4.5	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2

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ANALYTICAL RESULTS

Workorder: 3023485 Bio/Quarterly 03/21/19

Lab ID: **3023485001** Date Collected: 3/21/2019 11:00 Matrix: Solid
Sample ID: **Digest BPF BOC 2019 Q1** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
o-Xylene	7.7J	J	ug/kg	17.9	5.2	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
mp-Xylene	119		ug/kg	35.7	7.4	SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.2		%	56 - 124		SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
4-Bromofluorobenzene (S)	100		%	51 - 128		SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Dibromofluoromethane (S)	97.6		%	62 - 123		SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
Toluene-d8 (S)	99		%	59 - 131		SW846 8260B	3/28/19 00:05	PDK	3/28/19 08:15	PDK	A2
DIOXIN SCREEN											
2,3,7,8-TCDD	ND	1	ug/kg	45.3	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 18:11	CGS	A
SEMIVOLATILES											
Acenaphthene	ND		ug/kg	323	38.8	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Acenaphthylene	ND		ug/kg	323	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Anthracene	ND		ug/kg	323	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Benzo(a)anthracene	ND		ug/kg	323	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Benzo(a)pyrene	ND		ug/kg	323	25.9	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Benzo(b)fluoranthene	98.8J	J	ug/kg	323	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Benzo(g,h,i)perylene	ND		ug/kg	323	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Benzo(k)fluoranthene	ND		ug/kg	323	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
4-Bromophenyl-phenylether	ND		ug/kg	647	58.2	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Butylbenzylphthalate	597J	J	ug/kg	647	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Carbazole	690		ug/kg	647	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
4-Chloro-3-methylphenol	ND		ug/kg	1290	64.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
4-Chloroaniline	ND		ug/kg	1290	77.6	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
bis(2-Chloroethoxy)methane	ND		ug/kg	647	58.2	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
bis(2-Chloroethyl)ether	431J	J	ug/kg	647	84.1	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
bis(2-Chloroisopropyl)ether	ND		ug/kg	647	97.0	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2-Chloronaphthalene	ND		ug/kg	647	38.8	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2-Chlorophenol	ND		ug/kg	1290	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
4-Chlorophenyl-phenylether	ND		ug/kg	647	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Chrysene	ND		ug/kg	323	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
mp-Cresol	260J	J	ug/kg	1290	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
o-Cresol	ND		ug/kg	1290	71.1	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Di-n-Butylphthalate	246J	J	ug/kg	647	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Di-n-Octylphthalate	ND		ug/kg	647	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Dibenzo(a,h)anthracene	ND		ug/kg	323	38.8	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Dibenzofuran	ND		ug/kg	647	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
1,2-Dichlorobenzene	ND		ug/kg	647	58.2	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A

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ANALYTICAL RESULTS

Workorder: 3023485 Bio/Quarterly 03/21/19

Lab ID: **3023485001** Date Collected: 3/21/2019 11:00 Matrix: Solid

Sample ID: **Digest BPF BOC 2019 Q1** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
1,3-Dichlorobenzene	ND		ug/kg	647	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
1,4-Dichlorobenzene	ND		ug/kg	647	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
3,3-Dichlorobenzidine	ND		ug/kg	1290	246	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2,4-Dichlorophenol	ND		ug/kg	1290	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Diethylphthalate	ND		ug/kg	647	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2,4-Dimethylphenol	ND		ug/kg	1290	97.0	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Dimethylphthalate	ND		ug/kg	647	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2,4-Dinitrophenol	ND		ug/kg	2590	259	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2,4-Dinitrotoluene	ND		ug/kg	647	58.2	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2,6-Dinitrotoluene	ND		ug/kg	647	77.6	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
bis(2-Ethylhexyl)phthalate	18000		ug/kg	647	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Fluoranthene	200J	J	ug/kg	323	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Fluorene	ND		ug/kg	323	38.8	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Hexachlorobenzene	ND		ug/kg	647	71.1	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Hexachlorobutadiene	ND		ug/kg	647	64.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Hexachlorocyclopentadiene	ND		ug/kg	1290	71.1	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Hexachloroethane	ND		ug/kg	647	58.2	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Indeno(1,2,3-cd)pyrene	ND		ug/kg	323	45.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Isophorone	ND		ug/kg	647	38.8	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2-Methyl-4,6-dinitrophenol	ND		ug/kg	1290	168	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2-Methylnaphthalene	ND		ug/kg	647	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Naphthalene	ND		ug/kg	323	38.8	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2-Nitroaniline	ND		ug/kg	1290	77.6	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
3-Nitroaniline	ND		ug/kg	1290	129	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
4-Nitroaniline	ND		ug/kg	1290	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Nitrobenzene	ND		ug/kg	647	77.6	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2-Nitrophenol	ND		ug/kg	1290	71.1	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
4-Nitrophenol	ND		ug/kg	1290	90.5	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
N-Nitrosodimethylamine	ND		ug/kg	647	97.0	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
N-Nitroso-di-n-propylamine	ND		ug/kg	647	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
N-Nitrosodiphenylamine	ND		ug/kg	647	51.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Pentachlorophenol	ND		ug/kg	1290	168	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Phenanthrene	193J	J	ug/kg	323	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Phenol	16000		ug/kg	1290	64.7	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Pyrene	247J	J	ug/kg	323	32.3	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
1,2,4-Trichlorobenzene	ND		ug/kg	647	38.8	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2,4,5-Trichlorophenol	ND		ug/kg	1290	77.6	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2,4,6-Trichlorophenol	ND		ug/kg	1290	77.6	SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A

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ANALYTICAL RESULTS

Workorder: 3023485 Bio/Quarterly 03/21/19

Lab ID: **3023485001** Date Collected: 3/21/2019 11:00 Matrix: Solid

Sample ID: **Digest BPF BOC 2019 Q1** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	31.7		%	19 - 132		SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2-Fluorobiphenyl (S)	45.6		%	40 - 110		SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
2-Fluorophenol (S)	39.6		%	26 - 116		SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Nitrobenzene-d5 (S)	45.8		%	38 - 112		SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Phenol-d5 (S)	42.6		%	35 - 111		SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
Terphenyl-d14 (S)	49		%	45 - 126		SW846 8270D	3/27/19 07:55	LEH	3/28/19 14:13	CGS	A
PESTICIDES											
Aldrin	ND	2,3	ug/kg	27.5	8.9	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
beta-BHC	ND		ug/kg	27.5	2.9	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
delta-BHC	ND		ug/kg	27.5	2.1	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
gamma-BHC	ND		ug/kg	27.5	2.3	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
alpha-Chlordane	ND		ug/kg	27.5	2.9	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
gamma-Chlordane	ND		ug/kg	27.5	4.7	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
4,4'-DDD	ND		ug/kg	53.3	4.4	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
4,4'-DDE	ND		ug/kg	53.3	7.3	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
4,4'-DDT	ND		ug/kg	53.3	6.1	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Dieldrin	ND		ug/kg	53.3	6.1	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Endosulfan I	ND		ug/kg	27.5	3.4	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Endosulfan II	ND		ug/kg	53.3	11.2	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Endosulfan Sulfate	ND		ug/kg	53.3	3.6	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Endrin	ND		ug/kg	53.3	3.9	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Endrin Aldehyde	ND		ug/kg	53.3	5.8	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Endrin Ketone	ND		ug/kg	53.3	7.4	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
alpha-HCH (alpha-BHC)	ND		ug/kg	27.5	2.4	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Heptachlor	ND		ug/kg	27.5	2.7	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Heptachlor Epoxide	ND		ug/kg	27.5	2.7	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Methoxychlor	ND		ug/kg	53.3	7.1	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Toxaphene	ND		ug/kg	566	93.8	SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	87.3		%	30 - 135		SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
Tetrachloro-m-xylene (S)	159	4	%	30 - 111		SW846 8081B	3/28/19 06:50	JTH	3/29/19 07:44	RWS	A
WET CHEMISTRY											
Cyanide, Total	3.7		mg/kg	0.80	0.29	SW846 9012B	3/28/19 09:45	JXB	3/28/19 12:04	JXB	A
Hexane Extractable Material	17200		mg/kg	683	200	SW846 9071B			3/28/19 06:50	MPP	A
Moisture	71.0		%	0.1	0.01	S2540G-11			3/26/19 01:15	VXF	A

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ANALYTICAL RESULTS

Workorder: 3023485 Bio/Quarterly 03/21/19

Lab ID: **3023485001** Date Collected: 3/21/2019 11:00 Matrix: Solid

Sample ID: **Digest BPF BOC 2019 Q1** Date Received: 3/22/2019 21:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Total Solids	29.0		%	0.1	0.01	S2540G-11			3/26/19 01:15	VXF	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91.2		%	71 - 146		SW846 8260B	3/28/19 00:05	PDK	3/29/19 04:35	PDK	A1
4-Bromofluorobenzene (S)	85.2		%	46 - 138		SW846 8260B	3/28/19 00:05	PDK	3/29/19 04:35	PDK	A1
Dibromofluoromethane (S)	68.1		%	42 - 143		SW846 8260B	3/28/19 00:05	PDK	3/29/19 04:35	PDK	A1
Toluene-d8 (S)	93.3		%	54 - 141		SW846 8260B	3/28/19 00:05	PDK	3/29/19 04:35	PDK	A1

Ms. Susan J Scherer
Project Coordinator

ANALYTICAL RESULTS

Workorder: 3023485 Bio/Quarterly 03/21/19

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3023485001	1	Digest BPF BOC 2019 Q1	SW846 8270D	2,3,7,8-TCDD
A SIM screen analysis was run for Dioxin and no peaks were observed.				
3023485001	2	Digest BPF BOC 2019 Q1	SW846 8081B	Aldrin
This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.				
3023485001	3	Digest BPF BOC 2019 Q1	SW846 8081B	Aldrin
Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. One or more analytes were outside the allowable range.				
3023485001	4	Digest BPF BOC 2019 Q1	SW846 8081B	Tetrachloro-m-xylene
The surrogate Tetrachloro-m-xylene for method SW846 8081B was outside of control limits. The % Recovery was reported as 159 and the control limits were 30 to 111. This result was reported at a dilution of 5.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3023485 Bio/Quarterly 03/21/19

Lab ID	Sample ID	Analysis Method	Prep Method
3023485001	Digest BPF BOC 2019 Q1	S2540G-11	
3023485001	Digest BPF BOC 2019 Q1	SW846 8081B	SW846 3546
3023485001	Digest BPF BOC 2019 Q1	SW846 8260B	SW846 5035
3023485001	Digest BPF BOC 2019 Q1	SW846 8270D	SW846 3546
3023485001	Digest BPF BOC 2019 Q1	SW846 9012B	SW846 9012B
3023485001	Digest BPF BOC 2019 Q1	SW846 9071B	

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Environmental • Industrial Hygiene • Field Services
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CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALSI

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

3023485

zxzx of xyxy

Client Name: DCWASA-Others
Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Mark Ramirez
Phone#: 202-787-4002
Project Name/#: Bio/Quarterly
Bill To: Accounts Payable Office- 4th Floor

TAT: [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required: ______ Approved By: ______
Email? [x] -Y
Fax? [ ] -Y No.:

	Container Type	AG	AG	AG	AG	AG					
	Container Size	4 OZ	4 OZ	4 OZ	8 OZ	8 OZ					
	Preservative	None	None	None	None	None					

ANALYSES/METHOD REQUESTED: Cyanide, % solids, Total O&G plus TPH - SW9071, VOC (SW 8260); semi-volatiles (SW846-8270) - including TCDD dioxin (see comments), Pesticides (SW846-8081)

Enter Number of Containers Per Sample or Field Results Below.

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Cyanide, % solids, Total O&G plus TPH - SW9071, VOC (SW 8260)			semi-volatiles (SW846-8270) - including TCDD dioxin (see comments), Pesticides (SW846-8081)							Sample/COC Comments
															*plus hexachlorobenzene, hexachlorobutadiene
Digest BFP BOC 2019 Q1	3/21/19	1100	G	SL	1			1*							and toxaphene

Receipt Information (completed by Receiving Lab)
Cooler Temp: ____ Therm ID: ____
No. of Coolers: ____ Y N Initial
Custody Seals Present?
(if present) Seals Intact?
Received on Ice?
COC/Labels Complete/Accurate?
Cont. in Good Cond.?
Correct Containers?
Correct Sample Volumes?
Correct Preservation?
Headspace/Volatiles?
Courier/Tracking #:

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther:

Project Comments: *Run % solids and report data as mg/kg dry weight

LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature]	3/21/19	1140	2	[signature]	3/22	1415
3	[signature]	3/22	1720	4	COMMON COURIER (ALS COURIER)		
5	COMMON COURIER (ALS COURIER)			6	[signature]	3/22/19	2145
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Special Processing: USACE [ ] Navy [ ] [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]
Reportable to PADEP? Yes [ ]
PWSID #
Sample Disposal: Lab [ ] Special [ ]
EDDS: Format Type-

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

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Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: DC WASA **Work Order #:** 3023485 **Initials:** RM **Date:** 3/22/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	(N/A)	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	N/A	YES	NO
13b. Did the client provide a SDWA PWS ID#?	N/A	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	N/A	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	N/A	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	N/A	YES	NO

Cooler #: _____

Temperature (°C): 2.6

Thermometer ID: 352

COMMENTS (Required for all NO responses above and any sample non-conformance):

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May 23, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Biosolids 05/16/19**	Workorder:	**3034399**
Purchase Order:	**190108**	Workorder ID:	**Biosolids 05/16/19**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Thursday, May 16, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3034399 Biosolids 05/16/19

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3034399001	Digest BFP BOCA 2nd Qtr	Solid	5/15/2019 15:00	5/16/2019 20:40	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3034399 Biosolids 05/16/19

Lab ID: **3034399001** Date Collected: 5/15/2019 15:00 Matrix: Solid

Sample ID: **Digest BFP BOCA 2nd Qtr** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	1940		ug/kg	80.2	36.9	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Benzene	11.5J	J	ug/kg	16.0	4.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Bromochloromethane	ND		ug/kg	16.0	4.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Bromodichloromethane	ND		ug/kg	16.0	5.7	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Bromoform	ND		ug/kg	16.0	4.2	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Bromomethane	ND		ug/kg	16.0	4.2	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
2-Butanone	597		ug/kg	80.2	25.7	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Carbon Disulfide	23.1		ug/kg	16.0	5.1	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Carbon Tetrachloride	ND		ug/kg	16.0	4.1	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Chlorobenzene	ND		ug/kg	16.0	4.1	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Chlorodibromomethane	ND		ug/kg	16.0	5.5	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Chloroethane	ND		ug/kg	40.1	6.8	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Chloroform	ND		ug/kg	16.0	4.3	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Chloromethane	ND		ug/kg	16.0	4.4	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,2-Dibromo-3-chloropropane	ND		ug/kg	40.1	23.3	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,2-Dibromoethane	ND		ug/kg	16.0	4.3	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,1-Dichloroethane	ND		ug/kg	16.0	4.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,2-Dichloroethane	ND		ug/kg	16.0	4.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,1-Dichloroethene	ND		ug/kg	16.0	4.2	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
cis-1,2-Dichloroethene	ND		ug/kg	16.0	4.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
trans-1,2-Dichloroethene	ND		ug/kg	16.0	4.2	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,2-Dichloropropane	ND		ug/kg	16.0	4.8	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
cis-1,3-Dichloropropene	ND		ug/kg	16.0	4.4	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
trans-1,3-Dichloropropene	ND		ug/kg	16.0	4.7	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Ethylbenzene	ND		ug/kg	16.0	5.5	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
2-Hexanone	ND		ug/kg	80.2	22.5	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
4-Methyl-2-Pentanone(MIBK)	31.0J	J	ug/kg	80.2	30.5	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Methylene Chloride	16.8		ug/kg	16.0	6.3	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Styrene	ND		ug/kg	16.0	4.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,1,2,2-Tetrachloroethane	ND		ug/kg	16.0	4.5	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Tetrachloroethene	ND		ug/kg	16.0	4.8	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Toluene	58.4		ug/kg	16.0	5.4	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Total Xylenes	46.0J	J	ug/kg	48.1	11.2	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,1,1-Trichloroethane	ND		ug/kg	16.0	5.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
1,1,2-Trichloroethane	ND		ug/kg	16.0	4.5	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Trichloroethene	ND		ug/kg	16.0	4.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3034399 Biosolids 05/16/19

Lab ID: **3034399001** Date Collected: 5/15/2019 15:00 Matrix: Solid
Sample ID: **Digest BFP BOCA 2nd Qtr** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Chloride	ND		ug/kg	16.0	4.0	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
o-Xylene	ND		ug/kg	16.0	4.7	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
mp-Xylene	46.0		ug/kg	32.1	6.7	SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	111		%	56 - 124		SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
4-Bromofluorobenzene (S)	108		%	51 - 128		SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Dibromofluoromethane (S)	116		%	62 - 123		SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
Toluene-d8 (S)	109		%	59 - 131		SW846 8260B	5/17/19 01:40	TMP	5/17/19 14:26	TMP	A2
DIOXIN SCREEN											
2,3,7,8-TCDD	ND	3	ug/kg	20.7	20.7	SW846 8270D	5/20/19 05:20	JTH	5/21/19 09:14	DHF	A
SEMIVOLATILES											
Acenaphthene	67.0J	J	ug/kg	148	17.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Acenaphthylene	ND		ug/kg	148	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Anthracene	42.3J	J	ug/kg	148	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Benzo(a)anthracene	134J	J	ug/kg	148	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Benzo(a)pyrene	113J	J	ug/kg	148	11.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Benzo(b)fluoranthene	ND		ug/kg	148	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Benzo(g,h,i)perylene	ND		ug/kg	148	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Benzo(k)fluoranthene	ND		ug/kg	148	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
4-Bromophenyl-phenylether	ND		ug/kg	296	26.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Butylbenzylphthalate	654		ug/kg	296	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Carbazole	333		ug/kg	296	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
4-Chloro-3-methylphenol	ND		ug/kg	592	29.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
4-Chloroaniline	73.5J	J	ug/kg	592	35.5	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
bis(2-Chloroethoxy)methane	ND		ug/kg	296	26.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
bis(2-Chloroethyl)ether	ND		ug/kg	296	38.5	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
bis(2-Chloroisopropyl)ether	ND		ug/kg	296	44.4	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2-Chloronaphthalene	ND		ug/kg	296	17.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2-Chlorophenol	ND		ug/kg	592	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
4-Chlorophenyl-phenylether	ND		ug/kg	296	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Chrysene	141J	J	ug/kg	148	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
mp-Cresol	388J	J	ug/kg	592	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
o-Cresol	ND		ug/kg	592	32.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Di-n-Butylphthalate	322		ug/kg	296	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Di-n-Octylphthalate	ND		ug/kg	296	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Dibenzo(a,h)anthracene	ND		ug/kg	148	17.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Dibenzofuran	43.4J	J	ug/kg	296	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3034399 Biosolids 05/16/19

Lab ID: **3034399001** Date Collected: 5/15/2019 15:00 Matrix: Solid

Sample ID: **Digest BFP BOCA 2nd Qtr** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichlorobenzene	ND		ug/kg	296	26.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
1,3-Dichlorobenzene	ND		ug/kg	296	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
1,4-Dichlorobenzene	ND		ug/kg	296	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
3,3-Dichlorobenzidine	ND		ug/kg	592	112	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2,4-Dichlorophenol	74.1J	J	ug/kg	592	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Diethylphthalate	ND		ug/kg	296	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2,4-Dimethylphenol	ND		ug/kg	592	44.4	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Dimethylphthalate	ND		ug/kg	296	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2,4-Dinitrophenol	ND		ug/kg	1180	118	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2,4-Dinitrotoluene	ND		ug/kg	296	26.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2,6-Dinitrotoluene	ND		ug/kg	296	35.5	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
bis(2-Ethylhexyl)phthalate	11500		ug/kg	296	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Fluoranthene	272		ug/kg	148	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Fluorene	53.4J	J	ug/kg	148	17.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Hexachlorobenzene	ND		ug/kg	296	32.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Hexachlorobutadiene	ND		ug/kg	296	29.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Hexachlorocyclopentadiene	ND		ug/kg	592	32.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Hexachloroethane	ND		ug/kg	296	26.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Indeno(1,2,3-cd)pyrene	ND		ug/kg	148	20.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Isophorone	ND		ug/kg	296	17.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2-Methyl-4,6-dinitrophenol	ND		ug/kg	592	77.0	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2-Methylnaphthalene	61.2J	J	ug/kg	296	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Naphthalene	77.9J	J	ug/kg	148	17.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2-Nitroaniline	ND		ug/kg	592	35.5	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
3-Nitroaniline	ND		ug/kg	592	59.2	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
4-Nitroaniline	ND		ug/kg	592	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Nitrobenzene	ND		ug/kg	296	35.5	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2-Nitrophenol	ND		ug/kg	592	32.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
4-Nitrophenol	ND		ug/kg	592	41.4	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
N-Nitrosodimethylamine	ND		ug/kg	296	44.4	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
N-Nitroso-di-n-propylamine	ND		ug/kg	296	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
N-Nitrosodiphenylamine	ND		ug/kg	296	23.7	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Pentachlorophenol	ND		ug/kg	592	77.0	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Phenanthrene	223		ug/kg	148	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Phenol	10500		ug/kg	592	29.6	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Pyrene	264		ug/kg	148	14.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
1,2,4-Trichlorobenzene	ND		ug/kg	296	17.8	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2,4,5-Trichlorophenol	ND		ug/kg	592	35.5	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A

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State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

ANALYTICAL RESULTS

Workorder: 3034399 Biosolids 05/16/19

Lab ID: **3034399001** Date Collected: 5/15/2019 15:00 Matrix: Solid

Sample ID: **Digest BFP BOCA 2nd Qtr** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Trichlorophenol	ND		ug/kg	592	35.5	SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	51.1		%	19 - 132		SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2-Fluorobiphenyl (S)	58.6		%	40 - 110		SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
2-Fluorophenol (S)	44.4		%	26 - 116		SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Nitrobenzene-d5 (S)	55.7		%	38 - 112		SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Phenol-d5 (S)	45.8		%	35 - 111		SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
Terphenyl-d14 (S)	60.2		%	45 - 126		SW846 8270D	5/20/19 05:20	JTH	5/20/19 13:25	GEC	A
PESTICIDES											
Aldrin	ND	1,2	ug/kg	25.3	8.2	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
beta-BHC	ND		ug/kg	25.3	2.7	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
delta-BHC	ND		ug/kg	25.3	1.9	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
gamma-BHC	ND		ug/kg	25.3	2.1	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
alpha-Chlordane	ND		ug/kg	25.3	2.7	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
gamma-Chlordane	ND		ug/kg	25.3	4.3	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
4,4'-DDD	ND		ug/kg	49.2	4.0	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
4,4'-DDE	ND		ug/kg	49.2	6.7	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
4,4'-DDT	ND		ug/kg	49.2	5.7	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Dieldrin	ND		ug/kg	49.2	5.7	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Endosulfan I	ND		ug/kg	25.3	3.1	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Endosulfan II	ND		ug/kg	49.2	10.3	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Endosulfan Sulfate	ND		ug/kg	49.2	3.3	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Endrin	ND		ug/kg	49.2	3.6	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Endrin Aldehyde	ND		ug/kg	49.2	5.4	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Endrin Ketone	ND		ug/kg	49.2	6.9	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
alpha-HCH (alpha-BHC)	ND		ug/kg	25.3	2.2	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Heptachlor	ND		ug/kg	25.3	2.5	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Heptachlor Epoxide	ND		ug/kg	25.3	2.5	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Methoxychlor	ND		ug/kg	49.2	6.6	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Toxaphene	ND		ug/kg	522	86.4	SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	46.1		%	30 - 135		SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
Tetrachloro-m-xylene (S)	38.7		%	30 - 111		SW846 8081B	5/20/19 04:00	JTH	5/21/19 03:16	RWS	A
WET CHEMISTRY											
Cyanide, Total	2.8		mg/kg	0.74	0.26	SW846 9012B	5/20/19 09:15	C_D	5/21/19 10:55	JXB	A1
Hexane Extractable Material	7280		mg/kg	594	200	SW846 9071B			5/20/19 06:20	MPP	A

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ANALYTICAL RESULTS

Workorder: 3034399 Biosolids 05/16/19

Lab ID: **3034399001** Date Collected: 5/15/2019 15:00 Matrix: Solid

Sample ID: **Digest BFP BOCA 2nd Qtr** Date Received: 5/16/2019 20:40

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Moisture	66.7		%	0.1	0.01	S2540G-11		5/17/19 08:25	AXD	A
Total Solids	33.3		%	0.1	0.01	S2540G-11		5/17/19 08:25	AXD	A

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3034399 Biosolids 05/16/19

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3034399001	1	Digest BFP BOCA 2nd Qtr	SW846 8081B	Aldrin
This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.				
3034399001	2	Digest BFP BOCA 2nd Qtr	SW846 8081B	Aldrin
Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. The following compounds were biased low in the bracketing CCV: Endosulfan II (-22%), 4,4'-DDT (-46%), Methoxychlor (-56%), Endosulfan Sulfate (-29%), Endrin Ketone (-32%) and Decachlorobiphenyl (-35%).				
3034399001	3	Digest BFP BOCA 2nd Qtr	SW846 8270D	2,3,7,8-TCDD
A SIM screen analysis was run for Dioxin and no peaks were observed.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3034399 Biosolids 05/16/19

Lab ID	Sample ID	Analysis Method	Prep Method
3034399001	Digest BFP BOCA 2nd Qtr	S2540G-11	
3034399001	Digest BFP BOCA 2nd Qtr	SW846 8081B	SW846 3546
3034399001	Digest BFP BOCA 2nd Qtr	SW846 8260B	SW846 5035
3034399001	Digest BFP BOCA 2nd Qtr	SW846 8270D	SW846 3546
3034399001	Digest BFP BOCA 2nd Qtr	SW846 9012B	SW846 9012B
3034399001	Digest BFP BOCA 2nd Qtr	SW846 9071B	

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS

Generated by ALSI

COC #: | ALSI Qt

* 3 0 3 4 3 9 9 *

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

Client Name: DCWASA-OTHER
Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Elaine Wilson
Phone#: 202-787-4177
Project Name/#: Bio/Quarterly
Bill To: Accounts Payable Office- 4th Floor

TAT [X] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required: _____ Approved By: _____
Email? [X] -Y
Fax? [ ] -Y No.: _____

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Container Type	Container Size	Preservative	Cyanide, % solids, O&G plus TPH - SW9071, Pesticides (SW846-8081)	semi-volatiles (SW846-8270) including TCDD dioxin, VOCs(SW 8260)								
								AG	AG								
								4 OZ	8 OZ								
								None	None								
					ANALYSES/METHOD REQUESTED												
					Enter Number of Containers Per Sample or Field Results Below.												
Digest BFP BOCA 2nd Qtr 2019	5/15/19	1500	G	SL				1	1*								

Cooler Temp: _____ Therm ID: _____
No. of Coolers: _____

	Y	N	Initial
Custody Seals Present?			
(If present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

*plus hexachlorobenzene, hexachlorobutadiene and toxaphene

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther: _____

Project Comments: *Run % solids and report data as mg/kg dry weight

LOGGED BY(signature): _____ Date _____ Time _____
REVIEWED BY(signature): _____ Date _____ Time _____

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1		5-16-19	1300	2		5/16/19	1300
3		5/16/19		4	COMMON COURIER / ALS COURIER		
5	COMMON COURIER / ALS COURIER			6		5/16/19	2040
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Special Processing: USACE [ ] Navy [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]
Reportable to PADEP? Yes [ ]
PWSID # _____
Sample Disposal: Lab [ ] Special [ ]
EDOS: Format Type- _____

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

ALS

301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client: DCWASA-other | Work Order #: 3004299 | Initials: KM | Date: 5/16/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number:			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	(N/A)	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 2.C

Thermometer ID: 401

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019

(ALS) Environmental

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August 6, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Biosolids 07/25/19**	Workorder:	**3047768**
Purchase Order:	**190108**	Workorder ID:	**Biosolids 07/25/19**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Thursday, July 25, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3047768 Biosolids 07/25/19

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3047768001	19-Digest BFP BOC JUL-SEP	Solid	7/25/2019 12:10	7/25/2019 22:45	Collected by Client
3047768002	19-Digest BFP BOC Annual	Solid	7/25/2019 12:10	7/25/2019 22:45	Collected by Client

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SAMPLE SUMMARY

Workorder: 3047768 Biosolids 07/25/19

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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PROJECT SUMMARY

Workorder: 3047768 Biosolids 07/25/19

Workorder Comments

See attached subcontract data from EMSL Analytical Inc. for Asbestos on ALS#3047768002. SJS 08/06/19

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ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	1110		ug/kg	80.5	37.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Benzene	14.4J	J	ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Bromochloromethane	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Bromodichloromethane	ND		ug/kg	16.1	5.7	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Bromoform	ND		ug/kg	16.1	4.2	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Bromomethane	ND		ug/kg	16.1	4.2	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
2-Butanone	592		ug/kg	80.5	25.8	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Carbon Disulfide	48.4		ug/kg	16.1	5.1	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Carbon Tetrachloride	ND		ug/kg	16.1	4.1	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chlorobenzene	ND		ug/kg	16.1	4.1	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chlorodibromomethane	ND		ug/kg	16.1	5.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chloroethane	ND		ug/kg	40.3	6.8	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chloroform	ND		ug/kg	16.1	4.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Chloromethane	ND		ug/kg	16.1	4.4	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,2-Dibromo-3-chloropropane	ND		ug/kg	40.3	23.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,2-Dibromoethane	ND		ug/kg	16.1	4.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1-Dichloroethane	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,2-Dichloroethane	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1-Dichloroethene	ND		ug/kg	16.1	4.2	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
cis-1,2-Dichloroethene	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
trans-1,2-Dichloroethene	ND		ug/kg	16.1	4.2	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,2-Dichloropropane	ND		ug/kg	16.1	4.8	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
cis-1,3-Dichloropropene	ND		ug/kg	16.1	4.4	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
trans-1,3-Dichloropropene	ND		ug/kg	16.1	4.7	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Ethylbenzene	6.2J	J	ug/kg	16.1	5.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
2-Hexanone	ND		ug/kg	80.5	22.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
4-Methyl-2-Pentanone(MIBK)	40.9J	J	ug/kg	80.5	30.6	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Methylene Chloride	ND		ug/kg	16.1	6.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Styrene	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1,2,2-Tetrachloroethane	ND		ug/kg	16.1	4.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Tetrachloroethene	ND		ug/kg	16.1	4.8	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Toluene	115		ug/kg	16.1	5.4	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Total Xylenes	149		ug/kg	48.3	11.3	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1,1-Trichloroethane	ND		ug/kg	16.1	5.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
1,1,2-Trichloroethane	ND		ug/kg	16.1	4.5	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Trichloroethene	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A

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ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Chloride	ND		ug/kg	16.1	4.0	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
o-Xylene	ND		ug/kg	16.1	4.7	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
mp-Xylene	149		ug/kg	32.2	6.7	SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	94.9		%	56 - 124		SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
4-Bromofluorobenzene (S)	92.1		%	51 - 128		SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Dibromofluoromethane (S)	101		%	62 - 123		SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
Toluene-d8 (S)	95.4		%	59 - 131		SW846 8260B	7/26/19 00:54	VLM	7/27/19 01:55	VLM	A
DIOXIN SCREEN											
2,3,7,8-TCDD	ND	3	ug/kg	22.8	22.8	SW846 8270D	7/26/19 02:50	JTH	7/29/19 18:09	GEC	A
SEMIVOLATILES											
Acenaphthene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Acenaphthylene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Anthracene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(a)anthracene	69.3J	J	ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(a)pyrene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(b)fluoranthene	143J	J	ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(g,h,i)perylene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Benzo(k)fluoranthene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Bromophenyl-phenylether	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Butylbenzylphthalate	1990		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Carbazole	1120		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Chloro-3-methylphenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Chloroaniline	180J	J	ug/kg	652	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
bis(2-Chloroethoxy)methane	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
bis(2-Chloroethyl)ether	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
bis(2-Chloroisopropyl)ether	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Chloronaphthalene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Chlorophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Chlorophenyl-phenylether	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Chrysene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
mp-Cresol	557J	J	ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
o-Cresol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Di-n-Butylphthalate	232J	J	ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Di-n-Octylphthalate	ND		ug/kg	326	62.0	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Dibenzo(a,h)anthracene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Dibenzofuran	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A

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ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
1,3-Dichlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
1,4-Dichlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
3,3-Dichlorobenzidine	ND		ug/kg	652	121	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4-Dichlorophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Diethylphthalate	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4-Dimethylphenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Dimethylphthalate	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4-Dinitrophenol	ND		ug/kg	1300	258	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4-Dinitrotoluene	ND		ug/kg	326	65.2	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,6-Dinitrotoluene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
bis(2-Ethylhexyl)phthalate	240J	J	ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Fluoranthene	230		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Fluorene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Hexachlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Hexachlorobutadiene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Hexachlorocyclopentadiene	ND		ug/kg	652	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Hexachloroethane	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Indeno(1,2,3-cd)pyrene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Isophorone	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Methyl-4,6-dinitrophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Methylnaphthalene	59.3J	J	ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Naphthalene	ND		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Nitroaniline	ND		ug/kg	652	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
3-Nitroaniline	ND		ug/kg	652	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Nitroaniline	ND		ug/kg	652	58.7	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Nitrobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Nitrophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
4-Nitrophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
N-Nitrosodimethylamine	ND		ug/kg	326	160	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
N-Nitroso-di-n-propylamine	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
N-Nitrosodiphenylamine	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Pentachlorophenol	ND		ug/kg	652	150	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Phenanthrene	170		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Phenol	2870		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Pyrene	279		ug/kg	163	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
1,2,4-Trichlorobenzene	ND		ug/kg	326	55.4	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2,4,5-Trichlorophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A

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ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Trichlorophenol	ND		ug/kg	652	111	SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	20.9		%	19 - 132		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Fluorobiphenyl (S)	42.1		%	40 - 110		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
2-Fluorophenol (S)	32.1		%	26 - 116		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Nitrobenzene-d5 (S)	21.9	6	%	38 - 112		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Phenol-d5 (S)	37.8		%	35 - 111		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
Terphenyl-d14 (S)	44.3	7	%	45 - 126		SW846 8270D	7/26/19 02:50	JTH	7/26/19 15:57	CGS	A
PESTICIDES											
Aldrin	ND	1,2	ug/kg	28.6	9.3	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
beta-BHC	ND		ug/kg	28.6	3.0	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
delta-BHC	ND		ug/kg	28.6	2.2	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
gamma-BHC	ND		ug/kg	28.6	2.4	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
alpha-Chlordane	3.4J	J	ug/kg	28.6	3.0	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
gamma-Chlordane	ND		ug/kg	28.6	4.9	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
4,4'-DDD	ND		ug/kg	55.6	4.5	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
4,4'-DDE	8.6J	J	ug/kg	55.6	7.6	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
4,4'-DDT	ND		ug/kg	55.6	6.4	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Dieldrin	ND		ug/kg	55.6	6.4	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endosulfan I	ND		ug/kg	28.6	3.5	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endosulfan II	ND		ug/kg	55.6	11.6	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endosulfan Sulfate	ND		ug/kg	55.6	3.7	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endrin	ND		ug/kg	55.6	4.0	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endrin Aldehyde	ND		ug/kg	55.6	6.1	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Endrin Ketone	ND		ug/kg	55.6	7.7	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
alpha-HCH (alpha-BHC)	ND		ug/kg	28.6	2.5	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Heptachlor	ND		ug/kg	28.6	2.9	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Heptachlor Epoxide	ND		ug/kg	28.6	2.9	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Methoxychlor	ND		ug/kg	55.6	7.4	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Toxaphene	ND		ug/kg	590	97.7	SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	44.2		%	30 - 135		SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
Tetrachloro-m-xylene (S)	49.6		%	30 - 111		SW846 8081B	7/29/19 00:35	JTH	7/30/19 22:40	RWS	A
WET CHEMISTRY											
Cyanide, Total	0.99		mg/kg	0.99	0.36	SW846 9012B	7/29/19 11:30	C_D	7/30/19 14:28	AK	A1
Hexane Extractable Material	63100		mg/kg	669	200	SW846 9071B			7/29/19 06:15	MPP	A

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ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768001** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC JUL-SEP** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Moisture	70.7		%	0.1	0.01	S2540G-11		7/26/19 09:15	AXD	A
Silica Gel Treated HEM	12200		mg/kg	669	200	9071B/1664B		7/29/19 06:15	MPP	A
Total Solids	29.3		%	0.1	0.01	S2540G-11		7/26/19 09:15	AXD	A

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

Lab ID: **3047768002** Date Collected: 7/25/2019 12:10 Matrix: Solid

Sample ID: **19-Digest BFP BOC Annual** Date Received: 7/25/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY											
Moisture	68.1		%	0.1	0.01	S2540G-11			7/26/19 09:15	AXD	
Phenolics	14.8	1	mg/kg	0.8	0.2	SW846 9066	7/26/19 06:20	C_D	7/26/19 08:16	C_D	B
Total Solids	31.9		%	0.1	0.01	S2540G-11			7/26/19 09:15	AXD	
SUBCONTRACTED ANALYSIS											
Asbestos	See attached					Subcontract			8/5/19 00:00	SUB	C

Ms. Susan J Scherer
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3047768 Biosolids 07/25/19

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3047768001	1	19-Digest BFP BOC JUL-SEP	SW846 8081B	Aldrin
Method criteria requires continuing calibration verification (CCV) standards be less than or equal to 20% of the initial calibration for the 8081 analysis. The following compounds were biased low in the bracketing CCV: Decachlorobiphenyl (-34%).				
3047768001	2	19-Digest BFP BOC JUL-SEP	SW846 8081B	Aldrin
This sample was analyzed at a dilution in the 8081 Pesticide analysis. Reporting limits were adjusted accordingly.				
3047768001	3	19-Digest BFP BOC JUL-SEP	SW846 8270D	2,3,7,8-TCDD
A SIM screen analysis was run for Dioxin and no peaks were observed.				
3047768001	6	19-Digest BFP BOC JUL-SEP	SW846 8270D	Nitrobenzene-d5
The surrogate Nitrobenzene-d5 for method SW846 8270D was outside of control limits. The % Recovery was reported as 21.9 and the control limits were 38 to 112. This result was reported at a dilution of 1.				
3047768001	7	19-Digest BFP BOC JUL-SEP	SW846 8270D	Terphenyl-d14
The surrogate Terphenyl-d14 for method SW846 8270D was outside of control limits. The % Recovery was reported as 44.3 and the control limits were 45 to 126. This result was reported at a dilution of 1.				
3047768002	1	19-Digest BFP BOC Annual	SW846 9066	Phenolics
The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3047768 Biosolids 07/25/19

Lab ID	Sample ID	Analysis Method	Prep Method
3047768001	19-Digest BFP BOC JUL-SEP	9071B/1664B	
3047768001	19-Digest BFP BOC JUL-SEP	S2540G-11	
3047768001	19-Digest BFP BOC JUL-SEP	SW846 8081B	SW846 3546
3047768001	19-Digest BFP BOC JUL-SEP	SW846 8260B	SW846 5035
3047768001	19-Digest BFP BOC JUL-SEP	SW846 8270D	SW846 3546
3047768001	19-Digest BFP BOC JUL-SEP	SW846 9012B	SW846 9012B
3047768001	19-Digest BFP BOC JUL-SEP	SW846 9071B	
3047768002	19-Digest BFP BOC Annual	S2540G-11	
3047768002	19-Digest BFP BOC Annual	SW846 9066	420.4/9066
3047768002	19-Digest BFP BOC Annual	Subcontract	

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Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Mark Ramirez
Phone#: 202-787-4002
Project Name/#: Bio/Annual
Bill To: Accounts Payable Office- 4th Floor

TAT [x] Normal-Standard TAT is 10-12 business days.
[ ] Rush-Subject to ALSI approval and surcharges.
Date Required: Approved By:
Email? [x] -Y
Fax? [ ] -Y No.:

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Container Type	Container Size	Preservative	Cyanide, % solids,O&G plus TPH - SW9071,Pesticides (SW846-8081)	semi-volatiles (SW846-8270)	including TCDD dioxin, VOCs(SW 8260)		Asbestos	Phenols (SW846-9066)				
					CG	CG						CG	CG				
					4 OZ	8 oz						8 OZ	4 OZ				
					None	None						None	None				
					ANALYSES/METHOD REQUESTED												
					Enter Number of Containers Per Sample or Field Results Below.												
19 - Digest BFP BOC JUL-SEP	7/25/19	1210	G	SL	1	1*											*plus hexachlorobenzene, hexachlorobutadiene
19 - Digest BFP BOC Annual	7/25/19	1210	G	SL								1	1				and loxaphene

Cooler Temp: 1-C Therm ID: 525
No. of Coolers: 1

	Y	N	Initial
Custody Seals Present?	X		[illegible]
(If present) Seals Intact?	X		[illegible]
Received on Ice?	X		[illegible]
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther:

Project Comments: *Run % solids and report data as mg/kg dry weight

LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 [illegible]	7-25-19	1245	2 [illegible] ALS	7/25/19	1250
3 [illegible] ALS	7/25/19		4 [illegible]		
5 [illegible] ALS Courier			6 [illegible] ALS	7/26/19	0745
7			8		
9			10		

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Special Processing: USACE [ ] Navy [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC
Reportable to PADEP? Yes [ ]
PWSID #
Sample Disposal: Lab [ ] Special [ ]
EDDS: Format Type-

* G=Grab; C=Composite
**Matrix - Al=Air; DW=Drinking Water; GW=Groundwater; Oi=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

Copies: WHITE - ORIGINAL CANARY - CUSTOMER MAILING PINK - FILE GOLDENROD - CUSTOMER COPY

Rev 8/04

ALS

ALS
301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DUWA3a- OTHERS	3047768	JAS	7/25/19

Question			
1. Were airbills / tracking numbers present and recorded? Tracking number:	(NONE)	YES	NO
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	(N/A)	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: —

Temperature (°C): 1°C

Thermometer ID: 525

Radiological (µCi): —

COMMENTS (Required for all NO responses above and any sample non-conformance):

Solid matrix not reportable. JAS/AS 7/25/19

Rev. 4/29/2019

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnaspore@EMSL.com

EMSL Order:	041921931
Customer ID:	WRIG51
Customer PO:	3047768
Project ID:	

Attention: Susan Baer Scherer
ALS Environmental
301 Fulling Mill Rd
Middletown, PA 17057

Project: 3047768

Phone:	(717) 944-5541
Fax:	(717) 944-1430
Received:	07/30/2019 11:50 AM
Analysis Date:	08/05/2019
Collected:	12/18/2018

Test Report: Asbestos Analysis of Bulk Building Materials via EPA 600/R-93/116 Method using PLM and Milling Prep. Quantitation using 400 Point Count Procedure

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1 041921931 0001	3047768002	Brown Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected

Analyst(s)

Will DiBella (1)

Benjamin Ellis, Laboratory Manager
or other approved signatory

Initial report from: 08/05/2019 21:46:41

04192193

301 Fulling Mill Rd
Middletown, PA 17057
P. 717-944-5541
F.717-944-1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #:	1 of 1
ALS Quote #:	

Client Name: ALS

Address: 301 Fulling Mill Road
Middletown PA 17057

Contact: Susan Scherer

Phone#: (717) 702-2245

Project Name/#: 3047768

Bill To: ALS

TAT ☐ Normal-Standard TAT is 10-12 business days.
☐ Rush-Subject to ALS approval and surcharges.

Date Required: 8/8/2019 24hr TAT Approved?

Email? [x] -Y susan.scherer@alsglobal.com

Fax? ☐ -Y No:

Container Type: CG
Container Size: 4oz
Preservative: NONE

ANALYSES/METHOD REQUESTED

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	*G or C	**Matrix	PLM 400 Point Count w Milling	Enter Number of Containers Per Sample or Field Results Below.	Sample/COC Comments
1	3047768002	12/18/18	0935	G	S	1		
2								
3								
4								
5								
6								
7								
8								
9								
10								

Receipt Information (completed by Receiving Lab)

W.O. Temp: ____ Therm ID: ____

Courier/Tracking #:

Purchase Order #: 3047768

Project Comments:

ALS Field Services: ☐ Pickup ☐ Labor
☐ Composite Sampling ☐ Rental Equipment
Other: ____

RECEIVED
2019 JUL 30 P 12:03
ESSL
CINNAMINSON, NJ

SAMPLED BY (Please Print):

Sampler Comments:

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1	7-29-19	1530	2 FXG	7/30	1154
3			4		
5			6		
7			8		
9			10		

Data Deliverables: [X] Standard ☐ CLP-like ☐ USACE/DOD ☐

Special Processing: USACE ☐ Navy ☐ ☐

State Samples Collected In: ☐ NY ☐ NJ ☐ PA ☐ NC [X] DC ☐ other

Reportable to PADEP? Yes ☐ No ☐

PWSID # ____

Sample Disposal: Lab [X] Special ☐

EDDS: Format Type- ____

ALS Environmental

301 Fulling Mill Road - Middletown, PA 17057 - Phone: 717-944-5541 - Fax: 717-944-1430 - www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

December 2, 2019

Ms. Elaine Wilson
DC WASA
5000 Overlook Avenue, S.W.
Washington, DC 20032

Certificate of Analysis

Project Name:	**Bio/Quarterly 11/21/19**	Workorder:	**3071863**
Purchase Order:	**200124**	Workorder ID:	**Bio/Quarterly 11/21/19**

Dear Ms. Wilson:

Enclosed are the analytical results for samples received by the laboratory on Friday, November 22, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Ryan Maisano , Mr. Mark Ramirez

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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SAMPLE SUMMARY

Workorder: 3071863 Bio/Quarterly 11/21/19

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3071863001	Digest BFP BOC 2019 Q4	Solid	11/21/2019 11:00	11/22/2019 22:45	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
-- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
-- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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ANALYTICAL RESULTS

Workorder: 3071863 Bio/Quarterly 11/21/19

Lab ID: **3071863001** Date Collected: 11/21/2019 11:00 Matrix: Solid

Sample ID: **Digest BFP BOC 2019 Q4** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
VOLATILE ORGANICS											
Acetone	908		ug/kg	38.6	17.8	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Benzene	7.2J	J	ug/kg	7.7	1.9	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Bromochloromethane	ND		ug/kg	7.7	1.9	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Bromodichloromethane	ND		ug/kg	7.7	2.7	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Bromoform	ND		ug/kg	7.7	2.0	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Bromomethane	ND		ug/kg	7.7	2.0	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
2-Butanone	302		ug/kg	38.6	12.4	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Carbon Disulfide	150		ug/kg	7.7	2.4	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Carbon Tetrachloride	ND		ug/kg	7.7	2.0	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Chlorobenzene	ND		ug/kg	7.7	2.0	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Chlorodibromomethane	ND		ug/kg	7.7	2.6	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Chloroethane	ND		ug/kg	19.3	3.3	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Chloroform	ND		ug/kg	7.7	2.0	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Chloromethane	ND		ug/kg	7.7	2.1	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,2-Dibromo-3-chloropropane	ND		ug/kg	19.3	11.2	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,2-Dibromoethane	ND		ug/kg	7.7	2.1	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,1-Dichloroethane	ND		ug/kg	7.7	1.9	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,2-Dichloroethane	ND		ug/kg	7.7	1.9	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,1-Dichloroethene	ND		ug/kg	7.7	2.0	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
cis-1,2-Dichloroethene	ND		ug/kg	7.7	1.9	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
trans-1,2-Dichloroethene	ND		ug/kg	7.7	2.0	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,2-Dichloropropane	ND		ug/kg	7.7	2.3	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
cis-1,3-Dichloropropene	ND		ug/kg	7.7	2.1	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
trans-1,3-Dichloropropene	ND		ug/kg	7.7	2.2	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Ethylbenzene	3.9J	J	ug/kg	7.7	2.6	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
2-Hexanone	18.2J	J	ug/kg	38.6	10.8	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
4-Methyl-2-Pentanone(MIBK)	17.0J	J	ug/kg	38.6	14.7	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Methylene Chloride	18.7		ug/kg	7.7	3.0	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Styrene	ND		ug/kg	7.7	1.9	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,1,2,2-Tetrachloroethane	ND		ug/kg	7.7	2.2	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Tetrachloroethene	ND		ug/kg	7.7	2.3	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Toluene	65.7		ug/kg	7.7	2.6	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Total Xylenes	93.4		ug/kg	23.2	5.4	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,1,1-Trichloroethane	ND		ug/kg	7.7	2.4	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
1,1,2-Trichloroethane	ND		ug/kg	7.7	2.2	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Trichloroethene	ND		ug/kg	7.7	1.9	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3071863 Bio/Quarterly 11/21/19

Lab ID: **3071863001** Date Collected: 11/21/2019 11:00 Matrix: Solid
Sample ID: **Digest BFP BOC 2019 Q4** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
Vinyl Chloride	ND		ug/kg	7.7	1.9	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
o-Xylene	3.1J	J	ug/kg	7.7	2.2	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
mp-Xylene	90.3		ug/kg	15.5	3.2	SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
1,2-Dichloroethane-d4 (S)	91.3		%	56 - 124		SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
4-Bromofluorobenzene (S)	92.3		%	51 - 128		SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Dibromofluoromethane (S)	93.4		%	62 - 123		SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
Toluene-d8 (S)	87.1		%	59 - 131		SW846 8260B	11/21/19 11:00	VLM	11/28/19 08:12	VLM	C
DIOXIN SCREEN											
2,3,7,8-TCDD	ND	2	ug/kg	23.3	23.3	SW846 8270D	11/24/19 15:20	J1H	11/25/19 20:08	CGS	A
SEMIVOLATILES											
Acenaphthene	71.8J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Acenaphthylene	ND		ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Anthracene	59.1J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Benzo(a)anthracene	111J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Benzo(a)pyrene	114J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Benzo(b)fluoranthene	97.9J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Benzo(g,h,i)perylene	90.0J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Benzo(k)fluoranthene	101J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
4-Bromophenyl-phenylether	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Butylbenzylphthalate	973		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Carbazole	821		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
4-Chloro-3-methylphenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
4-Chloroaniline	ND		ug/kg	667	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
bis(2-Chloroethoxy)methane	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
bis(2-Chloroethyl)ether	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
bis(2-Chloroisopropyl)ether	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2-Chloronaphthalene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2-Chlorophenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
4-Chlorophenyl-phenylether	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Chrysene	146J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
mp-Cresol	623J	J	ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
o-Cresol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Di-n-Butylphthalate	394		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Di-n-Octylphthalate	ND	3	ug/kg	333	63.3	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Dibenzo(a,h)anthracene	ND		ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Dibenzofuran	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A

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ANALYTICAL RESULTS

Workorder: 3071863 Bio/Quarterly 11/21/19

Lab ID: **3071863001** Date Collected: 11/21/2019 11:00 Matrix: Solid

Sample ID: **Digest BFP BOC 2019 Q4** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
1,2-Dichlorobenzene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
1,3-Dichlorobenzene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
1,4-Dichlorobenzene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
3,3-Dichlorobenzidine	ND		ug/kg	667	123	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2,4-Dichlorophenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Diethylphthalate	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2,4-Dimethylphenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Dimethylphthalate	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2,4-Dinitrophenol	ND		ug/kg	1330	263	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2,4-Dinitrotoluene	ND		ug/kg	333	66.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2,6-Dinitrotoluene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
bis(2-Ethylhexyl)phthalate	26200		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Fluoranthene	293		ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Fluorene	ND		ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Hexachlorobenzene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Hexachlorobutadiene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Hexachlorocyclopentadiene	ND		ug/kg	667	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Hexachloroethane	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Indeno(1,2,3-cd)pyrene	811		ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Isophorone	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2-Methyl-4,6-dinitrophenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2-Methylnaphthalene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Naphthalene	73.5J	J	ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2-Nitroaniline	ND		ug/kg	667	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
3-Nitroaniline	ND		ug/kg	667	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
4-Nitroaniline	ND		ug/kg	667	60.0	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Nitrobenzene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2-Nitrophenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
4-Nitrophenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
N-Nitrosodimethylamine	ND		ug/kg	333	163	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
N-Nitroso-di-n-propylamine	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
N-Nitrosodiphenylamine	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Pentachlorophenol	ND		ug/kg	667	153	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Phenanthrene	284		ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Phenol	6860		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Pyrene	303		ug/kg	167	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
1,2,4-Trichlorobenzene	ND		ug/kg	333	56.7	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2,4,5-Trichlorophenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A

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ANALYTICAL RESULTS

Workorder: 3071863 Bio/Quarterly 11/21/19

Lab ID: **3071863001** Date Collected: 11/21/2019 11:00 Matrix: Solid
Sample ID: **Digest BFP BOC 2019 Q4** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared	By	Analyzed	By	Cntr
2,4,6-Trichlorophenol	ND		ug/kg	667	113	SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
2,4,6-Tribromophenol (S)	52.5		%	19 - 132		SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2-Fluorobiphenyl (S)	59.1		%	40 - 110		SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
2-Fluorophenol (S)	39.1		%	26 - 116		SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Nitrobenzene-d5 (S)	40.9		%	38 - 112		SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Phenol-d5 (S)	44.8		%	35 - 111		SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
Terphenyl-d14 (S)	68.6		%	45 - 126		SW846 8270D	11/24/19 15:20	J1H	11/25/19 15:26	CGS	A
PESTICIDES											
Aldrin	ND	1	ug/kg	28.3	9.2	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
beta-BHC	ND		ug/kg	28.3	3.0	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
delta-BHC	ND		ug/kg	28.3	2.2	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
gamma-BHC	ND		ug/kg	28.3	2.3	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
alpha-Chlordane	26.3J	J	ug/kg	28.3	3.0	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
gamma-Chlordane	ND		ug/kg	28.3	4.8	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
4,4'-DDD	ND		ug/kg	55.0	4.5	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
4,4'-DDE	11.1J	J	ug/kg	55.0	7.5	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
4,4'-DDT	ND		ug/kg	55.0	6.3	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Dieldrin	ND		ug/kg	55.0	6.3	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Endosulfan I	ND		ug/kg	28.3	3.5	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Endosulfan II	ND		ug/kg	55.0	11.5	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Endosulfan Sulfate	ND		ug/kg	55.0	3.7	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Endrin	ND		ug/kg	55.0	4.0	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Endrin Aldehyde	ND		ug/kg	55.0	6.0	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Endrin Ketone	ND		ug/kg	55.0	7.7	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
alpha-HCH (alpha-BHC)	ND		ug/kg	28.3	2.5	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Heptachlor	ND		ug/kg	28.3	2.8	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Heptachlor Epoxide	ND		ug/kg	28.3	2.8	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Methoxychlor	ND		ug/kg	55.0	7.3	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Toxaphene	ND		ug/kg	583	96.7	SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*		*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
Decachlorobiphenyl (S)	61.1		%	30 - 135		SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
Tetrachloro-m-xylene (S)	61.9		%	30 - 111		SW846 8081B	11/24/19 16:10	J1H	11/26/19 13:49	KJH	A
WET CHEMISTRY											
Cyanide, Total	1.4		mg/kg	0.75	0.27	SW846 9012B	11/27/19 10:00	LXB	12/2/19 08:58	CTD	A
Hexane Extractable Material	56700		mg/kg	673	200	SW846 9071B			11/26/19 05:00	MPP	A

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ANALYTICAL RESULTS

Workorder: 3071863 Bio/Quarterly 11/21/19

Lab ID: **3071863001** Date Collected: 11/21/2019 11:00 Matrix: Solid

Sample ID: **Digest BFP BOC 2019 Q4** Date Received: 11/22/2019 22:45

Parameters	Results	Flag	Units	RDL	MDL	Method	Prepared By	Analyzed	By	Cntr
Moisture	70.6		%	0.1	0.01	S2540G-11		11/26/19 07:50	AXD	A
Total Solids	29.4		%	0.1	0.01	S2540G-11		11/26/19 07:50	AXD	A

Susan J. Scherer

Ms. Susan J Scherer
Project Coordinator

ALS Environmental

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ANALYTICAL RESULTS

Workorder: 3071863 Bio/Quarterly 11/21/19

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3071863001	1	Digest BFP BOC 2019 Q4	SW846 8081B	Aldrin
This sample was analyzed at a dilution in the 8081 Pesticide analysis. Reporting limits were adjusted accordingly.				
3071863001	2	Digest BFP BOC 2019 Q4	SW846 8270D	2,3,7,8-TCDD
A SIM screen analysis was run for Dioxin and no peaks were observed.				
3071863001	3	Digest BFP BOC 2019 Q4	SW846 8270D	Di-n-Octylphthalate
The QC sample type CCV for method SW846 8270D was outside the control limits for the analyte Di-n-Octylphthalate. The % Recovery was reported as 122 and the control limits were 80 to 120.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3071863 Bio/Quarterly 11/21/19

Lab ID	Sample ID	Analysis Method	Prep Method
3071863001	Digest BFP BOC 2019 Q4	S2540G-11	
3071863001	Digest BFP BOC 2019 Q4	SW846 8081B	SW846 3546
3071863001	Digest BFP BOC 2019 Q4	SW846 8260B	SW846 5035
3071863001	Digest BFP BOC 2019 Q4	SW846 8270D	SW846 3546
3071863001	Digest BFP BOC 2019 Q4	SW846 9012B	SW846 9012B
3071863001	Digest BFP BOC 2019 Q4	SW846 9071B	

Analytical Laboratory Services, Inc.
Environmental w Industrial Hygiene w Field Services
34 Dogwood Lane w Middletown, PA 17057 w 717.944.5541 w Fax: 717.944.1430

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Generated by ALS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

* 3 0 7 1 8 6 3 *

zxzx of xyxy

Client Name: DCWASA-Others
Address: 5000 Overlook Ave, SW
Washington, D.C. 20032
Contact: Mark Ramirez
Phone#: 202-787-4002
Project Name/#: Bio/Quarterly
Bill To: Accounts Payable Office- 4th Floor

TAT: [x] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALSI approval and surcharges.
Date Required: ______ Approved By: ______
Email? [x]-Y
Fax? [ ]-Y No.:

	Container Type	AG	AG
	Container Size	8 OZ	8 OZ
	Preservative	None	None

ANALYSES/METHOD REQUESTED

Sample Description/Location (as it will appear on the lab report)	Sample Date	Time	*G or C	**Matrix	Cyanide, % solids,O&G plus TPH - SW9071,Pesticides (SW846-8081)	semi-volatiles (SW846-8270) including TCDD dioxin, VOCs(SW 8260)							
					Enter Number of Containers Per Sample or Field Results Below.								
Digest BFP BOC 2019 Q4	11/21/19	1100	G	SL	1	~~1~~ 4	1 4oz jar						
							2 DI vials						
							1 MeOH vial						

by Receiving Lab)
Cooler Temp: 1 Therm ID: 523
No. of Coolers: ______

	Y	N	Initial
Custody Seals Present?			
(if present) Seals Intact?			
Received on Ice?			
COC/Labels Complete/Accurate?			
Cont. in Good Cond.?			
Correct Containers?			
Correct Sample Volumes?			
Correct Preservation?			
Headspace/Volatiles?			

Courier/Tracking #:

Sample/COC Comments
*plus hexachlorobenzene, hexachlorobutadiene and toxaphene

extracted 11/23/19 @ 0645
[illegible] 11/23/19

ALSI Field Services: oPickup oLabor oComposite Sampling oRental Equipment oOther: ______

Project Comments: *Run % solids and report data as mg/kg dry weight

LOGGED BY(signature): DATE TIME
REVIEWED BY(signature): DATE TIME

	Relinquished By / Company Name	Date	Time		Received By / Company Name	Date	Time
1	[signature] / DC Water	11/22/19	1030	2	[signature]	11/22	1357
3	[signature]	11/22	1800	4	COMMON COURIER / ALS COURIER		
5	COMMON COURIER / ALS COURIER			6	[signature]	11/22/K	2245
7				8			
9				10			

Data Deliverables: [ ] Standard [ ] CLP-like [ ] USACE [ ]
Reportable to PADEP? Yes [ ]
PWSID #
EDDS: Format Type-

Special Processing: USACE [ ] Navy [ ] [ ]
Sample Disposal: Lab [ ] Special [ ]
State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] NC [ ]

* G=Grab; C=Composite **Matrix - AI=Air; DW=Drinking Water; GW=Groundwater; OI=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

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301 Fulling Mill Road
Middletown, PA 17057
P: (717) 944-5541
F: (717) 944-1430

Condition of Sample Receipt Form

Client:	Work Order #:	Initials:	Date:
DC Wasa	3071863	QV	11/23/19

1. Were airbills / tracking numbers present and recorded?	(NONE)	YES	NO
Tracking number: _____			
2. Are Custody Seals on shipping containers intact?	NONE	(YES)	NO
3. Are Custody Seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present?		(YES)	NO
5. Are the COC and bottle labels complete, legible and in agreement?		(YES)	NO
5a. Does the COC contain sample locations?		(YES)	NO
5b. Does the COC contain date and time of sample collection for all samples?		(YES)	NO
5c. Does the COC contain sample collectors name?		(YES)	NO
5d. Does the COC note the type(s) of preservation for all bottles?		(YES)	NO
5e. Does the COC note the number of bottles submitted for each sample?		(YES)	NO
5f. Does the COC note the type of sample, composite or grab?		(YES)	NO
5g. Does the COC note the matrix of the sample(s)?		(YES)	NO
6. Are all aqueous samples requiring preservation preserved correctly?	(N/A)	YES	NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?		(YES)	NO
8. Are all samples within holding times for the requested analyses?		(YES)	NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)		(YES)	NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?	(N/A)	YES	NO
11. Were the samples received on ice?		(YES)	NO
12. Were sample temperatures measured at 0.0-6.0°C		(YES)	NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below		YES	(NO)
13a. Are the samples required for SDWA compliance reporting?	(N/A)	YES	NO
13b. Did the client provide a SDWA PWS ID#?	(N/A)	YES	NO
13c. Are all aqueous unpreserved SDWA samples pH 5-9?	(N/A)	YES	NO
13d. Did the client provide the SDWA sample location ID/Description?	(N/A)	YES	NO
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?	(N/A)	YES	NO

Cooler #: _____

Temperature (°C): 1

Thermometer ID: 525

Radiological (µCi): _____

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 4/29/2019