NPDES Compliance Sampling Inspection Report

Target Hill POTW
849 Upton Road
West Point, NY 10996

Permit Number: NY0023761

Inspection date: 21 AUG 2023

Participating Personnel:

US Environmental Protection Agency
Neal R. Johansen, Physical Scientist
Molly Hillenbrand, Life Scientist

Target Hill West Point POTW
Nicholas Crispi, Plant Chief

Report Submitted By:

Johansen, Neal
Digitally signed by Johansen, Neal
Date: 2023.10.19 12:18:15 -04'00'

Neal R. Johansen, Physical Scientist

Approved By:

PHILIP COCUZZA
Digitally signed by PHILIP COCUZZA
Date: 2023.10.19 13:05:46 -04'00'

Phil Cocuzza, Branch Chief
Monitoring Assessments Branch

1.0 OBJECTIVE

On August 21, 2023, at the request of the United States Environmental Protection Agency (US EPA), a National Pollution Discharge Elimination System (NPDES) Compliance Sampling Inspection (CSI) was conducted at the Target Hill Water Treatment Plant (POTW) in West Point, New York. The objective of the CSI was to determine the facility's compliance with the requirements and limitations of State Pollution Discharge Elimination System (SPDES) permit number NY0023761.

2.0 KEY PARTICIPANTS

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

U.S. Environmental Protection Agency
Neal R. Johansen, Physical Scientist (732) 321-6691
Molly Hillenbrand, Life Scientist (732) 321-4452

Target Hill West Point POTW
Nicholas Crispi, Plant Chief, Phone: (845) 667-7470

3.0 FACILITY DESCRIPTION

3.1 General Information

Target Hill POTW is located at 849 Upton Road in West Point, New York. The facility is a smaller Public Owned Treatment Works. It is a multi-building, multi-level complex that began operations in the mid-seventies. The facility has been regularly upgraded throughout the years. The facility has full time staffing depending on the time of day and round-the-clock on call staffing as required. The specific North American Industrial Classification System (NAICS) code is 221320, for Sewage Treatment Facilities. The facility has multiple structures on a small amount of land with limited parking. It has three fulltime employees that maintain the plant regularly. The plant's most recent permit became effective on 1 June 2022. The permit expires on 31 May 2027. The facility is being upgraded and the current permit has a section allowing some broader limits until the new plant is completed. This section is on page 16 of the permit.

3.2 Process Information

The plant has an average water outflow that varies throughout the day per influent level requirements. During the time of inspection, the plant was being operated with full flow from the campus. There is no external lift pump required to move influent up to the plant, for processing, from the campus. The permit requires monitoring of the daily maximum discharge with reporting of monthly average flow. The maximum daily allowable discharge is 2.8 Million Gallons Daily (MGD). The permitted discharge location for outfall 001 is to the Hudson River. Outfall 001 is required to be monitored during its constant discharge. Its exact location will change with the new plant, but the water body will remain the same.

Influent water enters the plant system and is passed through a simple screening and grinding process. At this point excess grease, rags and debris are manually removed for disposal at the landfill. The screened influent water is then pumped to the plant's processing structures. The screened wastewater flows to a primary settling tank and then to the aeration tank. It then flows to a secondary settling tank, or an aerobic digester. The wastewater is then sent to a chlorination tank. It is then discharged through outfall 001. Storm water runoff from the facility is untreated, and gravity flows to the Hudson River.

3.3 Facility Self-Monitoring Information

The wastewater from the Target Hill POTW is analyzed on site by staff for flow, temperature, pH, residual chlorine, nitrogen, and settleable solids. The following parameters are analyzed by the Pace Laboratory for Biological Oxygen Demand (BOD_5), TSS, nitrogen, ammonia, fecal coliform bacteria, and metals. They are a state certified laboratory. They are located at 315 Fullerton Avenue, Newburgh, NY 12550. Plant personnel collect grab samples and conduct onsite analysis during processing. Laboratory results are issued monthly on the Discharge Monitoring Reports (DMR) as required by permit number NY0023761.

4.0 EPA SAMPLING / INSPECTION ACTIVITIES

4.1 Sampling Activities

Grab samples were collected from outfall 001 and the influent chamber. The effluent samples were analyzed onsite for, pH, chlorine, temperature, and settleable solids. Total flow for the 24-hour time period was obtained from the facility personnel. Additional 24-hour composite samples were collected from the influent and the effluent of outfall 001. These samples were delivered to the USEPA Edison, New Jersey Laboratory. They were analyzed for BOD_5, TSS, ammonia, fecal coliform, and metals. All sample containers, and preservation techniques conformed to USEPA requirements specified in 40 CFR Part 136. A chain-of-custody was created on site for

all samples and signed over to laboratory personnel upon delivery. The complete analytical data package is attached with the report.

4.2 Inspection Activities

On the day of the sampling inspection, a short opening conference and safety brief was conducted with the facility Plant Chief Mr. David Hornbeck. The inspectors presented identification and credentials and explained the nature of the inspection. Mr. David Hornbeck then provided a tour and explanation of the facility and its features. Grab samples were collected, and measurements were also gathered from the influent chamber and effluent of outfall 001. Multiple DMR's covering three different months were examined electronically.

5.0 ANALYTICAL RESULTS

Target Hill Public Owned Treatment Works,
West Point, NY CSI

August 21, 2023

Parameter	Units	Permit Limit	EPA Result Effluent	Testing Result
pH	S.U.	6 to 9	7.0	Within Limit
Temperature	°F	Mon	75	Monitor
Flow	MGD	2.8	1.6	Within Limit
Chlorine, Free	mg/L	2	1.5	Within Limit
Settleable Solids	ml/L	0.3	0.01	Within Limit
Total Ammonia	mg/L	Mon	18.7	Monitor
Biological Oxygen Demand (BOD_5)	mg/L	30	3.78	Within Limit
BOD_5 Percent Removal	%	85	97.8	Within Limit
Total Suspended Solids (TSS)	mg/L	30	10	Within Limit
TSS Percent Removal	%	85	80	*Outside Limit
Copper	µg/L	188	10 U	Within Limit
Lead	µg/L	16	8 U	Within Limit
Zinc	µg/L	500	20 U	Within Limit
Fecal Coliform	#/100 mL	200	2.0	Within Limit

U: Not detected value is the reporting limit

6.0 FINDINGS

6.1 Sampling Result Findings

The online DMR's examined did not show any reporting errors and appear to be submitted in the required time frame. Laboratory results indicate that the effluent limitations of SPDES permit number NY0023761 are being met with one exception.

The screeners had algal growth around the weirs. However, staff were actively maintaining and cleaning the issue before and during the inspection. The plant appears to be in damaged condition and is in the process of being replaced. The plant was severely damaged by multiple flood events during the month of July. The plant was fully functional, but repairs were still ongoing at the time of the inspection. The plant had numerous reported combined sewer overflows during the month of July. These overflows were the result of the extensive flooding, and Target Hill was not the only plant in the local area that had these overflow discharges.

*Percent removal for TSS was below the required limit at only 80% removal. However, the TSS Influent was only 49 mg/L, and the permit required removal is 30 mg/L. The Effluent was brought down to 10 mg/L which is three times lower than the permit limit of 30 mg/L.

7.0 ATTACHMENTS

Photographs (#1- #4)
Laboratory Data Report
Chain of Custody

PHOTO LOG

Photo #1: Influent

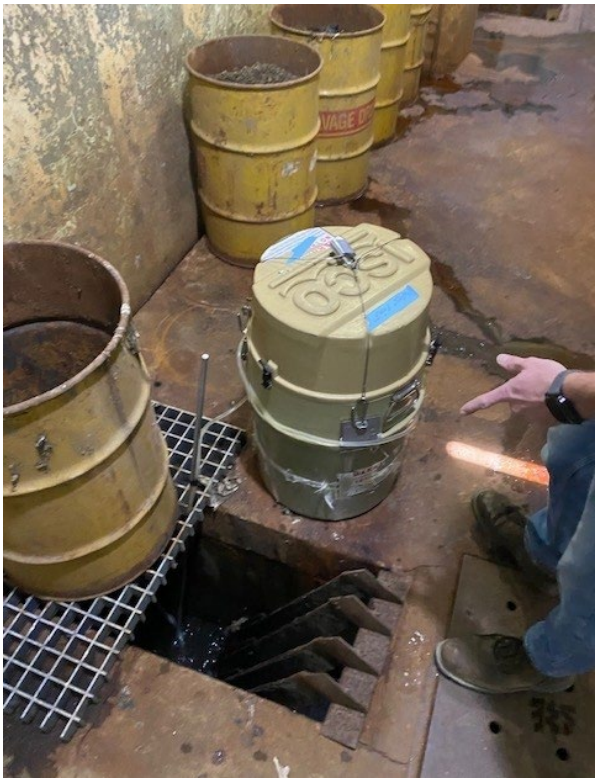


Photo #2: Effluent Outfall 001

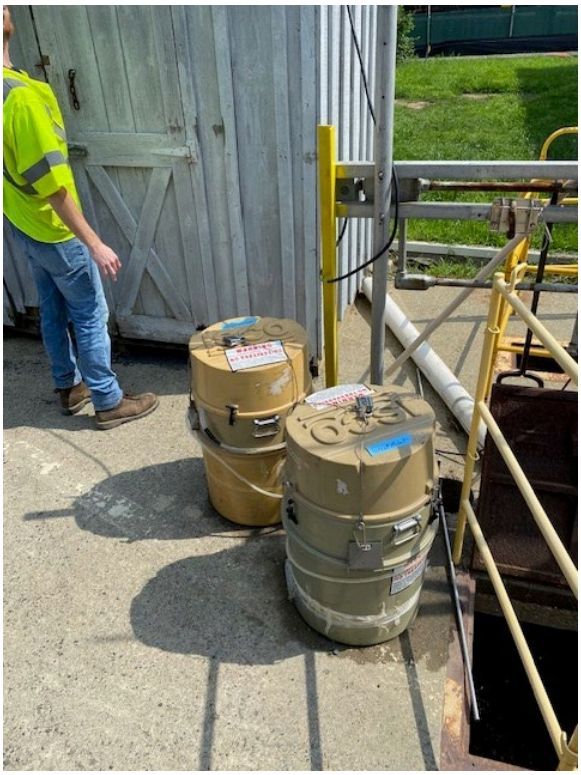


Photo #3: Target Hill Plant

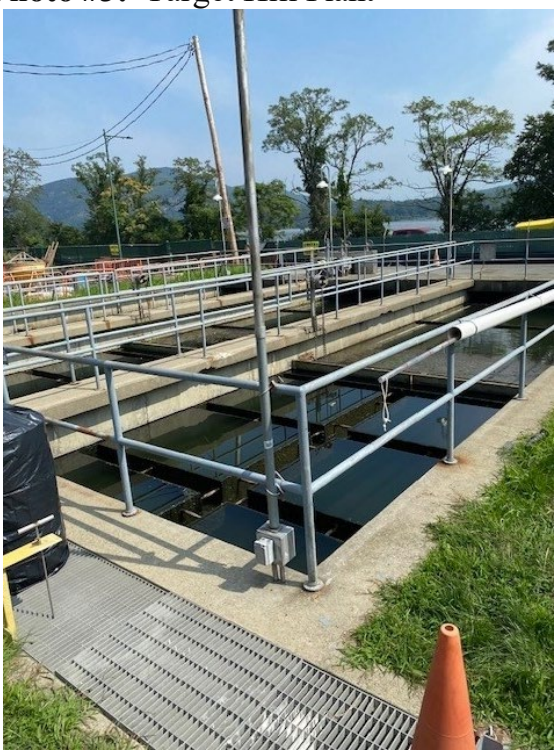
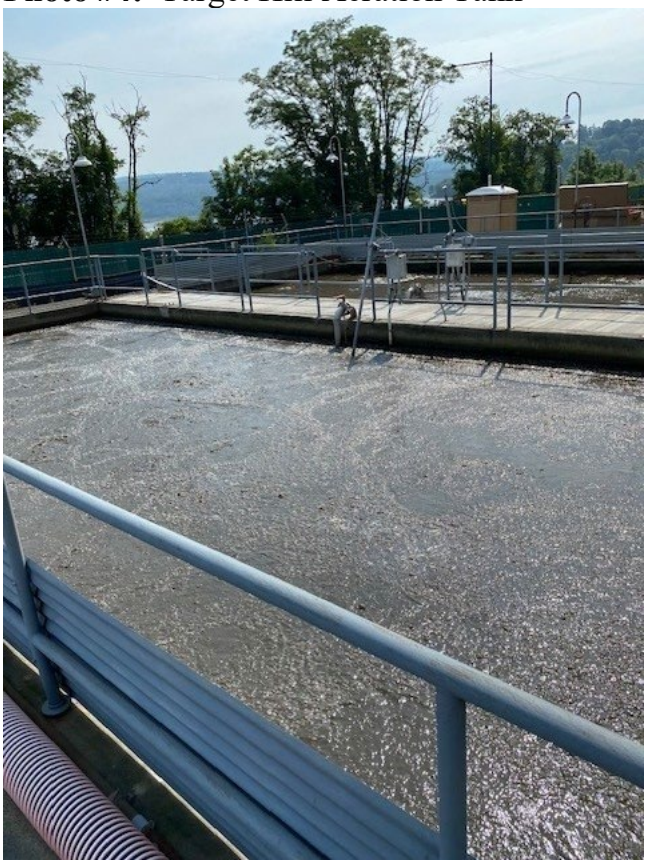


Photo #4: Target Hill Aeration Tank



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory
2890 Woodbridge Avenue
Edison , New Jersey 08837
732-906-6886 Phone
732-906-6165 Fax

August 30, 2023

Neal Johansen
Monitoring & Assessment Branch
LSASD/MAB
Edison, NJ 08837

RE: West Point (Target Hill) - 2308013

Enclosed are the results of analyses for samples received by the laboratory on 08/22/2023. 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 2308013 and contact the laboratory.

Sincerely,

John R. Bourbon
Chief, LSASD/LB

Project Narrative:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report
Project: West Point (Target Hill) - 2308013 Project Number: 2308013

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: Delhi, NY - 2206022
Project Number: 2206022

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
220220630 A I	2206022-01	Aqueous	06/30/2022 10:47	06/30/2022 15:00
220220630 A E	2206022-02	Aqueous	06/30/2022 10:49	06/30/2022 15:00
220220630 CBOD I	2206022-03	Aqueous	06/30/2022 10:50	06/30/2022 15:00
220220630 CBOD E	2206022-04	Aqueous	06/30/2022 10:52	06/30/2022 15:00
220220630 P I	2206022-05	Aqueous	06/30/2022 10:54	06/30/2022 15:00
220220630 P E	2206022-06	Aqueous	06/30/2022 10:56	06/30/2022 15:00
220220630 TSS I	2206022-07	Aqueous	06/30/2022 10:57	06/30/2022 15:00
220220630 TSS E	2206022-08	Aqueous	06/30/2022 10:58	06/30/2022 15:00
220220630 T I	2206022-09	Aqueous	06/30/2022 10:59	06/30/2022 15:00
220220630 T E	2206022-10	Aqueous	06/30/2022 11:00	06/30/2022 15:00
220220630 COL E	2206022-11	Aqueous	06/30/2022 11:02	06/30/2022 15:00

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: West Point (Target Hill) - 2308013

Project Number: 2308013

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
Ammonia [As N]	EPA 350.1 SOP C-80 Rev 2.8	NELAP	Aqueous
Biochemical Oxygen Demand	SM 5210B SOP C-21 Rev 2.8	NELAP	Aqueous
Coliform, Fecal	SM9221B,E / SOP B-8 Rev 2.8	NELAP	Aqueous
Metals ICP TAL NPDES/DW	EPA 200.7 SOP C-109 Rev 3.7	NELAP	Aqueous
Residue, Non-Filterable	SM 2540D SOP C-33 Rev 3.8	NELAP	Aqueous

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: West Point (Target Hill) - 2308013

Project Number: 2308013

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Effluent BOD			**Sample ID: 2308013-01**			
Sanitary						
Biochemical Oxygen Demand	3.78		2.00	mg/L	B308091	08/28/2023 08:13
Field ID: Influent BOD			**Sample ID: 2308013-02**			
Sanitary						
Biochemical Oxygen Demand	174		2.00	mg/L	B308091	08/28/2023 08:13
Field ID: Effluent TSS			**Sample ID: 2308013-03**			
Sanitary						
Total Suspended Solids	10.0		10.0	mg/L	B308106	
Field ID: Influent TSS			**Sample ID: 2308013-04**			
Sanitary						
Total Suspended Solids	49.0		10.0	mg/L	B308106	
Field ID: Effluent Ammonia			**Sample ID: 2308013-05**			
Sanitary						
Ammonia [As N]	18.7		1.00	mg/L	B308117	
Field ID: Effluent Metals			**Sample ID: 2308013-06**			
Metals ICP						
Copper	---	U	10.0	ug/L	B308095	
Lead	---	U	8.00	ug/L	B308095	
Zinc	---	U	20.0	ug/L	B308095	
Field ID: Fecal			**Sample ID: 2308013-07**			
Microbiology, MPN						
Coliform, Fecal	2		1.8	MPN/100 mL	B308085	08/23/2023 13:20

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: West Point (Target Hill) - 2308013

Project Number: 2308013

Metals ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308095									
Blank (B308095-BLK1)									
Copper	--- U	10.0	ug/L						
Lead	--- U	8.00	ug/L						
Zinc	--- U	20.0	ug/L						
LCS (B308095-BS1)									
Copper	199	10.0	ug/L	200.0		99.4	85-115		
Lead	202	8.00	ug/L	200.0		101	85-115		
Zinc	205	20.0	ug/L	200.0		102	85-115		
LCS Dup (B308095-BSD1)									
Copper	195	10.0	ug/L	200.0		97.6	85-115	1.78	20
Lead	199	8.00	ug/L	200.0		99.3	85-115	1.45	20
Zinc	200	20.0	ug/L	200.0		100	85-115	2.25	20
Matrix Spike (B308095-MS1)	**Source: 2308013-06**								
Copper	207	10.0	ug/L	200.0	3.69	102	80-120		
Lead	193	8.00	ug/L	200.0	ND	96.3	80-120		
Zinc	209	20.0	ug/L	200.0	10.2	99.6	80-120		
Matrix Spike Dup (B308095-MSD1)	**Source: 2308013-06**								
Copper	205	50.0	ug/L	200.0	ND	103	80-120	0.892	10
Lead	199	40.0	ug/L	200.0	ND	99.4	80-120	3.23	10
Zinc	207	100	ug/L	200.0	10.2	98.5	80-120	1.01	10

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: West Point (Target Hill) - 2308013

Project Number: 2308013

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308091									
Blank (B308091-BLK1)									
Biochemical Oxygen Demand	--- U	2.00	mg/L						
LCS (B308091-BS1)									
Biochemical Oxygen Demand	179		mg/L	198.0		90.3	84.6-115.4		
LCS (B308091-BS2)									
Biochemical Oxygen Demand	182		mg/L	198.0		92.0	84.6-115.4		
LCS (B308091-BS3)									
Biochemical Oxygen Demand	180		mg/L	198.0		90.8	84.6-115.4		
Duplicate (B308091-DUP1)	**Source: 2308013-01**								
Biochemical Oxygen Demand	3.04	2.00	mg/L		3.78			21.9	25
Matrix Spike (B308091-MS1)	**Source: 2308013-02**								
Biochemical Oxygen Demand	656	2.00	mg/L	396.0	174	122	75-125		
Matrix Spike Dup (B308091-MSD1)	**Source: 2308013-02**								
Biochemical Oxygen Demand	625	2.00	mg/L	396.0	174	114	75-125	4.88	200
Batch B308106									
Blank (B308106-BLK1)									
Residue, Non-Filterable	--- U	10.0	mg/L						
LCS (B308106-BS1)									
Residue, Non-Filterable	90.0	10.0	mg/L	96.70		93.1	85-115		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: West Point (Target Hill) - 2308013

Project Number: 2308013

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B308106									
LCS Dup (B308106-BSD1)									
Residue, Non-Filterable	99.0	10.0	mg/L	96.70		102	85-115	9.52	20
Duplicate (B308106-DUP1)		**Source: 2308013-04**							
Residue, Non-Filterable	45.0	10.0	mg/L		49.0			8.51	20
Duplicate (B308106-DUP2)		**Source: 2308021-01**							
Residue, Non-Filterable	29.0	10.0	mg/L		30.0			3.39	20
Batch B308117									
Blank (B308117-BLK1)									
Ammonia [As N]	--- U	0.100	mg/L						
Blank (B308117-BLK2)									
Ammonia [As N]	--- U	0.100	mg/L						
LCS (B308117-BS1)									
Ammonia [As N]	8.16	0.200	mg/L	8.340		98	90-110		
LCS Dup (B308117-BSD1)									
Ammonia [As N]	8.52	0.200	mg/L	8.340		102	90-110	4	20
Matrix Spike (B308117-MS1)		**Source: 2308013-05**							
Ammonia [As N]	22.4	1.00	mg/L	5.000	18.7	74	90-110		
Matrix Spike (B308117-MS2)		**Source: 2308021-01**							
Ammonia [As N]	5.00	0.100	mg/L	5.000	0.367	93	90-110		

US EPA REGION 2 LABORATORY

CHAIN OF CUSTODY/ FIELD DATA FORM

Page 1 of 1 pages

SURVEY NAME & LOCALITY West Point

PROJECT LEADER ______

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 #:

LAB ID/ FIELD ID	# OF CONT'ERS	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
EFFLUENT BOD	1	A	☐	BOD 5 DAY	☐	0 1 2 3 4 5 6 7 8 9 10	1001	1002	08/22/23
INFLUENT BOD	1	A	☐	BOD 5 DAY	☐	0 1 2 3 4 5 6 7 8 9 10	1002	1003	08/22/23
EFFLUENT TSS	1	A	☐	TSS	☐	0 1 2 3 4 5 6 7 8 9 10	1005	1006	08/22/23
INFLUENT TSS	1	A	☐	TSS	☐	0 1 2 3 4 5 6 7 8 9 10	1011	1012	08/22/23
EFFLUENT AMMONIA	1	A	☐	AMMONIA	☐	0 1 2 3 4 5 6 7 8 9 10	1015	1016	08/22/23
EFFLUENT METALS	1	A	☐	METALS	☐	0 1 2 3 4 5 6 7 8 9 10	1016	1017	08/22/23
FECAL	1	A	☐	FECAL COLIFORM MPN	☐	0 1 2 3 4 5 6 7 8 9 10	1020	1022	08/22/23
			☐		☐	0 1 2 3 4 5 6 7 8 9 10			
			☐		☐	0 1 2 3 4 5 6 7 8 9 10			
			☐		☐	0 1 2 3 4 5 6 7 8 9 10			

COMMENTS & SPECIAL REQUIREMENTS:

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

Matrix:
A=aqueous
B=aqueous (chlorinated)
C=soil
D=sediment
E=sludge
F=multiphasic
G=solvent
H=biota
I=oil
J=other

Survey Complete? Y ☐ N ☐

		Time	Date
	Person Assuming Responsibility for Sample(s): [signature]	1022	08/22/23
Relinquished By: [signature]	Received By: [signature]	13:20	8/22/23
Relinquished By:	Received By:		
Relinquished By:	Received By:		

Direct from sampling, chilling & iced. [initials] 8/22/23

revised 10/25/2004