



NPDES Compliance Sampling Inspection Report

Rockland County Sewer District #1 WWTP

4 Route 340

NPDES Permit #: NY 003 1895

Inspection Dates: April 6-7, 2021

Report Prepared by:

Thuan Tran; Physical Scientist

Date: Monday, May 17, 2021

Report Approved by:

Phil Cocuzza, Chief
Monitoring Operations Section

Date: _____

1.0 OBJECTIVE

On April 6 - 7, 2021, the United States Environmental Protection Agency (USEPA) conducted a National Pollutant Discharge Elimination System (NPDES) Compliance Sampling Inspection (CSI) at the Rockland County Sewer District (RCSD) #1 Wastewater Treatment Plant (WWTP) in Orangeburg, New York. The objective of the CSI was to gather information necessary to determine compliance with the requirements and limitations of NPDES Permit #: NY0031895.

2.0 KEY PARTICIPANTS

Listed below are key inspection participants and contact information, grouped by organization.

U.S. Environmental Protection Agency

Thuan Tran; Physical Scientist, Lead Inspector

Tran.thuan@epa.gov

Kathleen Foley, Physical Scientist

Rockland County Sewer District #1 WWTP

Richard Hagen, Chief Plant Operator

hagenr@co.rockland.ny.us

Linda Hoffman, Laboratory Director

3.0 FACILITY DESCRIPTION

3.1 General Information

Rockland County Sewer District #1 WWTP is located at 4 Route 340 and began operating in 1968 as a secondary treatment plant with a designed capacity of 10 million gallons per day (MGD). The facility serves the Towns of Ramapo and Clarkstown, and part of the Town of Orangetown and is categorized as Standard Industrial Classification (SIC) 4952. The facility has since been expanded and upgraded to provide a designed capacity of 29 MGD and treats approximately 88.5 % of domestic wastewater and 11.5% of commercial and industrial combined wastewater. RCSD #1 WWTP employs 24 personnel and operates 24 hours per day, 7 days per week, 365 days per year. The facility operates three 8-hour shifts; 7am – 3:30pm, 3pm – 11:30pm, and 11:00pm – 7:30am.

3.2 Process Information

Domestic, commercial, and industrial wastewater is conveyed through the county owned sewer collection system. The wastewater is gravity feed and/or pumped through 28 hydraulic pump stations to the wastewater treatment plant. Power is supplied by Orange and Rockland Electric to the pump stations and the treatment facility. Diesel generators provide back-up during power outages.

Through the sewer collection system, the wastewater converges into the junction box from two incoming lines just outside the treatment facility fence-line. The receiving wastewater is preliminary treated inside the facility by three mechanical bar screens. Large matters are removed from the waste stream to prevent damaging downstream treatment units. As the wastewater continues through the mechanical bar screens, it amasses in the influent wet well where hydraulic pumps pull the wastewater to the aerated grit chambers. In the aerated grit chambers, heavy solids settled to the bottom, while the waste stream splits between two (2) parallel treatment trains; A-Train and B-Train (larger of the two trains). Within the A-Train, the influent splits between four (4) primary rectangular settling tanks. Then, the primary settling tank effluent continues to the five (5) sequential Rotating Biological Contacts (RBCs) trains with 5 RBCs tanks per train. The effluent from the RBCs is conveyed into the 4 secondary rectangular settling tanks for further phase separation. For the B-Train, the wastewater continues into the six (6) primary rectangular settling tanks. Then, the effluent continues into the ten (10) sequential RBCs trains. The effluent from the RBCs flows into the 6 secondary rectangular settling tanks. Effluent from the A-Train and B-Train is directed into the distribution box before splitting between the 2 chlorine contact chambers. Sodium hypochlorite is injected at the head of the chambers for disinfection. The flows from the chlorine contact chambers are monitored using rectangular weirs with ultrasonic flow sensors. The effluent free-falls from the rectangular weirs into the mixing tank before flowing into the discharge pipe. Downstream of the discharge pipe, sodium bisulfide is injected in-line for dechlorination. The treated effluent continues in the pipe for approximately 3.5 miles before the Town of Orangetown WWTP effluent mixes, then discharges via Outfall 001 into the Hudson River.

Sludge handling begins with skimmed scum from the secondary settling tanks getting pumped into the primary settling tanks. The settled sludge from the primary and secondary settling tanks is pumped into the gravity sludge thickener. The thickened sludge from the gravity sludge thickener is pumped into the primary anaerobic sludge digester followed by the secondary anaerobic sludge digester. The anaerobic sludge digestion process is between 25-30 days with the temperature being maintained between 95-97°Fahrenheit. The sludge slurry in the secondary anaerobic sludge digester is pumped into the sludge centrifuge as a polymer is injected in-line. The biosolids from the centrifuge is between 24-25% solids. The biosolids is hauled to the Rockland County Solid Waste Management Authority for further treatment.

Supernatant from the gravity sludge thickener, centrate from the centrifuge, and water usage in the facility flow into the influent wet well. Rags and large objects removed from the mechanical bar screens, grits removed from the aerated grit chambers, and scum removed from the primary settling tanks are disposed of by outside contractors. The filtrates from the mechanical bar screens and the aerated grit chambers flow back into their respective treatment units.

3.3 Facility Self-Monitoring Information

Rockland County Sewer District #1 WWTP performs 24-hour composite, grab, and on-site sampling for permit compliance. Collected samples are analyzed in-house, as well as, contracted out. Parameters analyzed in-house are 5-Day Carbonaceous Biochemical Oxygen Demand (cBOD₅), Total Suspended Solids (TSS), pH, Temperature, Total Residual Chlorine (TRC), Settleable Solids (SS) and Fecal Coliform. Parameters analyzed by Aqua Pro-Tech. Laboratories in Orangeburg, New York are Metals (Copper, Lead & Zinc), Ammonia-N₂ (NH₃), Nitrate (NO₃), Nitrite (NO₂), Phosphorus, Total Kjeldahl Nitrogen (TKN), Total Phenolics and Low-Level Mercury. Coastal Bio-Analysts, Inc., performs Whole Effluent Toxicity (WET) testing.

The sample containers for in-house analysis are provided by the facility. The contract laboratory provides unpreserved sample containers with a storage cooler and the chain of custody. All sample containers are filled and preserved by the facility laboratory. The contracted sample containers are packed inside the cooler with the completed chain of custody and picked up by the contract laboratory.

4.0 EPA SAMPLING/INSPECTION ACTIVITIES

4.1 Sampling Activities

ISCO automatic composite samplers were programmed to take 96 sample aliquots during the 24-hour sampling event from Outfall 001 monitoring location. The 24-hour composite sample was collected and analyzed for 5-Day Carbonaceous Biochemical Oxygen Demand (cBOD₅), Total Suspended Solids (TSS), Phosphorus, Ammonia-N₂ (NH₃), Nitrate (NO₃), Nitrite (NO₂), Total Kjeldahl Nitrogen (TKN), and Metals (Copper, Lead & Zinc).

Grab samples were collected and analyzed for Low-Level Mercury and Total Phenolics.

On-site grab samples from the influent and Outfall 001 monitoring locations were collected and analyzed for pH, Temperature, Total Residual Chlorine (TRC), and Settleable Solids (SS).

In addition, an ISCO automatic composite sampler was programmed to take 96 sample aliquots during the 24-hour sampling event from the influent monitoring location. The composite sample was analyzed for cBOD₅, TSS, NH₃, TKN, NO₃, NO₂, and Phosphorus.

All sample containers, preservation techniques and holding times were in accordance with USEPA requirements specified in 40 CFR Part 136. Signed and dated custody seals were placed across the lids and along the sides of the sample containers. The custody sealed sample containers were placed inside plastic sample bags and sealed. All samples were transported on ice to the USEPA Laboratory in Edison, New Jersey for analysis, except for cBOD₅, NO₃ and NO₂. These analytes were packed inside a cooler with wet ice and shipped

to EPA Laboratory in Region 7. Chain-of-custodies were maintained for all samples. EPA Laboratory Analytical Data are attached.

Effluent monitoring flow data was obtained directly from Rockland County Sewer District #1 WWTP instrumentation which was last calibrated on April 1, 2021.

Split samples were collected and given to the facility representative.

4.2 Inspection Activities

A NPDES Compliance Sampling Inspection (CSI) at Rockland County Sewer District #1 Wastewater Treatment Plant (WWTP) was conducted on April 6-7, 2021. The inspectors met with Mr. Richard Hagen, Chief Plant Operator, and Linda Hoffman, Laboratory Director. Inspector's credentials were presented, and business cards were exchanged. The official representatives were explained that the inspection purpose with supporting on-site activities was to determine if the facility is in compliance with their NPDES permit.

Supporting on-site activities consists of collecting samples from the influent and effluent monitoring locations; observing and evaluating the monitoring locations, observing and evaluating the flow monitoring equipment, observing and evaluating the facility's sampling protocol, touring and evaluating the wastewater treatment units and operation, reviewing and evaluating the in-house and contract chain-of-custodies and analytical data, and interviewing the facility's representatives.

The facility representatives were briefed on the inspection activities during the closing conference. On-site sample results and concerns discovered or observed during the inspection were communicated so that they understand their responsibilities to comply with the Federal and State Regulations; as well as, the Limitations, General and Specific Conditions, and the Requirements of their NPDES permit agreement.

4.3 Deviations and/or Environmental Conditions

Samples with short holding times were shipped to EPA Region 7 Laboratory in Kansas City, Kansas, for analysis. The COC was not included with the shipment as instructed by EPA R7 Laboratory, but instead a photo of the COC was emailed. EPA Region 7 Laboratory turn-around-time (TAT) is 30 days from the receipt date of April 8, 2021.

Linda Hoffman, RCSD #1 WWTP Laboratory Director, questioned the low-level mercury split sample that was received. According to the permit, low-level mercury is to be analyze using EPA Method 1631. The method requires the sample to be preserve with hydrochloric acid (HCL), not nitric acid (HNO₃). As a result, the split sample could not be accepted. The lead inspector reached out to EPA Region 2 Laboratory supervisor and analysts. It was indicated that EPA Laboratory analyzes low-level mercury using EPA Method 245.1. A verbal request was made to the supervisor and analysts to review and compare the two methods. In conclusion, a professional judgement was made that the low-level mercury result will only be use as data and not for permit compliance.

5.0 ANALYTICAL RESULTS

**Rockland County Sewer District #1 WWTP
 Inspection Dates: April 6-7, 2021**

Parameter	Units	Permit Limit	EPA Result
Flow	MGD	29	18.84
cBOD ₅	mg/l	25-40	30.8
cBOD ₅ Loading	lbs./day	6,000 – 9,600	4,839
% cBOD ₅ Removal	%	85	82.5 (17.5)
TSS	mg/l	30 – 45	30
TSS Loading	lbs./day	7,200 – 11,000	4,714
% TSS Removal	%	85	85 (15)
Ammonia-N (NH ₃)	mg/l	Monitor	29.8
TKN	mg/l	Monitor	33.9
Nitrate (NO ₃)	mg/l	Monitor	0.208
Nitrite (NO ₂)	mg/l	Monitor	0.103
Phosphorus	mg/l	Monitor	3.61
Phenolics, T	mg/l	4.0 (Action Level)	0.019 (19.5 ug/l)
Metal: Copper (Cu)	lbs/day	8.1 (Action Level)	6.1 (39.1 ug/l)
Lead (Pb)	lbs./day	0.5 (Action Level)	U
Zinc (Zn)	lbs./day	23 (Action Level)	5.5 (34.5 ug/l)
Mercury (Hg), T	ng/l	50	U
Settleable Solids (SS)	ml/L	0.3	< 0.1
pH	SU	6.0 – 9.0	6.87
Temperature	°C	Monitor	15
TRC	mg/l	0.5	Zero

U = analyte was not detected at or above the reporting limit.

6.0 FINDINGS

6.1 Sampling Result Findings

The EPA analytical results obtained during this inspection show the following parameter(s) as being outside of the acceptable limits:

6.1.1 According to footnote 1 of the active NPDES Permit, percent removal for the “*Effluent shall not exceed 15% and 15% of the influent concentration values for cBOD₅ and TSS respectively.*” The calculation for cBOD₅ was determined to be 17.5 percent.

6.2 Inspection Findings

In addition to the sampling event, an inspection of the facility operations was conducted as discussed in Section 4.2. During this inspection the following observations were noted which may contravene the requirements of the permit or the applicable regulations:

6.2.1 Some areas of the secondary settling tank weirs were observed cover with grayish growth that prevents a uniform effluent overflow. Due to the obstructions, some areas of the weir had high flow while others had no or little flow. Areas of high overflow are creating faster underflow which prevents solids from properly settling to the bottom of the tanks. As a result, areas of high overflow are carrying solids to the chlorine contact chambers.

According to 40 CFR Part 122.41(e) *Proper operation and maintenance*. “*The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.*” Furthermore, Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (NYCRR) Part 750 -2.8 (a)(2)(i) states, “*The permittee shall, at all times, properly operate and maintain all disposal facilities, which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance also includes as a minimum, the following:*

- (i) A preventive/corrective maintenance program for all critical facilities and systems of treatment and control (or related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. A facility or system is critical if it contains process equipment that is essential for proper operation and necessary to achieve compliance with the applicable SPDES permit effluent limits.*”

6.2.2 Solids were observed entering the chlorine contact chambers during the plant tour. Bubbles were observed rising to the surface of the chlorine contact chambers which could be an indication of a potential septic condition. Furthermore, solids were observed overflowing the rectangular weirs. According to 40 CFR Part 122.41(e) *Proper operation and maintenance*. “*The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.*” Furthermore, Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (NYCRR) Part 750 -2.8 (a)(2)(i) states, “*The permittee shall, at all times, properly operate and maintain all disposal facilities, which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance also includes as a minimum, the following:*

(i) A preventive/corrective maintenance program for all critical facilities and systems of treatment and control (or related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. A facility or system is critical if it contains process equipment that is essential for proper operation and necessary to achieve compliance with the applicable SPDES permit effluent limits.”

7.0 ATTACHMENTS

Attachment #1. A list of approved SIU permitted to discharge into the RCSD #1 WWTP

Attachment #2. An overview map shows where each treatment unit is in the facility.

Attachment #3. The flow schematic shows the wastewater and solids pathways for the RCSD #1 WWTP.

Attachment #4a. Chain of Custody for Samples was emailed to USEPA Region 7 Laboratory.

Attachment #4b. Chain of Custody for Samples was submitted and received by the USEPA Region 2 Laboratory.

Attachment #5. Analytical Data were received from USEPA Region 2 and Region 7 Laboratories for the April 6-7, 2021 NPDES sampling inspection.

Attachment#1: RCSD #1 WWTP accepts approved pretreated wastewater from these significant industrial users.

NAME OF PERMIT HOLDER

ADH Health Products Inc.

Aptar

Bronx River Bottling

Chartwell Pharmaceutical

Clarkstown Sanitary Landfill

Cerovene

HDR

Intercos Inc.-Congers

Intercos West Nyack

NYS Thruway Authority

Orange & Rockland Utilities, Inc. (SV)*

Orange & Rockland Utilities, Inc. (WN)*

Par Pharmaceutical Rusten A-R&D Laboratory

PAR Pharmaceutical - Spring Valley

PAR Pharmaceutical R&D

Pyramid Company of Rockland (Palisades Center)

Ramapo Landfill

Rockland Bakery (Demarest Mill Realty)

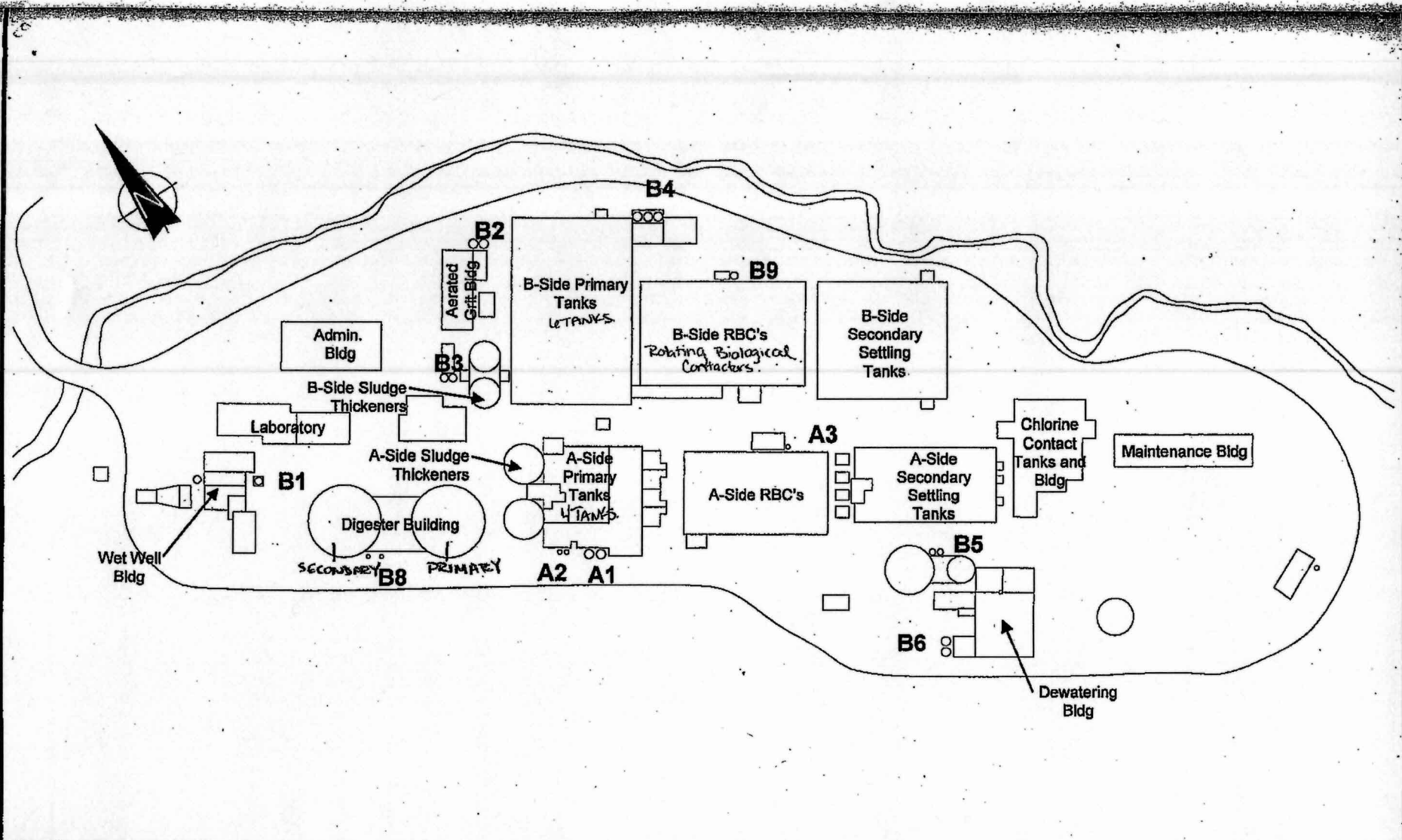
Rockland Bakery - 58 Demarest Mill Realty

Rockland County Solid Waste Management Authority

Star Kay White, Inc.

Teplitz Auto Parts, Inc.

Attachment #2: An overview map of RCSD #1 WWTP shows where each treatment unit is located.

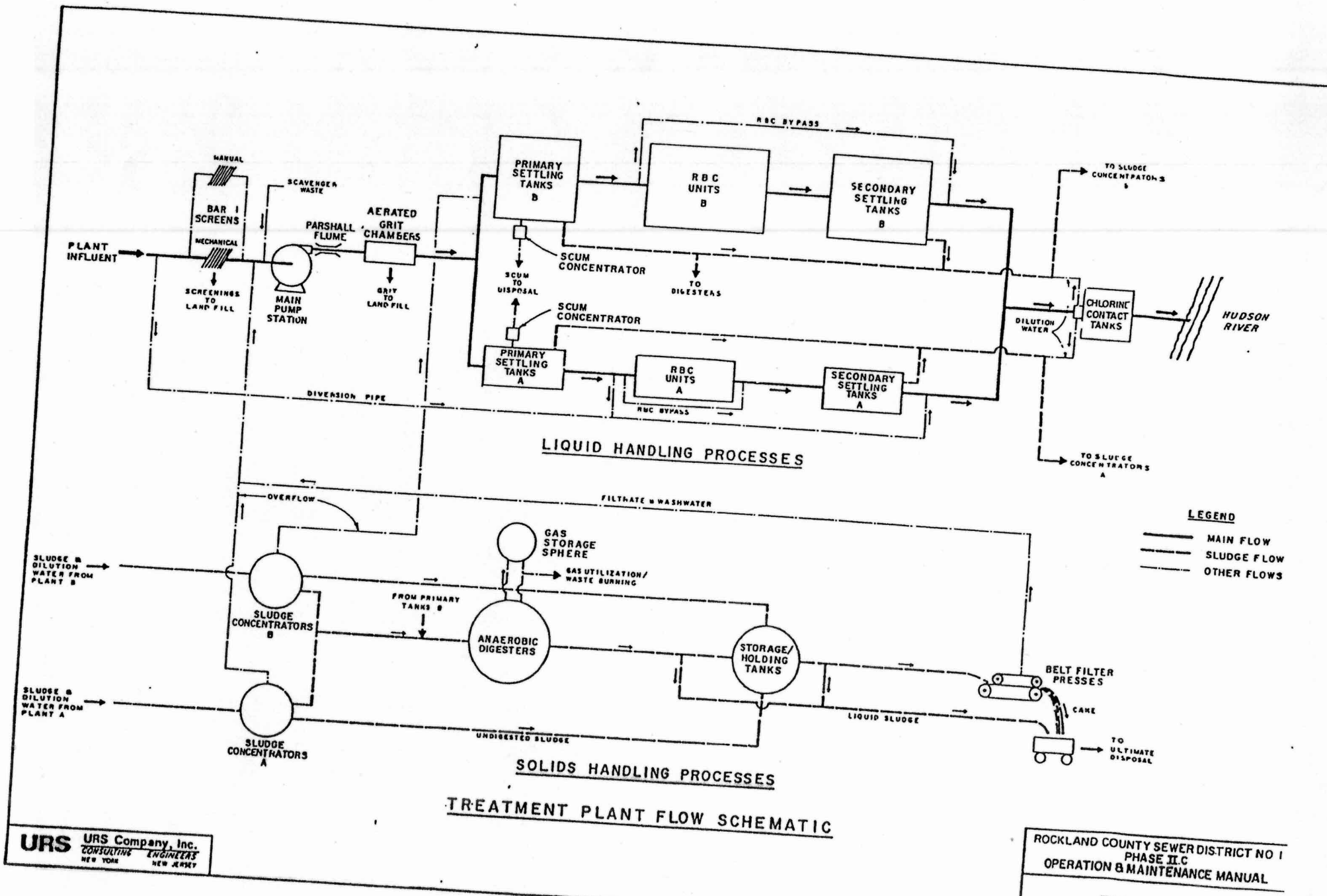


SITE PLAN
Rockland County Sewer District No. 1 -Rockland County, New York
Wastewater Treatment Plant
Plant Wide Odor Control Study

October 2012

FIGURE 1-2

Attachment #3: The flow schematic shows RCSD #1 WWTP process pathways for wastewater and solids.



US EPA REGION 2 LABORATORY
CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY Rockland County SD #1 WWTP

PROJECT LEADER Thuan Tran

PROGRAM: SF :

SITE ID _____

OPERABLE UNIT _____

PROGRAM RESULTS CODE _____

Decision Unit Code Y206 RCRA D210 RCRA ENF D307 NPDES B304 SDWA C215 AM B224 CAA A305

TSCA L306 OD B253 FIFRA CRIMINAL ENF

Permit #: NY0031895

LAB ID/ FIELD ID	CONTAINERS # OF	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS,	Res CL Checked	Preservative (circle)	Collection Time (24hr clock) ///////////////		Collection Date mm/dd/yy
							Begin	End	
Influent-Comp	2	A	<input checked="" type="checkbox"/>	1, 1-Liter plastic container: cBOD5: 24-Hr Comp.	<input type="checkbox"/>	0	10:30A	10:15A	4/6-7/21
		A	<input checked="" type="checkbox"/>	1, 1-Liter plastic container: Nitrate/Nitrite: 24-Hr Comp	<input type="checkbox"/>	0	↓	↓	4/6-7/21
			<input type="checkbox"/>		<input type="checkbox"/>	0			
			<input type="checkbox"/>		<input type="checkbox"/>	0			
Outfall 001-Comp.	2	A	<input checked="" type="checkbox"/>	1, 1-Liter plastic container: cBOD5: 24-Hr Comp.	<input type="checkbox"/>	0	10:07A	9:48A	4/6-7/21
		A	<input checked="" type="checkbox"/>	1, 1-Liter plastic container: Nitrate/Nitrite: 24-Hr Comp	<input type="checkbox"/>	0	↓	↓	4/6-7/21
			<input type="checkbox"/>		<input type="checkbox"/>	0			
			<input type="checkbox"/>		<input type="checkbox"/>	0			
			<input type="checkbox"/>		<input type="checkbox"/>	0			
			<input type="checkbox"/>		<input type="checkbox"/>	0			
			<input type="checkbox"/>		<input type="checkbox"/>	0			
			<input type="checkbox"/>		<input type="checkbox"/>	0			

COMMENTS & SPECIAL REQUIREMENTS:

Note: Region 7 will add the R7LIMS ASR # 7816 & sample #s to the sampling containers @ sample receipt.

Preservative Added & Checked	
0=ice	7=FAS
1=H2SO4 pH<2	8=ZnAc
2=HNO3 pH<2	9=NaOH pH>12
3=HCl pH<2	10=NH4Cl
4=Na2S2O3	
5=NaOH pH>9	
6=Ascorbic Acid	

Matrix:		Person Assuming Responsibility for Sample(s):	
A=aqueous	F=multiphasic	Relinquished By: <u>[Signature]</u>	Received By: <u>[Signature]</u>
B=aqueous (chlorinated)	G=solvent	Relinquished By:	Received By:
C=soil	H=biota	Relinquished By:	Received By:
D=sediment	I=oil	Relinquished By:	Received By:
E=sludge	J=other	Relinquished By:	Received By:
Survey Complete? Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			Time: <u>1:30 PM</u> Date: <u>4/7/2021</u>

CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY Rockland County SD #1 WWTP

PROJECT LEADER Thuan Tran

PROGRAM: SF :

SITE ID _____

OPERABLE UNIT _____

PROGRAM RESULTS CODE _____

Decision Unit Code Y206 RCRA D210 RCRA ENF D307 NPDES B304 SDWA C215 AM B224 CAA A305 TSCA L306 OD B253 FIFRA CRIMINAL ENF

LAB ID/ FIELD ID	CONTAINERS # OF	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS.	Res CL Checked	Preservative (circle)	Collection Time (24hr clock) Begin End		Collection Date mm/dd/yy
							0	1	
Outfall 001-Comp. <u>2104009-01</u>	3	A	<input checked="" type="checkbox"/>	1, 500-ml plastic container: TSS: 24-Hr Comp	<input type="checkbox"/>	0	<u>10:09A</u>	<u>9:48A</u>	4/6-7/2021
	<u>2</u>	A	<input checked="" type="checkbox"/>	1, 500-ml plastic container: NH3/TKN/Phopshorus: 24-Hr C	<input type="checkbox"/>	01	↓	↓	4/6-7/2021
	<u>1</u>	A	<input checked="" type="checkbox"/>	1, 250-ml plastic container: Metals (Cu,Pb, Zn): 24-Hr Comp	<input type="checkbox"/>	02	↓	↓	4/6-7/2021
			<input type="checkbox"/>		<input type="checkbox"/>	012345678910			
Outfall 001-Grab <u>2104009-02</u>	2	A	<input checked="" type="checkbox"/>	1, 250-ml amber glass: Phenolics, T*: 24-Hr Comp	<input type="checkbox"/>	01	<u>10:20A</u>	<u>10:20A</u>	4/7/2021
	<u>1</u>	A	<input checked="" type="checkbox"/>	1, 250-ml plastic container: Mercury, T*: GRAB	<input type="checkbox"/>	02	<u>10:20A</u>	<u>10:20A</u>	4/7/2021
			<input type="checkbox"/>		<input type="checkbox"/>	012345678910			
Influent-Comp <u>2104009-03</u>	2	A	<input checked="" type="checkbox"/>	1, 500-ml plastic container: TSS: 24-Hr Comp	<input type="checkbox"/>	0	<u>10:30A</u>	<u>10:15A</u>	4/6-7/2021
	<u>1</u>	A	<input checked="" type="checkbox"/>	1, 250-ml plastic container: NH3/TKN/Phopshorus: 24-Hr C	<input type="checkbox"/>	01	↓	↓	4/6-7/2021
			<input type="checkbox"/>		<input type="checkbox"/>	012345678910			

COMMENTS & SPECIAL REQUIREMENTS:

NOTES: Phenolics, T: analyzed using EPA Method 420 (4AAP)
 Mercury, T: analyzed using EPA Method 1631
 TRC: Zero

Preservative Added & Checked
 0=ice 7=FAS
 1=H2SO4 pH<2 8=ZnAc
 2=HNO3 pH<2 9=NaOH pH>12
 3=HCl pH<2 10=NH4Cl
 4=Na2S2O3
 5=NaOH pH>9
 6=Ascorbic Acid

Matrix:		Time		Date	
A=aqueous	F=multiphasic				
B=aqueous (chlorinated)	G=solvent				
C=soil	H=biota				
D=sediment	I=oil				
E=sludge	J=other				
Relinquished By:	Received By:	<u>2:55 PM</u>		<u>4/7/21</u>	
Relinquished By:	Received By:	<u>14:55</u>		<u>4/7/21</u>	
Relinquished By:	Received By:				

Survey Complete? Y N

Direct from sampling, nothing disturbed 4/7/21

Attachment 5: Analytical Data received from USEPA Regions 2 and 7 Laboratories for the 4/6-7/21 NPDES CSI.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**Region 2 Laboratory
2890 Woodbridge Avenue
Edison , New Jersey 08837
732-906-6886 Phone
732-906-6165 Fax**

April 21, 2021

Philip Cocuzza
Monitoring & Assessment Branch
LSASD/MAB
Edison, NJ 08837

RE: Rockland County SD #1 WWTP - 2104009

Enclosed are the results of analyses for samples received by the laboratory on 04/07/2021. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 2104009 and contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads "James Ferretti". The signature is written in a cursive style.

James Ferretti
Acting Chief, LSASD/LB



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Rockland County SD #1 WWTP - 2104009

Project Number: 2104009

Project Narrative:

The National Environmental Laboratory Accreditation Conference Institute (TNI) is a voluntary environmental laboratory accreditation association of State and Federal agencies. TNI established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the TNI Standards.

Condition Comments

None

Comment(s):

The "Sample Analysis Date and Time" is included in the results section for any analyte with a prescribed holding time of 72 hours or less.

Data Qualifier(s):

- U- The analyte was not detected at or above the Reporting Limit.
- J- The identification of the analyte is acceptable; the reported value is an estimate.
- K- The identification of the analyte is acceptable; the reported value may be biased high.
- L- The identification of the analyte is acceptable; the reported value may be biased low.
- NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory**

Final Report

Project: Rockland County SD #1 WWTP - 2104009

Project Number: 2104009

Reporting Limit(s):

The Laboratory was able to achieve the appropriate limit for each analyte requested.

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
Outfall 001-Comp	2104009-01	Aqueous	04/07/2021 09:48	04/07/2021 14:55
Outfall 001-Grab	2104009-02	Aqueous	04/07/2021 10:20	04/07/2021 14:55
Influent-Comp	2104009-03	Aqueous	04/07/2021 10:15	04/07/2021 14:55



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Rockland County SD #1 WWTP - 2104009

Project Number: 2104009

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
Ammonia [As N]	EPA 350.1 SOP C-80 Rev 2.7	NELAP	Aqueous
Mercury	EPA 245.1 SOP C-110 Rev 2.7	NELAP	Aqueous
Metals ICP TAL NPDES/DW	EPA 200.7 SOP C-109 Rev 3.6	NELAP	Aqueous
Nitrogen, Total Kjeldahl	EPA 351.2 SOP C-40 Rev2.7	NELAP	Aqueous
Phenolics, Total	EPA 420.4 SOP C-29 Rev 2.7	NELAP	Aqueous
Phosphorus	EPA 365.1 SOP C-68 Rev 2.7	NELAP	Aqueous
Residue, Non-Filterable	SM 2540D SOP C-33 Rev 3.7	NELAP	Aqueous



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory**

Final Report

Project: Rockland County SD #1 WWTP - 2104009

Project Number: 2104009

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
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Field ID: Outfall 001-Comp

Sample ID: 2104009-01

Metals ICP

Copper	39.1		10.0	ug/L	B104030	
Lead	---	U	8.00	ug/L	B104030	
Zinc	34.5		20.0	ug/L	B104030	

Sanitary

Ammonia [As N]	29.8		1.00	mg/L	B104047	
Nitrogen, Total Kjeldahl	33.9		1.00	mg/L	B104069	
Phosphorus	3.61		0.500	mg/L	B104033	
Residue, Non-Filterable	30.0		10.0	mg/L	B104029	

Field ID: Outfall 001-Grab

Sample ID: 2104009-02

Mercury CVAA

Mercury	---	U	0.050	ug/L	B104031	
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Sanitary

Phenolics, Total	19.5		10.0	ug/L	B104061	
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Field ID: Influent-Comp

Sample ID: 2104009-03

Sanitary

Ammonia [As N]	21.3		1.00	mg/L	B104047	
Nitrogen, Total Kjeldahl	38.0		1.00	mg/L	B104069	
Phosphorus	3.90		0.500	mg/L	B104033	
Residue, Non-Filterable	204		10.0	mg/L	B104029	



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory**

Final Report

Project: Rockland County SD #1 WWTP - 2104009

Project Number: 2104009

Metals ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B104030									
Blank (B104030-BLK1)									
Copper	--- U	10.0	ug/L						
Lead	--- U	8.00	ug/L						
Zinc	--- U	20.0	ug/L						
LCS (B104030-BS1)									
Copper	196	10.0	ug/L	200.0		97.8	85-115		
Lead	196	8.00	ug/L	200.0		97.8	85-115		
Zinc	192	20.0	ug/L	200.0		96.1	85-115		
LCS Dup (B104030-BSD1)									
Copper	195	10.0	ug/L	200.0		97.7	85-115	0.153	20
Lead	196	8.00	ug/L	200.0		98.0	85-115	0.225	20
Zinc	193	20.0	ug/L	200.0		96.5	85-115	0.363	20
Matrix Spike (B104030-MS1) Source: 2104009-01									
Copper	257	10.0	ug/L	200.0	39.1	109	80-120		
Lead	198	8.00	ug/L	200.0	ND	99.0	80-120		
Zinc	227	20.0	ug/L	200.0	34.5	96.4	80-120		
Matrix Spike Dup (B104030-MSD1) Source: 2104009-01									
Copper	233	50.0	ug/L	200.0	39.1	96.8	80-120	9.74	10
Lead	188	40.0	ug/L	200.0	ND	94.2	80-120	5.00	10
Zinc	223	100	ug/L	200.0	34.5	94.2	80-120	1.93	10



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory**

Final Report

Project: Rockland County SD #1 WWTP - 2104009

Project Number: 2104009

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B104029									
Blank (B104029-BLK1)									
Residue, Non-Filterable	--- U	10.0	mg/L						
Blank (B104029-BLK2)									
Residue, Non-Filterable	--- U	10.0	mg/L						
LCS (B104029-BS1)									
Residue, Non-Filterable	81.0	10.0	mg/L	82.50		98.2	85-115		
LCS Dup (B104029-BSD1)									
Residue, Non-Filterable	82.0	10.0	mg/L	82.50		99.4	85-115	1.23	20
Duplicate (B104029-DUP1) Source: 2104009-01									
Residue, Non-Filterable	34.0	10.0	mg/L		30.0			12.5	20
Batch B104033									
Blank (B104033-BLK1)									
Phosphorus	--- U	0.0500	mg/L						
Blank (B104033-BLK2)									
Phosphorus	--- U	0.0500	mg/L						
LCS (B104033-BS1)									
Phosphorus	2.27	0.100	mg/L	2.220		102	90-110		
LCS Dup (B104033-BSD1)									
Phosphorus	2.18	0.100	mg/L	2.220		98	90-110	4	20



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Final Report

Project: Rockland County SD #1 WWTP - 2104009

Project Number: 2104009

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B104033

Matrix Spike (B104033-MS1)

Source: 2104009-01

Phosphorus	4.18	0.500	mg/L	1.000	3.61	57	90-110		
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Batch B104047

Blank (B104047-BLK1)

Ammonia [As N]	--- U	0.100	mg/L						
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Blank (B104047-BLK2)

Ammonia [As N]	--- U	0.100	mg/L						
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LCS (B104047-BS1)

Ammonia [As N]	14.6	1.00	mg/L	14.90		98	90-110		
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LCS Dup (B104047-BSD1)

Ammonia [As N]	14.2	1.00	mg/L	14.90		95	90-110	3	20
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Matrix Spike (B104047-MS1)

Source: 2104009-01

Ammonia [As N]	32.6	1.00	mg/L	5.000	29.8	56	90-110		
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Batch B104061

Blank (B104061-BLK1)

Phenolics, Total	--- U	10.0	ug/L						
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Blank (B104061-BLK2)

Phenolics, Total	--- U	10.0	ug/L						
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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory**

Final Report

Project: Rockland County SD #1 WWTP - 2104009

Project Number: 2104009

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B104061									
LCS (B104061-BS1)									
Phenolics, Total	2760	50.0	ug/L	2620		106	90-110		
LCS Dup (B104061-BSD1)									
Phenolics, Total	2800	50.0	ug/L	2620		107	90-110	1	20
Matrix Spike (B104061-MS1) Source: 2104009-02									
Phenolics, Total	565	10.0	ug/L	500.0	19.5	109	90-110		
Batch B104069									
Blank (B104069-BLK1)									
Nitrogen, Total Kjeldahl	--- U	0.100	mg/L						
Blank (B104069-BLK2)									
Nitrogen, Total Kjeldahl	--- U	0.100	mg/L						
LCS (B104069-BS1)									
Nitrogen, Total Kjeldahl	27.8	0.500	mg/L	26.80		104	90-110		
LCS Dup (B104069-BSD1)									
Nitrogen, Total Kjeldahl	27.6	0.500	mg/L	26.80		103	90-110	0.4	20
Matrix Spike (B104069-MS1) Source: 2104009-01									
Nitrogen, Total Kjeldahl	40.0	1.00	mg/L	4.000	33.9	152	90-110		

**United States Environmental Protection Agency
Region 7
300 Minnesota Avenue
Kansas City, KS 66101**

Date: 05/06/2021

Subject: Transmittal of Sample Analysis Results for ASR #: 8716

Project ID: TAR2RCSD1

Project Description: EPA-Region 2: Rockland County Sewer District #1 WWTP

From: Margaret E.W. St. Germain, Chief
Laboratory Technology & Analysis Branch
Laboratory Services and Applied Sciences Division

To: Tabatha Adkins
LSASD/LTAB

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our LSASD records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Project Manager: Tabatha Adkins**Org:** LSASD/LTAB**Phone:** 913-551-7128**Project ID:** TAR2RCSD1**QAPP Number:** 2020-03***Project Desc:** EPA-Region 2: Rockland County Sewer District #1 WWTP**Location:** Orangeburg**State:** New York**Program:** Water Enforcement**Purpose:** Compliance Monitoring**GPRA PRC:** 000E50

RCSD #1 = Rockland County Sewer District #1 WWTP.

NPDES inspection of secondary treatment wastewater facility. Permit #NY0031895.
Short holding time samples unable to be analyzed at Region 2 due to TNI audit.

Submitted ASR/email from EPA-Region 2 (TT/JM) noted that this ASR is not part of litigation hold activity at this time and *QAPP Document number: Generic QAPP for NPDES CSIs (2020-03).

Explanation of Codes, Units and Qualifiers used on this report**Sample QC Codes:** QC Codes identify the type of sample for quality control purpose.**Units:** Specific units in which results are reported.

___ = Field Sample

mg/L = Milligrams per Liter

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.

ASR Number: 8716

Sample Information Summary

05/06/2021

Project ID: TAR2RCSD1

Project Desc: EPA-Region 2: Rockland County Sewer District #1 WWTP

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 - ___		Water	Influent-Comp		04/06/2021	10:30	04/07/2021	10:15	04/08/2021
2 - ___		Water	Outfall 001-Comp		04/06/2021	10:07	04/07/2021	08:48	04/08/2021

9:48 per TTran on 5/6/2021
at 13:10pm. nr5/6/2021

Analysis Comments About Results For This Analysis

1 CBOD5 in Water by DO Probe

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3153.1H

Samples: 1-__ 2-__

Comments:

(N/A)

1 Nitrogen, Nitrate in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: RLAB Method for 3133.7C samples (for individual NO3 or NO2 analysis)

Samples: 1-__ 2-__

Comments:

1 Nitrogen, Nitrite in Water

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: RLAB Method for 3133.7C samples (for individual NO3 or NO2 analysis)

Samples: 1-__ 2-__

Comments:

(N/A)

ASR Number: 8716

RLAB Approved Sample Analysis Results

05/06/2021

Project ID: TAR2RCSD1

Project Desc: EPA-Region 2: Rockland County Sewer District #1 WWTP

Analysis/ Analyte	Units	1-__	2-__
1 CBOD5 in Water by DO Probe CBOD5	mg/L	176	30.8
1 Nitrogen, Nitrate in Water Nitrate as Nitrogen	mg/L	0.0200	0.208
1 Nitrogen, Nitrite in Water Nitrite as Nitrogen	mg/L	0.0416	0.103

