BROOKHAVEN NATIONAL LABORATORY

2023

Site Environmental Report

GROUNDWATER STATUS REPORT

VOLUME II

SITE ENVIRONMENTAL REPORT
VOLUME II
GROUNDWATER STATUS REPORT

July 26, 2024

Environmental Protection Division
Groundwater Protection Group

Brookhaven National Laboratory
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ACRONYMS AND ABBREVIATIONS

These acronyms and abbreviations reflect the typical manner in which terms are used in Volume II of this document and may not apply to all situations.

AGS	Alternating Gradient Synchrotron	FFA	Federal Facilities Agreement
AOC	Area of Concern	Freon-11	Trichlorofluoromethane
AS/SVE	Air Stripper/Soil Vapor Extraction	Freon-12	Dichlorodifluoromethane
AWQS	NYS Ambient Water Quality Standard	ft	feet
BGD	Below Ground Ducts	ft msl	feet relative to mean sea level
BGRR	Brookhaven Graphite Research Reactor	GAC	granular activated carbon
BLIP	Brookhaven Linac Isotope Producer	gal/hr	gallons per hour
bls	below land surface	gpm	gallons per minute
BMRR	Brookhaven Medial Research Reactor	HFBR	High Flux Beam Reactor
BNL	Brookhaven National Laboratory	HTAC	High Toxicity Air Contaminant
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	HWMF	Hazardous Waste Management Facility
cfm	cubic feet per minute	IAG	Inter-Agency Agreement
CFR	Code of Federal Regulations	ID	identification
Ci	curies	IPE	Industrial Park East
COC	Chain of Custody	lb/gal	pounds per gallon
Co-60	cobalt-60	lb/hr	pounds per hour
CRDL	Contract Required Detection Limit	lbs	pounds
CSF	Central Steam Facility	LIE	Long Island Expressway
DCA	1,1-dichloroethane	Linac	Linear Accelerator
DCE	1,1-dichloroethylene	LIPA	Long Island Power Authority
DCG	Derived Concentration Guide	LISF	Long Island Solar Farm
DAR	Division of Air Resources	mCi	milliCuries
DOE	United States Department of Energy	MCL	Maximum Contaminant Level
DQO	Data Quality Objective	MDC	Minimum Detectable Concentration
DTW	Depth to Water	MDL	Minimum Detection Limit
DWS	Drinking Water Standards	mg/kg	milligrams per kilogram
EDB	ethylene dibromide	mg/L	milligrams per liter
EDD	Electronic Data Deliverable	µg/L	micrograms per liter
EIMS	Environmental Information Management System	MGD	millions of gallons per day
EM	Environmental Management	MPF	Major Petroleum Facility
EMS	Environmental Management System	mrem/yr	millirems per year
EPA	United States Environmental Protection Agency	MS/MSD	Matrix Spike/Matrix Spike Duplicate
EPD	Environmental Protection Division	msl	mean sea level
ER	Emissions Rate	MTBE	methyl tertiary-butyl ether
ERP	Emissions Rate Potential	MW	monitoring well
ES	Environmental Surveillance	Na-22	Sodium-22
ESD	Explanation of Significant Differences	NPL	National Priorities List
EW	extraction well	NSE	North Street East

NSLS-II	National Synchrotron Light Source II	SCWA	Suffolk County Water Authority
NSRL	NASA Space Radiation Laboratory	SDG	Sample Delivery Group
NYCRR	New York Code of Rules and Regulations	SDWA	Safe Drinking Water Act
NYS	New York State	SIM	Selected Ion Monitoring
NYSDEC	New York State Department of Environmental Conservation	SOP	Standard Operating Procedure
NYSDOH	New York State Department of Health	SPCC	Spill Prevention Control and Countermeasures
O&M	Operation and Maintenance	SPDES	State Pollutant Discharge Elimination System
OU	Operable Unit	Sr-90	strontium-90
PCBs	polychlorinated biphenyls	STP	Sewage Treatment Plant
PCE	tetrachloroethylene	SU	standard unit
pCi/L	picoCuries per liter	SVOC	semivolatile organic compound
PFAS	Per- and Polyfluoroalkyl Substances	TCA	1,1,1-trichloroethane
PFOA	Perfluorooctanoic Acid	TCE	trichloroethylene
PFOS	Perfluorooctane Sulfonate	TTA	tolyltriazole
PFS	Pile Fan sump	TVOC	total volatile organic compound
PLC	programmable logic controller	TW	temporary well
QA/QC	Quality Assurance and Quality Control	USGS	United States Geological Survey
RA V	Removal Action V	UST	underground storage tank
RCRA	Resource Conservation and Recovery Act	UVB	Unterdruck-Verdampfer-Brunnen Technology (vacuum vaporizing well)
RHIC	Relativistic Heavy Ion Collider	VOC	volatile organic compound
RI	Remedial Investigation	VP	vertical profile
RI/FS	Remedial Investigation/Feasibility Study	µg/L	micrograms per liter
ROD	Record of Decision	WCF	Waste Concentration Facility
RPD	Relative Percent Difference	WLA	Waste Loading Area
RTW	Recirculating Treatment Well	WMF	Waste Management Facility
RW	remediation well	WSB	Western South Boundary
SBMS	Standards Based Management System	ZVI	Zero Valent Iron
SCDHS	Suffolk County Department of Health Services		

2023 Brookhaven National Laboratory

GROUNDWATER STATUS REPORT

EXECUTIVE SUMMARY

The *2023 Brookhaven National Laboratory (BNL) Groundwater Status Report* is a comprehensive summary of data collected during the 2023 calendar year supplemented with relevant investigation data collected during the first quarter 2024, an evaluation of Groundwater Protection Program performance, and recommendations for program changes. This is the 28th annual groundwater status report issued by BNL. This document examines the performance of the program on a project-by-project basis.

GROUNDWATER RESTORATION (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT – CERCLA)

Table E-1 summarizes the status and progress of groundwater cleanup at BNL under the provisions of CERCLA. As of December 2023, seven volatile organic compound (VOC) groundwater remediation systems were in operation, along with one strontium-90 (Sr-90) treatment system, and two per- and polyfluoroalkyl (PFAS) treatment systems. In 2023, 53 pounds of VOCs were removed from the Upper Glacial and Magothy aquifers by the treatment systems. To date, 7,872 pounds of VOCs have been removed from the aquifers. The Brookhaven Graphite Research Reactor (BGRR) Sr-90 treatment system removed 0.15 milliCuries (mCi) of Sr-90 from the Upper Glacial aquifer in 2023. A total of 34.8 mCi for both the BGRR and Chemical Holes Sr-90 systems were removed since operations began. Since it began operation in October 2022, the Current Firehouse PFAS groundwater treatment system removed approximately 0.34 pounds of PFAS from the Upper Glacial aquifer. Furthermore, the Former Firehouse treatment system which began operations in January 2023, removed a total of 0.17 pounds of PFAS from the Upper Glacial aquifer. Approximately 1.2 billion gallons of groundwater were treated in 2023.

There were 663 monitoring wells and 18 temporary wells sampled as part of the CERCLA Groundwater Monitoring Program, with analytical results from a total of 1,733 groundwater sampling events that were evaluated for this report. Groundwater remediation activities will continue until the cleanup objectives for the plumes are met. The specific goals are as follows:

- Achieve maximum contaminant levels (MCLs) for VOCs in the Upper Glacial aquifer by 2030;
- Achieve MCLs for VOCs in the Magothy aquifer by 2065;
- Achieve the MCL of 8 pico Curies per liter (pCi/L) for Sr-90 at the BGRR in the Upper Glacial aquifer by 2070; and,
- Achieve the MCL of 8 pCi/L for Sr-90 at the Chemical/Animal Holes in the Upper Glacial aquifer by 2040.
- The cleanup goals for PFAS will be determined at the completion of the forthcoming Remedial Investigation/Feasibility Study (RI/FS) and documented in the subsequent OU X Record of Decision (ROD).

The cleanup objectives will be met by a combination of active treatment and monitored natural attenuation. The comprehensive groundwater monitoring program measures remediation progress.

Table E-1.
BNL Groundwater Remediation System Treatment Summary for 1997 – 2023 (Shading indicates closed systems)

	1997 – 2022		2023	
VOC Remediation (start date)	Water Treated (gallons)	VOCs Removed (pounds)(c)	Water Treated (gallons)	VOCs Removed (pounds)(c)
OU I South Boundary (Dec. 1996) (a)	4,177,473,000	369	(Closed)	0
OU III Carbon Tetrachloride (Oct. 1999) (e)	153,538,000	349	Decommissioned	0
OU III Building 96 (Feb. 2001)	608,697,000	147	12,000,000	0.3
OU III Building 452 Freon-11 (March 2012) (a)	124,997,000	106	(Closed)	0
OU III Middle Road (Oct. 2001)	4,085,547,000	1,352	187,000,000	26
OU III South Boundary (June 1997)	5,445,151,000	3,076	69,000,000	8
OU III W. South Boundary (Sept. 2002)	2,515,555,000	200	172,000,000	12
OU III Industrial Park (Sept. 1999)	2,577,662,000	1,077	(Standby)	0
OU III Industrial Park East (May 2004) (f)	357,192,000	38	Decommissioned	0
OU III North Street (June 2004)	1,680,942,000	342	(Closed)	0
OU III North Street East (June 2004) (g)	1,256,798,000	48	112,000,000	2
OU III LIPA/Airport (June 2004)	4,167,145,000	500	173,100,000	5
OU III HFBR Tritium Plume (May 1997) (a)	721,795,000	180	(Closed)	0
OU IV AS/SVE (Nov. 1997)	NA (b)	35	Decommissioned	0
OU VI EDB (August 2004)	2,829,057,000	(d)	130,600,000	(d)
Totals	30,701,549,000	7,819	855,700,000	53.3

	2003 – 2022		2023	
Sr-90 Remediation (start date)	Water Treated (gallons)	Sr-90 Removed (mCi)	Water Treated (gallons)	Sr-90 Removed (mCi)
OU III Chemical Holes (Feb 2003)	65,663,000	4.94	(Shutdown)	0
OU III BGRR (June 2005)	218,603,000	29.7	6,000,000	0.15
Totals	284,266,000	34.64	6,000,000	0.15

	2022		2023	
PFAS Remediation (start date)	Water Treated (gallons)	PFAS Removed (lbs)	Water Treated (gallons)	PFAS Removed (lbs)
OU X Current Firehouse (Oct 2022)	33,000,000	0.08	205,144,000	0.34
OU X Former Firehouse (January 2023)	NA	NA	108,204,000	0.17
Totals	33,000,000	0.08	313,348,000	0.51

Notes:

(a) System was approved for closure in 2019.
(b) Air Sparging/Soil Vapor Extraction (AS/SVE) system performance measured by pounds of volatile organic compounds (VOCs) removed. System was decommissioned in 2003.
(c) Values rounded to the nearest whole number.
(d) Ethylene dibromide (EDB) has been detected in the system influent since 2009 at levels slightly above the standard. Therefore, no removal of VOCs is reported.
(e) System was decommissioned in 2010.
(f) System was decommissioned in 2014.
(g) The North Street East System was restarted in July 2020 for treatment of the EDB plume. Pounds removed in 2020 includes EDB and VOCs.
NA – Not applicable

The locations and estimated extents of the primary VOC and radionuclide plumes, as of the fourth quarter of 2023, are summarized on **Figures E-1** and **E-2**, respectively. The locations and estimated extents of the Current Firehouse/Building 170 and Former Firehouse PFOS plumes are depicted on **Figures E-3** and **E-4**, respectively.

Additional information on the groundwater remediation program is summarized in **Table E-2** below.

INSTITUTIONAL CONTROLS

During 2023, the institutional controls continued to be effective in protecting human health and the environment. In accordance with the *BNL Land Use Controls Management Plan, Rev 5* (BNL, 2022b) institutional controls continued to be implemented for the groundwater remediation program including:

- Groundwater monitoring, including BNL potable supply systems;
- Suffolk County Department of Health Services (SCDHS) performs outpost groundwater monitoring near Suffolk County Water Authority (SCWA) water supply well fields that are closest to the BNL plumes;
- Implementing controls on the installation of new supply wells and recharge basins on BNL property;
- Continuing to offer private well testing (via SCDHS) for those homes in the previously defined hook-up area with private wells used for drinking water on properties that declined the Department of Energy's (DOE's) offer of public water hookups; and
- Maintaining property access agreements for BNL groundwater treatment systems located off the BNL property.

GROUNDWATER STATUS REPORT RECOMMENDATIONS AND HIGHLIGHTS

The data summarized in this report are the basis for optimizing operational and monitoring elements of the cleanup program. A summary of the highlights and significant changes follows below (specific details of which are provided in **Section 5**).

- **OU I South Boundary Treatment System/Former Hazardous Waste Management Facility Sr-90 Plume –**
  - The leading edge of the Sr-90 plume originating from the former Hazardous Waste Management Facility (HWMF) continues to slowly migrate to the south. Sixteen temporary wells were installed to supplement monitoring of the high concentration segments of the plume. The slow migration rate of the plume is consistent with the 2020 groundwater model predictions.
- **OU III Building 96 Treatment System –**
  - Extraction well RTW-1 is currently in a pulsed pumping mode and total volatile organic compound (TVOC) concentrations have remained below the 50 micrograms per liter (μg/L) system capture goal since 2015 in this extraction well. The TVOC concentrations in the source area monitoring well 085-379 continued to exceed the capture goal, with a maximum concentration of 76 μg/L recorded in July.
  - Per a recommendation in the 2021 CERCLA Five-Year Review Report (BNL, 2021b), during 2023 BNL completed plans to inject liquid carbon and zero-valent iron for *in-situ*

treatment of the source area soils. The injections will take place in 2024, followed by continued source area groundwater monitoring.

- **OU III Middle Road/South Boundary Treatment Systems –**
  - Deep Upper Glacial aquifer VOC concentrations in this area of the site are not declining at a rate that will meet the ROD cleanup goal of meeting MCLs by 2030. Per the recommendations in the 2021 CERCLA Five-Year Review Report (BNL 2021b), BNL began performing groundwater modeling simulations to evaluate whether system modifications are appropriate to meet the ROD cleanup goal of achieving MCLs by 2030. The regional groundwater model is currently being updated to support the groundwater modeling effort.
- **OU III Western South Boundary Treatment System –**
  - A significant reduction in deeper VOC contamination has been observed following the installation and operation of four new extraction wells in 2019. Current recommendations include maintaining the four newer extraction wells (WSB-3, WSB-4, WSB-5, and WSB-6) in pulsed pumping mode. WSB-1 will be placed in standby mode as it has achieved its capture goal. WSB-2 will remain in standby as TVOC concentrations in this well remained below the system capture goal.

    Based upon the concentration trends in both the monitoring and extraction wells it is anticipated that this system will have achieved its cleanup goals by the end of 2024 and a Petition for Shutdown will be submitted in 2025.
- **Industrial Park Treatment System –**
  - Plume core well concentrations are below the 50 µg/L capture goal for this system. If TVOC concentrations in the plume core wells remain below the capture goal during the second quarter 2024, a Petition for Closure of the Industrial Park Treatment System will be prepared for submittal to the regulators.
- **OU III North Street East Ethylene Dibromide (EDB) Treatment System –**
  - The two extraction wells (NSE-EDB-EW-03 and NSE-EDB-EW-04) have been effective in reducing EDB concentrations since they became operational in 2020. The extraction wells will be placed in a pulsed pumping mode (one month on and one month off) beginning in May 2024. A petition for system shutdown will be prepared for regulatory submittal if EDB concentrations remain below the DWS through the third quarter of 2024.
- **LIPA/Airport Treatment System –**
  - A petition for closure of the LIPA system is awaiting regulatory approval. A post closure monitoring program will be implemented in 2024.
- **BGRR/WCF Sr-90 Treatment System –**
  - For 2024, wells SR-1 and SR-2 will remain in full-time mode. Wells SR-3, SR-4, SR-5, SR-6, SR-7, SR-8, and SR-9 will remain in standby mode.
  - Operation of SR-3 will resume if significant Sr-90 concentration increases are observed in source area monitoring well 075-701. Monitoring results for well 075-701 will be used to determine whether the significant water table increase observed during the first quarter of 2024 will result in increased Sr-90 concentrations.

- **Operable Unit VI EDB Treatment System –**
  - Continue operation of the two new extraction wells (EW-3E and EW-4E) and conduct an aquifer pumping test to evaluate the vertical and horizontal capture zone of the new wells on the EDB plume.
- **g-2 Tritium Source Area –**
  - During 2023, tritium concentrations in g-2 source area monitoring wells were below the 20,000 pCi/L DWS, with a maximum concentration of 11,900 pCi/L.
- **BLIP Facility –**
  - Tritium concentrations in the Brookhaven Linac Isotope Producer (BLIP) facility monitoring wells have been less than the 20,000 pCi/L DWS since 2006. During 2023, tritium was detected at a maximum concentration of 1,890 pCi/L.
- **Operable Unit X PFOS, PFOA, and 1,4-Dioxane –**
  - During 2023, both of the PFAS groundwater treatment systems were in full-time operation. The Current Firehouse/Building 170 treatment system began operations in October 2022 whereas the Former Firehouse treatment system began operations in January 2023. Monitoring results indicate the granular activated carbon (GAC) filters are effectively removing PFAS from the extracted groundwater. Monitoring results indicate that the effluent complies with the NYS discharge standards for perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA), and 1,4-dioxane.
  - During 2023, a network of 77 wells was used to monitor the Current Firehouse and Building 170 PFAS plumes, and 42 wells were used to monitor the Former Firehouse PFAS plume. The monitoring results were consistent with data from the temporary wells that had been used to characterize the plumes.
  - Permanent wells were used to monitor PFAS and 1,4-dioxane in the southwest portion of the BNL site that is within the source water contributing area for the SCWA William Floyd Well Field. Low levels of PFOS and PFOA were detected in several of the wells, with maximum concentrations of 14 ng/L and 7.2 ng/L, respectively. During 2023, 1,4-dioxane was not detected in any of the monitoring wells.

FACILITY MONITORING

BNL's Facility Monitoring Program includes groundwater monitoring at eight active research facilities (e.g., accelerator facilities) and support facilities (e.g., fuel storage and waste management facilities). Monitoring conducted at the BLIP is used to verify the effectiveness of required CERCLA corrective actions. During 2023, groundwater samples were collected from 108 wells during 141 individual sampling events.

Highlights of the Facility Monitoring Program are as follows:

- Monitoring conducted at BNL's major accelerator facilities (e.g., Alternating Gradient Synchrotron (AGS), Relativistic Heavy Ion Collider (RHIC), National Synchrotron Light Source-II (NSLS-II), and BLIP) has not identified any new impacts to groundwater quality.
- Monitoring conducted at BNL's major support facilities (e.g., Waste Management Facility (WMF), Major Petroleum Facility (MPF), Sewage Treatment Plant (STP), and Motor Pool) has not identified any new impacts to groundwater quality.

Table E-2.
Groundwater Remediation Progress (Shading indicates closed systems)

Project	Target	Mode	Treatment Type	Expected System Shutdown	Highlights
OU I					
OU I South Boundary (RA V)	VOCs	Closed	Pump and Treat (P&T) with Air Stripping (AS)	2013 (Actual)	No rebound in VOC concentrations has been observed. Petition for Closure approved in Sept. 2019.
Current Landfill	VOCs tritium	Long Term Monitoring & Maintenance	Landfill capping	NA	VOCs and metals are detected at low levels immediately downgradient of the landfill.
Former Landfill	VOCs Sr-90 tritium	Long Term Monitoring & Maintenance	Landfill capping	NA	No longer a continuing source of contaminants to groundwater.
Former HWMF	Sr-90	Long Term Monitoring & Maintenance	Monitoring	NA	Continue to track higher Sr-90 concentrations migrating south from FHWMF.
OU III					
Chemical/Animal Holes	Sr-90	Standby	P&T with ion exchange (IE)	2018 (Actual)	Petition for Shutdown approved, and system shut down in July 2018. Monitoring indicates no significant rebound of Sr-90 concentrations.
Carbon Tetrachloride former source area	VOCs (carbon tetra-chloride)	Decommis-sioned	P&T with carbon	2009 (Actual)	Treatment system was decommissioned in 2010.
Building 96	VOCs	Operational (RTW-2, RTW-3 and RTW-4 in standby)	Recirculation wells with AS for 3 of 4 wells. RTW-1 is P&T with AS.	2025	RTW-1 continued in pulsed pumping mode during 2023. Will perform *in-situ* source area treatment using liquid carbon with zero valent iron in 2024.
Building 452	VOCs (Freon-11)	Closed	P&T with AS	2017 (Actual)	Petition for Closure approved in August 2019.
South Boundary	VOCs	Operational (EW-3, EW-4, EW-5, EW-6, EW-7, EW-8 and EW-12 on standby)	P&T with AS	2029 (Under Evaluation)	Extraction well EW-17 is capturing deep VOCs at site boundary and is the only operational extraction well. Deeper VOC concentrations continue to exhibit little change. Plume migration towards extraction wells is slower than anticipated which will impact the system shutdown timeframe. An evaluation of system modifications as recommended in the 2021 CERCLA 5-Year Review are underway.
Middle Road	VOCs	Operational (RW-1, RW-4, RW-5, and RW-6 on standby)	P&T with AS	2029 (Under Evaluation)	Monitoring persistent elevated deep VOCs south of Princeton Avenue. Plume migration towards the extraction wells is slower than anticipated which will impact the system shutdown timeframe. An evaluation of system modifications as recommended in the 2021 CERCLA 5-Year Review are underway.

Project	Target	Mode	Treatment Type	Expected System Shutdown	Highlights
OU III (cont.)					
Western South Boundary	VOCs	Operational (WSB-2 on standby) Pulsed WSB- 1 through 6	P&T with AS	2025	VOC concentrations in the four new extraction wells have met system capture goals and have begun pulsed pumping. WSB-1 has met system capture goal and placed in standby mode.
Industrial Park	VOCs	Standby	In-well stripping and P&T with carbon	2025	All extraction wells have been in standby since July 2019 due to VOCs below capture goals.
Industrial Park East	VOCs	Decommissi-oned	P&T with carbon	2009 (Actual)	Treatment system was decommissioned in 2014.
North Street	VOCs	Closed	P&T with carbon	2013 (Actual)	A Petition for Closure was approved in March 2020.
North Street East	VOCs EDB	Closed (VOCs) Operational (EDB)	P&T with carbon	2014 (Actual for VOCs) 2025 (EDB)	VOC system closed in 2020. EDB plume extraction wells have achieved system capture goals and recommended for pulsed pumping mode.
Long Island Power Authority (LIPA)	VOCs	Standby	P&T with carbon	2017 LIPA (Actual)	LIPA extraction wells in standby mode. A petition for closure is awaiting regulatory approval.
Airport	VOCs	RTW-2A, RTW-3A and RTW-5A on standby	P&T and recirculation wells with carbon	2028 Airport	Persistently elevated VOCs in upgradient monitoring wells along Crestwood Drive may impact Airport system shutdown.
HFBR Tritium	Tritium	Closed	Pump and recharge	2012 (Actual)	A Petition for Closure was approved in March 2019. Ten wells continue to monitor the HFBR.
BGRR/Waste Concentration Facility (WCF)	Sr-90	Operational (Standby: SR-3, SR-4, SR-5, SR-6, SR-7, SR-8 SR-9)	P&T with IE	2026	BGRR source area Sr-90 concentrations remained low in 2023. Elevated Sr-90 was detected in well 065-169 (11/23) immediately south of Building 801.
OU IV					
OU IV AS/SVE system	VOCs	Decommissioned	Air sparging/ soil vapor extraction	2003 (Actual)	System decommissioned in 2003.
Building 650 Sump Outfall	Sr-90	Long Term Monitoring	Monitored Natural Attenuation (MNA)	NA	Sr-90 plume continues to attenuate as expected.
OU V					
STP	VOCs, tritium	Completed	MNA	NA	Monitoring completed in 2014.

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1.0 INTRODUCTION AND OBJECTIVES

The mission of BNL's Groundwater Protection Program is to protect and restore the aquifer system at BNL. The program is built on four key elements:

- Pollution prevention: Preventing the potential pollution of groundwater at the source.
- Restoration: Restoring groundwater that has been affected at the BNL site.
- Monitoring: Monitoring the effectiveness of pollution-prevention efforts, as well as progress in restoring the quality of affected groundwater.
- Communication: Communicating the findings and results of the program to regulators and stakeholders.

The *BNL 2023 Groundwater Status Report* is a comprehensive summary of groundwater data collected in the calendar year 2023 that provides an interpretation of information on the performance of the Groundwater Protection Program. This is the 28th annual groundwater status report issued by BNL. This document examines the performance of the program on a project-by-project basis.

How to Use This Document. This document is a detailed technical report that includes analytical laboratory data, as well as data interpretations conducted by BNL's Groundwater Protection Group. This document can also be obtained through BNL's website. Data are presented in four key subject areas:

- Improvements to the understanding of the hydrogeologic environment and surrounding areas.
- Progress in cleaning contaminated groundwater.
- Identification of any new impacts to groundwater quality due to BNL's active operations.
- Proposed changes to the groundwater protection program.

This document satisfies BNL's requirement to report groundwater data under the Interagency Agreement (IAG), the Department of Energy's (DOE's) reporting requirements, and partially fulfills the commitment of the Groundwater Protection Program to communicate the program's findings and progress to regulators and stakeholders.

Section 1 discusses the regulatory requirements of the data collection work in 2023, the site's groundwater classification, and the objectives of groundwater monitoring. **Section 2** discusses the hydrogeologic environment at BNL and its surrounding area. It also summarizes the dynamics of the groundwater flow system in 2023. In **Section 3**, the groundwater cleanup data and progress towards achieving the site's cleanup goals are described. **Section 4** outlines the groundwater surveillance data used to verify that operational and engineered controls are preventing further contamination from BNL's active experimental and support facilities. **Section 5** is a summary of the proposed recommendations to the Groundwater Protection Program identified in **Sections 3** and **4**.

Appendices A and **B** include hydrogeologic data that support the discussions in **Section 2**. **Appendix C** contains the analytical results for each sample obtained under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) program. **Appendix D** contains analytical results for each sample obtained under the Facility Monitoring program. Due to the volume of these data, the report appendices are provided via a SharePoint site, which significantly reduces the size of this report in printed format. **Appendix E** contains information on sample collection, analysis, and Quality Assurance/Quality Control (QA/QC). **Appendix F** consists of data supporting the remediation system discussions in **Section 3**. **Appendix G** is a compilation of data usability report forms. In addition to the appendices, this entire report is provided via SharePoint with active links to tables and figures.

1.1 GROUNDWATER MONITORING REPORT

1.1.1 Regulatory Requirements

Activities at BNL are driven by federal and state regulations as well as DOE Orders.

CERCLA

On December 21, 1989, BNL was included on the National Priorities List (NPL) of contaminated sites identified for priority cleanup. DOE, the United States Environmental Protection Agency (EPA), and the New York State Department of Environmental Conservation (NYSDEC) created a comprehensive Federal Facilities Agreement (FFA) that integrated DOE's response obligations under CERCLA, the Resource Conservation and Recovery Act (RCRA), and New York State hazardous waste regulations. The FFA, also known as the IAG, was finalized and signed by these parties in May 1992, and included a requirement for groundwater monitoring (U.S. EPA, 1992).

New York State Regulations, Permits, and Licenses

The monitoring programs for the Current Landfill and Former Landfill are designed in accordance with post-closure Operation and Maintenance requirements specified in 6 NYCRR (New York Code of Rules and Regulations) Part 360, Solid Waste Management Facilities.

BNL's MPF is operated under NYSDEC Bulk Petroleum Storage License No. 01-1700. This license requires BNL to routinely monitor the groundwater. Together with approved engineering controls, the groundwater monitoring program verifies that storage operations for bulk fuel have not degraded the quality of the groundwater. The engineered controls and monitoring program for the MPF are described in the *BNL Spill Prevention, Control and Countermeasure Plan* (BNL 2021d).

BNL's WMF is a hazardous waste storage facility operated under NYSDEC RCRA Part B Permit No. 1-4722-00032/00102-0. The permit requires groundwater monitoring as a secondary means of verifying the effectiveness of the facility's administrative and engineered controls.

BNL's State Pollution Discharge Elimination System (SPDES) permit (NY0005835) requires the collection of annual groundwater samples in the vicinity of the STP's recharge basins.

DOE Orders

BNL conducts groundwater monitoring at active research and support facilities in accordance with the environmental surveillance requirements defined in DOE Order 458.1, Radiation Protection of the Public and the Environment and DOE Order 436.1A, Departmental Sustainability. Groundwater monitoring is conducted to: characterize pre-operational conditions; to detect, characterize, and respond to contaminant releases from site operations and activities; evaluate dispersion and attenuation patterns; and to characterize the potential pathways of exposure to members of the public.

1.1.2 Groundwater Quality and Classification

In Suffolk County, drinking water supplies are obtained exclusively from groundwater aquifers (e.g., the Upper Glacial aquifer, the Magothy aquifer, and, to a limited extent, the Lloyd aquifer). In 1978, EPA designated the Long Island aquifer system as a sole source aquifer pursuant to Section 1424(e) of the Safe Drinking Water Act (SDWA). Groundwater in the sole source aquifers underlying the BNL site is classified as "Class GA Fresh Groundwater" by the State of New York (6 NYCRR Parts 700–705); and considers the best usage of Class GA groundwater as a source of potable water. Accordingly, in establishing the goals for protecting and remediating groundwater, BNL follows federal DWS, New York State (NYS) DWS (also known as MCLs), and NYS Ambient Water Quality Standards (AWQS) for Class GA groundwater.

For drinking water supplies, the applicable federal MCLs are set forth in 40 CFR (Code of Federal Regulations) 141 (for primary MCLs) and 40 CFR 143 (for secondary MCLs). In New York State, the SDWA requirements relating to the distribution and monitoring of public water supplies are promulgated under the NYS Sanitary Code (10 NYCRR Part 5), enforced by the SCDHS as an agent for the New York State Department of Health (NYSDOH). These regulations apply to any water supply that has at least five service connections or that regularly serves at least 25 individuals. BNL supplies water to approximately 3,000 employees and visitors, and therefore must comply with these regulations. In addition, DOE Derived Concentration Guides (DCGs) are used for radionuclides not covered by existing federal or state regulations (DOE 2021). On August 26, 2020, NYS formally adopted MCLs of 10 ng/L for PFOS and PFOA and 1.0 µg/L for 1,4-dioxane. Furthermore, in 2023, NYS released Final Ambient Water Quality Guidance Values of 2.7 ng/L and 6.7 ng/L for PFOS and PFOA, respectively, and 0.35 µg/L for 1,4-dioxane. These Guidance Values were also incorporated into the effluent requirements for SPDES permitted facilities.

BNL evaluates the potential impact of radiological and non-radiological levels of contamination by comparing analytical results to NYS and DOE reference levels. Non-radiological data from groundwater samples collected from surveillance wells usually are compared to NYS AWQS (6 NYCRR Part 703.5). Radiological data are compared to the DWS for tritium, Sr-90, gross beta, gross alpha, radium-226, and radium-228; and the 40 CFR 141/DOE DCGs for determining the 4 millirems per year (mrem/yr.) dose for other beta- or gamma-emitting radionuclides.

Tables 1-1, 1-2, 1-3, and **1-4** show the regulatory and DOE "standards, criteria, and guidance" used for comparisons to BNL's groundwater data.

1.1.3 Monitoring Objectives

Groundwater monitoring is driven by regulatory requirements, DOE Orders, best management practice, and BNL's commitment to environmental stewardship. BNL monitors its groundwater resources for the following reasons:

Groundwater Resource Management

- To support initiatives in protecting, managing, and remediating groundwater by refining the conceptual hydrogeologic model of the site and maintaining a current assessment of the dynamic patterns of groundwater flow and water-table fluctuations.
- To determine the natural background concentrations for comparative purposes. The site's background wells provide information on the chemical composition of groundwater that has not been affected by BNL's activities. These data are a valuable reference for comparison with the groundwater quality data from affected areas. The network of wells also can warn of any contaminants originating from potential sources that may be located upgradient of the BNL site.
- To ensure that potable water supplies meet all regulatory requirements.

Groundwater Facility Monitoring

- Determine pre-operational/baseline groundwater quality at new facilities.
- To verify that administrative and engineered controls effectively prevent groundwater contamination.
- To demonstrate compliance with applicable DOE and regulatory requirements for protecting groundwater resources.

1.1.4 Groundwater - CERCLA Monitoring

Groundwater monitoring for the CERCLA program is conducted for the following:

- To track a dynamic groundwater cleanup problem when designing, constructing, and operating treatment systems.
- To measure the performance of the groundwater remediation efforts in achieving cleanup goals.
- To protect public health and the environment during the cleanup period.
- To define the extent and degree of groundwater contamination.
- To provide early warning of the arrival of a leading edge of a plume, which could trigger contingency remedies to protect public health and the environment.

The details of the monitoring program are described in the *BNL 2023 Environmental Monitoring Plan* (BNL, 2023g). This plan includes a description of the source area, description of groundwater quality, criteria for selecting locations for groundwater monitoring, and the frequency of sampling and analysis. **Figure 1-1** highlights BNL's operable unit (OU) locations designated as part of the CERCLA program, and Areas of Concern (AOCs). Details on the sampling parameters, frequency, and analysis by well are listed in **Tables 1-5** and **1-6**. Screen zone, total depth, and ground surface elevations are summarized in **Table 1-7**. **Figure 1-2** shows the locations of wells monitored as part of the Laboratory's groundwater protection program. BNL's CERCLA groundwater monitoring has been streamlined into five general phases **(Table 1-8)**:

Start-up Monitoring

A quarterly sampling frequency is implemented on all wells for a period of two years. This sampling frequency provides sufficient data while the system's operation is in its early stages.

Operations and Maintenance (O&M) Monitoring

This is a period of reduced monitoring during the time when the system is in a routine operational state. The time frame for each system varies. This phase is also utilized for several plume monitoring programs not requiring active remediation.

Shutdown Monitoring

This is a two-year period of monitoring implemented prior to petitioning for system shut down. The increased sampling frequency provides the necessary data to support the shutdown petition.

Standby Monitoring

This is a period of reduced monitoring following system shutdown. The time frame for each system varies but is typically up to a five-year duration to identify any potential rebounding of contaminant concentrations. If no significant rebound is observed during this time, the petition for closure and decommissioning of the system is recommended.

Post Closure Monitoring

This is a monitoring period of varying length for approximately 20 percent of the key wells in a given project following system closure. Monitoring continues until the ROD goal of meeting MCLs for VOCs in the Upper Glacial aquifer is reached. This is expected to occur by 2030. This phase is considerably longer for the Magothy and Sr-90 cleanups due to greater length of time to reach MCLs required for those projects.

BNL uses a structured Data Quality Objective (DQO) process to continually review and refine the

groundwater monitoring and remediation projects. The results of the DQO reviews are documented annually in updates to the 2023 *BNL Environmental Monitoring Plan* (BNL, 2023g).

Modifications are implemented to specific wells to adjust sample frequencies or parameters in order to account for changing conditions or unexpected results. These modifications may temporarily alter the monitoring of a well from specifications associated with the general phase of monitoring stated for that well.

Table 1-8. CERCLA Groundwater Monitoring Program – Typical Well Sampling Frequency.

Project Activity Phase	Well Type	Phase Duration (yrs.)	Sampling Freq. (events/yr.)****
Start-up Monitoring	Plume Core	2	4x
	Plume Perimeter	2	4x
	Sentinel/Bypass	2	4x
O&M Monitoring	Plume Core	End Start-up to Shutdown*	2x
	Plume Perimeter	End Start-up to Shutdown*	2x
	Sentinel/Bypass	End Start-up to Shutdown*	4x
Shutdown Monitoring	Plume Core	2	4x
	Plume Perimeter	2	4x
	Sentinel/Bypass	2	4x
Standby Monitoring	Key Plume Core	5	2x
	Plume Perimeter	5	1x
	Sentinel/Bypass	5	2x
Post Closure Monitoring***	20% of key wells	Up To 2030**	1x

Notes:
*- Varies by project, see Table 1-5.
** - Magothy: 2065, BGRR Sr-90: 2070, South Boundary Rad: 2038, Chem Holes Sr-90: 2040
*** - Verification monitoring for achieving MCLs.
****- Sr-90 monitoring projects use approximately half the defined sampling frequency.

The groundwater monitoring well networks for each program are organized into background, core, perimeter, bypass, and sentinel wells. The wells are designated as follows:

- Background –water quality results will be used to determine upgradient water quality
- Plume Core – utilized to monitor the high concentration or core area of the plume
- Perimeter – used to define the outer edge of the plume both horizontally and vertically
- Bypass – used to determine whether plume capture performance is being met
- Sentinel – An early warning well to detect the leading edge of a plume.

1.2 PRIVATE WELL SAMPLING

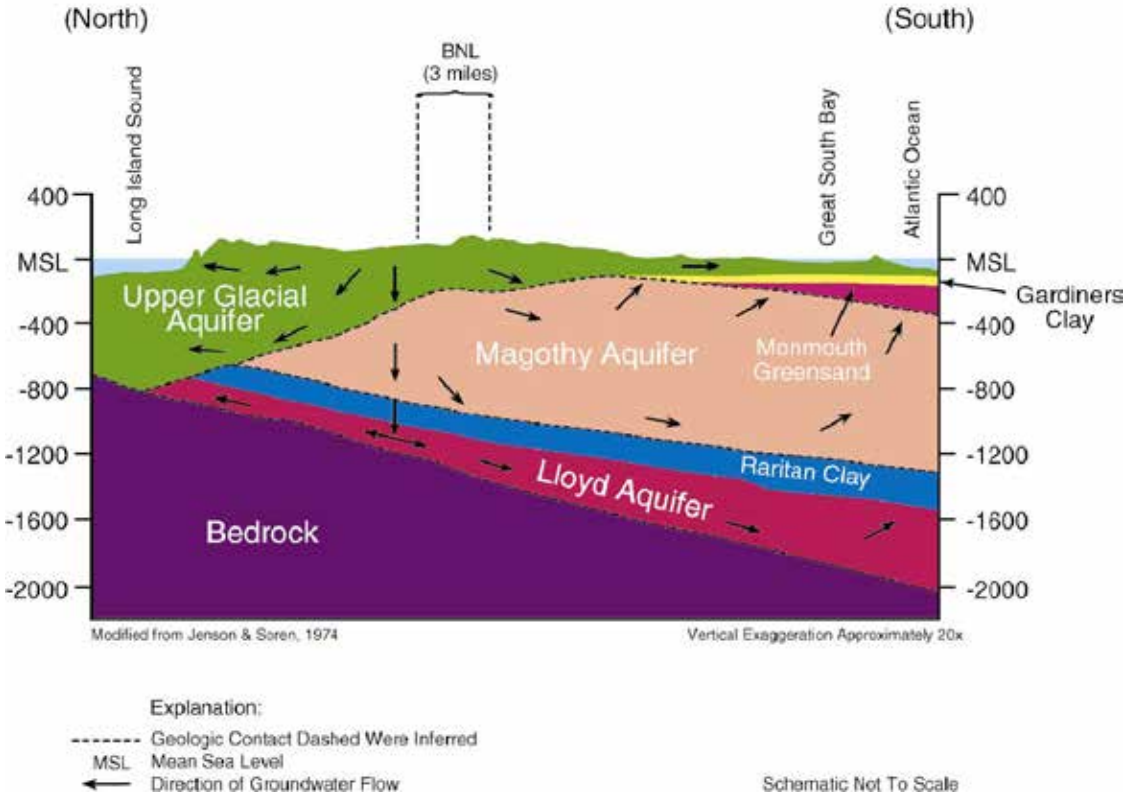
In accordance with the OU III and OU VI RODs, DOE formally offers the property owners that previously declined DOE's offer of public water hookups, free testing of their private drinking water wells on an annual basis. SCDHS coordinates and performs the sampling and analysis. During 2023, there were four residences within the defined hook-up area south and east of BNL who continue to use their private wells for drinking water purposes. In December 2023, all four homeowners had their wells sampled. One home also had their private and agricultural well tested. In addition to the routine analyses typically performed, the wells were also analyzed for six PFAS compounds and 1,4-dioxane.

2.0 HYDROGEOLOGY

This section briefly describes the hydrogeologic environment at BNL and the surrounding area. It also summarizes the dynamics of the groundwater flow system in 2023, along with on-site pumping rates and rainfall recharge.

Detailed descriptions of the aquifer system underlying BNL and the surrounding areas are found in the U.S. Geological Survey (USGS) report by Scorca and others (1999), *Stratigraphy and Hydrologic Conditions at the Brookhaven National Laboratory and Vicinity, Suffolk County, New York, 1994–97,* and the USGS report by Wallace deLaguna (1963), *Geology of Brookhaven National Laboratory and Vicinity, Suffolk County, New York.* The stratigraphy below BNL consists of approximately 1,300 feet of unconsolidated deposits overlying bedrock (**Figure 2-1**). The current groundwater monitoring program focuses on groundwater quality within the Upper Pleistocene deposits (Upper Glacial aquifer), and the upper portions of the Matawan Group-Magothy Formation (Magothy aquifer).

Figure 2-1.
Generalized Geologic Cross Section in the Vicinity of Brookhaven National Laboratory.



The Pleistocene deposits are about 100–200 feet thick and are divided into two primary hydrogeologic units: undifferentiated sand and gravel outwash and moraine deposits, and the finer-grained, more poorly sorted Upton Unit. The Upton Unit makes up the lower portion of the Upper Glacial aquifer beneath several areas of the site. It generally consists of fine- to medium-grained white to greenish sand with interstitial clay. In addition to these two major hydrogeologic units, there are several other distinct hydrogeologic units within the Upper Glacial aquifer. They include localized, near-surface clay layers in the vicinity of the Peconic River (including the STP area), and reworked Magothy deposits that characterize the base of the aquifer in several areas. The Gardiners Clay is a regionally defined geologic unit that is discontinuous beneath BNL and areas to the south. Typically, it is characterized by variable amounts of green silty clay, sandy and gravelly green clay, and clayey silt. Where it exists, the Gardiners Clay acts as a confining or

semi-confining unit that impedes the vertical flow and migration of groundwater between the Upper Glacial aquifer and the underlying Magothy aquifer.

The Magothy aquifer is composed of Cretaceous aged continental deltaic deposits. The Magothy aquifer at BNL is approximately 800 feet thick, and because it is composed of fine sand interbedded with silt and clay, it is generally less permeable than the Upper Glacial aquifer. The Magothy aquifer is highly stratified. Of particular importance at BNL is that the upper portion of the Magothy contains extensive, locally continuous layers of grey-brown clay (referred to herein as the Magothy Brown Clay). Regionally, the Magothy Brown Clay is not interpreted as being continuous; however, beneath BNL and adjacent off-site areas, it acts as a confining unit (where it exists), impeding the vertical flow and movement of groundwater between the Upper Glacial and Magothy aquifers.

Regional patterns of groundwater flow near BNL are influenced by natural and artificial factors. **Figure 2-2** shows the locations of pumping wells and recharge basins. Under natural conditions, recharge to the regional aquifer system is derived solely from precipitation. A regional groundwater divide exists immediately north of BNL near Route 25. It is oriented roughly east–west and appears to coincide with the centerline of a regional recharge area. Groundwater north of this divide flows northward, ultimately discharging to the Long Island Sound (**Figure 2-1**). Shallow groundwater in the BNL area generally flows to the south and east. During high water-table conditions, groundwater can discharge into local surface water bodies such as the Peconic River and adjacent ponds. The BNL site is within a regional deep-flow recharge area, where downward flow helps to replenish the deep sections of the Upper Glacial aquifer, the Magothy aquifer, and the Lloyd aquifer. South of BNL, groundwater flow becomes more horizontal and ultimately flows upward as it moves toward regional discharge areas such as the Carmans River and Great South Bay. Superimposed on the natural regional field of groundwater flow are the artificial influences due to pumping and recharge operations.

2.1 HYDROGEOLOGIC DATA

Various hydrogeologic data collection and summary activities were undertaken as part of the 2023 Groundwater Protection Program to evaluate groundwater flow patterns and conditions. This work is described in the following sections and includes the results of groundwater elevation monitoring, information on pumping and recharging activities on-site and off-site, and precipitation data.

2.1.1 Groundwater Elevation Monitoring

Synoptic water levels are obtained from a network of on-site and off-site wells screened within the shallow section of the Upper Glacial aquifer. These data are used to characterize the groundwater flow-field (direction and rate) and to evaluate seasonal and artificial variations in flow patterns.

The synoptic water-level measurement event for this report was conducted during August 21-25, 2023 using approximately 225 on-site and off-site wells. Water levels were measured with electronic water-level indicators following the BNL *Environmental Monitoring Standard Operating Procedure* EM-SOP-300. **Appendix A** provides the depth-to-water measurements and the calculated groundwater elevations for these measurements. Monitoring results for long-term and short-term hydrographs for select wells are discussed in **Section 2.2**. The overall water table elevation declined by approximately two-feet between 2022 and 2023.

2.1.2 Pumpage of On-Site Water Supply and Remediation Wells

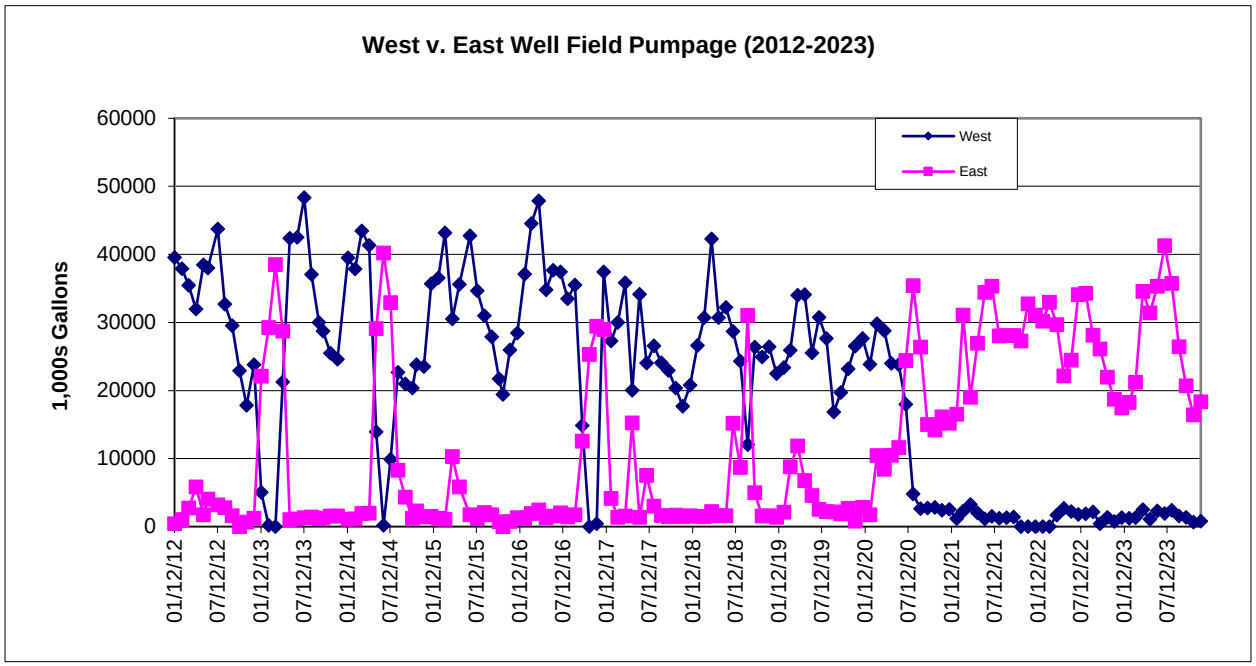
BNL has six water supply wells to provide potable and process cooling water, and 87 treatment wells used for the remediation of contaminated groundwater. All six water supply wells are screened entirely within the Upper Glacial aquifer. Thirty-two of the 87 treatment wells were in operation at some period in 2023

either in full-time operation or in pulsed pumping mode (**See Table 3.0-1**). The location and operational status of the treatment wells (full time operation, pulsed pumping, standby/off) and treatment systems (operating, shut down, decommissioned) are shown on **Figure 3.0-1**. **Figure 2-2** shows the locations of the water supply and remediation wells. The effects that the groundwater withdrawals have on the aquifer system are discussed in **Section 2.2**.

Table 2-1 provides the monthly and total water usage for 2023 for potable supply wells BNL-7, BNL-10, BNL-11 and BNL-12. It includes information on each wells screened interval and pumping capacity. The variation in monthly pumpage reflects changes in water demand, and maintenance schedules for the water supply system. The western potable well field includes wells BNL-4, BNL-6, and BNL-7; and the eastern field currently includes wells BNL-10, BNL-11 and BNL-12. Although eastern supply well BNL-12 had been out of service since October 2008. This well was placed back into operation in April 2022. For the past 11 years, supply well BNL-4 has been taken out of service due to low yield resulting from age and iron fouling of the screen. Its future use will be further restricted due to its proximity to BNL's Current Firehouse, which has been identified as a significant source of PFAS contamination. In June 2018, the use of supply well BNL-6 was also suspended due to the detection of PFAS chemicals PFOS and PFOA, with PFOS concentrations exceeding the NYS DWS of 10 ng/L that was established in August 2020.

Figure 2-3 below summarizes monthly pumpage for the eastern and western well fields.

Figure 2-3.
Summary of Monthly Supply Well Pumpage from the BNL Eastern and Western Well Fields 2012 through 2023.



Since 1999, the implementation of effective water conservation measures has resulted in a significant reduction in the amount of water pumped from the aquifer. During 2023, a total of 335 million gallons of water were withdrawn from the aquifer by BNL's potable supply wells. **Table 2-2** summarizes the 2023 monthly water pumpage for the groundwater remediation systems. Additional details on groundwater remediation system pumping are provided in **Section 3** of this report.

2.1.3 Off-Site Water Supply Wells

Several SCWA well fields are in the vicinity of BNL. The William Floyd Parkway Well Field is west/southwest of BNL (see **Figure 2-2**) and consists of three water supply wells that withdraw groundwater from the mid to deep Upper Glacial aquifer. The Country Club Drive Well Field is south/southeast of BNL and consists of three water supply wells that withdraw groundwater from the mid-section of the Upper Glacial aquifer. Pumpage information for 1989 through 2023 is provided as **Figure 2-4.** In 2023, the William Floyd Parkway and Country Club Drive Well Fields produced 635 and 403 million gallons for the year, respectively. The Lambert Avenue Well Field, located south of BNL, produced 485 million gallons for the year.

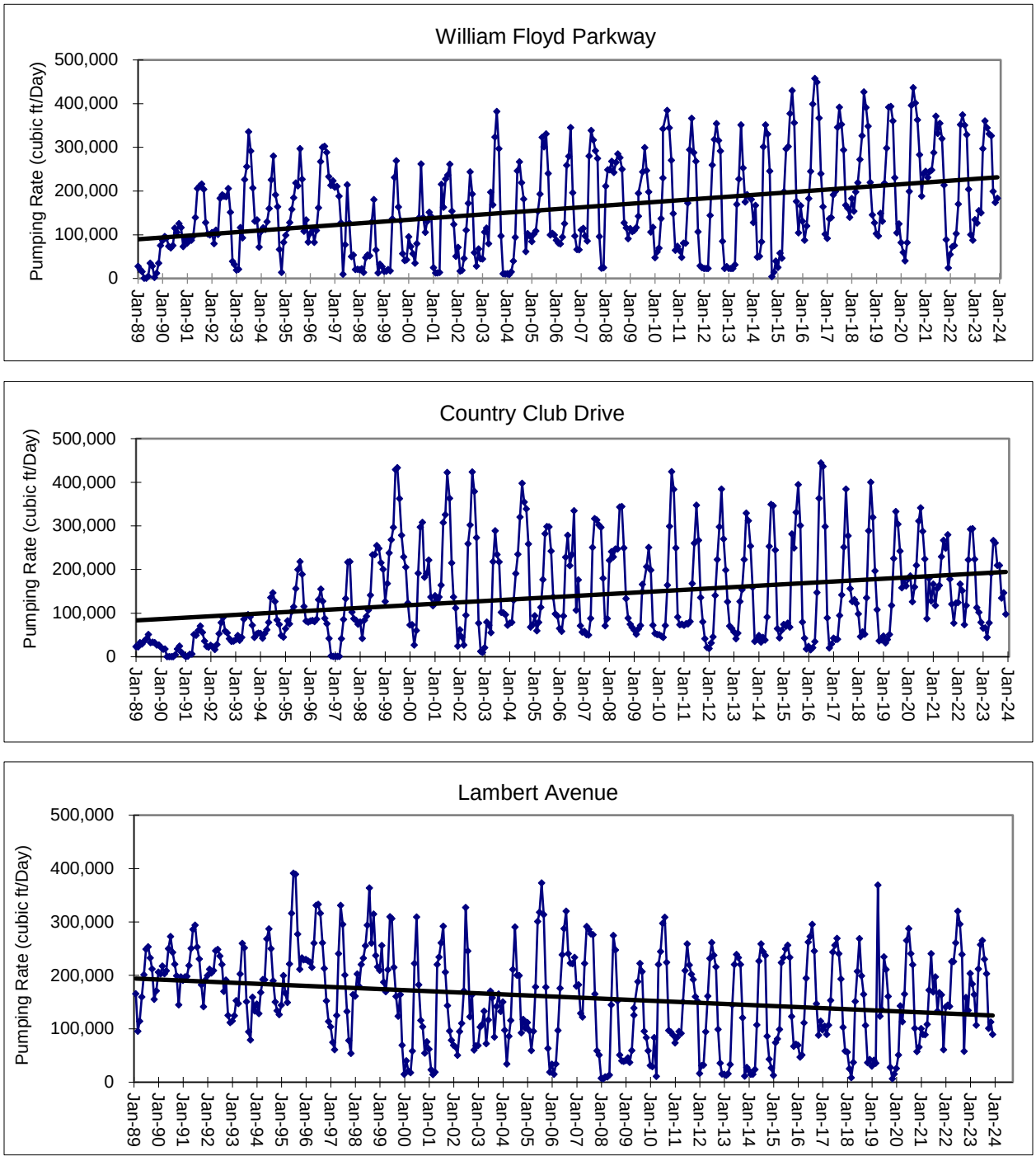
2.1.4 Summary of On-Site Recharge and Precipitation Data

This section summarizes artificial (e.g., on-site recharge basins) and natural recharge from precipitation. **Table 2-3** summarizes the monthly and total flow of water through 11 on-site recharge basins during 2023. Their locations are shown on **Figure 2-2**. **Section 2.2** (Groundwater Flow) provides a discussion on the effects associated with recharge. Seven of the basins (HN, HO, HS, HT-W, HT-E, HX, and HZ) receive stormwater runoff and cooling water discharges. Flow into these basins is monitored monthly per NYSDEC SPDES permit requirements. Details on the SPDES program are provided in Volume I of the annual *Site Environmental Report (Chapter 5, Water Quality).*

The remaining three basins, Removal Action (RA) V, OU III, and the HP basins, recharge water that is processed through several of the groundwater remediation systems. As discussed below, recharge basin WSB did not receive flow during 2023. **Figure 2-5** provides a comparison of monthly flow rates for basins HO, RA V, OU III, HP, and HS over the period of 1999 through 2023. Until September 2001, treated groundwater from the OU III South Boundary Pump and Treat System was discharged solely to the OU III basin along Princeton Avenue. After September 2001, treated groundwater from that system and the OU III Middle Road system was discharged equally to the OU III and RA V basins. Until 2013, water from the OU I South Boundary and the High Flux Beam Reactor (HFBR) system was discharged to the RA V basin. The HFBR and OU I Treatment Systems met their cleanup objectives, and their extraction wells were shut down in May and July 2013, respectively. Because reductions in water discharges to the RA V basin could have resulted in significant changes in local groundwater flow patterns, groundwater modeling was used to determine how to effectively divide the remaining treated water discharges toward the OU III and RA V basins to maintain stable groundwater flow directions. Monitoring of groundwater flow patterns demonstrated that this effort was successful for several years. However, with additional reductions in water discharged from the OU III Treatment System, the groundwater flow direction in the Building 650 area has shifted more to the southeast (**Figure 2-2**). Starting in March 2019, the treatment of the OU III Western South Boundary changed to process water through the OU III Middle Road/South Boundary air stripping towers and is now discharged to the OU III and RA V recharge basins. With the startup of the new Current Firehouse/Building 170 PFAS Groundwater Treatment System in late October 2022, treated water from the system is being discharged to the HP basins. Furthermore, with the startup of the Former Firehouse PFAS Groundwater Treatment System in late January 2023, treated water is being discharged to the RA V basin. The impact of these changes in treated water discharge to groundwater flow is noted in the comparison of the water table map from 2022 to 2023 (**Figure 2-2 and Figure 2-5**). **Table 2-3** provides estimates of flow to the recharge basins. Other important sources of artificial recharge, not included on **Table 2-3**, include a stormwater retention basin referred to as HW (on Weaver Drive), and recharge basins at the STP. Until October 2014, treated water from the STP was first discharged to sand filter beds before being discharged to the Peconic River. Approximately 20 percent of the water infiltrated into the aquifer below the filter beds, which contributed to localized mounding of the water table caused by shallow clay and silt deposits. Starting in October 2014, the STP discharge was re-directed to newly constructed groundwater recharge basins located along the eastern portion of the plant. Because the recharge basins are in an area containing highly permeable soils, these discharges are not causing significant mounding of the water table. A

groundwater mound is still present in the former filter beds due to persistent perched water table conditions resulting from near surface clay and silt deposits.

Figure 2-4.
Suffolk County Water Authority Water Supply Well Pumping Near BNL.



Precipitation provides the primary recharge of water to the aquifer system at BNL. Under long-term conditions in undeveloped areas of Long Island, about 50 percent of precipitation is lost through evapotranspiration and direct runoff to streams; the other 50 percent infiltrates the soil and recharges the groundwater system (Aronson and Seaburn 1974; Franke and McClymonds 1972). For 2023, it is estimated

that the recharge at BNL was approximately 25.2 inches. **Table 2-4** summarizes monthly and annual precipitation results from 1949 to 2023 collected on site by BNL Meteorology Services. Variations in the water table generally can be correlated with seasonal precipitation patterns. As shown on **Table 2-4**, total annual precipitation in 2023 was 50.40 inches, which was slightly above the long-term yearly average of 49.02 inches.

2.2 GROUNDWATER FLOW

BNL routinely monitors horizontal and vertical groundwater flow directions and rates within the Upper Glacial aquifer by using water-level data collected from a large network of on-site and off-site monitoring wells. Short-term and long-term seasonal fluctuations of water levels are also evaluated using hydrographs for select wells, and trends in precipitation.

2.2.1 Water-Table Contour Map

Figure 2-2 is a groundwater elevation contour map representing the configuration of the water table for August 21-25, 2023. The contours were generated from the water-level data from shallow Upper Glacial aquifer wells. Localized hydrogeologic influences on groundwater flow were considered, including on-site and off-site pumping wells, and on-site recharge basins **(Section 2.1)**.

Groundwater flow in the Upper Glacial aquifer is generally characterized by a southeasterly component of flow in the northern portion of the site, with a gradual transition to a more southerly direction at the southern boundary and beyond. Flow directions in the eastern portion of BNL are predominately to the east and southeast. The general groundwater flow pattern for August 2023 was generally consistent with historical flow patterns.

In addition to pumping induced cones of depression near groundwater supply and remediation wells, influences from water recharge activities can be observed as localized mounding of the water table, particularly around the OU III and RA V recharge basins (in the center of the site), and the STP. The degree of mounding is generally consistent with the monthly flows to recharge basins summarized in **Section 2.1**. Groundwater mounding is also evident at the STP as a result of perched water table conditions resulting from near surface clay and silt deposits.

Other noteworthy features are the influence that surface water bodies have on groundwater flow directions. **Figure 2-2** shows groundwater flowing towards the Carmans River in areas south/southwest of BNL. This pattern is consistent with the fact that the Carmans River is a significant regional discharge boundary.

2.2.2 Well Hydrographs

Groundwater hydrographs are useful in estimating recharge rates and the location of the water table relative to contaminant sources. Long-term (typically 1950–2023) well hydrographs were constructed from water-level data that were obtained for select USGS and BNL wells. These hydrographs track fluctuations in the water level over time. Precipitation data also were compared to natural fluctuations in water levels. **Appendix B** contains the well hydrographs, together with a map depicting the locations of these wells.

The long-term hydrographs indicate that typical seasonal water-table elevation fluctuations are on the order of 4 to 5 feet. Some of the water-table elevation changes have occurred during prolonged periods of low precipitation, where a maximum fluctuation of nearly 14 feet was observed during the regional drought of the early 1960s. As shown on the hydrograph for well 065-14, since 2010, when water levels at BNL reached the highest level on record, a nearly 10-foot variation in water table elevations has been observed. Generally, the highest groundwater elevations can be observed during the March-May time frame in response to snow melt and spring rains. Normally, the position of the water table drops through the summer and into the fall.

A long-term hydrograph was constructed from historical water-level data from BNL well 065-14 (NYSDEC # S-5517.1; USGS Site Number 405149072532201). This well, installed by the USGS in the late 1940s, is screened in the Upper Glacial aquifer close to the water table. The USGS has collected monthly water-level information from this well from 1948 through 2005. In 2006, the USGS installed a real time continuous water-level recorder in the well. Data from this monitoring station can be accessed on the Web at: https://waterdata.usgs.gov/monitoring-location/405149072532201/#parameterCode=72019&period=periodOfRecord.

2.2.3 Groundwater Gradients and Flow Rates

Evaluation of the horizontal hydraulic gradients provides information on the driving force behind groundwater flow. These gradients can be used with estimates of aquifer parameters such as hydraulic conductivity (175 feet per day [ft/day]) and effective porosity (0.24) to assess the velocities of groundwater flow. The horizontal hydraulic gradient at the BNL site is typically 0.001 feet per foot (ft/ft), but in recharge and pumping areas it can steepen to 0.0024 ft/ft or greater. The natural groundwater flow velocity in most of the Upper Glacial aquifer is estimated to be approximately 0.75 ft/day, but velocities can be lower in some portions of the deep Upper Glacial aquifer where finer-grained sands are present. Flow velocities in recharge areas can be as high as 1.45 ft/day, and those in areas near BNL supply wells can be as high as 28 ft/day (Scorca et al. 1999).

2.3 NEW GEOLOGIC DATA

During 2023, three monitoring wells and two groundwater extraction wells were installed off-site as part of the OU VI EDB project (**Section 3.6**), two monitoring wells were installed on-site as part of the OU III Middle Road project (**Section 3.2.2**), one monitoring well as part of the OU III South boundary project (**Section 3.2.3**), and one monitoring well as part of the OU III BGRR/WCF project **(Section 3.2.11).**

Lithology from split spoon samples collected as part of the installation of the OU VI EDB deep extraction wells confirmed the presence of a lower hydraulic conductivity unit in the Upper Glacial aquifer made up of silt and clays from approximately -75 feet MSL to -90 feet MSL. Gamma logging and slug testing was performed on the new OU III South Boundary/Middle Road monitoring wells in 2024 as part of the effort to update the geologic framework in the area. This work is ongoing and will be used to evaluate the remediation time frame in the area and if modifications to these systems are necessary to meet their ROD cleanup goals. The OU III BGRR/WCF monitoring well location was based on vertical profile groundwater concentrations, no new geologic data was collected during the installation of the monitoring well or vertical profile wells.

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3.0 CERCLA GROUNDWATER MONITORING AND REMEDIATION

Section 3.0 provides an overview of groundwater monitoring and remediation efforts at BNL during 2023. The section is organized first by OU, and then by the specific groundwater remediation system and/or plume monitoring program. **Figure 1-2** shows the locations of monitoring wells throughout the site by project. Project specific monitoring well location maps are included throughout **Section 3.0**.

Report and Data

Appendices C and D contain the 2023 analytical results for each monitoring well sample. Due to the large volume of data, these appendices are provided electronically via SharePoint; significantly reducing the size of the hardcopy of this report. The SharePoint directory has a table of contents with active links, such that, by selecting the specific project and analytical suite, the user will be directed to the associated table of results. The groundwater results are arranged by specific monitoring project and then by analytical group [e.g., VOCs, semi-volatile organic compounds (SVOCs), PFAS, 1,4-dioxane, metals, chemistry, pesticides/polychlorinated biphenyls (PCBs), and radionuclides]. The data are further organized by well identification (ID), the depth the sample was collected from, and the collection date of the sample. Chemical results and analytical laboratory qualifiers if any, are identified. For radionuclides, results, detection limits/minimum detectable activity, and uncertainty/error are reported; along with a data verification, validation, and/or usability qualifier (if assigned), and/or a laboratory data qualifier. If a data verification/validation/usability qualifier was not assigned by BNL, the laboratory data qualifier, if any, is presented. The complete analytical results are included to allow the reader the opportunity for detailed analysis.

Plume Maps

Maps and profiles are provided that depict the areal extent, vertical extent, and magnitude of the contaminant plumes. In most cases, the VOC plumes were simplified by using the total VOC (TVOC) values for drawing the contours, except for those plumes that consist almost exclusively of one chemical, such as the OU III North Street East EDB plume, the OU VI EDB plume, and the OU X PFOS, PFOA and 1,4-dioxane plumes. TVOC concentrations are a summation of the individual concentrations of detected VOCs analyzed by EPA Method 8260 Low Level. In June 2021, BNL switched from using EPA Method 524.2 to EPA Method 8260 Low Level for analyses of VOCs in groundwater. The change was a result of BNL's contractor analytical laboratories now using EPA Method 8260 Low Level for groundwater samples and EPA Method 524.2 for drinking water samples. In addition, EPA Method 8260 Low Level can meet the low detection limits identified in Method 524.2. During 2023, groundwater samples were analyzed using EPA Method 1633 for PFAS, and EPA Method 8270D Select Ion Monitoring (SIM) for 1,4-dioxane.

The extent of plumes containing VOC contamination was contoured to represent concentrations that were greater than the typical NYS AWQS of 5 micrograms per liter (µg/L) for most compounds. PFOS and PFOA plumes are contoured to the MCL of 10 ng/L, and 1,4-dioxane to the MCL of 1.0 µg/L. Radionuclide and EDB plumes were contoured to their appropriate DWS. **Figure 3.0-1** shows the VOC and radionuclide plumes as well as the location and operational status of the groundwater extraction wells and treatment systems. Beginning with the *2022 Groundwater Status Report*, the new groundwater treatment system that addresses the PFAS plumes downgradient of the Current Firehouse, Building 170, and the Former Firehouse was added to **Figure 3.0-1**. The Former Firehouse PFAS treatment system began operation in January 2023.

Starting with the *2021 Groundwater Status Report* (BNL, 2022b), individual posting of the data on the plume figures is represented to the nearest tenth for TVOCs, Sr-90, PFOS, PFOA and 1,4-dioxane. Data for EDB is posted to the nearest hundredth. This will help improve clarity of the figures by reducing unnecessary detail. The **Appendix C and Appendix D** data tables will continue to report all monitoring well data to the hundredth, as applicable.

Following the capping of the landfill areas and the beginning of active groundwater remediation systems in 1997, there have been significant changes in the size and concentrations of several of the plumes. These changes can be attributed to the following:

- The beneficial effects of active remediation systems.
- Source control and removal actions.
- The impacts of BNL pumping and recharge on the groundwater flow system.
- Radioactive decay, biological degradation, and monitored natural attenuation.

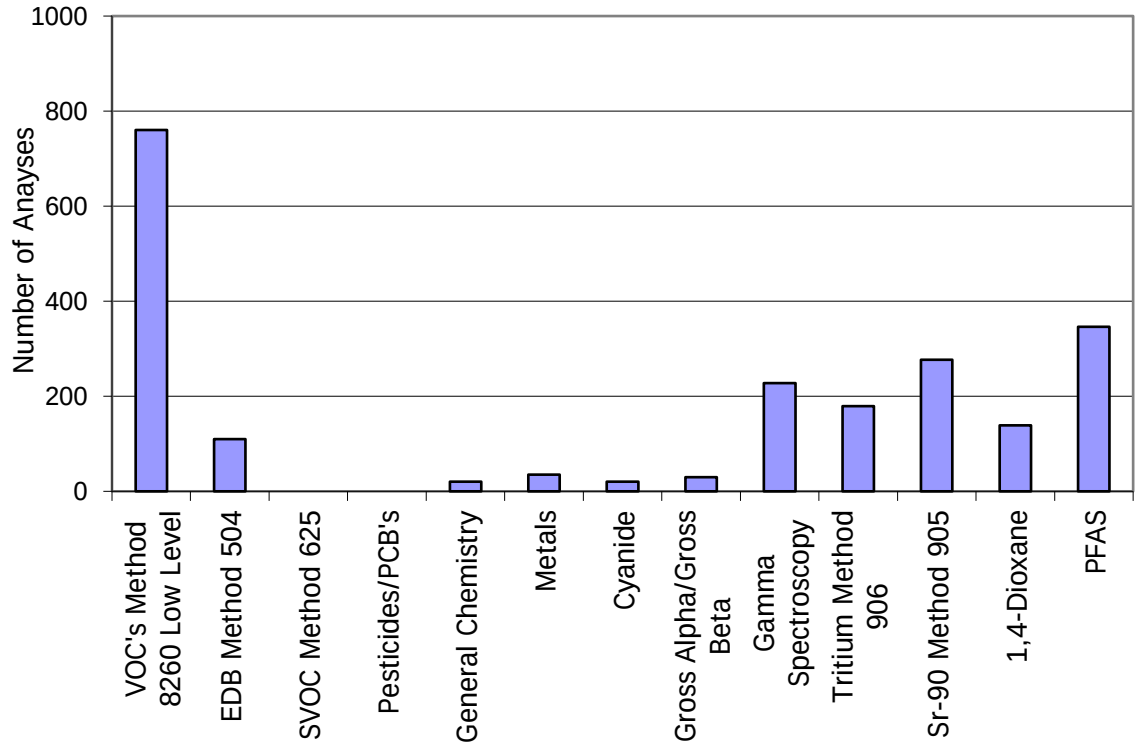
Additionally, BNL's ability to accurately depict these plumes has been enhanced over the years by:

- Installation of additional permanent monitoring wells to the existing well networks.
- Installation of temporary (e.g., drilled vertical profile wells and direct push Geoprobe® wells), single use wells that helped to fill in geologic and chemical data gaps as well as characterization of new plumes.
- Efforts to improve the regional hydrogeologic framework and conducting periodic groundwater modeling to help predict possible changes in plume positions and concentrations over time.

During 2023, 1,733 groundwater sampling events from 663 on-site and off-site permanent monitoring wells were used to track the contaminant plumes. From August 2023, through March 2024, 18 temporary profile wells were installed, and 342 samples were collected. **Figure 3.0-2** below provides a summary of the number of analyses performed for the permanent monitoring wells arranged by analytical method. Unless otherwise noted, the extent of contamination for a given plume is based primarily on 2023 data from permanent monitoring wells. Contaminant plumes associated with OUIII BGRR/WCF Sr-90 and the OU I Former Hazardous Waste Management Facility Sr-90 were further defined in 2023 and early 2024 using temporary wells.

For the production of plume maps for this report, in general, a single representative round of monitoring data is chosen for each plume, typically from the last quarter of the year. This sampling period will normally include the most comprehensive sampling of monitoring wells for the year. In addition, this report also serves as the fourth quarter operations report for the remediation systems. Contaminant concentration trend plots for key monitoring wells and analytes in each plume are provided to identify significant changes. Data from monitoring wells sampled under BNL's Facility Monitoring Program are evaluated in **Section 4.0**.

Figure 3.0-2. Summary of Laboratory Analyses Performed for the CERCLA Permanent Monitoring Well Program During 2023.



History and Status of Groundwater Remediation at BNL

Initial efforts to remediate groundwater contamination at BNL started in the mid-1980s with a treatment system designed to address VOC contamination at the former Hazardous Waste Management Facility (HWMF). Groundwater remediation systems installed as part of BNL's CERCLA program have been in operation since 1997, beginning with the OU I South Boundary Pump and Treat System. The goal of groundwater remediation, as defined by the OU III Record of Decision (ROD), is to prevent or minimize plume growth and not to exceed MCLs in the Upper Glacial aquifer within 30 years or less (by 2030). Based on additional information obtained during the Strontium-90 Pilot Study, the *OU III Explanation of Significant Differences (ESD)* (BNL, 2005a) identified changes to the cleanup goal time frames for the Sr-90 plumes. For the BGRR/WCF and Chemical Holes Sr-90 plumes, MCLs must be reached by 2070 and by 2040, respectively. In addition, the *OU III ESD* established the cleanup goal for Magothy aquifer VOC contamination to not exceed MCLs within 65 years or less (by 2065).

As of December 2023, there are ten groundwater remediation systems in operation. To date, a total of three systems have met their cleanup goals and have been decommissioned: the OU IV Area of Concern (AOC) 5 Air Sparge/Soil Vapor Extraction System (OU IV AS/SVE); the Carbon Tetrachloride Pump and Treat System; and, the Industrial Park East Treatment System. Since 2019, four additional systems: the HFBR Tritium Pump and Recharge System; the Building 452 Freon-11 Treatment System; the OU I South Boundary Treatment System; and, the North Street Treatment System were approved for closure by the regulators. Although the original North Street East (NSE) Treatment System was approved for an administrative closure in March 2020, the carbon filtration units were repurposed for the treatment of the NSE EDB plume starting in September 2020. In 2019, the air stripper piping for the Building 452 Freon-11 System was reconfigured to treat water from Building 96 extraction well RTW-1. As mentioned, two new groundwater treatment systems were constructed in 2022 for the treatment of PFAS. Starting in October 2022, the Current Firehouse treatment system is treating PFAS contaminated groundwater

originating from the Current Firehouse and Building 170 source areas. The Former Firehouse treatment system is treating PFAS contaminated groundwater originating from the former firehouse area and began operation in January 2023. The HFBR carbon filtration units have been repurposed for treatment of the Former Firehouse PFAS plume. Finally, since the OU III LIPA system has met its objectives for closure a Petition for Closure was submitted to the regulators in March 2024. The OU I, OIII North Street, and OU III LIPA systems will be maintained until characterization of PFAS and 1,4-dioxane is complete.

Figure 3.0-1 shows the locations of the existing and decommissioned treatment systems. In addition to the groundwater treatment systems, two landfill areas (Current and Former) were capped and numerous soil source area removals were conducted, which minimizes the potential for further groundwater contamination.

BNL performs routine maintenance checks on the treatment systems in addition to their routine and non-routine maintenance. In 2023, 1,074 treatment system samples were obtained from 98 sampling points. The data from the treatment system samples are available in **Appendix F**.

In general, BNL currently uses two types of pump and treat groundwater remediation systems to treat VOC contamination: air stripping and granular activated carbon (GAC) filters. Pump and treat remediation activities consist of pumping contaminated groundwater from the plume via extraction wells and piping it to a treatment system, where the contaminants are removed by either air stripping or GAC filtration. Treated water is then introduced back into the aquifer via recharge basins, injection wells, or dry wells. Historically, in several on-site and off-site areas, BNL has utilized recirculation wells to remediate VOCs. Using these types of wells, VOC contaminated groundwater is pumped from a lower well screen, is treated by air stripping or GAC, and is then reinjected into the aquifer using a shallower well screen. BNL utilizes ion-exchange treatment for remediating Sr-90 contaminated groundwater. Pump and recharge (without treatment for tritium) was utilized to hydraulically contain the HFBR tritium plume. Beginning in 2022, treatment of PFAS was initiated also using GAC.

Table 3.0-1 summarizes the existing remediation systems. In addition to tracking contaminant levels in monitoring wells, extraction wells, and treatment systems, groundwater modeling is also used as a tool to help determine if remediation of the plumes is proceeding as planned to meet the overall groundwater cleanup goals, and to help determine whether modifications to the remediation systems are necessary.

Groundwater Sampling Methodology Summary

Groundwater sampling, analysis methods, quality assurance reviews, and database methodologies are detailed in **Appendix E**. A summary of the techniques used to collect groundwater samples are described below.

Groundwater samples are collected from permanent, long-term monitoring wells typically using dedicated bladder pumps. Using a low flow purge technique, a minimum of two times the volume of the sample pump and discharge tubing are purged. Samples are collected once water quality parameters (pH, oxidation reduction potential, specific conductance, dissolved oxygen, turbidity, and temperature) stabilize or when an amount of groundwater equal to 25 percent of a casing volume has been purged. Groundwater samples are collected using analytical laboratory-supplied bottles. The samples are preserved according to their analysis requirements.

The collection of groundwater samples from temporary, single use wells is dependent on the method used to install them. When using an auger rig, hollow stem augers are advanced to the deepest sampling interval. A stainless-steel well screen is connected to two-inch diameter steel well pipe and lowered through the center of the augers to the required sampling depth. The augers are then withdrawn from the borehole. A submersible pump is lowered to the well screen and a minimum of three well volumes of groundwater are purged prior to collecting samples. The samples are preserved according to the analysis requirements. This procedure is repeated at each depth interval required by the work plan.

When collecting groundwater samples via direct push (e.g.: Geoprobe®), a steel well casing with an expendable drive point is advanced to the deepest sample collection level and an internal screen is released from the bottom of the well casing using a trip rod. Typically, high density polyethylene tubing is used with an attached check valve and sent down the well until they reach the bottom of the screen. An inertial pump (e.g., Waterra®) is used to purge the temporary well. Three casing volumes of groundwater are typically removed from the well prior to collecting samples and samples are preserved according to their analysis requirements. This procedure is repeated at each depth interval required by the work plan.

Table 3.0-1. 2023 Summary of Existing Groundwater Remediation Systems at BNL

Operable Unit System	Type	Target Contam	No. of Wells	No. of Wells Oper in 2023[f]	Years in Operation	Recharge Method	Pounds VOCs Removed in 2023/Cumulative
Operable Unit I							
South Boundary[a]	P&T AS	VOC	2	0	Closed Operated: 16	Basin	0/369
Operable Unit III							
South Boundary	P&T (AS)	VOC	8	1	26	Basin	8/3084
HFBR Pump and Recharge[a]	Pump and Recirculate	Tritium	4	0	Closed Operated: 9	Basin	0/180
Industrial Park	Recirc. Well/ (AS/Carbon)	VOC	7	0	Operate: 16 Standby: 8	Recirc. Well	0/1066
	P&T (Carbon)	VOC	2	0	Operate: 4 Standby: 4	Inj. Wells	0/11
Building 96[d]	Recirc. Well (AS/Carbon)	VOC	4	1	Operate: 19 Standby: 3	Recirc. Well	0.3/147
Middle Road	P&T (AS)	VOC	7	3	22	Basin	26/1378
Western South Boundary[e]	P&T (AS)	VOC	6	5	21	Basin	12/212
Chemical Holes	P&T (IE)	Sr-90	3	0	Operate: 15 Standby: 5	Dry Well	0[b]/4.94
North Street[g]	P&T (Carbon)	VOC	2	0	Closed Operated: 11	Inj. Wells	0/342
North Street East	P&T (Carbon)	VOC/EDB	4	2	Operate:13 Standby: 6	Inj. Wells	2/50
LIPA/Airport	P&T and Recirc. Wells (Carbon)	VOC	10	3	19	Inj. Wells and Recirc. Well	5/505
BGRR/WCF	P&T (IE)	Sr-90	9	3	18	Dry Wells	0.15[b]/29.9
Building 452 Freon-11[a]	P&T (AS)	Freon-11	1	0	Closed Operated: 6	Basin	0/106
Operable Unit VI							
EDB	P&T (Carbon)	EDB	2	2	19	Inj. Wells	NA[c]
Operable Unit X							
Current Firehouse/ Bldg. 170	P&T (Carbon)	PFAS	9	9	1.2	Basin	0.34/0.42
Former Firehouse	P&T (Carbon)	PFAS	3	3	1.0	Basin	0.17
		Total Wells	83	32			

Notes:

AS = Air Stripping
AS/SVE = Air Sparging/Soil Vapor Extraction
EDB = ethylene dibromide
IE = Ion Exchange
LIPA = Long Island Power Authority
NA = Not Applicable
P&T = Pump and Treat
a = Approved for Closure in 2019
b = Sr-90 removal is expressed in mCi
c = No cumulative EDB calculations are performed based on the low concentrations detected.
Recirculation = Double screened well with discharge of treated water back to the same well in a shallow recharge
d = Well RTW-1 was modified from a recirculation well to surface discharge in May 2008.
e = Four additional extraction wells for the Western South Boundary System became operational in 2019.
f = Includes wells in operation for any time during the year.
g = Approved for Closure in 2020.P&T = Pump and Treat
(Shading indicates a closed system)

3.1 OPERABLE UNIT I

The two sources of VOC groundwater contamination within OU I are the former HWMF and the Current Landfill. The former HWMF was BNL's central RCRA receiving facility for processing, neutralizing, and storing hazardous and radioactive wastes for off-site disposal until 1997, when a new Waste Management Facility (WMF) was constructed along East Fifth Avenue. Several hazardous materials spills were documented at the former HWMF. Facility demolition and soil remediation programs were completed for this facility in September of 2005.

VOC plumes from the Current Landfill and former HWMF became commingled south of the former HWMF. The commingling was partially caused by the pumping and recharging effects of a spray aeration groundwater remediation system, which operated from 1985 to 1990. This system was designed to treat VOC-contaminated groundwater originating from the former HWMF. TVOC concentrations from post-closure and Current Landfill monitoring are depicted on **Figure 3.1-1** and the cross-sectional view on **Figure 3.1-2**.

The on-site segment of the Current Landfill/former HWMF plume was remediated by a groundwater pump and treat system consisting of two wells (EW-1, EW-2) screened in the deep Upper Glacial aquifer at the site property boundary (OU I South Boundary Treatment System). The extracted groundwater was treated for VOCs by air stripping and recharged to the ground at the RA V basin, located northwest of the Current Landfill. A second system (NSE System) was built to treat the off-site portion of the plume. That off-site groundwater remediation system began operations in June 2004 and was included under the Operable Unit III Record of Decision (**Section 3.2.7**). The NSE system was shut down in 2014 and placed in standby mode. In 2019, the NSE System was modified by adding two extraction wells to address newly discovered EDB contamination in the deep Upper Glacial aquifer. Operation of the new wells began in July 2020. A Petition for Shutdown of the OU I South Boundary Treatment System was approved by the regulatory agencies in July 2013. A Petition for Closure was approved by the regulatory agencies in September 2019 as the conditions for closure were satisfied as described in the *OU III ROD* (BNL, 2000a) and the *Operations and Maintenance Manual for the OU I South Boundary Treatment Facility* (BNL, 2005b).

3.1.1 OU I South Boundary Treatment System

The OU I South Boundary Groundwater Treatment System was approved for closure by the regulatory agencies in September 2019.

3.1.2 System Description

For a complete description of the former OU I South Boundary Treatment System, see the *Operations and Maintenance Manual for the OU I South Boundary Treatment Facility* (BNL, 2005b).

3.1.3 Groundwater Monitoring

Well Network

Six monitoring wells are used for post-closure VOC monitoring of the OU I South Boundary area (**Figure 3.1-1)**. Twelve wells are used to monitor the Current Landfill source area (**Section 3.7**). A total of 25 permanent wells are used to monitor the former HWMF Sr-90 plume supplemented by 16 temporary wells installed in November 2023 through March 2024.

Sampling Frequency and Analysis

The wells are monitored for VOCs, and/or Sr-90 as per the schedule provided on **Table 1-5**.

3.1.4 Monitoring Well VOC Results

Figure 3.1-1 shows posted TVOC data for the OU I post-closure monitoring program based on samples collected in the fourth quarter of 2023. The data posted on this figure were obtained from the six OU I Post Closure monitoring wells and the Current Landfill monitoring program wells. The primary VOCs detected in this plume consisted of chloroethane and 1,1-dichloroethane (DCA), which originated from the Current Landfill.

The Current Landfill was capped in November 1995. A detailed discussion of the landfill monitoring well data is provided in the *2023 Environmental Monitoring Report, Current and Former Landfill Areas* (BNL, 2024). The downgradient portion of the OU I South Boundary VOC plume (as defined by TVOC concentrations greater than 5 µg/L) has been remediated by a combination of groundwater pump and treat, landfill capping, and monitored natural attenuation (**Figure 3.1-1**). The off-site portion of the plume is discussed in **Section 3.2.7**, the NSE Treatment System.

Figure 3.1-3 provides the historical trends in VOC concentrations for key plume core and bypass wells. **Appendix C** has a complete set of 2023 analytical results. Significant findings for 2023 include:

- TVOC concentrations in Current Landfill source area monitoring well 088-109 have fluctuated generally between not-detectable and 100 µg/L since monitoring of this well began in 1997. The historical maximum TVOC concentration in this well was 352 µg/L in 1998. TVOC concentrations in this well have predominantly been below 50 µg/L since June 2020. The well is located immediately east of the Current Landfill footprint, and approximately 3,500 feet north of the BNL site boundary (**Figure 3.1-1**). All other Current Landfill source area monitoring well TVOC concentrations have remained below 20 µg/L since 2010. Monitoring well 098-99 was installed to provide a sentinel plume monitoring point approximately 1,200 feet downgradient of the Current Landfill. TVOC concentrations in this well have been less than 5 µg/L since November 2021. These data continue to confirm groundwater modeling predictions for the attenuation of VOCs from the Current Landfill prior to reaching the site boundary.
- Well 107-40 was originally installed to monitor the center line of the former HWMF VOC plume, approximately 500 feet north of the site boundary. The last individual VOC detected above the AWQS in this well was 1,1-dichloroethylene (1,1-DCE) in 2017.

3.1.5 Radionuclide Monitoring Results

Two OU I monitoring program wells were analyzed annually for tritium (107-23 and 115-36) until the beginning of 2023. Tritium has not been detected in well 107-23 since 2014 and in well 115-36 since 2017 (**Figure 3.1-4)**. These wells were removed from the program in 2023 per the 2022 Groundwater Status Report recommendations. A subset of 27 wells were also analyzed for gamma spectroscopy annually until the beginning of 2023. There were no detections for gamma emitting radionuclides for the 20-to-30-year monitoring period for these wells; therefore, gamma spectroscopy has been removed from the program. The complete results for these wells are provided in **Appendix C**.

Twenty-five permanent wells are monitored for Sr-90 contamination from the former HWMF **(Figure 3.1-4)**. A total of 16 temporary wells were installed from November 2023 through March 2024 to supplement the monitoring well network. The highest Sr-90 concentration detected in 2023-2024 was from temporary well OU I -SR-90-GP-71 where a concentration of 181 pCi/L was observed in March 2024 **(Table 3.1-1)**. Monitoring well 098-100 is located just downgradient of the source area. The sampling results for this well in 2023 show that concentrations remained between 65 pCi/L and 71 pCi/L (**See Figure 3.1-5)**. The two narrow Sr-90 plumes migrating south of the former HWMF are monitored by wells 098-103 (eastern plume) and 098-104 (western plume) as shown on **Figure 3.1-4**. These wells have been sampled seven times since they were installed in 2020. Sr-90 concentrations in 098-103 have ranged between 28 pCi/L and 63 pCi/L.

The highest Sr-90 concentration in 098-104 was 247 pCi/L in March 2023. Temporary wells have been installed at the same locations over the past several years along a transect approximately 600 feet to the south in the Long Island Solar Farm (LISF) (OU I-Sr-90-GP-69 through OU I-Sr-90-GP-74). The March 2024 Sr-90 concentrations in temporary well GP-71 continued to show the increasing trend that began in 2021. A transect consisting of six temporary wells (OU I Sr-90-GP-97 through OU I-Sr-90-GP-102) were installed approximately 400 feet further south, just outside the solar farm boundary. The highest Sr-90 concentration observed in these wells was 8 pCi/L in OU I-Sr-90-GP-99, which is an indication that the leading edge of the plume (as defined by the 8 pCi/L DWS) has reached this location. A transect consisting of three temporary wells (OU I Sr-90-GP-88 through OU I-Sr-90-GP-90) were installed 150 feet downgradient of the above-mentioned temporary wells. The well locations and plume map are shown on **Figure 3.1-4.** Sr-90 trend plots are provided on **Figure 3.1-5.**

3.1.6 System Operations

This system was approved for closure in September 2019. During 2023, the extraction wells did not operate **(Table F-1** and **Figure 3.1-6)**. Approximately 369 pounds of VOCs were removed from the aquifer during system operation from 1996 through 2013 (**Figure 3.1-7 and Table F-4**).

3.1.7 System Evaluation

Although the system remains closed, groundwater monitoring continues, and no rebound of VOC concentrations has been observed. The OU I South Boundary Treatment System performance can be evaluated based on the decisions identified by applying the DQO process.

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

Current Landfill VOCs

Yes, VOCs continue to be observed immediately downgradient of the Current Landfill which is covered by an engineered cap. Periodic high-water table conditions continue to flush contaminants from the vadose zone and/or the bottom of the landfilled materials.

Former HWMF Sr-90

Yes, Sr-90 continues to be detected in wells associated with the former HWMF. Concentrations in source area monitoring well 098-100 have shown little change over the past two years. The highest plume concentrations are located between the southern boundary of the former HWMF yard and the southern boundary of the LI Solar Farm as denoted by the temporary well results. The existence of a Sr-90 groundwater plume in this general area can be attributed to the removal of buildings and pavement in the former HWMF area as part of the 2005 remediation work. Precipitation infiltration through the unsaturated zone and/or water table flushing are the mechanisms for mobilizing the residual Sr-90 to groundwater.

2. Were unexpected levels or types of contamination detected?

No unexpected VOC or radionuclide results were observed.

3. Has the downgradient migration of the plume been controlled?

Current Landfill VOCs

The OU I South Boundary System was approved for closure in 2019. VOCs periodically released from the Current Landfill are attenuating as they migrate south. The VOC travel time from the Current Landfill to the BNL site boundary is approximately 12 to 15 years. Modeling simulations indicate that TVOC concentrations from the Current Landfill will attenuate to below 5 µg/L prior to reaching the site boundary.

The modeling results continue to be supported by both the low TVOC concentration levels observed in sentinel monitoring well 098-99 (located approximately 2,400 feet north of the site boundary) along with several wells at or near the site boundary over the past several years.

Former HWMF Sr-90

A plume of Sr-90 exceeding the 8 pCi/l DWS extends from the former HWMF yard to an area just south of the LISF, approximately 2,500 feet to the south. This plume is migrating slowly to the south as verified by monitoring data obtained over the past several years. The leading edge of the plume was first observed in monitoring well 098-30 in 2010. The data obtained from temporary and permanent wells over the previous eleven years supports a Sr-90 migration rate of approximately 20-25 feet per year. This rate is similar to migration rates calculated for other BNL Sr-90 plumes and the value utilized for groundwater modeling simulations.

Groundwater model natural attenuation simulations were updated in 2020. The simulation showed that Sr-90 could reach the site boundary in the middle of the Upper Glacial Aquifer at a concentration of approximately 20 pCi/L in 2080. The 2023 monitoring data supports these modeling results.

4. Has the groundwater cleanup goal of meeting MCLs for VOCs by 2030 been achieved? Has the groundwater cleanup goal of 8 pCi/l for Sr-90 been achieved?

VOCs

No. MCLs have not been achieved for individual VOCs in all wells. Several Current Landfill area wells have displayed individual VOC concentrations in exceedance of MCLs (e.g., choloroethane, 1,1-DCA). There were no exceedances of MCLs in the post-closure downgradient wells in 2023. A comparison of groundwater quality in the OU I South Boundary area is shown on **Figure 3.1-8** which compares the VOC plume from 1997 to 2023.

Sr-90

No. A monitoring program is in place to track the migration and attenuation of the Sr-90 plume.

3.1.8 Recommendations

The following recommendations are presented for the OU I Groundwater Monitoring Program:

- Maintain the VOC post-closure groundwater monitoring program of annual sample collection from post-closure wells: 107-40, 107-41, 115-13, 115-16, and 115-51. Maintain quarterly sampling of Current Landfill sentinel well 098-99.
- Install temporary wells as needed to fill monitoring data gaps and characterize extent of the Sr-90 plume. Install a temporary well to the west of OU I -Sr-90-GP-74 to verify the western extent of this higher concentration plume segment.

3.2 OPERABLE UNIT III

There were a number of groundwater issues addressed under the OU III RI/FS and subsequent ROD/ESD. VOC plumes originated from several source areas, including Building 96, Building 452 Freon, and sources (some unknown) in the north-central developed portion of the site, the Former Landfill, and the former carbon tetrachloride underground storage tank (UST). **Figure 3.2-1** is a representation of the VOC plumes based on areas containing TVOC concentrations exceeding 5 µg/L. The eastern portion of **Figure 3.2-1** also includes the North Street (OU I/IV) plumes. **Figure 3.2-2** is cross-section B–B′, which is drawn through the north–south center-line of the primary OU III VOC plumes, as shown in **Figure 3.2-1**.

The primary chemical contaminants found in OU III groundwater are 1,1,1-trichloroethane (TCA), tetrachloroethylene (PCE), and carbon tetrachloride. These three chemicals are the primary VOCs detected in the OU III on-site monitoring wells. Off-site, carbon tetrachloride and PCE are the main contaminants detected.

Figure 3.2-3 presents a comparison of the OU III VOC plumes between 1997 and 2023. Several changes in the plumes can be observed in this comparison:

- Significant progress is evident in reducing the higher concentration segments of the plumes both on-site and off-site. This is due primarily to the source control and groundwater remediation that has been implemented, along with the effects of monitored natural attenuation.
- Deep Upper Glacial aquifer VOC contamination in the OU III Middle Road area was identified in the *2021 CERCLA Five-Year Review* (BNL 2021b) as requiring additional remedial action in order to meet groundwater cleanup goals.
- Remaining residual contamination is continuing to contribute to shallow Upper Glacial aquifer contamination in the OU III Building 96 area. This issue was identified in the *2021 CERCLA Five-Year Review* (BNL 2021b) as requiring additional remedial action in order to meet groundwater cleanup goals.
- Hydraulic control of the plumes by the OU III South Boundary Treatment System at the site boundary, and off-site at the Industrial Park and the LIPA/Airport system, is evidenced by the segmentation of the plumes in these areas.
- The high concentration segment of the LIPA portion of the OU III plume has been significantly reduced and individual VOCs are below MCLs. A Petition for Closure of the LIPA system was submitted in the first quarter of 2024.
- VOC concentrations have been significantly reduced in the vicinity of the North Street System.
- Deeper VOC contamination was characterized in the Western South Boundary area over the past several years. Remediation of this contamination was enhanced by modifying the system to include four new extraction wells and VOC concentrations have been significantly reduced. Based on improving groundwater conditions and the recommendation made in the 2022 Groundwater Status Report, the system was placed in a pulsed pumping mode in 2023 to enhance the remediation. If the trend of decreasing VOC continues, it is anticipated that a petition for shutdown of this system will be submitted in the next several years.

While the NSE VOC plume was addressed under OU III, it is the off-site portion of the OU I South Boundary plume. The plume comparison is included in **Figure 3.1-8**. Remediation of the NSE EDB

plume was initiated in 2020 with the addition of two new extraction wells. Three radiological plumes were also addressed under OU III.

The HFBR tritium plume has naturally attenuated, and the pump and recharge system received regulatory approval for closure in 2019. Sr-90 plumes are present downgradient of the former WCF, and several sources related to the BGRR with active treatment and monitoring. A Sr-90 plume that is downgradient of the Chemical/Animal Holes is currently in shutdown mode with continued monitoring.

Sections 3.2.1 through **3.2.13** summarize and evaluate the groundwater monitoring and system operations data for the OU III VOC and radiological plumes, including both operational groundwater treatment systems and the monitoring-only programs.

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3.2.1 Building 96 Treatment System

This section summarizes the 2023 operational and monitoring data from the OU III Building 96 Treatment System, which consists of one operating extraction well (RTW-1) with air stripping and three recirculation wells (RTW-2, RTW-3, and RTW-4) with air stripping and vapor-phase carbon treatment off in standby. It also presents conclusions and recommendations for future operation of the system and describes the planned source area optimization. The system began operation in February 2001. Starting in 2012, treatment well RTW-1 was used to treat the low-level downgradient portion of the Building 452 Freon-11 plume. The Building 452 Freon-11 Treatment System was approved for closure in 2019. Currently, RTW-1 operates on a pulsed pumping schedule of one month on and one month off to control further downgradient migrations of VOC contamination.

3.2.1.1 System Description

When in operation, recirculation wells RTW-2, RTW-3, and RTW-4, draw contaminated groundwater from the aquifer via submersible well pumps in wells that are screened 48 to 58 feet below land surface (bls) near the base of the contaminant plume. The groundwater is pumped into a stripping tray adjacent to each of the three wells. After treatment, the clean water is recharged in wells RTW-2 through RTW-4 through the upper screen zone, 25 to 35 feet bls. In May 2008, RTW-1 was modified from a recirculation well to a pumping well with air stripping and hexavalent chromium ion exchange treatment, with discharge to nearby surface drainage channel. In January 2010, the ion exchange treatment was eliminated following a decline in hexavalent chromium (Cr VI) concentrations below the AWQS and was decommissioned in 2018 following regulatory approval. In June 2019 a new pump and motor was installed in RTW-1 to increase its pumping capacity and the well was connected (via pipe) to the former Freon-11 treatment building air stripper to handle the increased flow. RTW-1 was restarted in June 2020 and the pumping rate was increased from 30 gallons per minute (gpm) to 60 gpm to increase capture of VOCs in the western portion of the plume. A complete description of the system is included in the *Operations and Maintenance Manual Building 96 Groundwater Treatment System* (BNL 2009a).

3.2.1.2 Source Area Soil Remediation and In-Situ Chemical Treatment

By 2005, it was determined that the Building 96 groundwater treatment system was no longer effectively reducing VOC concentrations due to a previously unidentified continuing source and the system was shut down and placed in standby with continued monitoring. To address this source area, in 2005 and 2006 three rounds of potassium permanganate ($KMnO_4$) solution were injected into the suspected source area saturated zone to treat the VOCs in-situ. Groundwater monitoring following the injections indicated that the concentration of the primary contaminant, PCE, initially decreased but ultimately rebounded to pre-injection concentrations. Following the injections, the system was placed back into operation as a source control to prevent further downgradient migration of the plume. The $KMnO_4$ injections also created an unexpected by-product of Cr VI that required additional treatment using ion-exchange, as mentioned above.

Additional source area investigation performed in 2008 identified an approximately 25 by 25 square foot area where PCE was present in the unsaturated zone. To address the continuing source of PCE above the water table, in 2010 approximately 370 cubic yards of contaminated soil was excavated to the water table interface at that time (approximately 16 feet bls) and disposed. Furthermore, due to the degree of soil contamination, several containers required disposal as hazardous waste. Since the $KMnO_4$ was injected into groundwater, it had little to no effect on the PCE contamination present in the vadose zone. Following the soil removal, a significant initial decrease in the TVOC concentration in groundwater was observed followed by a persisting rebound, indicating the presence of residual source material.

Based on the above, residual PCE contamination is slowly being released to groundwater. As identified in the *2021 CERCLA Five Year Review* (BNL 2021b), the current conditions indicate that this area may not achieve the established cleanup goals by 2030. The recommended follow-up actions included evaluating and implementing a liquid carbon and zero-valent iron (ZVI) in-situ chemical treatment if groundwater concentrations do not decline to below the system capture goal.

Therefore, an in-situ chemical treatment (liquid carbon and ZVI) is being performed in 2024 to reduce the mobility of PCE and enhance its degradation. The planned scope of work includes application of the treatment chemicals and pre- and post-groundwater monitoring to measure its performance.

Figure 3.2.1-1 shows the location of the excavated soil contamination source area and proposed 2024 chemical injection area in relation to the 2023 VOC groundwater plume. **Figure 3.2.1-2** shows the plume on a hydrogeologic cross section of the area.

3.2.1.3 Groundwater Monitoring

A network of 34 wells was used to monitor the VOC plume and the effectiveness of the Building 96 groundwater remediation system (**Figure 3.2.1-1**) during 2023. Most of the wells were sampled quarterly and analyzed for VOCs as noted in **Table 1-5**.

3.2.1.4 Monitoring Well Results

Complete VOC results are provided in **Appendix C**. The fourth quarter 2023 plume is shown on **Figure 3.2.1-1** and **Figure 3.2.1-2** and trends for several wells are presented on **Figure 3.2.1-3**. PCE is the primary component of this plume. A summary of key monitoring well data for 2023 is as follows:

Former Source Area to RTW-1:

- Well 085-379 is located immediately south of the suspected source area and the 2010 soil excavation area/proposed chemical treatment injection area. The well is screened across the water table to ensure that the release of any residual groundwater contamination from the former source area is captured by sampling regardless of water table fluctuations. TVOC concentrations in this well have ranged between 0.3 µg/L and 200 µg/L since 2016 (**Figure 3.2.1-3**). In 2023, the TVOC concentration ranged from 49 µg/L to 76 µg/L in 085-379. The highest individual VOC concentration was PCE at 75 µg/L in 085-379.
- TVOC concentrations in the eleven core monitoring wells placed up to 100 feet south of well 085-379 have remained below the system capture goal of 50 µg/L since 2017. The historic high concentration in this area was 3,000 µg/L in well 095-305 during 2010.
- The maximum TVOC concentration in well 095-84, located immediately upgradient of extraction well RTW-1, ranged from 14 µg/L to 31 µg/L during 2023. These concentrations are significantly lower than the historical maximum TVOC concentration in this well of 18,000 µg/L in 1998.
- TVOC concentrations in monitoring wells 095-294, 095-307, 095-308, and 095-313 have remained at concentrations below 15 µg/L since 2017, with no individual VOCs exceeding MCLs in 2023. These wells monitor the slightly deeper VOC contamination that was observed west of the main Building 96 plume.

RTW-1 to Downgradient Recirculation Wells RTW-2 through RTW-4:

- TVOC concentrations in well 095-159 decreased from 134 µg/L in August 2020 to non-detect in December of 2020. In 2021 the concentration ranged between 5 µg/L and 10 µg/L. This correlates well with the increased pumping rate for RTW-1 starting in July 2019 and indicates

that the western portion of the plume is being captured. RTW-1 was placed in a pulsed pumping mode in May 2022. TVOC concentrations in 2023 ranged between 7 µg/L and 53 µg/L in 095-159, slightly above the 50 µg/L TVOC capture goal.

§ TVOC concentrations in plume bypass well 095-162 have been slightly above detectable levels since 2019 ranging from ND to 4 µg/L in April 2023. These data support the continued capture of the plume by RTW-1.

Wells Downgradient of RTW-2 through RTW-4:

§ TVOC concentrations observed in the six bypass wells, located immediately downgradient of RTW-2, RTW-3, and RTW-4 (095-163, 095-165, 095-166, 095-168, 095-169, and 095-170) ranged from below to slightly above detectable levels from 2019-2022. The one exception was a detection of 7 µg/L in well 095-165 in October 2021. During 2023, the highest TVOC concentration was also recorded in 095-165 at 6 µg/L.

§ The maximum TVOC concentration in sentinel monitoring well 095-318, located on Weaver Drive, during 2023 was 1.6 µg/L in October. TVOC concentrations in this well have been largely below 5 µg/L since 2015.

Freon-11:

Building 96 extraction well RTW-1 was also being used to address the remaining low-level Freon-11 concentrations from the Building 452 plume. Wells 085-382, 085-383, and 085-386 were transferred from the Building 452 Freon-11 monitoring program to the Building 96 monitoring program in 2020 following the closure of the Building 452 System. All three of these wells were located just upgradient of the former EW-18 extraction well. The concentration of Freon-11 in well 085-382 was 38,800 µg/L in 2011. Concentrations in this well have remained below 5 µg/L since 2017 with a maximum concentration of 0.7 µg/L in April 2023. The concentration in well 085-383 was 960 µg/L in 2011. Freon-11 concentrations have been below 5 µg/L in this well since 2015. The maximum concentration for this well in 2023 was 0.2 µg/L. The maximum historical Freon-11 concentration in well 085-386 was 9,860 µg/L in 2012. The maximum 2023 result for Freon-11 from this well was 0.2 µg/L.

3.2.1.5 System Operations

Operating Parameters

Extraction well RTW-1 operated full-time until May 1, 2022 when it began a one month on, one month off pulsed pumping schedule, which continued for all 2023. Extraction well RTW-2 was placed back in stand-by mode in June 2020 following a brief period of operation. Extraction wells RTW-3 and RTW-4 have remained in stand-by mode since January 2016 and October 2012, respectively. Extraction wells RTW-2, RTW-3 and RTW-4 remained in stand-by mode for all of 2023.

January – September 2023

The system operated on a one month on, one month off pulsed pumping schedule for this period. The system was off from August 10 to August 14 due to electrical issues but ran normally for the rest of the month. The system treated approximately 8.5 million gallons of water during this period.

October – December 2023

The system was off from December 18, 2023 to January 16, 2024 due to a wind storm that damaged electrical power lines that supply the system. The system treated approximately 3.6 million gallons of water during this period.

During 2023 the system treated approximately 12.1 million gallons of water (**Table 2-2**).

3.2.1.6 System Operational Data

Recirculation/Treatment Well Influent and Effluent

Table F-5 lists the monthly influent VOC concentrations for well RTW-1, and the influent concentrations for wells RTW-2 through RTW-4 which are sampled quarterly. The TVOC concentration from the RTW-1 influent ranged between ND and 3.6 µg/L during 2023 which is approximately the same as 2022 levels. **Figures 3.2.1-4** and **3.2.1-5** show the TVOC concentrations in the extraction wells over time. **Table 3.2.1-1** shows the maximum measured effluent contaminant concentrations compared to the SPDES equivalency permit for well RTW-1. A renewed SPDES permit was issued by NYSDEC on September 1, 2022 for this system. The system met all equivalency parameters for operation in 2023. See **Table F-6** for RTW-1 effluent detections. RTW-1 was also used to capture lower levels of Freon-11 from the Building 452 area that migrated beyond extraction well EW-18 (approved for closure in 2019). Freon-11 concentrations in RTW-1 have declined from a peak of 38 µg/L in 2013 to non-detectable levels in 2022. In 2023 there was one detection of Freon-11 in October of 0.16J µg/L. RTW-1 TVOC concentrations have remained below 10 µg/L since 2019.

Air Discharge

Table 3.2.1-2 shows the air emissions data from the OU III Building 96 RTW-1 air stripper groundwater treatment system and compares the values to the existing Air Equivalency Permit and levels stipulated in NYSDEC Division of Air (DAR)-1 guidance. Emission rates are obtained through mass-balance calculations for water treated during 2023.

Table 3.2.1-1
OU III Building 96 RTW-1 Treatment Well, 2023 SPDES Equivalency Permit Levels

Parameter	Permit Level (µg/L)	Max. Measured Value (µg/L)
pH range (SU)	5.0–8.5	5.5– 8.0
tetrachloroethylene	5.0	ND
1,1,1-trichloroethane	5.0	ND
thallium	Monitor	ND
trichlorofluoromethane	5.0	ND
methyl bromide	5.0	ND
methyl chloride	5.0	ND
methylene chloride	5.0	ND
1,2-Dichloroethane	0.6	ND
Perfluorooctanesulfonic acid (PFOS)	Monitor	9.7 ng/L
Perfluorooctanoic acid (PFOA)	Monitor	6.6 ng/L

Note: Required effluent sampling frequency is monthly following a period of 24 consecutive weekly with no exceedances. *Weekly* for pH.

Note: The discharge is being reported on the Building 452 Freon-11 SPDES Equivalency Permit.

SU = Standard Units

ND –not detected

Table 3.2.1-2
OU III Building 96 Area
2023 Average VOC Emission Rates

Parameter	Allowable ERP (lb/hr)	Mass Emission Limit (lbs/yr)	Calculated Average ER (lbs/hr)	Actual Mass Emission (lbs/yr)	Actual ER (lb/hr)
Existing Building 96/Building 452 Freon Air Equivalency Permit Analytes					
dichlorodifluoromethane	0.0000187	--	--	--	NA
acetone	0.000674	--	--	--	NA
methylene chloride	0.000749	--	--	--	0
2-butanone	0.000187	--	--	--	NA
Benzene (Table 2-2 HTAC)	0.000112	100	0.011	0	0
Tetrachloroethylene (Table 2-2 HTAC)	0.000165	1,000	0.11	0.3	0.00006
m,p-xylene	0.0000116	--	--	--	0
isopropylbenzene	0.000243	--	--	--	NA
n-propylbenzene	0.0000599	--	--	--	0
1,3,5-trimethylbenzene	0.000375	--	--	--	0
1,2,4-trimethylbenzene	0.000225	--	--	--	0
4-isopropyltoluene	0.00000749	--	--	--	NA
naphthalene	0.0000225	--	--	--	NA
carbon disulfide	0.0000487	--	--	--	NA
styrene	0.00000637	--	--	--	NA
trans-1,3-dichloropropane	0.0000157	--	--	--	NA
Other Table 2-2 HTACs:					
trichloroethylene	--	500	0.057	0	0
carbon tetrachloride	--	100	0.011	0	0
vinyl chloride	--	100	0.011	0	0
1,1,2,2-tetrachloroethane	--	1,000	0.11	0	0
1,2-dichloroethane	--	100	0.011	0	0
Other Analytes:					
Chloroform	--	--	--	0.08	0.00002
trichlorofluoromethane	--	--	--	0.06	0.00001
Total VOCs	--	--	--	0.44	0.00009

Notes:
Allowable ERP (Emission Rate Potential) – Based on existing treatment system Air Equivalency Permit.
Mass Emission Limit – NYSDEC Part 212-2.2 Table 2-2 High Toxicity Air Contaminant (HTAC) List.
Calculated Average (ER) Emission Rate – Calculated average ER based on Table 2-2 HTAC Mass Emission Limit.
Actual Mass Emission – Calculated cumulative mass emission based on average system influent and effluent VOC concentrations and system operational data for 2023.
Actual ER – Calculated ER based on average system influent and effluent VOC concentrations and system operational data for 2023.
NA – Not analyzed.
-- - No value

In accordance with the DAR-1 guidance, treatment is required for a remedial system that has a potential to emit greater than 0.01 pounds per hour of a Part 212-2.2 Table 2-2 HTAC. Treatment is required below this level if the annual total emissions exceeds the Table 2-2 Mass Emission Limit. If the remedial system does not have the potential to emit greater than 0.01 pounds per hour of a HTAC and potential emissions are below the Mass Emission Limit, then no treatment or further evaluation is required. For non-HTAC VOCs, treatment is required if the system has the potential to emit TVOCs at a rate greater than 0.5 pounds per hour

As demonstrated in **Table 3.2.1-2** above, the Building 96 RTW-1 system met all air emission parameters for operation as specified in DAR-1 guidance and the existing air equivalency permit for

the Building 96/Building 452 Freon system.

Cumulative Mass Removal

Table 3.2.1-3 shows the monthly extraction well pumping rates. The annual average pumping rate for the system was 25 gpm. The pumping and mass removal data are summarized on **Table F-7**. In 2023, approximately 0.3 pounds of VOCs were removed. Since February 2001, the system has removed approximately 147 pounds of VOCs.

3.2.1.7 System Evaluation

The Building 96 Treatment System performance can be evaluated based on the decisions identified by applying the DQO process.

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

Yes, TVOC concentrations in source area groundwater declined significantly following the source area soil removal but have been fluctuating from 21 µg/L to 200 µg/L in well 085-379 since 2016. TVOC concentrations in this well during 2023 ranged from 49 µg/L to 76 µg/L. RTW-1 is capturing VOCs migrating from the source area.

2. Were unexpected levels or types of contamination detected?

No, there were no unexpected VOC levels detected.

3. Has the downgradient migration of the plume been controlled?

Yes, RTW-1 is capturing the leading edge of the VOC plume. See **Figure 3.2.1-6** for a comparison of the plume from 2000 to 2023. However, the TVOC concentration in monitoring well 095-152 was detected slightly above (53 µg/L) the capture goal of 50 µg/L during one sampling event in 2023. TVOC concentrations in plume bypass well 095-162 have been just above detectable levels since 2019. TVOC concentrations have remained low in sentinel well 095-318, located on Weaver Drive, indicating the plume is not reaching this location.

4. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

No, the system has not met all shutdown requirements. RTW-1 TVOC concentrations have not exceeded the TVOC capture goal since 2015 and concentrations continue to slowly decline. However, monitoring well 085-379, upgradient of RTW-1 continues to show the TVOC concentration above the capture goal and evidence indicates that a continuing source of residual VOC contamination remains in the unsaturated zone. RTW-1 was placed in a pulsed pumping mode (one month on, one month off) in May 2022. Influent TVOC concentrations in downgradient recirculation wells RTW-3 and RTW-4 have been below 50 µg/L since 2008. The only TVOC concentration in RTW-2 above the capture goal since operations began was a detection of 65 µg/L in 2018. Due to the consistently low TVOC levels, extraction wells RTW-2, RTW-3 and RTW-4 have remained in standby mode.

4a. Are TVOC concentrations in plume core wells above or below 50 µg/L?

TVOC concentrations in two of 21 core wells (085-379 and 095-159) were above 50 µg/L in 2023.

4b. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

No, concentrations in the downgradient extraction wells (RTW-2, RTW-3, and RTW-4) have remained below 5 µg/L since 2018. RTW-1 remained operational due to the continued TVOC concentrations in well 085-379 above 50 µg/L. However, the TVOC concentration was detected slightly above the capture goal during one sampling event in 2023, in monitoring well 095-159, downgradient of RTW-1, likely due to RTW-1 pulsed pumping.

5. Has the groundwater cleanup goal of meeting MCLs been achieved?

MCLs have not been achieved for individual VOCs in all plume core wells. The highest TVOC concentration in 2023 was 76 µg/L of PCE in well 085-379.

3.2.1.8 Recommendations

The following are recommendations for the OU III Building 96 Groundwater Remediation System and monitoring program:

- RTW-1 TVOC concentrations have remained below the 50 µg/L system capture goal since 2015. This well will continue to operate in a pulsed pumping mode. RTW-1 and area wells will be monitored for any significant rebound of concentrations over the system capture goal.
- Per a recommendation in the *2021 CERCLA Five-Year Review Report* (BNL, 2021d), continue to closely monitor TVOC concentrations in the plume source area and evaluate/implement a liquid carbon with ZVI in-situ treatment for the immediate source area. The in-situ liquid carbon with ZVI source area chemical treatment was started during the second quarter 2024.
- Maintain treatment wells RTW-2, RTW-3, and RTW-4 in standby mode, and restart the wells if extraction or monitoring well data indicate that TVOC concentrations exceed 50 µg/L.

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3.2.2 Middle Road Treatment System

The Middle Road Treatment System began operating in October 2001. This section summarizes the operational data from the Middle Road System for 2023 and presents conclusions and recommendations for future operation. The analytical data from the monitoring wells are also evaluated in detail.

3.2.2.1 System Description

The Middle Road Treatment System has seven extraction wells and air-stripping treatment to remove VOCs from the groundwater. The system is currently operating with wells RW-2, RW-3, and RW-7. During 2019, the Middle Road/South Boundary system was interconnected with the Western South Boundary system combining them into a single treatment system. During this modification four new and two existing Western South Boundary extraction wells were tied in, and effluent water discharge is now being monitored under the Middle Road and South Boundary Treatment System SPDES equivalency permit. A complete description of the system is included in the *Operation and Maintenance Manual for the OU III Middle Road and South Boundary Groundwater Treatment Systems, Revision 2* (BNL 2014a) and *Operations and Maintenance Manual for the Western South Boundary Treatment System* (BNL 2020b).

3.2.2.2 Groundwater Monitoring

The Middle Road Monitoring Program consists of a network of 35 monitoring wells. As recommended in the *2022 Groundwater Status Report* (BNL 2023c) two additional monitoring wells were installed at the location of temporary vertical profile wells installed during 2021. The two additional monitoring wells that were installed during 2023 are 105-80 and 105-81. The locations of these wells are shown on **Figure 3.2.2-1**. The wells are sampled and analyzed for VOCs as shown in **Table 1-5**.

3.2.2.3 Monitoring Well Results

The complete VOC results are provided in **Appendix C**. The highest VOC concentrations are generally found in the area between extraction wells RW-7 and RW-2 **(Figure 3.2.2-1)**. TVOC concentrations in monitoring wells east of RW-2 are well below the 50 µg/L capture goal for this system. The highest TVOC concentration in Middle Road monitoring wells during 2023 was 156 µg/L in well 105-66 during the May sampling round. This monitoring well is located approximately 400 feet north of extraction well RW-2.

Figure 3.2.2-2 shows the vertical distribution of contamination running along an east–west line through the extraction wells; the location of this cross section (E–E') is shown on **Figure 3.2.2-1**. VOC contamination in the western portion of the remediation area (RW-7 through RW-3) extends to the deep Upper Glacial aquifer and shallow portions of the Magothy aquifer. **Figure 3.2.2-3** shows plots of the VOC concentrations versus time for key monitoring wells. Results for key monitoring wells are as follows:

- Plume core well 104-37 (screened in the deep Upper Glacial aquifer) is approximately 2,000 feet upgradient of RW-7, just south of Princeton Avenue. The TVOC concentration in October 2023 was 69 µg/L. TVOC concentrations in this well were much higher historically, followed by a significant decline. They have remained at the current level for the past several years.
- Well 105-68 is approximately 500 feet north of the extraction well RW-7. This well contains elevated TVOC concentrations with the highest concentration of 155 µg/L in February 2023. The data from this location along with data from monitoring wells 104-37 and 121-53 continue to indicate that there is a zone of higher concentration VOC contamination

(primarily PCE and carbon tetrachloride) in the deep Upper Glacial aquifer extending from Princeton Avenue to the Middle Road and then south of RW-7 to the South Boundary near EW-17 (**Figure 3.2.2-1** and **Figure 3.2.2-4**).

§ Plume core monitoring wells 105-66 and 105-67 continued to show elevated TVOC concentrations in 2023, with maximum values of 156 µg/L and 96 µg/L, respectively.

§ TVOC concentrations in monitoring wells in the vicinity of extraction wells RW-4, RW-5, and RW-6 were well below the system capture goal of 50 µg/L in 2023. See **Figure 3.2.2-6** for extraction well trend data for this area.

§ Wells 095-322 and 095-323 are located along Weaver Drive (**Figure 3.2.2-1**). These wells were installed in 2014 to monitor VOCs in the deep Upper Glacial aquifer. The highest TVOC concentrations during 2023 were in well 095-322 and well 095-323, at 33 µg/L and 17 µg/L, respectively. The TVOC concentrations in these wells have remained relatively stable since 2014.

3.2.2.4 System Operations

The effluent sampling parameters for pH and VOCs follow the requirements for monthly sampling, per the SPDES equivalency permit (**Table 3.2.2-1**). The Western South Boundary is now operating under the same SPDES equivalency permit as the Middle Road and South Boundary projects. The effluent concentrations from the treatment system during this period of operation were below equivalency permit discharge levels. In addition, samples from the influent are analyzed for tritium with each sampling event through August. Tritium from these samples continues to be non-detect. Sampling for tritium was discontinued during the last quarter of 2023. Approximately 187 million gallons of water were treated in 2023 by the Middle Road Treatment System. The Middle Road, South Boundary and Western South Systems treated a combined total of approximately 428 million gallons. 287 million gallons of this treated water was transferred to the RA V recharge basin while the remainder was discharged to the OU III recharge basin. In addition, these systems extraction wells, influent, and effluent were analyzed for PFAS and 1,4-dioxane starting in 2023 **(Section 3.5)**.

Table 3.2.2-1.
OU III Middle Road/South Boundary/Western South Boundary Air Stripping Tower
2023 SPDES Equivalency Permit Levels

Parameters	Permit Limit (µg/L)	Max. Observed Value (µg/L)
pH range (SU)	6.5–8.5	6.7 – 7.8
carbon tetrachloride	5	ND
chloroform	7	ND
dichlorodifluoromethane	5	ND
1,1-dichloroethane	5	ND
1,1-dichloroethylene	5	ND
methyl chloride	5	ND
tetrachloroethylene	5	ND
toluene	5	ND
1,1,1-trichloroethane	5	ND
1,1,2-trichloroethane	5	ND
trichloroethylene	10	ND

Notes: SU = Standard Units
Required sampling frequency is monthly for VOCs and pH.
ND – Not detected.

The following is a summary of the Middle Road System operations for 2023.

January – September 2023

The system operated normally with RW-3 and RW-7 operating full time, and RW-1, RW-4, RW-5 and RW-6 in standby mode. The system was shut down for one week in February for the installation of a

new blower assembly on one of the air stripper towers. RW-2 was off for repairs during the last week of July and into the first week of August. Approximately 145 million gallons of water were treated.

October – December 2023

During the fourth quarter the system operated normally and treated approximately 42 million gallons of water. Power was off for tree trimming activities around overhead power lines during the last week of September into the first week of October. In addition, RW-7, was off for repairs from the end of November through first week in December 2023.

3.2.2.5 System Operational Data

System Influent and Effluent

Figure 3.2.2-6 plots the TVOC concentrations in the extraction wells versus time. Results of the extraction well samples are found in **Table F-8.** The influent VOC concentrations showed slight variations with values ranging from 6 µg/L to 22 µg/L. The results of the influent and effluent sampling are summarized in **Tables F-9** and **F-10**, respectively.

Cumulative Mass Removal

Cumulative mass was calculated for the period of operation to determine the mass of VOCs removed from the aquifer by the extraction wells. Average flow rates for each monthly monitoring period were used, in combination with the TVOC concentrations in the air-stripper influent, to determine the pounds removed. Flow averaged 361 gpm during 2023 (**Table 3.2.2-3**, and **Table F-11**), and approximately 26 pounds of VOCs were removed. To date, 1,378 pounds of VOCs have been removed since the system began operations in October 2001. The cumulative total of VOCs removed vs. time is plotted on **Figure 3.2.2-5.**

Air Discharge

Table 3.2.2-2 shows the air emissions data from the system for the OU III Middle Road air stripper tower during 2023 and compares the values to levels stipulated in the existing Air Equivalency Permit and NYSDEC DAR-1 guidance. Emission rates are obtained through mass-balance calculations for the water treated during that time (**Table F-9**). The emissions on **Table 3.2.2-2** are from the Middle Road system. However, the Middle Road/South Boundary and Western South Boundary systems are being co-treated via air stripping and the cumulative total emission rates are also provided and are still well below permitted levels.

Table 3.2.2-2
OU III Middle Road/South Boundary/Western South Boundary Air Stripper
2023 Average VOC Emission Rates

Parameter	Allowable ERP* (lbs/hr)	Mass Emission Limit Table 2-2 HTAC (lbs/yr)	Calculated Average ER Table 2-2 HTAC (lbs/hr)	MR Actual Mass Emission** (lbs/yr)	MR Actual ER*** (lbs/hr)	MR/SB/WSB Total ER**** (lbs/hr)
Existing OUIII MR/SB/WSB Air Equivalency Permit Analytes						
carbon tetrachloride	0.016	100	0.011	1.2734	0.00015	0.000276
chloroform	0.0031	--	--	0.56609	0.000065	0.000208
chloroethane	10	--	--	0	0	0
1,1-dichloroethane	10	--	--	0.75479	0.000086	0.000159
1,2-dichloroethane	0.008	100	0.011	0	0	0
1,1-dichloroethelylene	0.034	--	--	0.59908	0.000068	0.0007028
cis-1,2-dichloroethylene	10	--	--	0	0	0.0000027
trans-1,2-dichloroethylene	10	--	--	0	0	0
tetrachloroethylene	0.387	1000	0.11	21.2053	0.002421	0.0030864
1,1,1-trichloroethane	10	--	--	1.1784	0.000135	0.000454
trichloroethylene	0.119	500	0.057	1.0385	0.000119	0.000244
Other Table 2-2 HTACs:						
benzene	--	100	0.011	0	0	0
vinyl chloride	--	100	0.011	0	0	0
1,1,2 trichloroethane	--	100	0.011	0	0	0
1,1,2,2-tetrachloroethane	--	1,000	0.11	0	0	0
1,3-dichloropropene	--	500	0.057	0	0	0
Other Detected Analytes:						
dichlorodifluoromethane	--	--	--	0	0	0.0001415
Total VOCs	--	--	--	26.61	0.00304	0.00527

Notes:
*Allowable ERP (Emission Rate Potential) – Based on existing treatment system Air Equivalency Permits. Conservative value used.
Mass Emission Limit – NYSDEC Part 212-2.2 Table 2-2 High Toxicity Air Contaminant (HTAC) List.
Calculated Average (ER) Emission Rate – Calculated average ER based on Table 2-2 HTAC Mass Emission Limit.
**Actual Mass Emission – Calculated cumulative mass emission based on average system influent and effluent VOC concentrations and system operational data for 2023.
***Actual ER – Calculated ER based on average system influent and effluent VOC concentrations and system operational data for 2023.
****MR/SB/WSB Total ER =Cumulative Total for Middle Road/South Boundary/Western South Boundary.
-- – No value.

As demonstrated in **Table 3.2.2-2** above, the combined OU III Middle Road/South Boundary/Western South Boundary system met all air emission parameters for operation as specified in DAR-1 guidance and the existing air equivalency permits.

Extraction Wells

The system is currently operating utilizing wells RW-2, RW-3, and RW-7. Extraction wells RW-4 and RW-5 were shut down in September 2003 and placed on standby due to low concentrations of VOCs. RW-6 was shut down in September 2006. Extraction well RW-1 was shut down in November 2015. The extraction wells are sampled quarterly. TVOC concentrations in wells RW-1, RW-4, RW-5 and RW-6 were all below the capture goal of 50 µg/L in 2023, with a maximum concentration of 9 µg/L in well RW-6 in April. The maximum TVOC concentration observed in the operating extraction wells in

2023 was in well RW-7 with a peak concentration of 43 µg/L in July. This extraction well remained in operation due to TVOC concentrations above the capture goal in upgradient monitoring wells. See **Figure 3.2.2-6** for a plot of the TVOC concentrations for the seven extraction wells. **Table 3.2.2-3** shows the monthly extraction well pumping rates.

3.2.2.6 System Evaluation

The Middle Road Treatment System performance can be evaluated based on the decisions identified for this system from the groundwater DQO process.

1. Were unexpected levels or types of contamination detected?

No unexpected concentrations or types of contamination were detected. However, PFAS and 1,4-dioxane were detected in the system, as detailed in **Section 3.5.**

2. Has the downgradient migration of the plume been controlled?

Yes, the plume in the deep Upper Glacial aquifer is being captured by extraction wells RW-2, RW-3 and RW-7. The VOCs that have migrated past Middle Road prior to the installation of RW-7 will be captured by the South Boundary Treatment System.

3. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

Extraction wells RW-1, RW-4, RW-5 and RW-6 have been in standby. TVOC concentrations below the 50 µg/L capture goal continued to be observed in the vicinity of these wells. Although extraction wells RW-2, RW-3 and RW-7 were below the capture goal, they will continue operation due to nearby monitoring wells with TVOC concentrations above the capture goal in 2023.

3a. Are TVOC concentrations in plume core wells above or below 50 µg/L?

Seven plume core wells during 2023 had TVOC concentrations above the capture goal of 50 µg/L.

3b. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

There has been no rebound in TVOC concentrations in the extraction wells currently in standby mode and there has not been a rebound in the monitoring wells in those areas.

4. Has the groundwater cleanup goal of meeting MCLs been achieved?

Groundwater contaminant concentrations and overall extent of the OU III plume have decreased significantly due to the operation of the Middle Road Treatment System. However, several monitoring wells are not declining at a rate that will definitively achieve the cleanup goal of 5 µg/L for individual VOCs by 2030. These monitoring wells include 104-37, 105-66, 105-67, and 105-68.

3.2.2.7 Recommendations

The following recommendations are made for the Middle Road Treatment System and groundwater monitoring program:

- Maintain extraction wells RW-1, RW-4, RW-5 and RW-6 in standby mode. Restart the well(s) if extraction or monitoring well data indicate that TVOC concentrations exceed the 50 µg/L capture goal.
- Continue full-time operation of RW-2, RW-3 and RW-7.

- Remove monitoring well 106-56 from OU III Middle Road monitoring program. This well has not had VOC concentrations above MCLs in over ten years.
- Deep Upper Glacial aquifer VOC concentrations in this area of the site are not declining at a rate that will not definitively meet the ROD cleanup goal of MCLs by 2030. As per *the 2021 CERCLA Five-Year Review Report* (BNL 2021d) recommendations, perform groundwater modeling simulations to evaluate if a system modification is appropriate to enhance the cleanup in the area. The regional groundwater model will be updated to better represent the Upton Unit to support the evaluation.

3.2.3 OU III South Boundary Treatment System

This section summarizes the operational data from the OU III South Boundary Treatment System for 2023 and provides conclusions and recommendations for future operation. Also included within this section is an evaluation of the extraction and monitoring well sampling data.

3.2.3.1 System Description

This system began operation in June 1997. It utilizes air-stripping technology for treatment of groundwater contaminated with chlorinated solvents. There are eight original extraction wells that date back to 1997. Extraction well EW-17 was installed in 2012 to address historical high VOC concentrations in the deeper segments of the plume near the site boundary. During 2023, the system operated utilizing one extraction well EW-17. The remainder of the wells were in standby mode. During 2019, the Middle Road/South Boundary system was interconnected with the Western South Boundary system combining them into a single treatment system. During this modification four new and two existing Western South Boundary extraction wells were tied in, and effluent water discharge is now being monitored under the Middle Road and South Boundary Treatment System SPDES equivalency permit. A complete description of the system is included in the *Operation and Maintenance Manual for the OU III Middle Road and South Boundary Groundwater Treatment Systems, Revision 2* (BNL 2014a) and *Operations and Maintenance Manual for the Western South Boundary Treatment System* (BNL 2020b).

3.2.3.2 Groundwater Monitoring

The OU III South Boundary monitoring well network consists of a total of 34 monitoring wells and was designed to monitor the VOC plume(s) in this area of the southern site boundary, as well as the efficiency of the groundwater remediation system (**Figure 3.2.3-1**). As recommended in the *2022 Groundwater Status Report* (BNL 2023c) an additional monitoring well (121-57) was installed. This well was installed in 2023 at the location of a temporary vertical profile well installed during 2021. The installation of well 121-57 increased the monitoring well network from 33 to 34 wells. During 2023, the monitoring wells were sampled and analyzed for VOCs at frequencies detailed in **Table 1-5.**

3.2.3.3 Monitoring Well Results

The South Boundary segment of the OU III VOC plume continued to be bounded by the existing monitoring well network. VOCs were detected in the deep Upper Glacial aquifer in the vicinity of the site boundary, as depicted on **Figure 3.2-2, Figure 3.2.3-1,** and **Figure 3.2.3-2. Appendix C** has the complete groundwater monitoring well results for 2023.

Elevated VOC concentrations remain in the deep Upper Glacial aquifer upgradient of extraction wells EW-4 and EW-17, as can be seen on cross section G–G' **(Figure 3.2.3-2)**. The VOC concentration trends for the extraction wells are shown on **Figure 3.2.2-3** and **Figure 3.2.2-4.** Results for key monitoring wells are as follows:

- Bypass well 121-43, located several hundred feet south of extraction wells EW-4 and EW-17, historically had shown elevated levels of VOCs. Extraction well EW-17 was installed in 2012 to address the historical high VOC concentrations that had been observed in well 121-43 and capture the deeper portion of the VOC plume at the boundary. The TVOC concentration in well 121-43 has declined from 398 µg/L in 2008 to 2.1 µg/L in November 2023 (**Figure 3.2.3-1**).
- Three additional monitoring wells are used to monitor the performance of extraction well EW-17. They include 121-47, a western plume perimeter well, 121-48, an eastern plume

perimeter well, and 121-49, located upgradient of extraction well EW-17. The TVOC concentration in both 121-47 and 121-48 remained relatively stable throughout 2023. The upgradient monitoring well 121-49 showed decreasing TVOC concentrations in 2023. TVOC concentrations in well 121-49 have shown an overall decreasing trend from 740 µg/L in 2017 to 11.7 µg/L in November 2023 (**Figure 3.2.2-3**). Although well 121-49 has seen a reduction of TVOC concentrations, recent monitoring data suggests that due to the proximity to EW-17 and the similarities in screen zone depths, drawdown effects may play a role in the concentrations observed within 121-49. Data collected during March 2023 show a rebound in concentrations to 130 µg/L during a time when EW-17 was off for maintenance.

§ Monitoring well 121-45 was installed to monitor the plume between the Middle Road and South Boundary. TVOC concentration was 4 µg/L in November 2023. This is a significant reduction from the initial concentration of 613 µg/L in 2006 (**Figure 3.2.2-3**).

§ Well 121-54 was installed in 2014 to monitor VOC concentrations upgradient of extraction well EW-17. This well has had persistent TVOC concentrations between 63 µg/L (December 2023) and 250 µg/L since 2014.Well 121-53 was also installed upgradient of EW-17, and it remained elevated with a TVOC concentration of 154 µg/L in September of 2023.

§ Well 122-05 is a Magothy monitoring well west of EW-8. TVOC concentrations in this well continued to remain stable with a concentration of 13 µg/L in November 2023 **(Figure 3.2.2-3)**.

3.2.3.4 System Operations

The individual extraction wells are sampled quarterly and analyzed for VOCs. The effluent sampling parameters of pH and VOCs are obtained monthly, in accordance with SPDES equivalency permit requirements (**Table 3.2.3-1**). In addition, samples from the influent were analyzed for tritium with each system-sampling event through August. Tritium from these samples continues to be non-detect. Sampling for tritium was discontinued during the last quarter of 2023. Effluent VOC concentrations from the treatment system during this period of operation were below equivalency permit requirements. Because extraction well EW-17 utilized the electrical equipment from EW-12, EW-12 has not been sampled since 2012. EW-12 could be modified if groundwater monitoring indicates the extraction well is required. In 2023, approximately 69 million gallons of water were treated by the South Boundary System. The combined Middle Road, South Boundary and Western South System treated a total of approximately 428 million gallons. 287 million gallons of this treated water was transferred to the RA V recharge basin while the remainder was discharged to the OU III recharge basin. In addition, these systems extraction wells, influent, and effluent were analyzed for PFAS and 1,4-dioxane starting in 2023 **(Section 3.5)**.

Table 3.2.3-1.
OU III Middle Road/South Boundary/Western South Boundary) 2023 SPDES Equivalency Permit Levels

Parameters	Permit Limit* (µg/L)	Max. Observed Value (µg/L)
pH range (SU)	6.5 – 8.5	6.7–7.8
carbon tetrachloride	5	ND
chloroform	7	ND
dichlorodifluoromethane	5	ND
1,1-dichloroethane	5	ND
1,1-dichloroethylene	5	ND
methyl chloride	5	ND
tetrachloroethylene	5	ND
toluene	5	ND
1,1,1-trichloroethane	5	ND
1,1,2-trichloroethane	5	ND
trichloroethylene	10	ND

Notes:
*Maximum allowed by requirements equivalent to a SPDES permit.
Required sampling frequency is monthly for VOCs and pH.
SU – Standard units.

The following is a summary of the South Boundary System operations for 2023.

January – September 2023

The system operated normally with well EW-17. The system was shut down for one week in February for the installation of a new blower assembly on one of the air stripper towers. In the first three quarters, the OU III South Boundary System pumped and treated approximately 50 million gallons of water.

October – December 2023

The system operated normally with well EW-17. Power was off to the system for tree trimming activities around overhead power lines during the last week of September into the first week of October. The OU III South Boundary System pumped and treated approximately 19 million gallons of water.

3.2.3.5 System Operational Data

System Influent and Effluent

Figures 3.2.3-3 and **3.2.3-4** plot the TVOC concentrations in the extraction wells versus time. The influent water and the individual extraction wells show a declining trend in TVOC concentrations. System influent and effluent sampling results are summarized on **Tables F-13** and **F-14**, respectively.

Cumulative Mass Removal

Average flow rates for each monthly monitoring period were used, in combination with the TVOC concentration in the air-stripper influent, to calculate the mass removal **(Table F-15)**. The cumulative total of VOCs removed by the treatment system versus time is plotted on **Figure 3.2.3-5**. During 2023, the total removed by the South Boundary system was approximately eight pounds. The South Boundary system has removed approximately 3,084 pounds since it was started in June 1997.

Air Discharge

Table 3.2.3-2 shows the air emissions data from the OU III South Boundary system for 2023 and compares the values to levels stipulated in the existing Air Equivalency Permit and NYSDEC DAR-1 guidance. Emission rates are obtained through mass-balance calculations for water treated during that time **(Table F-13)**. These emissions on **Table 3.2.3-2** are from the South Boundary system. However, the Middle Road/South Boundary and Western South Boundary systems are being co-treated via air stripping and the cumulative total emission rates are also provided and are still well below permitted levels.

Table 3.2.3-2
OU III Middle Road/South Boundary/Western South Boundary Air Stripper
2023 Average VOC Emission Rates

Parameter	Allowable ERP* (lbs/hr)	Mass Emission Limit Table 2-2 HTAC (lbs/yr)	Calculated Average ER Table 2-2 HTAC (lbs/hr)	SB Actual Mass Emission** (lbs/yr)	SB Actual ER*** (lbs/hr)	MR/SB/WSB Total ER**** (lbs/hr)
Existing OUIII MR/SB/WSB Air Equivalency Permit Analytes						
carbon tetrachloride	0.016	100	0.011	1.1075	0.000126	0.000276
chloroform	0.0031	--	--	0.27419	0.000031	0.000208
chloroethane	10	--	--	0	0	0
1,1-dichloroethane	10	--	--	0	0	0.000159
1,2-dichloroethane	0.008	100	0.011	0	0	0
1,1-dichloroethelylene	0.034	--	--	0.19908	0.0000228	0.0007028
cis-1,2-dichloroethylene	10	--	--	0.02333	0.0000027	0.0000027
trans-1,2-dichloroethylene	10	--	--	0	0	0
tetrachloroethylene	0.387	1000	0.11	5.8289	0.0006654	0.0030864
1,1,1-trichloroethane	10	--	--	0.18959	0.000021	0.000454
trichloroethylene	0.119	500	0.057	0.25279	0.000028	0.000244
Other Table 2-2 HTACs:						
benzene	--	100	0.011	0	0	0
vinyl chloride	--	100	0.011	0	0	0
1,1,2 trichloroethane	--	100	0.011	0	0	0
1,1,2,2-tetrachloroethane	--	1,000	0.11	0	0	0
1,3-dichloropropene	--	500	0.057	0	0	0
Other Detected Analytes:						
dichlorodifluoromethane	--	--	--	0.0134	0.0000015	0.0001415
Total VOCs	--	--	--	7.88	0.00090	0.00527

Notes:
*Allowable ERP (Emission Rate Potential) – Based on existing treatment system Air Equivalency Permits. Conservative value used.
Mass Emission Limit – NYSDEC Part 212-2.2 Table 2-2 High Toxicity Air Contaminant (HTAC) List.
Calculated Average (ER) Emission Rate – Calculated average ER based on Table 2-2 HTAC Mass Emission Limit.
**Actual Mass Emission – Calculated cumulative mass emission based on average system influent and effluent VOC concentrations and system operational data for 2023.
***Actual ER – Calculated ER based on average system influent and effluent VOC concentrations and system operational data for 2023.
****MR/SB/WSB Total ER =Cumulative Total for Middle Road/South Boundary/Western South Boundary.
-- – No value.

As demonstrated in **Table 3.2.3-2** above, the combined OU III Middle Road/South Boundary/Western South Boundary system met all air emission parameters for operation as specified in DAR-1 guidance and the existing air equivalency permits.

Extraction Wells

Only extraction well EW-17 operated during 2023. EW-17 showed a maximum TVOC concentration of 25 µg/L in October. This well is located slightly downgradient and deeper than well EW-4. **Table F-12** summarizes the data for the extraction wells. **Table 3.2.3-3** shows the monthly extraction well pumping rates. The system averaged 133 gpm in 2023. Starting in 2023, the system was also analyzed for PFAS and 1,4-dioxane **(Section 3.5).**

3.2.3.6 System Evaluation

The OU III South Boundary Treatment System performance can be evaluated based on the decisions identified for this system resulting from the groundwater DQO process.

1. Were unexpected levels or types of contamination detected?

No unexpected concentrations or types of VOC contamination were detected. However, PFAS and 1,4-dioxane were detected in the system, as detailed in **Section 3.5.**

2. Has the downgradient migration of the plume been controlled?

Yes, extraction well EW-17 is controlling the plume at the site boundary. This has resulted in reduced VOC concentrations in bypass well 121-43 from 87 µg/L in October 2012 to 2.1 µg/L in November 2023 (**Figure 3.2.3-1 and Figure 3.2.2-3**).

3. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

Seven of the eight extraction wells have been shut down as they have achieved the capture goal for this system. Well EW-17 will continue to operate on a full-time basis to capture VOCs in this area.

4. Are TVOC concentrations in plume core wells above or below 50 µg/L?

There are still two plume core wells 121-53, and 121-54 with persistent TVOC concentrations above 50 µg/L in the capture zone of well EW-17.

5. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

A significant concentration rebound has not been observed in the monitoring or extraction wells in the eastern segment of this system. Extraction well EW-17 is still in full-time operation.

6. Has the groundwater cleanup goal of meeting MCLs been achieved?

No, individual VOC MCLs have not been achieved. Monitoring well 121-49, located near EW-4 and EW-17, has a shown a decrease in TVOC from 1,265 µg/L TVOCs in November 2011 to less than 20 µg/L in 2023. However, similar to the Middle Road Treatment System, monitoring well 121-53 and 121-54 located approximately halfway between the Middle Road and South Boundary Treatment System has VOC concentrations that are not decreasing at a rate that will definitively achieve cleanup goals by 2030.

3.2.3.7 Recommendations

The following are recommendations for the OU III South Boundary Treatment System and groundwater monitoring program:

- Maintain wells EW-3, EW-4, EW-5, EW-6, EW-7, EW-8, and EW-12 in standby mode. The system's extraction wells will continue to be sampled on a quarterly basis, with the exception of EW-12. The wells will be restarted if extraction or monitoring well data indicate TVOC concentrations exceed the 50 µg/L capture goal.
- Continue to operate extraction EW-17 on a full-time basis.
- Discontinue sampling monitoring wells 114-06, 121-18, 121-21, 122-09, 122-10 and 122-31 from OU III South Boundary monitoring program. These wells have not had VOC concentrations above MCLs in over ten years.

- Deep Upper Glacial aquifer VOC concentrations in this area of the site are not declining at a rate that will definitively meet the ROD cleanup goal of MCLs by 2030. Per the *2021 CERCLA Five-Year Review Report* (BNL 2021b) recommendations perform groundwater modeling simulations to evaluate a system modification is appropriate to enhance the cleanup in the area. The regional groundwater model will be updated to better represent the Upton Unit to support the evaluation.

3.2.4 Western South Boundary Treatment System

The Western South Boundary (WSB) Treatment System was designed to capture VOCs in the Upper Glacial aquifer along portions of the WSB. The capture goal for the system is TVOC concentrations exceeding 20 µg/L. The system was designed to reduce additional off-site migration of VOCs, and potential impacts of the VOC plume to the Carmans River. The system began operating in September 2002 and was changed to a pulsed pumping mode in late 2005, one month on and two months off. Based on increasing VOC concentrations in an upgradient monitoring well, extraction well WSB-1 was put back into full-time operation starting in November 2008. Extraction well WSB-2 was placed in standby in October 2016. During 2018, four new extraction wells were added to this system. They began operations in March 2019. Details are provided below on the new extraction wells.

3.2.4.1 System Description

A complete description of the WSB Treatment System is contained in the *Operations and Maintenance Manual for the Western South Boundary Treatment System, Rev. 3* (BNL 2020b). A modification to this system to add four new extraction wells was undertaken beginning in June 2018 (see BNL 2018c) and was completed in March 2019. The four new wells were installed to address deeper VOC contamination. These wells along with the two existing wells were connected to the Middle Road/South Boundary Treatment System. A schematic of the new well configuration and piping is included as **Figure 3.2.4-7.** The existing WSB air stripper is no longer operating and will be decommissioned in the future. The WSB extraction well effluent water discharge is now monitored under the Middle Road and South Boundary Treatment System SPDES Equivalency permit.

3.2.4.2 Groundwater Monitoring

A network of 35 wells is used to monitor this plume. The well locations are shown on **Figure 3.2.4-1**. The wells are sampled per **Table 1-5.**

3.2.4.3 Monitoring Well Results

The primary VOCs associated with this plume are dichlorodifluoromethane (Freon-12), TCA, and DCE. These VOCs were first observed in vertical profile wells installed throughout the WSB area in the late 1990s as part of the OU III RI/FS. TVOC concentrations ranging from 20 µg/L to 40 µg/L were encountered at depths between 120-170 ft bls throughout the area at that time.

Monitoring of this plume has identified several specific areas of higher VOC concentrations than were observed during the RI/FS. An area of VOC concentrations higher than previously seen (up to 170 µg/L TVOC concentrations) was characterized beginning in 2008, from the Middle Road area south to WSB-1 at the south boundary. This plume segment of higher concentrations was primarily focused at depths between 130 and 150 feet bls. During 2008 and 2009, an area of Freon-12 with concentrations up to 55 µg/L, was characterized in the deep Upper Glacial aquifer at depths of 180-200 feet bls approximately 800 feet south of Princeton Avenue.

During characterization efforts in 2016-2017 to define the southern extent of the deeper Freon-12, a zone of high VOC concentrations was encountered. Most of the plume was at slightly greater depths than previously seen in this area (140-210 feet bls). The primary VOCs continued to be TCA, DCE and Freon-12. Based on the characterization data, the areas of higher TCA and DCE concentrations represent slugs of contamination that may have originated from periodic releases from the center of the site. The deeper concentrations of elevated Freon-12 are more discontinuous. **Figure 3.2.4-2** is a vertical cross section from north to south that shows the VOC contamination. It clearly shows this area

of deeper VOC contamination at the south boundary near wells WSB-5 and WSB-6 with some areas of contamination below the Gardiners Clay.

Figure 3.2.4-1 presents fourth quarter 2023 monitoring well concentrations. **Figure 3.2.4-2** provides a north-south cross section (H- H') of the plume. **Figure 3.2.4-6** provides an east-west cross section (H1-H1') along the site boundary and **Figure 3.2.4-3** provides trend graphs for key monitoring wells. A summary of key monitoring well data for 2023 follows:

- Upgradient monitoring wells 103-18 and 103-19 are located near Princeton Avenue. Well 103-18 had a concentration of 38 µg/L in December 2022. This was a significant increase from the previous sample results of around 10 µg/L. However, during 2023 four samples were taken from this well and the highest concentration observed was 9 µg/L in March and May 2023. This indicates that the concentrations in December 2022 were a low-concentration slug of contamination passing through this well location. TVOC concentrations in well 103-19 have remained stable around 5 to 6 µg/L.
- **Figure 3.2.4-6** shows an east west cross section near the BNL site boundary. This figure shows that the higher concentrations are slightly deeper than the original extraction well WSB-1 and further to the west.
- Well 126-20 located between WSB-4 and WSB-5 had a TVOC concentration in 2023 of 6 µg/L in May. This is a significant reduction from the 2018 peak of 150 µg/L.
- Monitoring well 126-18 is located upgradient of extraction wells WSB-5 and WSB-6. It is screened at a depth similar to well WSB-5, the shallower of the two extraction wells. TVOC concentrations in this well were < 2 µg/L in 2023. This is a significant reduction from the peak concentration of 203 µg/L in 2018.
- Downgradient monitoring wells 130-09, 130-10 and 130-11 located south of extraction wells WSB-5 and WSB-6 showed VOC concentrations below AWQS in 2023. This is a good indication that the two extraction wells are capturing the plume.
- The area of higher TCA and DCE concentrations that was identified in 2008-2009, extending at that time from well 119-06 at the Middle Road, south to WSB-1, has now decreased to a lower concentration in the vicinity of WSB-1. Individual VOC concentrations in upgradient wells 119-06 and 126-17 were below AWQS. The plume segment has migrated towards WSB-1 as shown on **Figure 3.2.4-1**.
- TVOC concentrations in well 126-14, immediately upgradient of well WSB-1, ranged between ND and 10 µg/L in 2023. This well is approximately 200 feet north of WSB-1. The well is showing a significant downward trend from a peak concentration of 170 µg/L in 2018.
- Well 126-16 located just south of the BNL site boundary had TVOC concentrations of up to 17 µg/L; however, all individual VOCs were below MCLs.
- Three off-site monitoring wells located on the west end of Carleton Drive are identified as wells 000-558, 000-559, 000-560. The maximum TVOC concentration in these wells was 20 µg/L in well 000-558 in June, with no individual VOC being above MCLs.

3.2.4.4 System Operations

During 2023, extraction wells WSB-1, WSB-3, WSB-4, WSB-5, and WSB-6 continued full-time operation through September, at which time BNL began pulsed pumping these five extraction wells. This pulsed pumping schedule is in accordance with the recommendations in the *2022 Groundwater Status Report* (BNL 2023c). Extraction well WSB-2 was in standby mode in 2023 based on the TVOC

concentrations remaining below the capture goal of 20 µg/L. System samples were collected monthly, and extraction wells were collected quarterly and analyzed for VOCs. In addition, the effluent was analyzed for pH monthly in conjunction with the Middle Road and South Boundary pH sample. **Table 3.2.4-1** provides the effluent limitations for meeting the requirements of the SPDES equivalency permit. The Western South Boundary is now operating under the same SPDES equivalency permit as the Middle Road and South Boundary projects. The system's effluent discharges met the SPDES equivalency permit requirements during 2023. The Middle Road, South Boundary, and Western South System treated a combined total of approximately 428 million gallons. 287 million gallons of this treated water was transferred to the RAV recharge basin while the remainder was discharged to the OU III recharge basin. Starting in 2023, the system was also analyzed for PFAS and 1,4-dioxane **(Section 3.5).**

The system operations are summarized below.

January – September 2023

The system operated normally with WSB-1 and WSB-3 through WSB-6 operating full time through February. The system was shut down for one week in February for the installation of a new blower assembly on one of the air stripper towers. During the first three quarters, the system treated approximately 146 million gallons of water.

October – December 2023

The system operated normally under the pulsed pumping schedule with the exception of power being off to the system for tree trimming activities around overhead power lines during the last week of September into the first week of October. The system treated approximately 26 million gallons of water.

Table 3.2.4-1
OU III Middle Road/South Boundary/Western South Boundary Treatment System 2023 SPDES Equivalency Permit Levels

Parameter	Permit Level (µg/L)	Max. Measured Value (µg/L)
pH range (SU)	6.5–8.5	6.7-7.8
carbon tetrachloride	5	ND
chloroform	7	ND
dichlorodifluoromethane	5	ND
1,1-dichloroethane	5	ND
1,1-dichloroethylene	5	ND
methyl chloride	5	ND
tetrachloroethylene	5	ND
toluene	5	ND
1,1,1-trichloroethane	5	ND
1,1,2-trichloroethane	5	ND
trichloroethylene	10	ND

Note:
Required effluent sampling frequency is monthly for VOCs and monthly for pH.
SU = Standard units

3.2.4.5 System Operational Data

Extraction Wells

During 2023, the WSB System treated approximately 172 million gallons of water, with an average flow rate of approximately 331 gpm. **Table 2-2** gives monthly pumping data for the six extraction wells. **Table 3.2.4-2** shows the monthly extraction well pumping rates. VOC concentrations for the extraction wells are provided in **Table F-16**. TVOC concentrations for extraction wells WSB-1 and WSB-2 have remained below the capture goal of 20 µg/L since 2006. TVOC concentrations for extraction wells showed a maximum concentration in well WSB-5 of 28 µg/L. This is likely due to the pulsed pumping of this system. Trends for the extraction wells are shown on **Figure 3.2.4-4.**

System Influent and Effluent

Influent TVOC concentrations remained stable with a maximum concentration of 10 µg/L. The only individual VOC above its AWQS during the year was DCE at 5.2 µg/L in May (**Table F-17**). The air stripping system effectively removed the contaminants from the influent groundwater. The system's

effluent data were below the analytical method detection limits and below the regulatory limits specified in the equivalency permit (**Table F-18**).

Cumulative Mass Removal

Average flow rates for each monthly monitoring period were used, in combination with the TVOC concentration in the influent, to calculate the pounds of VOCs removed per month **(Table F-19)**. The cumulative mass of VOCs removed by the treatment system is provided on **Figure 3.2.4-5**. During 2023, 12 pounds of VOCs were removed. A total of 212 pounds have been removed since the start-up of the system in 2002.

Air Discharge

Table 3.2.4-3 presents the VOC air emission data for 2023 and compares the values to levels stipulated in the existing Air Equivalency Permit and NYSDEC DAR-1 regulations. Emission rates are calculated through mass balance for water treated during operation. The emissions shown on **Table 3.2.4-3** are from the Western South Boundary system. However, the Middle Road, South Boundary, and Western South Boundary systems are currently being treated via air-stripping and the cumulative total emissions are provided.

Table 3.2.4-3
OU III Middle Road/South Boundary/Western South Boundary Air Stripper
2023 Average VOC Emission Rates

Parameter	Allowable ERP* (lbs/hr)	Mass Emission Limit Table 2-2 HTAC (lbs/yr)	Calculated Average ER Table 2-2 HTAC (lbs/hr)	WSB Actual Mass Emission** (lbs/yr)	WSB Actual ER*** (lbs/hr)	MR/SB/WSB Total ER**** (lbs/hr)
Existing OUIII MR/SB/WSB Air Equivalency Permit Analytes						
carbon tetrachloride	0.016	100	0.011	0	0	0.000276
chloroform	0.0031	--	--	0.98364	0.000112	0.000208
chloroethane	10	--	--	0	0	0
1,1-dichloroethane	10	--	--	0.64245	0.000073	0.000159
1,2-dichloroethane	0.008	100	0.011	0	0	0
1,1-dichloroethelylene	0.034	--	--	5.3598	0.000612	0.0007028
cis-1,2-dichloroethylene	10	--	--	0	0	0.0000027
trans-1,2-dichloroethylene	10	--	--	0	0	0
tetrachloroethylene	0.387	1000	0.11	0	0	0.0030864
1,1,1-trichloroethane	10	--	--	2.6121	0.000298	0.000454
trichloroethylene	0.119	500	0.057	0.8517	0.000097	0.000244
Other Table 2-2 HTACs:						
benzene	--	100	0.011	0	0	0
vinyl chloride	--	100	0.011	0	0	0
1,1,2 trichloroethane	--	100	0.011	0	0	0
1,1,2,2-tetrachloroethane	--	1,000	0.11	0	0	0
1,3-dichloropropene	--	500	0.057	0	0	0
Other Detected Analytes:						
dichlorodifluoromethane	--	--	--	1.228	0.00014	0.0001415
Total VOCs	--	--	--	11.67	0.00133	0.00527

Notes:
*Allowable ERP (Emission Rate Potential) – Based on existing treatment system Air Equivalency Permits. Conservative value used.
Mass Emission Limit – NYSDEC Part 212-2.2 Table 2-2 High Toxicity Air Contaminant (HTAC) List.
Calculated Average (ER) Emission Rate – Calculated average ER based on Table 2-2 HTAC Mass Emission Limit.
**Actual Mass Emission – Calculated cumulative mass emission based on average system influent and effluent VOC concentrations and system operational data for 2023.
***Actual ER – Calculated ER based on average system influent and effluent VOC concentrations and system operational data for 2023.
****MR/SB/WSB Total ER =Cumulative Total for Middle Road/South Boundary/Western South Boundary.
-- – No value.

As demonstrated in **Table 3.2.4-3** above, the combined OU III Middle Road/South Boundary/Western South Boundary system met all air emission parameters for operation as specified in DAR-1 guidance and the existing air equivalency permits.

3.2.4.6 System Evaluation

The Western South Boundary Treatment System performance can be evaluated based on decisions identified for this system from the groundwater DQO process.

1. Were unexpected levels or types of contamination detected?

There were no unexpected levels or types of VOC contamination. However, PFAS and 1,4-dioxane were detected in the system, as detailed in **Section 3.5.**

2. Has the downgradient migration of the plume been controlled?

The four new extraction wells are addressing the migration of the recently identified deeper VOC contamination. The bypass wells at the site boundary continue to remain below MCLs indicating the system is controlling the plume.

3. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

WSB-2 remained in standby mode and TVOC concentrations in this area are well below the capture goal of 20 µg/L. TVOC concentrations in WSB-1 have declined to below the capture goal. The four new extraction wells began operation in March 2019. Based upon the current low VOC concentrations in this plume a recommendation to continue pulsed pumping of four of these five extraction wells will be made in this report.

3a. Are TVOC concentrations in plume core wells above or below 20 µg/L?

Two wells (130-14 and 119-11) had TVOC concentrations above the capture goal of 20 µg/L in 2023.

3b. Is there a significant concentration rebound in core wells and/or extraction wells following pulsed pumping or shutdown?

A rebound was observed in extraction well WSB-5 following the initiation of pulsed pumping in September 2023.

4. Has the groundwater cleanup goal of meeting MCLs been achieved?

Although, there has been a significant reduction in VOC concentrations in the monitoring wells and the overall plume concentrations since the startup of the new extraction wells in March 2019, MCLs have not been achieved for individual VOCs in each of the plume core wells. See **Figure 3.2.4-8** for comparison of the plume from 2018 to 2023.

3.2.4.7 Recommendations

The following are recommendations for the OU III Western South Boundary Treatment System and groundwater monitoring program:

- Based on the TVOC concentrations below the capture goal of 20 µg/L in WSB-2, maintain this extraction well in standby mode. If TVOC concentrations greater than 20 µg/L are observed in WSB-2 or the adjacent monitoring wells, extraction well WSB-2 may be put back into full-time operation.
- Discontinue pumping extraction well WSB-1 as it has achieved its capture goal. Continue the current pulse pumping of the remaining four operating extraction wells. The continued pulsed pumping should help address areas of groundwater stagnation between the extraction wells. The pulsed pumping should be done with wells WSB- 3 and WSB-5 on one month while wells WSB-4 and WSB-6 are off. The following month, wells WSB-4 and WSB-6 should be on while wells WSB-3 and WSB-5 are off.
- Based upon the concentration trends in both the monitoring and extraction wells it is anticipated that this system will have achieved its cleanup goals by the end of 2024 and a Petition for Shutdown will be submitted in 2025.
- Continue the current monitoring frequency for the WSB monitoring wells as shown in **Table 1-5**.

3.2.5 Industrial Park Treatment System

This section summarizes the operational data from the Industrial Park Groundwater Treatment System for 2023 and presents conclusions and recommendations for its future operation. The Industrial Park system was designed to contain and remediate a portion of the OU III plume between BNL's southern boundary and the Industrial Park. **Figure 3.2.5-1** illustrates the extent of the OU III contaminant plume in the vicinity of the Industrial Park, located south of the Long Island Expressway. The primary VOCs associated with this portion of the OU III plume are TCA, PCE, and carbon tetrachloride.

The system began operation in September 1999. A Petition for Shutdown was submitted to the regulators in February 2013 (BNL, 2013a). After receiving approval from the regulators, the system was shut down in May 2013. In March 2014, wells UVB-3 through UVB-6 were returned to full time operation due to a rebound of VOC concentrations. They were shut down in January 2017.

3.2.5.1 System Description

The original Industrial Park system consisted of a line of seven in-well air stripping treatment wells. Each treatment well was constructed with two well screens separated by an inflatable packer. Contaminated groundwater is withdrawn from the aquifer via submersible pump through a lower screen (extraction) set at the base of the treatment well. The groundwater is pumped to a stripping tray located in a below ground vault over the wellhead. After passing through the stripping tray, treated groundwater flows back down the well and is recharged to a shallower portion of the aquifer through an upper screen (recharge). Some of the treated groundwater that is recharged through the upper screen recirculates through the cell and is drawn back into the extraction screen for further treatment, while the balance flows in the direction of regional groundwater flow.

A closed-loop air system through a single blower keeps the vault under a partial vacuum. The vacuum draws air from below the stripping tray as contaminated groundwater is discharged on top. VOCs are transferred from the liquid phase to the vapor phase as contaminated groundwater passes through the stripping tray. The contaminated air stream is piped from the vault to a treatment and control building, where it is passed through two GAC units in series to remove the VOCs. Treated air is then recirculated back to the wellhead. The carbon units, system blower, and system control panel are all housed in a one-story masonry treatment building. A complete description of the system is included in the *Operations and Maintenance Manual for the OU III Offsite Removal Action* (BNL 2007b).

In 2014, a modification to the Industrial Park System was implemented which included the installation of two new groundwater extraction wells. They are shown on **Figure 3.2.5-1** as IP-EW-8 and IP-EW-9. These wells became operational in January 2015. The wells are screened deeper than the adjacent UVB wells to capture deeper VOC contamination identified just upgradient of this area (**Figure 3.2-2**). These wells utilize liquid phase carbon to treat the water rather than in-well air stripping. A complete description of the Industrial Park Modification is included in *the Operations and Maintenance Manual for the OU III Modification to the Industrial Park Groundwater Treatment System* (BNL 2015).

3.2.5.2 Groundwater Monitoring

Well Network

The monitoring well network consists of 41 wells and is designed to monitor the VOCs in the vicinity of the Industrial Park, and the effectiveness of the groundwater treatment system.

Sampling Frequency and Analysis

Wells are sampled for VOCs as per the schedule in **Table 1-5**.

3.2.5.3 Monitoring Well Results

The complete analytical results are included in **Appendix C**. VOC concentrations in the plume perimeter wells remained below AWQS during 2023. Based on these data, the plume is effectively bounded by the current well network. **Figure 3.2.5-1** shows the plume distribution based on fourth quarter 2023 data. The vertical extent of contamination is shown on **Figure 3.2.5-2**. Concentration trend graphs for key monitoring wells are shown on **Figures 3.2.2-2 and 3.2.5-3.** Significant findings for 2023 include:

Plume Core Wells

- TVOC concentrations in plume core monitoring well 000-537 have remained below the capture goal since May 2022, including the February 2024 value of 38 µg/L. TVOC concentrations in plume core monitoring well 000-541 have remained below the capture goal since May 2023 including a February 2024 value of 26 µg/L. The maximum plume core well TVOC concentration in 2023 was 56 µg/L in well 000-541 during May. TVOC concentrations in well 127-08 are also showing a steady decline, from 171 µg/L in 2015 to 20 µg/L in August 2023.
- Well 000-548 is located approximately 600 feet north of extraction well IP-EW-9. TVOC concentrations in this well ranged between 11 µg/L and 24 µg/L during 2023. There has been a slow decline in TVOC concentrations at this well over the past eight years.
- Well 000-529 is located 300 feet south of 000-548. TVOC concentrations in this well have ranged between 9 µg/L and 21 µg/L since 2019. During 2023, the maximum TVOC concentration was 19 µg/L in this well.

Plume Bypass Wells

- Wells 000-432 and 000-544 provide bypass monitoring points downgradient of extraction wells IP-EW-8 and IP-EW-9 (not operational during 2023), respectively. VOC concentrations have been slightly above detectable levels in 000-432 over the past 10 years. The maximum TVOC concentrations in wells 000-544 and 000-432 during 2023 were 26 µg/L and 0.3 µg/L, respectively.

3.2.5.4 System Operations

In 2023, recirculation wells UVB-1 through UVB-7 and extraction wells IP-EW-8 and IP-EW-9 remained in standby mode. System extraction well pumping rates are included on **Table 3.2.5-1**. Extraction wells IP-EW-8 and IP-EW-9 operate under a SPDES Equivalency Permit (**Table 3.2.5-2**). The extraction wells are sampled on a quarterly basis for VOCs.

3.2.5.5 System Operational Data

Well Influent and Effluent

Samples were obtained quarterly for wells UVB-1 through UVB-7 and wells IP-EW-8 and IP-EW-9. The samples are analyzed for VOCs. Starting in 2023, samples of the system effluent were analyzed for PFAS and 1,4-dioxane **(Section 3.5).**

During 2023, TVOC concentrations in the extraction wells were below the capture goal of 50 µg/L (**Figure 3.2.5-4**) with a maximum TVOC concentration of 10 µg/L for UVB-5 in January. The historical influent and effluent concentrations are shown on **Figures 3.2.5-4 and 3.2.5-5**. The removal efficiencies for the air strippers in the extraction wells UVB-1 through UVB-7 for 2023 were not calculated since the wells were not operating. Historical extraction well data are shown in **Table F-20 and F-23**.

Table 3.2.5-2
OU III Industrial Park Treatment System
2023 SPDES Equivalency Permit Levels

Parameters	Permit Limit (µg/L)	Max. Measured Value (µg/L)
pH (range)	5.0 – 8.5 SU	NS
carbon tetrachloride	5.0	NS
chloroform	7.0	NS
1,1-dichloroethylene	5.0	NS
1,2-dichloroethane	5.0	NS
tetrachloroethylene	5.0	NS
1,1,1-trichloroethane	5.0	NS
trichloroethene	5.0	NS

Notes:
NS = Not Sampled
Required sampling frequency is monthly for VOCs and weekly for pH.
SU = Standard Units

Cumulative Mass Removal

The system remained in stand-by mode in 2023. The cumulative mass of VOCs removed from the aquifer is a total of 1,076 pounds from 1999-2019 (**Figure 3.2.5-6**).

Air Treatment System

Air samples were not collected because UVB-1 to UVB-7 were in stand-by mode (**Table F-22**).

3.2.5.6 System Evaluation

The Industrial Park Treatment System performance can be evaluated based on the major decisions identified for this system resulting from the groundwater DQO process.

1. Were unexpected levels or types of contamination detected?

There were no unusual or unexpected VOC concentrations observed in the monitoring wells or extraction wells associated with the OU III Industrial Park System during 2023.

2. Has the downgradient migration of the plume been controlled?

Yes, an analysis of the plume perimeter and bypass well data reveals that there were no TVOC concentrations above the capture goal of the system in 2023. A comparison of the plume from 1997 to 2023 is provided on **Figure 3.2.5-7.** The only TVOC monitoring well concentration exceeding the capture goal during 2023 was the 56 µg/L observed in 000-541 during May 2023.

3. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

The UVB wells have been on stand-by since January 2017 and there has been little rebound of TVOC concentrations observed in the area monitoring wells. Two extraction wells were added in 2014 (IP-

EW-8 and IP-EW-9) and located to capture deeper VOCs. Since operation of these wells was initiated in 2015, the highest TVOC concentrations reported for wells IP-EW-8 and IP-EW-9 were 6 µg/L and 10 µg/L, respectively. Individual VOCs have been below AWQS since 2017. IP-EW-8 and IP-EW-9 were subsequently placed in standby mode in July 2019.

4. Are TVOC concentrations in plume core wells above or below 50 µg/L?

There was a single TVOC result in 000-541 that exceeded the capture goal in May 2023 as discussed above. The subsequent three sampling rounds for this well were below the capture goal, with the most recent result of 26 µg/L in February 2024.

5. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

There was no rebound of concentrations in the plume core wells associated with the recirculation wells UVB-1 through UVB-7 in 2023. No rebound of concentrations has been observed in the vicinity of wells IP-EW-8 and IP-EW-9 since they were shut down in July 2019.

6. Has the groundwater cleanup goal of meeting MCLs been achieved?

MCLs have not yet been achieved but are expected to be met by 2030.

3.2.5.7 Recommendations

The following are recommendations for the Industrial Park Treatment System and groundwater monitoring program:

- Maintain the seven UVB wells in standby. If TVOC concentrations exceed the 50 µg/L capture goal in these UVB wells or associated monitoring wells, they may be restarted.
- Maintain IP-EW-8 and IP-EW-9 in standby and continue to monitor for rebound of VOCs. If TVOC concentrations approach the capture goal of 50 µg/L in the vicinity of the extraction wells the system will be evaluated for restart.
- Continue to monitor the plume core wells. If TVOC concentrations in wells 000-537 and 00-541 remain below the capture goal during the 2024 second quarter monitoring, along with the remainder of the plume core wells, prepare a Petition for Closure of the Industrial Park Treatment System.

3.2.6 North Street Groundwater Monitoring

The North Street Groundwater Monitoring Program addresses a VOC plume that originated at the Former Landfill/Chemical Holes area. The remnants of the VOC plume are presently located south of the site boundary, with the leading edge extending south to Flower Hill Drive (**Figure 3.2.6-1**). The groundwater treatment system began operating in May 2004. In June 2013, a *Petition for Shutdown OU III North Street Groundwater Treatment System* (BNL 2013b) was submitted to the regulators for review and approval. The system was shut down in August 2013 after receiving approval from the regulators. In February 2020, a *Petition for Closure for the OU III North Street Groundwater Treatment System* (BNL 2020a) was submitted to the regulators for review and approval. This document received regulatory approval in March 2020. The document recommended the following: *"Seven of the 12 core monitoring wells are proposed for continued annual monitoring until the results for individual VOCs are consistently below MCLs. Sampling of the remaining 11 monitoring wells will be discontinued but the wells will be retained until the completion of the PFAS and 1,4-dioxane characterization at the BNL site. The two extraction wells and system infrastructure (building, carbon units, etc.) will also be retained until PFAS and 1,4-dioxane characterization is complete. The four recharge wells and the building will be used for the recently constructed North Street East Ethylene Dibromide Groundwater Treatment System."* The system is now in a post closure monitoring phase. The groundwater treatment system consisted of two extraction wells, which are now permanently shut down. The system captured the higher concentration portion of the VOC plume (i.e., TVOC concentrations greater than 50 µg/L) in the Upper Glacial aquifer and minimized additional VOC migration into the Magothy aquifer. The North Street plume was divided into two segments for remediation purposes. The area to the north of extraction well NS-2 was addressed by the North Street remediation system, whereas the Airport System captures and treats contaminated groundwater in the area to the south (**Figure 3.0-1**). The Airport System was constructed in part to address the leading edge of this plume (**Section 3.2.8**).

Cumulative Mass Removal

The mass of VOCs removed from the aquifer by the North Street Treatment System during system operations was calculated using the average flow rates for each monthly monitoring period, in combination with the TVOC concentration in the carbon unit's influent, to calculate the pounds removed per month. Extraction well TVOC concentrations during the operation of the system are shown on **Figure 3.2.6-4**. The cumulative mass of VOCs removed by the treatment system vs. time is plotted on **Figure 3.2.6-5**. Since May 2004, the system removed 342 pounds of VOCs. The mass removal is summarized in **Table F-24**. The system is now shut down and no further operations are expected.

The downgradient portion of the plume that was south of the North Street System prior to start-up is being captured by the Airport Treatment System's eastern extraction wells. Further detail on the Airport System is provided in **Section 3.2.8**.

3.2.6.1 System Description

The North Street System consisted of two extraction wells. Extracted groundwater was piped through two 20,000-pound GAC units located in Building OS-5 on a parcel of land owned by DOE. The clean water was discharged to four injection wells located downgradient along North Street. Both the North Street and North Street East Systems share the four injection wells. Extraction wells NS-1 and NS-2 were designed to operate at a rate of up to 200 gpm each. A complete description of the system is contained in the *Operations and Maintenance Manual for the North Street/North Street East Offsite Groundwater Treatment Systems* (BNL 2020d).

3.2.6.2 Groundwater Monitoring

Well Network

A network of seven wells monitors the remnants of the North Street VOC plume (**Figure 3.2.6-1**). Per the approved Petition for Closure, the other eleven wells remain but are no longer sampled. The seven wells being sampled are 000-108, 000-154, 000-212, 000-343, 000-465, 000-472, and 000-474. Wells sampled under the Airport program are also utilized for tracking the downgradient portions of the North Street VOC plume.

Sampling Frequency and Analysis

Sampling of the seven wells as part of the post closure monitoring program for VOCs is performed as per the schedule on **Table 1-5**.

3.2.6.3 Monitoring Well Results

The primary VOCs associated with this plume are carbon tetrachloride, TCE, TCA, and chloroform. **Figure 3.2-1** and **Figure 3.2.6-1** depict the TVOC plume distribution. The complete groundwater monitoring well data for 2023 are included in **Appendix C**. A north–south hydrogeologic cross section (J–J') of the plume is provided on **Figure 3.2.6-2. Figure 3.2.6-3** shows time-concentration plots for key monitoring wells. A summary of key monitoring well data for 2023 follows:

- Plume core well 000-465 is located 100 feet upgradient of extraction well NS-1. This well had historically shown the highest VOC concentrations (primarily carbon tetrachloride) in the North Street area. TVOC concentrations in this well were as high as 1,796 µg/L in 2004. In December 2023, the concentration was 3 µg/L.
- Well 000-472, located proximate to extraction well NS-2, had a TVOC concentration of 11 µg/L in December 2023.
- The TVOC concentration in core well 000-474, located approximately 500 feet upgradient of extraction well NS-2, was15 µg/L in December.
- Plume core well 000-154 had historically shown high individual VOC concentrations (primarily carbon tetrachloride). TVOC concentrations of approximately 1,000 µg/L were observed in this well in 1997 and 1998. However, they have steadily declined since then, and individual VOC concentrations have been below AWQS for several years. It had a TVOC concentration of 1.6 µg/L in December.
- In 2023, only three wells showed individual VOC concentrations above AWQS. Well 000-474 had a concentration of PCE at 9.5 µg/L and 000-472 had a concentration of PCE at 5.3 µg/L. Well 000-212 had a concentration of PCE at 6.7 µg/L.
- **Figure 3.2.6-6** compares the TVOC plume from 1997 to 2023. The southern portion of the plume that migrated south of the North Street System prior to system start-up is being captured by the Airport Treatment System's extraction well RTW-4A.

3.2.6.4 Groundwater Monitoring Evaluation

The North Street Groundwater Monitoring program can be evaluated from the decision rules identified in the groundwater DQO process.

1. Were unexpected levels or types of contamination detected?

There were no unusual or unexpected concentrations of contaminants observed in monitoring wells associated with the North Street plume in 2023.

2. Has the groundwater cleanup goal of meeting MCLs been achieved?

MCLs have not been achieved for individual VOCs in all North Street plume core wells. During 2023, three of the seven remaining wells had individual VOCs above their MCLs, with a maximum concentration of 9.5 µg/L of PCE in well 000-474. MCLs are expected to be achieved in all North Street monitoring wells by 2030 through natural attenuation.

3.2.6.5 Recommendations

The following are recommended for the North Street Groundwater Monitoring Program.

- NS-1 and NS-2 will remain shut down until the OU X RI/FS characterization **(Section 3.5)** is completed. After the completion of this characterization, a determination of the future use of these wells will be made.
- Continue monitoring the seven wells on an annual monitoring schedule until the results for individual VOCs are consistently below MCLs. The remaining 11 monitoring wells will be retained until the completion of the OU X RI/FS characterization at the BNL site.

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3.2.7 North Street East Ethylene Dibromide Treatment System

This section summarizes the 2023 operational and monitoring well data for the OU III North Street East (NSE) Treatment System. The original system operated from 2004 to 2014 to capture and control the downgradient portion of the OU I VOC plume, which migrated beyond the BNL site boundary. This treatment system (which includes extraction wells NSE-1 and NSE-2) met its goals in 2014 with no significant rebound identified since (BNL 2014b). A formal petition for closure was not prepared for this system since the infrastructure is being used for remediation of an ethylene dibromide (EDB) plume subsequently identified in this area. As recommended in the *2019 Groundwater Status Report* (BNL 2020c), this system is now administratively closed for its originally designed purpose. In September 2019, a modification to the North Street East Groundwater Treatment System was submitted to the regulators. This included the addition of two new extraction wells to remediate the EDB plume that was characterized. This system became operational in July 2020.

3.2.7.1 System Description

Each well is designed to operate at approximately 100 gpm. The extracted groundwater is pumped through two 20,000-pound GAC units and the treated water is discharged to four injection wells located on North Street. The North Street and NSE carbon treatment units and control systems are located in the same building on North Street. A complete description of the system is contained in the revised *Operations and Maintenance Manual for the North Street/North Street East Offsite Groundwater Treatment Systems* (BNL 2020d).

3.2.7.2 Groundwater Monitoring

The monitoring network for the EDB plume consists of 12 wells (See **Figure 3.2.7-1)**. The sampling frequency for the EDB plume monitoring wells is quarterly, except for upgradient perimeter well 115-42 which is sampled semi-annually. As part of the post-closure monitoring for the original VOC treatment system, 10 of the 12 wells are also sampled annually for VOCs using EPA Method 8260 Low Level. See **Table 1-5** for details.

3.2.7.3 Monitoring Well Results

Figure 3.2.7-1 shows the extent of the NSE EDB plume and the location of the two extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4. The trace levels of VOCs identified from the original plume are discussed below and the data are provided in **Appendix C.**

Figure 3.2.7-2 depicts the vertical distribution of EDB within the deep Upper Glacial aquifer. The north-south transect line for cross section K–K' is shown on **Figure 3.2.7-1**. **Figure 3.2.7-3** presents the trends for EDB in the six monitoring wells that have detected EDB over the last several years. **Appendix C** contains a complete set of 2023 analytical results for the NSE program wells. A summary of key monitoring well data for 2023 follows:

- As shown on **Figure 3.2.7-3**, EDB concentrations have been declining in plume core well 000-394 since a peak detection of 1.06 µg/L in 2017 and have been below the DWS of 0.05 µg/L since June 2023. This well is located immediately upgradient of extraction well NSE-EDB-EW-4.
- During 2023, EDB concentrations in plume core well 000-552 declined to below the DWS in 2023 to a concentration of 0.01 µg/L in September 2023. The decrease in concentrations indicates the plume has migrated south of this location. A similar decrease in EDB concentrations was observed in well 000-554 during 2023 from 0.07 µg/L in March, to 0.03

in December 2023. The March 2024 concentration declined even further to 0.02 µg/L. This indicates that the southernmost EDB plume slug is now south of this location (see **Figure 3.2.7-1**).

- § EDB was not detected in the three bypass wells during the fourth quarter of 2023 following several previous low-level detections.
- § EDB has never been detected in the two upgradient perimeter wells (115-42 and 000-138).
- § VOCs were detected in seven of the 10 downgradient wells in addition to EDB during 2023. Wells 000-552 and 000-553 could not be sampled during the fourth quarter due to access issues. During 2023, PCE exceeded the AWQS of 5 µg/L. The maximum VOC detected was PCE at 9.2 µg/L in well 000-394 during the fourth quarter. See **Figure 3.1-1** for the TVOC concentrations in these wells. PCE has been detected historically in several wells.

3.2.7.4 System Operations

EDB extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4 were sampled monthly for EDB and VOCs through August of 2023. These EDB extraction wells were sampled quarterly starting in September of 2023. In April 2020, NYSDEC renewed the SPDES equivalency permit for the North Street and North Street East Treatment Systems and included EDB as a discharge parameter. **Table 3.2.7-1** provides the effluent limitations for meeting the requirements of the equivalency permit. Approximately 112 million gallons of water were treated in 2023 by the North Street East Treatment System. In addition, this systems extraction wells, influent, and effluent, were analyzed for PFAS and 1,4-dioxane starting in 2023 **(Section 3.5)**.

3.2.7.5 System Operational Data

EDB extraction wells (NSE-EDB-EW-3 and NSE-EDB-EW-4) became operational in July 2020.

January through September 2023

The system operated normally with NSE-EDB-EW-3 and NSE-EDB-EW-4 operating full time. Approximately 82 million gallons of water were pumped and treated.

October through December 2023

The system operated normally with NSE-EDB-EW-3 and NSE-EDB-EW-4 operating full time. Approximately 30 million gallons of water were pumped and treated.

Extraction Wells

Extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4 were sampled monthly through August of 2023 then quarterly beginning in September of 2023. The maximum EDB concentration detected was 0.023 µg/L in NSE-EDB-EW-3 in February. EDB concentrations in NSE-EDB-EW-3 and NSE-EDB-EW-4 did not exceed the 0.05 µg/L DWS in any of the monthly or quarterly samples collected during 2023. The maximum concentration of EDB in NSE-EDB-EW-4 during 2023 was 0.017 µg/L. No other VOCs were detected in these extraction wells above AWQS. Sampling of VOC remediation wells NSE-1 and NSE-2 was discontinued as of October 2020

System Influent and Effluent

System influent and effluent sampling results are summarized on **Tables F-29** and **F-30**, respectively. As noted in **Table 3.2.7-1**, there were no exceedances of the equivalency permit parameters during 2023.

Cumulative Mass Removal

The cumulative mass of VOCs removed by the treatment system versus time is noted on **Figure 3.2.7-6**. A cumulative total of approximately 50 pounds of VOCs were removed from the aquifer during system operation (**Table F-31**). Due to the low concentrations of EDB in the system influent, presentation of a specific mass removal graph for EDB is not meaningful.

Table 2-2 shows the monthly pumping data for the two EDB extraction wells. **Table 3.2.7-2** identifies the pumping rates for NSE-EDB-EW-3 and NSE-EDB-EW-4. The system averaged 216 gpm in 2023. **Figure 3.2.7-4** plots the TVOC concentrations in all four extraction wells. **Figure 3.2.7-5** plots the EDB concentrations in extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4. VOC and EDB concentrations for the extraction wells are provided in **Table F-28**.

3.2.7.6 System Evaluation

The NSE EDB Treatment System performance can be evaluated based on decisions identified for this system from the groundwater DQO process.

1. Were unexpected levels or types of contamination detected?

There were no unexpected levels of EDB detected in the monitoring and extraction wells. However, PFAS and 1,4-dioxane were detected in the system, as detailed in **Section 3.5.**

2. Has the downgradient migration of the EDB plume been controlled?

Based on the data from the monitoring wells and two new extraction wells, the system has controlled and largely reduced plume concentrations below the DWS. See **Figure 3.2.7-7** for a comparison of the EDB plume remediation progress from 2019 to 2023.

3. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

Table 3.2.7-1.
OU III North Street East Treatment System
2023 SPDES Equivalency Permit Levels

Parameters	Permit Limit (µg/L)	Max. Observed Value (µg/L)
pH range (SU)	5.5–8.5	5.54–6.57
carbon tetrachloride	5	ND
chloroform	5	1.2
1,1-dichloroethane	5	ND
1,2-dichloroethane	0.6	ND
1,1-dichloroethylene	5	ND
tetrachloroethylene	5	ND
toluene	5	ND
1,1,1-trichloroethane	5	ND
trichloroethylene	5	0.21J
Ethylene dibromide (EDB)	0.03	ND

Notes:
Required effluent sampling freq. is monthly for VOCs and pH.
SU: Standard Units
J: The associated numerical value is an estimated quantity.
ND – Not detected

Yes. EDB concentrations in both extraction wells have remained below the DWS since 2021. The two remaining monitoring wells showing EDB concentrations above the DWS in 2022, have declined to levels less than the DWS in 2023 and the first quarter of 2024. Specifically, concentrations in well 000-552 have remained below DWS for four consecutive quarters and in well 000-554 for three consecutive quarters.

3a. Are EDB concentrations in plume core wells above or below 0.05 ug/L?

During 2023, EDB declined to concentrations below the DWS in all plume core wells.

3b. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

The two EDB extraction wells have not been shut down or pulsed pumped.

4. Has the groundwater cleanup goal of meeting the DWS been achieved?

EDB is now below the DWS in the program monitoring wells. One of the 10 monitoring wells sampled annually using Method 8260 Low Level detected VOCs above AWQS in 2023. The VOC detected above AWQS was PCE at 9.2 µg/L in well 000-394 during the fourth quarter.

3.2.7.7 Recommendations

The following recommendations are made for the NSE EDB Treatment System and groundwater monitoring program:

- Reduced full time operation of extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4 to a pulsed pumping mode in May 2024 (one month on and one month off).
- Prepare a petition for system shutdown if EDB concentrations remain below the DWS through the third quarter of 2024.
- Maintain the quarterly sampling frequency for the 12 EDB monitoring wells using Method 504, except for upgradient perimeter well 115-42 which is sampled semi-annually. Maintain annual VOC sampling using Method 8260 Low Level for all wells except for 115-42 and 000-138.

3.2.8 LIPA/Airport Treatment System

This section summarizes the 2023 operational and monitoring well data for the LIPA/Airport Treatment System and presents conclusions and recommendations for its future operation. The LIPA system was designed to provide capture and control of the downgradient portion of the VOC plume in the Upper Glacial and Magothy aquifers that had migrated south of the Industrial Park System before that system became operational in 1999. The Airport Treatment System was designed to capture the leading edge of the OU III and OU I/IV VOC plumes and to prevent further migration of the plumes, which have migrated south of the LIPA extraction wells and the North Street extraction wells before the system began operations. The capture goals for the LIPA system have been met and is currently in standby mode. A Petition for Closure of the LIPA system was submitted in early 2024.

3.2.8.1 System Description

The three components of the LIPA/Airport Treatment System are as follows:

1. The LIPA Magothy aquifer extraction well (EW-4L) on Stratler Drive (**Figure 3.2.8-1**) addressed high-level VOCs identified in the Magothy aquifer immediately upgradient of EW-4L in monitoring well 000-130 on Carleton Drive.

2. The other three LIPA extraction wells (EW-1L, EW-2L, and EW-3L) were installed to address high concentrations of VOCs in the Upper Glacial aquifer that had migrated past the Industrial Park System before that system became operational.

3. The six extraction wells in the Airport System were installed to address the leading edge of the plumes which have migrated past the LIPA extraction wells and the North Street extraction wells prior to their installation. The sixth well (RW-6A) was added in 2007 to address VOCs observed to the west of extraction well RTW-1A. The Airport system wells have a capture goal of 10 µg/L TVOCs. RTW-4A also addresses Magothy aquifer contamination. Extraction wells RTW-1A, RTW-4A and RW-6A are in full time operation. Extraction wells RTW-2A, RTW-3A and RTW-5A are shut down and maintained in standby mode.

When in operation, the water from the four LIPA extraction wells was pumped to the treatment plant, located about one mile south on Brookhaven [Town] Airport property, where it is combined with the water from the six airport extraction wells (RTW-1A through RTW-5A and RW-6A) and treated via GAC. The treated water is released back to the ground via a series of shallow reinjection wells located at Brookhaven Airport.

A more detailed description of this system is contained in the *Operations and Maintenance Manual for the LIPA/Airport Groundwater Treatment System* (BNL 2008a).

3.2.8.2 Groundwater Monitoring

Well Network

The LIPA/Airport monitoring network consists of 48 wells. The LIPA program is monitored by a total of 17 monitoring wells and the Airport program is monitored by 31 wells, which monitor the portions of the plume south of the LIPA and the North Street systems. All of these wells are used to evaluate the effectiveness and progress of the cleanup associated with these three components of the system. **Figure 1-2 and Figure 3.2.8-1** identify the monitoring wells for these plumes.

Sampling Frequency and Analysis

The monitoring wells for LIPA were on a quarterly sampling schedule for VOCs in 2023 to support the Petition for Closure. The Airport wells are primarily sampled semi-annually, and several wells are sampled quarterly for VOCs **(Table 1-5).**

3.2.8.3 Monitoring Results

The primary VOCs associated with these portions of the plume are carbon tetrachloride, TCA, TCE, and DCE. Groundwater monitoring for these systems was initiated in 2004. Fourth quarter 2023 well data are posted on **Figure 3.2.8-1** and **Figure 3.2.8-2**. The complete analytical results are in **Appendix C.** Results for key monitoring wells and extraction wells are as follows:

LIPA Monitoring

- The Magothy monitoring wells located in the vicinity of extraction well EW-4L all detected TVOC concentrations below 5 µg/L during 2023.
- All of the LIPA monitoring wells were below MCLs during 2023

Airport Monitoring

- Monitoring wells 800-94 and 800-95, are approximately 1,500 feet north of extraction wells RTW-1A, RTW-2A, and RW-6A. In 2023, well 800-94 had a maximum TVOC concentration of 57 µg/L in January 2023 and well 800-95 had a maximum concentration of 22 µg/L. Both of these wells have had persistently elevated TVOC concentrations (**Figure 3.2.8-6**).
- Monitoring well 800-96 detected a maximum TVOC concentration of 88 µg/L in the second quarter of 2023. (**Figure 3.2.8-1**, **Figure 3.2.8-6**).
- None of the bypass wells installed downgradient of this area detected VOCs above their MCL.
- Well 800-92, located upgradient of extraction wells RTW-3A and RTW-4A had TVOC concentrations above the capture goal for the past several years. However, during 2022 and 2023, the maximum TVOC concentration was 3 µg/L. The concentrations are showing an overall downward trend. This is a slug of contamination that was south of the North Street extraction wells prior to the system start-up and appears to have migrated past this well.
- Well 800-101, located directly upgradient of extraction well RTW-4A, has shown TVOC concentrations above the capture goal for the past several years. The concentration was consistent during 2023 and ranged from 40 µg/L up to 41 µg/L which warrants the continued operation of well RTW-4A, a Magothy extraction well (**Figure 3.2.8-1)**.
- Monitoring well 800-138 was installed adjacent to well 800-59 and screened about 40 feet deeper than this well (from 245 feet to 255 feet bls). This well is used to monitor concentrations of VOCs identified in upgradient well 800-92. VOC concentrations in this well were below MCLs in 2023.

3.2.8.4 System Operations

In 2023, the Airport and LIPA extraction wells were sampled quarterly. The influent, midpoint, and effluent of the carbon units were sampled monthly throughout 2023. All system samples were analyzed for VOCs. Three of the Airport extraction wells (RTW-2A, RTW-3A, and RTW-5A) remained in

standby per the recommendation in the *2019 Groundwater Status Report* (BNL 2020c). Throughout 2023, wells RTW-1A, RTW-4A and RW-6A were pumped on a full-time basis. All four LIPA extraction wells remained in standby since TVOC concentrations remained below the capture goal of 50 µg/L. A summary of extraction well data is provided below:

- During 2023, TVOC concentrations for the LIPA Magothy extraction well EW-4L on Stratler Drive were between 5 µg/L and 6 µg/L, with all individual VOCs below MCLs. This well was shut down in January 2017 as it achieved its TVOC capture goal of 50 µg/L.
- All four LIPA extraction wells had VOC concentrations below MCLs in 2023, with the exception of toluene. In April and October 2023, toluene was detected slightly above its MCL of 5 µg/L in EW-1L (5.9 µg/L**)** and EW-3L (5.2 µg/L), respectively. Toluene has not been detected in LIPA monitoring wells since December 2013 **Figure 3.2.8-3** plots the TVOC trends for the LIPA extraction wells.
- **Figure 3.2.8-4** plots the TVOC trends for the airport extraction wells. All six airport extraction wells had TVOC concentrations below the capture goal of 10 µg/L in 2023.

In addition, the systems extraction wells, influent, and effluent were sampled for PFAS and 1,4-dioxane starting in 2023 **(Section 3.5)**. The following is a summary of the Airport/LIPA Treatment System operations for 2023:

January – September 2023

The Airport System was operational in the first three quarters with RTW-1A and RW-6A operated on a full-time basis. Extraction wells RTW-2A, RTW-3A, RTW-5A, and all four LIPA extraction wells were in standby. The system was down for the month of April and the first half of May due to electrical issues. The system was also down for two days in February for a scheduled carbon change out.

October – December 2023

The Airport portion of the treatment system operated normally in the fourth quarter apart from RTW-4A being shut off for three weeks for piping repairs from November into first week of December.

Extraction Wells Operational Data

During 2023, approximately 173 million gallons of groundwater were treated by the Airport/LIPA system, with an average flow rate of 334 gpm (**Table 3.2.8-2)**. **Table F-32** summarizes the system's mass removal. VOC concentrations for the Airport and LIPA extraction wells are provided in **Table F-33.**

3.2.8.5 System Operational Data

System Influent and Effluent

VOC concentrations for the influent and effluent in 2023 are summarized on **Tables F-34** and **F-35,** respectively.

The carbon vessels for the system effectively removed the contaminants from the influent groundwater. System effluent samples were below the regulatory limit specified in the SPDES equivalency permit (**Table 3.2.8-1**).

Cumulative Mass Removal

The mass of VOCs removed from the aquifer by the Airport/LIPA Treatment System was calculated using the average flow rates for each monitoring period (**Table F-32**) in combination with the TVOC

concentration in the carbon unit's influent, to calculate the pounds per month removed. The plot of cumulative mass of VOCs removed vs. time shows that five pounds of VOCs were removed during 2023, with a total of 505 pounds removed since system start-up (**Figure 3.2.8-5)**.

3.2.8.6 System Evaluation

The Airport/LIPA system performance can be evaluated based on the decision rules identified for this system resulting from the groundwater DQO process.

1. Were unexpected levels or types of contamination detected?

No, there were no unusual or unexpected VOC concentrations observed in the monitoring wells for the LIPA/Airport Treatment System during 2023. However, PFAS and 1,4-dioxane were detected in the system, as detailed in **Section 3.5**.

2. Has the downgradient migration of the plume been controlled?

Yes. The monitoring data clearly show that the capture goal of 50 µg/L TVOC at the LIPA Upper Glacial and Magothy wells has been and continues to be met. No TVOC concentrations above the 10 µg/L capture goal have been detected in the bypass monitoring wells at the Airport. Based upon these data, plume migration is being controlled.

Table 3.2.8-1
OU III LIPA/Airport Treatment System
2023 SPDES Equivalency Permit Levels

Parameters	Permit Level (µg/L)	Max. Measured Value (µg/L)
pH (SU)	5.5–7.5	5.55-5.91
carbon tetrachloride	5	ND
chloroform	7	0.97
1,1-dichloroethane	5	ND
1,1-dichloroethylene	5	ND
methylene chloride	5	ND
1,1,1-trichloroethane	5	ND
trichloroethylene	10	ND

Notes:
ND = Not detected above method detection limit
Sampling required on a monthly basis
SU= Standard Units

3. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

Yes, currently all four LIPA wells are shut down as they have reached their capture goals. Three of the six Airport extraction wells are shut down. Two small areas of VOC contamination remain that are associated with the Airport Treatment System and warrant the continued operation of the treatment system. One area to the west associated with monitoring wells 800-94 and 800-95 and one area to the east associated with well 800-101.

4. Are TVOC concentrations in plume core wells above or below 50 µg/L for LIPA and 10 ug/L for the Airport?

TVOC concentrations are all below 50 µg/L for all of the LIPA monitoring wells, and each of these wells were below MCLs in 2023. Several Airport core wells are above a TVOC concentration of 10 µg/L. Well 800-96 located in the vicinity of well RW-6A continues to show levels of TVOC concentrations up to 88 µg/L. Well 800-130 located between well RW-6A and RTW-1A had TVOC concentrations of up to 16 µg/L in June. Wells 800-94 and 800-95 showed maximum TVOC concentrations of 57 µg/L and 22 µg/L, respectively. Well 800-101 is located immediately upgradient of well RTW-4A and showed a peak TVOC concentration of 41 µg/L.

4a. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

No, all four LIPA and three Airport extraction wells that are shut down had VOC concentrations below MCLs in 2023.

5. Has the groundwater cleanup goal of meeting MCLs been achieved?

No, the cleanup goal has not been met for the Airport System. The LIPA system has reached its cleanup goals, and a Petition for Closure has been submitted.

3.2.8.7 Recommendations

The following recommendations are made for the LIPA/Airport Treatment System and groundwater monitoring program:

- Continue full time operation of wells RTW-1A, RTW-4A and RW-6A. Keep wells RTW-2A, RTW-3A and RTW-5A in standby mode. If concentrations above the capture goal of 10 µg/L TVOC are observed in any of the extraction wells or the monitoring wells adjacent to wells that are not operating, the well(s) will be put back into full-time or pulsed pumping operation.
- Administratively close the LIPA program extraction wells EW-1L, EW-2L, EW-3L and EW-4L but maintain them in an operationally ready state pending the completion of the OU X RI/FS.
- No changes to the current monitoring schedule are recommended at this time for the Airport System. Maintain the current monitoring schedule for the LIPA monitoring wells pending approval of the LIPA system is received from the regulators. Upon approval, begin the proposed post closure monitoring schedule of wells 000-130, 000-131, 000-425, 000-448, and 000-449 on an annual basis.

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3.2.9 Magothy Monitoring

This section provides a brief summary of the Magothy Aquifer Groundwater Monitoring and Cleanup Program and the remedial approach for addressing VOC contamination. The OU III ROD/ESD states that the cleanup goal for the Magothy aquifer is to reach MCLs by 2065. The original forty-five monitoring wells and nine extraction wells used to monitor the Magothy are shown on **Figure 3.2.9-1**. Fifteen of these wells are no longer sampled as VOC concentrations are below the MCLs. However, they may be used in the future for other monitoring programs.

Detailed descriptions of the monitoring well analytical results and remediation progress are presented in the following sections of this report: Western South Boundary, Middle Road, LIPA/Airport, North Street, OU III South Boundary, Industrial Park. A brief summary of the results is provided in **Table 3.2.9-1 and Figure 3.2.9-2**.

Table 3.2.9-1. Magothy Aquifer Contamination (Historical and 2023).

	Max. TVOC (in µg/L)			
Location	**2023**	**Historical**	**Primary VOCs**	**Results**
Western South Boundary	<1	1	None	Magothy not impacted. Monitoring well 130-04 is located near the southwest site boundary and was non-detect for VOC's in 2023.
William Floyd Well Field Sentinel	NS	3.9	DCA	Wells 109-12 and 109-13 served as outpost sentinel wells for the William Floyd Well Field Magothy well. Since the SCWA Magothy supply well is now out of service and all data from these wells are below MCLs they are no longer sampled based upon the 2021 recommendation in the Groundwater Status Report.
Middle Road to South Boundary	63	340	PCE, CCl_4	VOCs identified in upper 20 to 40 feet of the Magothy at the Middle Road area where Magothy brown clay is absent (**Figure 3.2-2**). Well 113-09 had 636 µg/L TVOC in May, and well 113-19 had 30 µg/L in May 2023. VOCs not detected at the South Boundary beneath the Magothy Brown clay.
Industrial Park	50	268	PCE, TCA	VOCs detected in the upper Magothy south of the OU III South Boundary system. Two Magothy extraction wells were installed in the Industrial Park in 2014 to capture and treat this contamination. Maximum TVOC concentrations were detected in well 000-537 at 50 µg/L in May and well 000-541 at 30 µg/L in May.
North Street to Airport	41	123	TCE, DCA	VOCs have been detected in localized areas in the upper 30 feet of the Magothy aquifer along North Street and downgradient near Vita Drive (**Figure 3.2.6-2**). The leading edge of this contamination is at the eastern portion of the Airport system, with 41 µg/L TVOC in well 800-101 in December, which is adjacent to Airport extraction well RTW-4A. Low VOC concentrations have been detected from the BNL South Boundary to North Street below the Magothy brown clay, at approximately 40 to 150 feet into the upper Magothy. A TVOC concentration of 5 µg/L was detected in well 000-343 in June
South Boundary to Industrial Park East	20	570	TCA, CCl_4	TVOC concentrations were up to 20 µg/L in well 122-05 at the south boundary and off site in the Industrial Park East area, where the Magothy brown clay is absent. Magothy and Upper Glacial contamination is continuous in the industrial park.
South of Carleton Drive	26	7,200	CCl_4	Historically high VOC concentrations just south of Carleton Drive where the Magothy brown clay is absent. However, data shows these high concentrations are no longer present in this area. Contamination is continuous between Magothy and Upper Glacial aquifers. Well 000-130 which had 7,200 µg/L in 1998, showed a maximum TVOC concentration of 1µg/L in October. Well 000-544 showed a high TVOC concentration of 26 µg/L in May This well is located downgradient of the extraction well IP-EW-9. These concentrations have declined significantly from the historical highs.

The Magothy remedy identified in the *OU III Explanation of Significant Differences* (BNL, 2005a) document calls for the following:

1. Reaching MCLs in the Magothy aquifer by 2065 by active groundwater treatment and monitored natural attenuation.
2. Operation of the nine extraction wells until cleanup objectives are met as part of the treatment systems that provide capture of Magothy VOC contamination at Middle Road (RW-7 and RW-3), South Boundary (EW-17 and EW-8 which is shutdown), Airport RTW-3A (shutdown in 2020) and RTW-4A, Industrial Park IP-EW-8 and IP-EW-9 (both shutdown in 2019), and LIPA EW-4L (shut down).
3. Continued evaluation of monitoring well data to ensure protectiveness. **Table 3.2.9-2** describes how each of the Magothy investigation areas is addressed by the selected Magothy aquifer remedy.
4. Institutional controls and five-year reviews.

Table 3.2.9-2. Magothy Remedy

Area Investigated	Status of Selected Remedy
Western South Boundary	Continue monitoring and evaluate data. Continue operation of well WSB-6.
William Floyd Well Field Sentinel Monitoring	Continue monitoring and evaluate data see **section 3.2.10**
Middle Road to South Boundary	Continue operation of the Magothy extraction wells at Middle Road (RW-3 and RW-7). Continue to monitor the three Magothy monitoring wells at Middle Road and five at the South Boundary until cleanup goals are met. Continue to operate South Boundary well EW-17.
North Street to Airport	The Airport extraction well RTW-4A should continue to operate to capture contaminants. Continue monitoring and evaluate data.
North Street East	Continue monitoring and evaluate data.
South Boundary to Industrial Park East	Continue monitoring and evaluate data.
South of Carleton Drive	The LIPA Magothy extraction well (EW-4L) on Stratler Drive has met cleanup goals and is in standby. Continue monitoring until MCLs are met.
Industrial Park	The two industrial park extraction wells (IP-EW-8 and IP-EW-9) were placed in standby in 2019. Continue monitoring and data evaluation. Wells will be restarted if any significant rebound in concentrations is observed.

3.2.9.1 Monitoring Well Results

See the appropriate sections for detailed discussion of the monitoring well results.

3.2.9.2 Recommendations

The following are recommendations for the Magothy groundwater monitoring program:

- Continue pumping the Magothy extraction wells at Middle Road, South Boundary (EW-17 only) and the Airport. The two IP extraction wells were placed in standby in July 2019 and continue to be monitored for rebound of VOCs.
- Wells no longer sampled are being maintained for potential future use for PFAS and 1,4-dioxane as part of OU X and will be evaluated as part of the RI/FS.

3.2.10 William Floyd Wellfield Sentinel Monitoring

The Suffolk County Water Authority (SCWA) operates the William Floyd Parkway Wellfield located west of the BNL site. The wellfield contains three Upper Glacial aquifer supply wells (one screened between 126 feet bls to 162 feet bls, another between 125 feet bls to 176 feet bls, and the third between 123 feet bls to 173 feet bls). In 2013, a Magothy aquifer supply well was taken out of service and replaced by a third Upper Glacial aquifer well (Well 3A). The pumping for these three supply wells is discussed in **Section 2.0**. Because the source water contributing area for this wellfield extends into the BNL property, two Upper Glacial aquifer monitoring wells were installed in 1996 (109-03 and 109-04) to serve as sentinel wells to monitor groundwater quality within the on-site portion of the contributing area. These wells have been sampled quarterly under a joint BNL-SCDHS program. From 2018 through 2021, Magothy wells 109-12 and 109-13 were also sampled by BNL as part of the monitoring program.

In 2021, BNL began to evaluate the downgradient migration of a high concentration PFAS plume segment and whether the migration pathway is being influenced by the William Floyd Wellfield (**Section 3.5.1).**

To improve BNL's ability to evaluate the influence the William Floyd Wellfield has on groundwater flow directions, 12 monitoring wells were installed in August and September 2021. Water level measurements were used to prepare groundwater contour maps. Water table data from these wells indicate the wellfield is impacting groundwater flow on the BNL site (See **Figure 3.2.10-1** for the groundwater flow directions).

Starting in late 2021, the monitoring program was modified to include six wells: existing wells 109-03, 117-01, 117-02, and three new wells 117-04, 117-05, and 117-06. The screen depth for these wells range between 80 feet to 130 feet bls. The approximate depth to water in this area is 75 feet bls.

Between December 2021 and March 2022, six temporary wells were installed upgradient of the William Floyd Wellfield on BNL property to characterize the extent of the low-level PFAS detected in monitoring wells 117-01 and 117-02. These data were presented in the *2021 Groundwater Status Report* (BNL 2022b).

3.2.10.1 Groundwater Monitoring

Well Network

Starting in the first quarter of 2023, the joint BNL-SCDHS monitoring program was modified to consist of six wells, 109-03, 117-01, 117-02, 117-04, 117-05, and 117-06 **(Figure 3.2.10-1).** These wells are sampled on a quarterly basis for VOCs, Sr-90, tritium, gamma spectroscopy, 1,4-dioxane, and PFAS. As recommended in the *2021 Groundwater Status Report* (BNL 2022b), wells 109-04, 109-12 and 109-13 were removed from the program since these were used to monitor impacts to the SCWA former Magothy aquifer supply well.

Sampling Frequency and Analysis

All six monitoring wells were jointly sampled by BNL and the SCDHS five times in 2023 for VOCs, gamma spectroscopy, tritium, Sr-90, 1,4-dioxane and PFAS (**Table 1-5**). Complete monitoring results are presented in **Appendix C**.

3.2.10.2 Monitoring Well Results

Monitoring results for 2023 are summarized below:

In 2023, the only parameter detected above standards was PFOS in well 117-01 in the third and fourth quarters at 14 ng/L and 13 ng/L, respectively. The MCL for PFOS and PFOA is 10 ng/L. 1,4-Dioxane was not detected during 2023.

3.2.10.3 Groundwater Monitoring Program Evaluation

The evaluation of the William Floyd Wellfield Sentinel Monitoring Program is based on the decision rule established for this program using the groundwater DQO process.

1. Have the SCWA William Floyd Wellfield sentinel wells remained below the MCLs?

During 2023, no VOCs or radionuclides were detected at concentrations exceeding the MCLs. However, PFOS was detected above the MCL in well 117-01 at a maximum of 14 ng/L in 2023.

3.2.10.4 Recommendations

The following changes are recommended for the William Floyd Wellfield Sentinel Monitoring Program:

- Maintain quarterly sampling of the six wells for VOCs, 1,4-dioxane, and PFAS.

3.2.11 BGRR/WCF Strontium-90 Treatment System

The Brookhaven Graphite Research Reactor (BGRR)/Waste Concentration Facility (WCF) Treatment System addresses the Sr-90 plumes in groundwater downgradient of these former facilities. Building 801 and the former Pile Fan Sump (PFS) are the location of an additional Sr-90 source for which the remedy is monitored natural attenuation (**Figure 3.2.11-1**).

3.2.11.1 System Description

This system began operation in January 2005 and was designed to capture Sr-90 contaminated groundwater emanating from sources areas at the BGRR and WCF. There are two extraction wells (SR-1 and SR-2) located south of the former WCF, three extraction wells (SR-3, SR-4, and SR-5) located south of the former BGRR, and four extraction wells (SR-6, SR-7, SR-8, and SR-9) in the vicinity south of the HFBR.

Groundwater from the extraction wells is piped to an ion exchange treatment system inside Building 855 (within the BNL Waste Management Facility). The vessels of ion exchange media are designed to treat groundwater contaminated with Sr-90 to below the DWS of 8 pCi/L. In addition, the influent is also treated for low-level concentrations (less than 10 µg/L) of VOCs using liquid-phase activated carbon.

Effluent is recharged to the Upper Glacial aquifer via three drywells located approximately 850 feet west of Building 855. A SPDES equivalency permit regulates this discharge. A complete description of the system is included in the *Operations and Maintenance Manual for the Sr-90 BGRR/ WCF/PFS/Building 801 Area Groundwater Treatment System* (BNL 2012).

3.2.11.2 Groundwater Monitoring

Well Network

A network of 73 monitoring wells is used to monitor the Sr-90 plumes associated with the BGRR, former WCF, and PFS/Building 801 areas. As recommended in the 2021 and 2022 Groundwater Status Reports (BNL 2022b, BNL 2023d), an additional fourteen monitoring wells (075-809, 075-810, 075-811, 075-415, 075-417, 075-419, 085-171, 085-285, 085-286, 085-287, 085-01, 085-406, 085-407, and 085-290) were sampled in 2023 to obtain Sr-90 data upgradient of Former Firehouse extraction well FF-RW-A. These were all shallow wells in the area that were not part of the routine BGRR/WCF/PFS monitoring program. Two temporary wells **(Table 3.2.11-1)** were installed in August 2023 south of Building 725 to supplement the permanent well network. Based on this temporary well data, a new monitoring well (085-415) was installed and added to the program. The well is located immediately south of Building 725.

Sampling Frequency and Analysis

The well samples are analyzed for Sr-90. As noted in **Table 1-5**, several of the wells are also monitored under other programs. Monitoring well results are tabulated in **Appendix C**. In 2023, the sampling frequency for all three of the Sr-90 plume segments (BGRR, PFS/Building 801 area and former WCF), was either annual or semi-annual for most wells. Source area monitoring wells 075-701 and 075-664 were sampled monthly to monitor Sr-90 releases from underneath Building 701/BGDs resulting from increased water table elevations.

3.2.11.3 Monitoring Well/Temporary Well Results

The Sr-90 plume distribution is shown on **Figure 3.2.11-1**. The distribution of Sr-90 throughout the BGRR, former WCF, and PFS/Building 801 areas is based on groundwater data obtained from the

fourth quarter 2023 sampling round in conjunction with historical data. Hydrogeologic cross-sections drawn along the center line of each of the plumes from the three Sr-90 source areas are shown on **Figures 3.2.11-2, 3.2.11-3, and 3.2.11-4**. In addition, historical Sr-90 concentration trends for key wells are plotted on **Figure 3.2.11-5**. Sr-90 migrates in the aquifer at the rate of approximately 20 to 40 feet per year and the half-life of Sr-90 is 29 years.

Historically, the highest Sr-90 concentration (3,150 pCi/L) observed in these plumes was during 2003 in a temporary well installed approximately 185 feet south of Building 701, and just upgradient of extraction well SR-3. The highest historical Sr-90 concentration (1,560 pCi/L) in the former WCF area occurred in 2003 in a temporary well installed immediately downgradient of the six former underground storage tanks (USTs A/B), and approximately 25 feet northwest of the former WCF (Building 811). The highest historical Sr-90 concentration (566 pCi/L) associated with the former PFS/Building 801 occurred in 1997 in a temporary well installed immediately downgradient of this area.

A comparison of the plumes from 2004 through 2023 is provided on **Figure 3.2.11-10.** The three Sr-90 plumes were characterized extensively for the first time in 1998, primarily using temporary wells. The permanent monitoring well network was enhanced significantly in 2004 prior to the startup of groundwater treatment operations. Groundwater flow conditions have changed significantly in this area since the late 1990s. This is due to changes in supply, process, and remediation pumping and recharge in the east-central portion of the site. Flow has shifted from a southerly to southeasterly direction in response to these changes. As a result, a number of permanent wells are no longer positioned for monitoring Sr-90. Some older wells have been dropped from the monitoring network over the years and temporary wells are increasingly required to fill data gaps. The following is a summary of the 2023 monitoring data for the three Sr-90 plumes:

WCF Plume

Extraction wells SR-1 and SR-2 have been effective at capturing source area contamination and preventing any southward migration of the plume as can be viewed on **Figure 3.2.11-1**. Increased utilization of supply well 10 (located approximately 600 feet northeast of the WCF) over the previous four years, is resulting in an increased easterly component to groundwater flow in the WCF area.

- Monitoring well 065-175 has historically contained the highest Sr-90 concentrations immediately downgradient of the former WCF source area with a historical high concentration of 821 pCi/L in 2000. Sr-90 concentrations significantly declined over the years, with a concentration of 13 pCi/L observed during November 2023 **(Figure 3.2.11-5).** The removal of Building 811 and associated radiologically contaminated structures and soils in the WCF yard was completed in 2016. It is unclear whether the reduction of Sr-90 concentrations in this well are due to source area cleanup, an easterly shift to groundwater flow in this area or some combination of both.

- Sr-90 concentrations in monitoring wells located immediately downgradient of extraction wells SR-1 and SR-2 have been below the 8 pCi/L DWS since 2018. This indicates the extraction wells are capturing Sr-90 migrating south/southeast from the source area.

- Following the 2022 groundwater characterization effort, temporary wells were not installed to supplement the monitoring well network downgradient of the WCF in 2023 due to the slow migration rate of Sr-90. Supplemental temporary wells are installed every third year for this area with the next characterization planned in 2025.

- Nine shallow wells that were formerly part of the HFBR monitoring program, were sampled in 2022 and 2023 to characterize Sr-90 in the area adjacent and upgradient of Former Firehouse extraction well FF-RW-A as shown on **Figure 3.2.11-1.** The only detection of Sr-90 in these wells was at a concentration of 0.3 pCi/L in 075-810. **Figure 3.2.11-4** illustrates

that these wells are too shallow to be useful in defining the downgradient portion of the WCF Sr-90 plume.

BGRR (Building 701 Area) Plume

- Source area monitoring well 075-701 (screened across the water table from 35-55 ft. msl) has been sampled on a monthly basis since late 2012. The monthly data was collected to establish a correlation between water table elevation and Sr-90 concentration increases in the source area as shown on **Figure 3.2.11-6**. This figure plots water table elevation data from a nearby USGS monitoring well (S 6431) with 075-701 Sr-90 concentrations over time. The data shows a correlation between high water table events and increased Sr-90 concentrations in well 075-701. The water table has fluctuated within a two-foot range since 2021, and Sr-90 concentrations have remained low in well 075-701. The Sr-90 concentration during 2023 ranged from < MDC to 9 pCi/L.
- The BGRR cap monitoring wells have been in place for ten years. Sr-90 concentrations in monitoring wells 075-699 and 075-700 have been largely below the DWS during that time. Sr-90 concentrations in both wells were <MDC in 2023.
- The downgradient segment of the Building 701 Sr-90 plume continues to attenuate. This is demonstrated by the decrease in Sr-90 concentrations in well 085-403 from a maximum of 35 pCi/L in October 2019 to 2.6 pCi/L in November 2023 (**Figure 3.2.11-5**).

Former Pile Fan Sump/Building 801 Plume

- Sr-90 concentrations in well 065-325 remained stable in 2023 with a maximum concentration of 18 piC/L. The highest Sr-90 concentration observed historically in well 065-325 (**Figure 3.2.11-5**) was 186 pCi/L in January 2020. The Sr-90 concentration in well 065-169 increased to 157 pCi/L in the October 2022 sample. The concentration in this well during the fourth quarter of 2023 was 100 pCi/L. This well is located immediately downgradient of Building 801. An increase in Sr-90 concentration was noted in well 065-170 in December 2023. This well is located approximately 50 feet downgradient of 065-169. Based on the Sr-90 results noted above, there appears to be residual Sr-90 beneath Building 801 acting as a continuing source.
- As recommended in the 2022 Groundwater Status Report, two temporary vertical profile wells were installed south of Building 725 to obtain data to characterize the appropriate depth to screen a new monitoring well. This well, 085-415, was installed and will serve as a sentinel monitoring well for the leading edge of Sr-90 migrating from the Building 801/PFS source area (**Figure 3.2.11-1**).

3.2.11.4 System Operations

Extraction wells SR-1 and SR-2 l continued to operate in 2023. SR-4 and SR-5 were placed in standby mode and SR-6 was placed in a pulsed pumping mode in 2016. During 2017, wells SR-4, SR-5 and SR-6 were placed in stand-by mode. In October 2018, SR-7 was placed in stand-by mode and well SR-8 was placed in pulsed pumping mode. SR-8 was placed in standby mode and SR-9 was changed to a pulsed pumping mode in May 2022. In May 2023, SR-9 was placed in stand-by mode. SR-3 has been in both operating and standby modes over the past several years because of fluctuating source area Sr-90 concentrations. This well was placed back in standby mode in May 2022 and remained in standby mode in 2023.

In accordance with the SPDES equivalency permit, the required frequency for Sr-90 and VOC sampling is monthly for extraction wells that are operational and quarterly if they are in standby mode. The pH measurement is monthly. The influent was also analyzed for tritium. Extraction well Sr-90

concentrations from 2023 are summarized on **Table F-36**. System influent and effluent concentrations are summarized on **Tables F-37** and **F-38**. **Table F-39** contains the monthly Sr-90 cumulative mass removal totals for the system. Operating details are given in the In addition, the systems extraction wells, influent and effluent were sampled for PFAS and 1,4-dioxane starting in 2023 **(Section 3.5)**.

Below is a summary of the system operations for 2023:

January – September 2023

From January to September 2023, wells SR-3 through SR-8 were in stand-by mode. Well SR-9 operated in a one month on, one month off pulsed pumping schedule. On May 1, well SR-9 was placed in stand-by mode. On August 7, the system was shut off due to high system pressure caused by excessive overgrowth of vegetation in the dry wells clogging the drainage piping. The dry wells were cleared of the excessive vegetation and re-started on September 25. The system treated approximately 4.7 million gallons of water during this period.

October – December 2023

From October to December 2023, wells SR-3 through SR-9 were in stand-by mode. The system ran normally during this time. The system treated approximately 1.4 million gallons of water during this period.

Extraction Well Operational Data

During 2023, approximately 6.1 million gallons of water were treated by the remediation system, with an average flow rate of 12 gpm. **Table 3.2.11-2** shows the monthly extraction well pumping rates while **Table F-36** shows Sr-90 concentrations.

3.2.11.5 System Operational Data

During 2023, system influent Sr-90 concentrations ranged from 3.6 pCi/L to 9.8 pCi/L. Tritium was not detected during all of 2023. During 2023, Sr-90 was detected in the effluent at a maximum concentration of 1.8 pCi/L. There were no VOCs or Sr-90 detected above the SPDES Equivalency Permit discharge limits in the 2023 effluent samples (**Table 3.2.11-3**).

Extraction Wells

Maximum Sr-90 concentrations in each of the extraction wells during 2023:

- SR-1 43.5 pCi/L in August
- SR-2 6.3 pCi/L in June
- SR-3 2.7 pCi/L in October
- SR-4 5.2 pCi/L in October
- SR-5 1.1 pCi/L in July

Table 3.2.11-3
BGRR Sr-90 Treatment System
2023 SPDES Equivalency Permit Levels

Parameter	Permit Level	Max. Measured Value
pH range	5.5–8.5 SU	5.9–6.9 SU
Sr-90	8.0 pCi/L	1.8
Chloroform	7.0 µg/L	0.66J
1,1-Dichloroethane	5.0 µg/L	ND
Ethylbenzene	5.0 µg/L	ND
Methyl Chloride	5.0 µg/L	ND
Methylene Chloride	5.0 µg/L	ND
Toluene	5.0 µg/L	ND
1,2,3-Trichlorobenzene	5.0 µg/L	ND
1,1,1-Trichloroethane	5.0 µg/L	0.6J
1,2,4-Trimethylbenzene	5.0 µg/L	ND
Xylene, total	10.0 µg/L	ND

Notes:
SU = Standard Units
Required sampling frequency is monthly for Sr-90, VOCs, and pH.

- SR-6 1.2 pCi/L in October
- SR-7 2.2 pCi/L in October
- SR-8 2.3 pCi/L in February
- SR-9 4.9 pCi/L in February

Cumulative Mass Removal

Average flow rates for each monitoring period were used, in combination with the Sr-90 influent concentrations, to calculate the number of milliCuries (mCi) removed. During 2023, the flow averaged 12 gpm. Approximately 0.15 mCi of Sr-90 were removed during 2023, for a total of 29.9 mCi removed since system start-up in 2005 (**Table F-39**). Cumulative mass removal of Sr-90 is shown on **Figure 3.2.11-7**. **Figures 3.2.11-8** and **3.2.11-9** show the Sr-90 concentrations over time for the extraction wells.

3.2.11.6 System Evaluation

The BGRR/WCF Strontium-90 Treatment System and Monitoring Program can be evaluated in the context of the decisions established for this program using the groundwater DQO process:

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

WCF Plume: Yes. Buildings 810 and 811, located in the eastern portion of the former WCF yard, were demolished in 2015. Contaminated piping and soils located underneath and adjacent to the buildings were also removed and sent to an approved disposal facility following the building demolition. Some paved areas were also removed. The excavated areas were backfilled in September 2016. This work marked the final phase of source area soil remediation. Sr-90 concentrations in source area monitoring well 065-175 decreased from 61 pCi/L to 13 pCi/L in 2023. The maximum Sr-90 detection in this well was 821 pCi/L in 2000. Based on current groundwater monitoring data, it appears that there is some residual Sr-90 in the source area soils although the current concentrations are well below historic values. The source area remains controlled by extraction wells SR-1 and SR-2.

BGRR Plume: Yes. The source area is capped by Building 701 and an engineered cap that was completed in 2011. Following the historical high-water table elevation in 2019, the water table decreased to normal long term average levels. Sr-90 concentrations in source area well 075-701 remained below 9 pCi/L throughout 2022 and 2023. Monthly monitoring will continue in this area until the inventory of Sr-90 in the unsaturated zone beneath Building 701 and the below ground ducts has been depleted and flushing of Sr-90 (due to water table elevation increases) no longer results in significant concentrations in groundwater. Data from monitoring well 075-701 is a reliable indicator of new Sr-90 releases. The downgradient migration of the Sr-90 plume is controlled by extraction well SR-3. The operation of extraction well SR-3 will be managed going forward based on data from both 075-701 and SR-3 and will be placed in standby mode during periods of lower water table elevation and lower source area concentrations.

PFS/Building 801 Area Plume: Yes. There continue to be periodic increases in Sr-90 groundwater concentrations in area wells indicating a residual Sr-90 source beneath Building 801. A well network is in place to monitor the downgradient migration and attenuation of this Sr-90.

2. Were unexpected levels or types of contamination detected?

WCF Plume: No unexpected levels or types of contamination were detected.

BGRR Plume: No unexpected levels or types of contamination were detected.

PFS/Building 801 Area Plume: Yes. Sr-90 concentrations immediately downgradient of Building 801 continued to be elevated.

PFAS and 1,4-dioxane were detected in the system, as detailed in **Section 3.5.**

3. Has the downgradient migration of the plume been controlled?

WCF Plume: Yes. The source area segment of the plume is controlled by extraction wells SR-1 and SR-2. Sr-90 concentrations in the downgradient segment of this plume are naturally attenuating to levels well below the capture goal of 175 pCi/L.

BGRR Plume: Yes. Extraction well SR-3 is positioned to capture the migration of periodic slugs of Sr-90 from the source area. This well was placed in stand-by mode in May 2022 following the decrease in Sr-90 concentrations in source area well 075-701.

PFS/Building 801 Area Plume: This plume is not being actively remediated. Based on source area concentrations, the plume is expected to attenuate and meet the ROD cleanup goals.

4. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

WCF Plume: The cleanup goal has not been met. The extraction wells are capturing source area residual Sr-90 contamination immediately downgradient of the former WCF. Extraction wells SR-6, SR-7, SR-8, and SR-9 are all below the DWS and are currently in stand-by mode.

BGRR Plume: SR-3 is currently in standby mode due to the decrease of Sr-90 concentrations to levels below the DWS in 2021. Extraction wells SR-4 and SR-5 will be maintained in standby mode.

PFS/Building 801 Area Plume: This plume is not being actively remediated.

5. Has the Groundwater Cleanup goal of meeting MCLs been achieved?

The groundwater cleanup goal of meeting MCLs has not been achieved for these plumes.

3.2.11.7 Recommendations

The following are recommendations for the BGRR/WCF Building 701 Groundwater Treatment System and Monitoring Program:

- Continue operating wells SR-1 and SR-2 in full-time mode. Maintain wells SR-3, SR-4, SR-5, SR-6, SR-7, SR-8, and SR-9 in standby mode.
- Resume operation of SR-3 if significant Sr-90 concentration increases are observed in source area monitoring well 075-701. A significant water table increase has been observed during the first quarter of 2024.
- Maintain a source area monitoring frequency of monthly for BGRR source area wells 075-701 and 075-664.
- Maintain the semi-annual sampling frequency in well 065-169 to evaluate the October 2022 Sr-90 concentration increase in the vicinity of Building 801.
- Discontinue sampling of existing monitoring wells 075-809, 075-810, 075-811, 075-415, 075-417, 075-419, 085-171, 085-285, 085-286, 085-287, 085-01, 085-406, 085-407, and 085-290 for Sr-90 analysis. These data were utilized to evaluate the presence of Sr-90 in the vicinity of extraction well FF-RW-A and is no longer needed. See **Figure 3.2.11-1** for these well locations.

3.2.12 Chemical/Animal Holes Strontium-90 Treatment System

This section summarizes the operational data from the Chemical/Animal Holes Strontium-90 Treatment System for 2023 and gives conclusions and recommendations for future operation. This system began operation in February 2003. Due to the declining Sr-90 concentrations, a *Petition for Shutdown of the OU III Chemical Holes Strontium-90 Groundwater Treatment System* (BNL 2018a) was submitted to the regulators in March 2018 and subsequently approved. In July 2018, the system was placed in standby mode.

3.2.12.1 System Description

The Chemical/Animal Holes were formerly located in the south-central portion of the BNL property (**Figure 3.2.12-1**). The area consisted of 55 pits east of the Former Landfill that were used for the disposal of a variety of laboratory chemicals and animal remains. The buried waste was excavated in 1997.

The components of the Sr-90 groundwater remediation at the Chemical/Animal Holes are:

1. Three extraction wells pumping into an ion exchange treatment system to remove Sr-90 from the extracted groundwater, and on-site discharge of the clean water into two drywells.
2. Operation of the system to minimize plume growth, in conjunction with monitored natural attenuation to meet the 8 pCi/L DWS by 2040.
3. Continued monitoring and evaluation of the data to ensure protectiveness.

Details of operations are provided in the *Chemical/Animal Holes Strontium-90 Groundwater Treatment System Operation and Maintenance Manual* (BNL 2008b).

3.2.12.2 Groundwater Monitoring

Well Network

The Chemical/Animal Holes monitoring network consists of 29 wells. **Figure 3.2.12-1** shows the monitoring well locations. Several monitoring wells (106-102, 106-47, 106-13, 106-135, 106-48, and 106-50) were discontinued from the monitoring program in 2023 based on recommendations in the 2022 Annual Groundwater Status Report.

Sampling Frequency and Analysis

The sampling frequency for the monitoring wells was annual (standby phase) in 2023, except for three wells (097-313, 097-314 and 097-315) that monitor the former source area which were sampled semi-annually (**Table 1-5**).

3.2.12.3 Monitoring Well Results

Figure 3.2.12-1 shows the Sr-90 plume distribution. The plume depiction is derived from third quarter 2023 monitoring well data. The area of highest Sr-90 concentration is located downgradient of the former source area and just south of extraction well EW-1. Overall, the plume concentrations have significantly decreased since 2008 with no significant rebound identified. To date, the highest Sr-90 concentration observed in groundwater in this area was 4,720 pCi/L at well 106-99 in 2005. The only detection greater than 50 pCi/L since mid-2022 was 53 pCi/L in well 106-103 in July 2023. See **Figure 3.2.12-2** for concentration trends of key monitoring wells and **Figure 3.2.12-3** for a cross-sectional view. The complete monitoring results for all wells in this program are in **Appendix C**.

A summary of key monitoring well data for 2023 follows:

- Sr-90 concentrations in plume core wells have declined over the past several years as shown in the trend charts. However, Sr-90 concentrations in well 097-314 increased to 72 pCi/L in July 2021. Strontium-90 concentrations in this well have since dropped off with a maximum 2023 concentration of 32 pCi/L. Concentrations in the other source area wells 097-313 and 097-315, remained below the DWS in 2023.
- Sr-90 concentration trends in plume core wells 106-16, 106-94, 106-95 and 106-99 have significantly declined over time and have remained less than 42 pCi/L since 2016. These wells are located immediately upgradient of EW-1. As shown on the plume comparison on **Figure 3.2.12-6**, the plume has become discontinuous and Sr-90 concentrations have been significantly reduced as a result of the groundwater remediation efforts in this area.
- Monitoring well 106-103, located immediately downgradient of EW-1 detected Sr-90 at 32 pCi/L in August 2022 which increased to 53 pCi/L in July 2023. Previously, concentrations in this well were below DWS since 2015. This increase is probably indicative of residual source area contamination flushing into the aquifer. This resulted in the release of a small slug of groundwater contamination now migrating downgradient.

3.2.12.4 System Operations

The system remained in standby mode in 2023. Therefore, the influent, midpoint, and effluent locations were not sampled (**Tables 3.2.12-1 and 3.2.12-2**). The three extraction wells were sampled quarterly for Sr-90 (**Table F-40**).

The maximum Sr-90 concentration in the extraction wells in 2023 was 22 pCi/L in EW-1. Sr-90 was not detected in EW-2 or EW-3 above the DWS in 2023.

Tables F-41 and F-42 contain no data since the system remained shut down since July 2018.

Table 3.2.12-1.
Chemical Holes Sr-90 Treatment System
2023 SPDES Equivalency Permit Levels

Parameter	Permit Level	Max. Measured Value
pH range (SU)	5.0–8.5	NS
Sr-90 (pCi/L)	8.0	NS

pCi/L – pico curies per liter

3.2.12.5 System Operational Data

The maximum Sr-90 in EW-1 during 2023 was 22 pCi/L in September. Sr-90 concentrations in EW-2 have been below the DWS since April 2020. Sr-90 concentrations in EW-3 have remained below the DWS since 2014. **Figure 3.2.12-4** presents the Sr-90 extraction well data over time.

Cumulative Mass Removal

The system remained in stand-by mode in 2023. The cumulative total mass of Sr-90 removed during system operations from 2003 through July 2018 is 4.94 mCi (**Figure 3.2.12-5 and Table F-43**).

3.2.12.6 System Evaluation

The Chemical/Animal Holes Sr-90 Treatment System performance can be evaluated based on decisions identified for this system as part of the DQO process.

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

Yes, there is a low-level continuing source of Sr-90 based on extraction and monitoring well data. The former Chemical/Animal Holes located upgradient of extraction well EW-1 were excavated in 1997. The

inventory of Sr-90 that remains in this area has been significantly reduced based on the monitoring data subsequent to remediation. Soil and temporary well groundwater samples obtained in this area in late 2015 as part of a post-remedial characterization, did not identify a continuing source of Sr-90. As shown by the trends in **Figures 3.2.12-2 and Figure 3.2.12-4**, Sr-90 concentrations in monitoring and extraction wells have declined significantly since approximately 2010. This is indicative of the remediation progress; however, there was a slight increase in Sr-90 concentrations in source area well 097-314 starting in 2019 with a maximum of 72 pCi/L in July 2021. This may be associated with the significant rise in the water table in 2018 following three years of low precipitation conditions, resulting in flushing of Sr-90 from the vadose zone. Concentrations in this well subsequently decreased.

2. Were unexpected levels of Sr-90 contamination detected?

No. There were no unexpected levels of Sr-90 detected in 2023.

3. Has the downgradient migration of the plume been controlled?

Yes. While in operation, the system was effective in remediating the extent and migration of the Sr-90 plume. Following the placement of the system in standby mode, the combination of natural attenuation and radioactive decay is limiting downgradient migration of the plume. The maximum Sr-90 concentration observed in 2023 was 52 pCi/L in well 106-23. Based on a Sr-90 migration rate of 20-40 feet per year, a 29-year half-life, and dispersion/dilution of the plume in the aquifer as it moves south, this concentration is predicted to attenuate to levels below the drinking water standard after several hundred feet of migration from the source area. This is verified by Sr-90 concentrations observed in sentinel monitoring wells 106-120, 106-121, and 106-122 (located approximately 750 feet south of the source area) observed over the previous 17 years. There have been only 14 detections of Sr-90, all in well 106-22, over that time frame with a maximum concentration of 2.6 pCi/L.

4. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

Following regulatory approval, the system was shut down and placed in standby mode in July 2018 and will continue to be monitored for rebound.

4a. Are Sr-90 concentrations in plume core wells above or below 8 pCi/L?

Sr-90 concentrations in eight of 21 core wells were above 8 pCi/L in 2023 with a maximum of 53 pCi/L in well 106-103.

4b. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

As noted above, Sr-90 concentrations began increasing slightly in source area monitoring well 097-314 as well as extraction well EW-1 following system shutdown in July 2018. In the fourth quarter of 2022, there was a slight increase in Sr-90 in extraction well EW-1 to 36 pCi/L, followed by a decrease to 15 pCi/L in April 2023. Monitoring will continue to evaluate rebound and increasing trends.

5. Has the groundwater cleanup goal of meeting drinking water standards been achieved?

No. The DWS has not been achieved for Sr-90 in all plume core wells. Comparison of the current plume with a series of plume snapshots dating back to 2002 is provided in **Figure 3.2.12-6.**

3.2.12.7 Recommendations

The following are the recommendations for the Chemical/Animal Holes Strontium-90 Treatment System and groundwater monitoring program:

- Maintain the system in standby mode and quarterly sampling of the extraction wells. If significant rebound in either the extraction wells or monitoring wells is identified, these extraction wells may be restarted.
- Maintain the annual monitoring well sampling frequency (standby phase), except for source area wells 097-313, 097-314, 097-315, which will remain semi-annual.
- Perform updated groundwater modeling simulations based on current groundwater Sr-90 concentrations to predict the natural attenuation time frame.

3.2.13 HFBR Tritium Monitoring Program

In late 1996, tritium was detected in monitoring wells near the HFBR. The source of the release was traced to the HFBR spent fuel pool. In response, the fuel rods were removed, and the spent fuel pool was drained. In May 1997, a three-well groundwater pump and recharge system was constructed on the Princeton Avenue firebreak road, approximately 3,700 feet downgradient of the HFBR to ensure capture the leading edge of the tritium plume. Extracted water was recharged at the RA V Recharge Basin. The extraction system was placed on standby status in September 2000, as groundwater monitoring data demonstrated that the plume was attenuating to concentrations below DWS in the vicinity of the extraction wells.

As described in the OU III ROD, the selected remedy to address the HFBR tritium plume included implementing monitoring and low-flow extraction programs to prevent or minimize plume growth. Beginning in June 2000 and ending April 2001, 20 low-flow extraction events removed 95,000 gallons of tritiated water with concentrations greater than 750,000 pCi/L. This water was sent off site for disposal.

The OU III ROD contingencies were defined as either a detection of tritium above 25,000 pCi/L in monitoring wells at the Chilled Water Facility Road, or above 20,000 pCi/L in monitoring wells along Weaver Drive. The OU III ROD contingency of exceeding 20,000 pCi/L at Weaver Drive was triggered with a detection of 21,000 pCi/L in November 2006. In 2007, extraction well EW-16 was installed approximately 500 feet north of Princeton Avenue to supplement the three existing extraction wells and the system was restarted in November 2007 as per the ROD contingency.

The *Petition For Shutdown, High Flux Beam Reactor, Tritium Plume Pump and Recharge System* (BNL 2013c) was submitted to the regulatory agencies in March 2013 based on satisfaction of the criteria established in the *2008 Groundwater Status Report* (BNL 2009c) and documented in the *Operations and Maintenance Manual for the High Flux Beam Reactor Tritium Plume Pump and Recharge System (*BNL 2009b). The petition was approved by the regulatory agencies in May 2013 and the extraction wells were placed in standby mode. A *Petition for Closure* (BNL 2018b) of this system was submitted to the regulators in July 2018 and approved in March 2019. The extraction wells are now shut down and the program consists of groundwater monitoring of natural attenuation.

3.2.13.1 System Description

Extraction wells EW-9, EW-10, EW-11, and EW-16 are no longer in use and will be decommissioned upon a determination that they will not be needed for use related to PFAS and 1,4-dioxane remediation.

3.2.13.2 Groundwater Monitoring

Well Network

A monitoring well network of 10 wells is utilized to monitor source area tritium concentrations immediately downgradient of the HFBR (**Figure 3.2.13-1**).

Sampling Frequency and Analysis

In 2019, plume monitoring was reduced to the area immediately south of the HFBR, based on the attenuation of the downgradient portion of the plume. The monitoring wells are sampled quarterly for tritium.

3.2.13.3 Monitoring Well Results

The fourth quarter 2023 monitoring well data are posted on **Figure 3.2.13-1**. The highest tritium concentration observed in 2023 was 7,404 pCi/L in well 075-804 in April, which is well below the 20,000 pCi/L DWS. **Appendix C** contains the complete set of monitoring well data.

Increased tritium concentrations in wells located immediately downgradient of the HFBR have been observed to correlate with high water table elevation events. This results in water table flushing of the remaining tritium inventory in the unsaturated zone beneath the HFBR. The correlation is evident when comparing water table elevations immediately downgradient of the HFBR with peak tritium concentrations in the monitoring wells located in this area as shown in **Figure 3.2.13-2**. The magnitude and frequency of peak tritium concentrations has diminished over the 25 years of monitoring. The water table fluctuated approximately 2 feet in 2023 and remained close to the long-term average elevation. Monitoring of the HFBR tritium plume has now encompassed two tritium half-lives (a half-life equals 12.3 years). Based on the decreasing tritium concentration trends in groundwater, the inventory of tritium present in soils beneath the HFBR appears to have significantly decreased over the past 25 years.

3.2.13.4 Monitoring Program Evaluation

The OU III HFBR Tritium Pump and Recharge System and Monitoring Program can be evaluated based on the decision rules established for this program using the groundwater DQO process.

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

Yes. However, the inventory of tritium that remains in the unsaturated zone beneath the HFBR building is decreasing based on groundwater monitoring data immediately downgradient of the building. The highest concentration observed in the source area during 2023 was 7,404 pCi/L in monitoring well 075-804. The long-term decline in the peak tritium concentration trend in wells immediately downgradient of the HFBR and water table elevations is shown in **Figure 3.2.13-2**.

2. Were unexpected levels of contamination detected?

There were no unusual levels of tritium observed in the monitoring wells during 2023.

3. Is the plume attenuating as expected?

Yes. Tritium concentrations in monitoring wells have not exceeded the 20,000 pCi/L DWS since 2020. **Figure 3.2.13-2** demonstrates the decline in source area concentrations over the years.

4. Has the groundwater cleanup goal of meeting MCLs been achieved?

MCLs have not been exceeded since 2020. The area immediately downgradient of the HFBR remained below the 20,000 pCi/L MCL in 2023.

3.2.13.5 Recommendations

The following are recommendations for the HFBR Tritium Monitoring Program:

- Continue to monitor the source area with the ten wells located immediately downgradient of the HFBR. Based on the steep water table elevation increase in early 2024, maintain the quarterly sampling frequency to have sufficient data to observe any related tritium concentration increase.
- Maintain the downgradient monitoring wells and extraction wells until a determination is made on their utilization related to PFAS and 1,4-dioxane.

3.3 OPERABLE UNIT IV

This section summarizes the data from the Building 650 and Sump Outfall Strontium-90 Monitoring Program that monitors a Sr-90 plume and offers conclusions and recommendations for monitoring.

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3.3.1 Building 650 and Sump Outfall Strontium-90 Monitoring Program

The Building 650 and Sump Outfall Sr-90 Monitoring Program monitors Sr-90 in groundwater originating from a remediated source area known as the former Building 650 Sump Outfall Area. This source area consisted of a depression (Sump Outfall) at the terminus of a discharge pipe from the building. The pipe conveyed discharges from a concrete decontamination pad located approximately 800 feet to the west, where radioactively contaminated clothing and equipment were decontaminated beginning in 1959 **(Figure 3.3.1-1)**.

3.3.1.1 Groundwater Monitoring

The monitoring well network consists of 24 wells used to monitor Sr-90 originating from Building 650 and the Building 650 Sump Outfall Area (**Figure 3.3.1-1**). During 2023, the monitoring wells were sampled either annually or semiannually, and the samples were analyzed for Sr-90 (**Table 1-5)**.

3.3.1.2 Monitoring Well Results

The complete monitoring well Sr-90 sampling results can be found in **Appendix C**. The Sr-90 monitoring results indicated that the plume originating from the Sump Outfall continued to attenuate as it migrates away from the former Building 650 Sump Outfall Area. The locations of the monitoring wells and the Sr-90 concentrations are shown on **Figure 3.3.1-1**. The leading edge of the plume, as defined by the 8 pCi/L DWS is presently located in the area immediately north of the National Synchrotron Light Source (NSLS) II Facility.

Building 650

The Demolition and Decommissioning (D&D) of Building 650 was completed in 2021. The removal of Building 650 and the surrounding paved areas resulted in the exposure of soil from the surrounding paved areas. Wells 076-420 and 076-421 were installed prior to D&D of Building 650 to monitor potential impacts to groundwater from the D&D activities. Significant observations for key monitoring wells follow:

- Peak Sr-90 concentrations in monitoring wells 076-420 and 076-421 during the first quarter of 2023 were 2.3 pCi/L and 2.5 pCi/L respectively. Fourth quarter results for both wells were below the MDC.
- Monitoring well 076-25, located approximately 160 feet to the south-southeast of Building 650 has shown fluctuating Sr-90 concentrations from a high of 12 pCi/L in 2018 to 7.9 pCi/L in 2023.
- Monitoring well 076-28, located immediately north of the former Building 650 decontamination pad had Sr-90 concentrations of 2.2 pCi/L and 3.2 pCi/L in March and September, respectively.

Building 650 Sump Outfall Area

Over the past several years there has been a shift in the groundwater flow direction to the southeast **(Figure 2-2)**. This shift was attributable to the reduction of treated water discharging into the RA V basin. This shift could also be contributing to the decrease in Sr-90 concentrations in some monitoring wells (076-24, 076-182, and 076-416) over the past several years. Furthermore, it is probable a shift back towards the southwest will occur due to increased discharges to the RA V basin as a result of the operation of the Former Firehouse PFAS Treatment System Current Firehouse PFAS treatment system which now discharges to this basin **(Figure 2-5).** Significant observations for key monitoring wells follow:

- Wells 076-418 and 076-419 were installed downgradient of the Sump Outfall Area at locations where data from 2019 indicated the need for permanent monitoring wells based on the eastward shift of the plume. The high Sr-90 concentrations obtained during 2023 were 7.5 pCi/L and 19.5 pCi/L respectively. The Sr-90 concentrations in these wells have remained relatively stable since they were installed in 2020 and were below DWS in the fourth quarter of 2023.
- Sr-90 concentrations in source area wells 076-13 and 076-168 have remained below DWS since 2016. (**Figure 3.3.1-2**). This data indicates the source area Sr-90 inventory is decreasing as anticipated.
- Well 076-184, located to the east of wells 076-182 and 076-416, remains just below its historical high of 52.6 pCi/L in August of 2021 with a result of 47.4 pCi/L in September 2023.

3.3.1.3 Groundwater Monitoring Program Evaluation

The monitoring program can be evaluated based on the decision rules identified from the groundwater DQO process.

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

Building 650: No. The source area was remediated in 2002, yet there still are detections of Sr-90 near the former Building 650 at levels near the DWS. Based on the Sr-90 concentrations in the monitoring wells, residual contamination that may remain at depth in the unsaturated zone above the water table appears to be minimal.

Building 650 Sump Outfall Area: No. The source area was remediated in 2002. Detections of Sr-90 in monitoring wells near the Sump Outfall Area have not exceeded the DWS since 2016. Based on the Sr-90 concentrations in source area monitoring wells, any residual contamination that may remain at depth in the unsaturated zone above the water table appears to be minimal.

2. Were unexpected levels or types of contamination detected?

No. Based upon the results for 2023, the Sr-90 detections were within the expected concentration range. Monitoring well 076-184 had a Sr-90 concentration of 47.4 pCi/L; however, this is not unexpected as the plume continues to migrate and attenuate downgradient.

3. Is the plume naturally attenuating as expected?

Yes. The groundwater modeling conducted in 2010 predicted that the plume will attenuate to below the 8 pCi/L DWS by approximately 2034. The leading edge of the plume, as defined by the DWS, was predicted to advance approximately 250 feet south of Brookhaven Avenue, consistent with current monitoring data.

4. Has the groundwater cleanup goal of meeting MCLs been achieved?

No. There were three monitoring wells exceeding the MCL in 2023 (076-04, 076-184 and 076-419). Therefore, the performance objectives have yet to be achieved. The groundwater plume continues to degrade due to natural attenuation (i.e., radioactive decay and dispersion).

3.3.1.4 Recommendations

The following are recommendations for the Building 650 and Sump Outfall Strontium-90 Monitoring Program:

- Maintain annual sampling frequency for the 24 monitoring wells in this program.

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3.4 OPERABLE UNIT VI EDB TREATMENT SYSTEM

The OU VI EDB Treatment System addresses an EDB plume in groundwater currently located off-site from south of North Street, southward for approximately 2,500 feet. EDB was used during the 1970s as a fumigant for the BNL Biology Department's biology fields located in the southeastern portion of the site (**Figure 3.4-1**). In the mid-1990s, low levels of EDB were detected in groundwater near the fields. Higher levels were found migrating toward the southern site boundary and off-site to the south. In addition, the depth of the plume increased within the Upper Glacial aquifer to the south. EDB has not been detected on BNL property since 2009 and on-site monitoring was discontinued in 2016.

3.4.1 System Description

A groundwater remediation system to address the off-site EDB plume began routine operations in August 2004. The OU VI EDB Treatment System consisted of two extraction wells and two injection wells. A complete description of the system is included in the *Operations and Maintenance Manual for the OU VI EDB Groundwater Treatment System* (BNL 2004). Groundwater characterization and geologic data obtained in 2020 and 2021 identified that the plume is deeper in the Upper Glacial aquifer than originally understood. It was also determined at that time that the Gardiners Clay unit was not present south of well 000-209. In addition, a local silt and clay layer was identified in the deep Upper Glacial aquifer south of well 000-284. This is depicted on cross section Q–Q' (**Figure 3.4-2).**

In December 2023, the system was shut down to construct two new extraction wells (EW-3E and EW-4E). These new extraction wells were installed and screened at greater depths than the two existing wells to better capture the deeper portions of the EDB plume. Construction began on December 8, 2023 and was completed January 29, 2024 when the new extraction wells began full time operations. Extraction wells EW-1E and EW-2E were subsequently placed in stand-by mode.

3.4.2 Groundwater Monitoring

Well Locations

A network of 26 wells monitors the EDB plume from North Street to locations on private property south of North Street and west of Weeks Avenue (**Figure 3.4-1**). Three new monitoring wells were installed in 2023 to enhance the monitoring network in relation to the new extraction wells. 000-580 and 000-581 are bypass wells to monitor downgradient of the new extraction wells. 000-582 is a plume core well, located just upgradient of the two new extraction wells.

Sampling Frequency and Analysis

The OU VI EDB plume monitoring program is in the O&M phase (**Table 1-8**). The sampling frequency is documented in **Table 1-5**. Three perimeter wells located upgradient of the plume are sampled annually. The wells are analyzed for EDB using EPA Method 504. The federal DWS for EDB is 0.05 µg/L.

3.4.3 Monitoring Well Results

Appendix C contains the complete analytical results of the OU VI EDB monitoring well sampling program. The distribution of the EDB plume for the fourth quarter of 2023 is shown on **Figure 3.4-1**. See **Figure 3.4-3** for historical EDB trends for key monitoring wells. A summary of key monitoring well data for 2023 follows:

- The maximum EDB concentration detected in the plume in 2023 was 2 µg/L in well 000-571. This well is located immediately upgradient of eastern extraction well EW-4E. The

highest concentration segment of the plume (greater than 1.0 µg/L) is located between well 000-571 and well 000-568 (a distance of approximately 700-feet).

- The western portion of the plume, upgradient of EW-3E, contains lower concentrations of EDB, although still exceeding the DWS. Monitoring well 000-572 is located immediately upgradient of EW-3E. The maximum EDB concentration detected in well 000-572 in 2023 was 0.7 µg/L in March.
- EDB concentrations have declined significantly in upgradient perimeter well 000-173 as shown in **Figure 3.4-3** indicating that the trailing edge of the plume has moved south of this location. The 2023 sample detected EDB at 0.03 µg/L. EDB concentrations in this well have been at or below the DWS since 2016. Concentrations in 000-175, located 200 feet northeast, have remained below the DWS since 2011. Well 000-209, located approximately 500 feet southeast of 000-173, was not sampled in 2023, due to a large downed tree blocking the access path.
- Well 000-283, located approximately 1,700 feet upgradient of extraction well EW-3E, detected the maximum historical EDB concentrations in the plume of 7.6 µg/L in 2001. This well has seen a steady drop in EDB concentrations since 2005, and the concentration during each of the 2023 sample events was 0.07 µg/L. Well 000-284, located east of 000-283, also continues to exhibit a significant drop in EDB concentrations from a high of 6.8 µg/L in 2003 to 0.01 µg/L in 2023.
- Monitoring wells 000-567 and 000-568, installed in October 2020, have consistently detected EDB above the DWS with a maximum EDB concentration of 0.6 µg/L in 000-568 in March 2023. These wells were installed as a cluster and monitor the centerline of the plume.
- Core well 000-520, located on the eastern edge of the plume near the OS-6 treatment building, had shown a slight increasing trend in EDB concentrations starting in 2019. Concentrations have stabilized since 2021, with a December 2023 detection of 0.23 µg/L.
- The three original and shallower bypass monitoring wells (000-508, 000-519, 000-527) have not detected EDB since they were installed in 2005. Two deeper bypass wells, 000-580 and 000-581, were installed in 2023 to monitor downgradient of the new extraction wells. EDB concentrations in 000-580 were below detectable levels in 2023. There was a detection of 0.11 µg/L in well 000-581 during December.

The southern migration of the plume is observed by analyzing the trends on **Figure 3.4-3**. Comparing the plume's distribution from 1999 to 2023 (**Figure 3.4-4**), as well as the EDB concentrations in monitoring wells just south of North Street, helps to illustrate the southern movement of the plume as well as the reduction in plume extent. Overall, peak EDB concentrations declined from 7.6 µg/L in 2001 (in well 000-283) to 2 µg/L in 2023 (in well 000-571).

3.4.4 System Operational Data

The sampling frequency of the extraction wells is quarterly. In conformance with the SPDES equivalency permit, the sampling frequency for the influent and effluent is monthly. All OU VI system samples were analyzed for VOCs and EDB, and the effluent sample was analyzed monthly for pH. **Table 3.4-1** provides the effluent limitations for meeting the requirements of the SPDES equivalency permit. During 2023, the equivalency permit limits were not exceeded. Starting in 2023, the system influent and effluent was also analyzed for PFAS and 1,4-dioxane **(Section 3.5)**.

January – September 2023

The system was off from February 14 to February 16 for a routine carbon change out. The system was off from June 22 to August 16 to re-develop the diffusion wells. The system treated approximately 108 million gallons of water during this period.

October – December 2023

Well EW-2E was shut down on October 23 due to a pump and motor failure. After replacing the pump and motor, this well was placed in stand-by mode due to the construction and installation of extraction wells EW-3E and EW-4E. Well EW-1E was turned off December 8 for the construction and installation of new extraction wells EW-3E and EW-4E and was placed in stand-by mode after construction. The system treated approximately 23 million gallons of water for this period.

Extraction Wells

During 2023, the system treated approximately 131 million gallons of water, with an average flow rate of 253 gpm. **Table 2-2** contains the monthly pumping data for the two operating extraction wells, and **Table 3.4-2** shows the pumping rates. VOC concentrations for EW-1E (000-503) and EW-2E (000-504) are provided on **Table F-44**. In 2023, EDB was detected in all quarterly samples in EW-2E and not detected in EW-1E. In 2023, EW-2E had a maximum EDB detection of 0.056 µg/L in January, which is slightly above the DWS. No other VOCs were detected in the extraction wells above the DWS.

Figure 3.4-5 shows the EDB concentrations in the extraction wells over time. EDB levels in EW-1E remained relatively stable from 2008 through 2013, just above the DWS. Since then, concentrations diminished to below the DWS. EDB in EW-2E has been near or slightly above the DWS since 2020.

System Influent and Effluent

EDB was detected during ten of the eleven monthly sampling events (no sample was taken in July because the system was off) of the system influent throughout 2023. The maximum influent concentration was 0.036 µg/L. During 2023, the system effluent was below the regulatory limits specified in the SPDES equivalency permit (**Table 3.4-1**). Influent and effluent results are reported on **Table F-45** and **Table F-46**, respectively.

Table 3.4-1
OU VI EDB Treatment System
2023 SPDES Equivalency Permit Levels

Parameters	Permit Limit (µg/L)	Max. Measured Value (µg/L)
pH (range)	5.0 – 8.5 SU	5.1 – 5.8 SU
ethylene dibromide	0.03	<0.02
chloroform	7.0	1.1
1,1-dichloroethene	5.0	ND
1,1,1-trichloroethane	5.0	ND
methyl chloride	5.0	ND
methylene chloride	5.0	ND

Notes:
Required sampling frequency is monthly for VOCs and pH.
SU = Standard Units

Cumulative Mass Removal

No cumulative mass removal calculations were performed because of the low detections of EDB historically below the DWS in the system influent. The last influent detection exceeding the DWS was 0.054 µg/L in September 2021. The last previous detection above the DWS was in 2014.

3.4.5 System Evaluation

The OU VI EDB System performance can be evaluated based on decisions identified in the groundwater DQO process.

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

There is no continuing source of EDB.

2. Were unexpected levels or types of contamination detected?

No. The EDB concentrations identified in the new monitoring wells are consistent with the levels identified previously. However, 1,4-dioxane was detected in the system, as detailed in **Section 3.5.**

3. Has the downgradient migration of the plume been controlled?

The installation of two new and deeper extraction wells is expected to control and remediate the leading edge of the plume. The data obtained from the monitoring well network will be utilized to verify this.

4. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

No, the system has not met all shutdown requirements and is operating longer than the eight to ten years originally envisioned. As presented in the cleanup time frame assessment (Arcadis 2021), the movement of the plume off-site has slowed with continued migration south of North Street towards the extraction wells. The reduction in average velocity from north to south aligns with the recently observed presence of the Upper Glacial silt and clay deposit that was evaluated during 2021 through 2022 **(Figure 3.4-2**). In addition to impeding vertical flow, this unit would also impede horizontal flow relative to the sandier portions of the Upper Glacial aquifer above and below.

4a. Are EDB concentrations in plume core wells above or below 0.05 µg/L?

In the fourth quarter of 2023, 11 of 26 plume core wells showed EDB concentrations greater than the DWS.

4b. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

The OU VI EDB system has not been pulsed pumped or shut down.

5. Has the groundwater cleanup goal of meeting MCLs been achieved?

The MCL has not been achieved for EDB based on the data from plume core wells.

3.4.6 Recommendations

The following recommendations are made for the OU VI EDB Treatment System and groundwater monitoring program:

- Maintain full time operation of the treatment system and continue quarterly sampling of the extraction wells.
- Conduct an aquifer pumping test to evaluate the impact of pumping the new extraction wells on the shallower segment of the plume.

3.5 OPERABLE UNIT X

Per- and Polyfluoroalkyl Substances (PFAS) and the chemical 1,4-dioxane are emerging contaminants of concern. PFAS have been used in a wide variety of common household and commercial products, and in aqueous film forming foam (AFFF) used for fighting Class B fires. 1,4-Dioxane has been broadly used in numerous commercial products, including as a chemical stabilizer for the chlorinated solvent 1,1,1-trichloroethane (TCA). PFAS chemicals have impacted groundwater quality at numerous sites across the nation, especially in areas where firefighting foam was used for training, fire suppression systems, and emergency response. In 2017, water samples from BNL's five active potable water supply wells were analyzed for the six PFAS compounds that were evaluated under the Third Unregulated Contaminant Monitoring Rule (UCMR3) program. PFAS were detected in samples from three of the five supply wells (BNL-6, BNL-10, and BNL-11). The combined concentrations of perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) were less than the 2016 EPA Lifetime Health Advisory Level (HAL) of 70 ng/L (USEPA 2016). In August 2020, NYS established individual drinking water standards (referred to as Maximum Contaminant Levels or MCLs) of 10 nanograms per liter (ng/L) for PFOS and PFOA, and 1.0 microgram per liter (µg/L) for 1,4-dioxane. On June 15, 2022, the EPA proposed revised HALs for PFOA at 0.004 ng/L and PFOS at 0.02 ng/L (USEPA 2022). The EPA also proposed establishing HALs for HFPO-DA (GenX) at 10 ng/L and PFBS at 2,000 ng/L. In early 2024, the EPA finalized National Primary Drinking Water Standards of 4 ng/L for PFOS and PFOA, of 10 ng/L for perfluorononanoic acid (PFNA), perfluorohexane sulfonic acid (PFHxS) and hexafluoropropylene oxide dimer acid (HFPO-DA) known as GenX chemicals, and an MCL based upon a Hazard Index calculation using Health Based Water Concentrations (HBWCs) for HFPO-DA, perfluorobutane sulfonic acid (PFBS), PFNA and PFHxS.

At BNL, PFAS have impacted groundwater quality in areas where firefighting foam was used for training and fire suppression systems, the landfilling of PFAS-containing wastes, and discharges to the sanitary system; whereas, 1,4-dioxane has impacted groundwater quality as the result of historical releases of TCA to soils in several on-site areas and discharges to the sanitary system.

Since 2017, BNL has been investigating the impact that these chemicals are having on groundwater quality at the Laboratory and nearby off-site areas. The results of the investigations conducted from 2017 through early 2021 were summarized in the 2018 through 2021 *BNL Groundwater Status Reports* (BNL 2019, BNL 2020c, BNL 2021c, and BNL 2022b). Results for characterization efforts conducted during 2020 through 2022 were also presented in the *Phase 4 Characterization Report* (BNL 2021a) and the *Time Critical Removal Action Characterization Report* (BNL 2023b). Data collected during 2023 are summarized in **Section 3.5.1**, **Section 3.5.2.** and **Section 3.5.3** of this report.

To establish the appropriate CERCLA regulatory framework for potential future remedial actions for PFOS, PFOA and 1,4-dioxane, new Areas of Concern (AOCs) 33 and 34 were established in 2021. During 2023, BNL prepared a draft Operable Unit (OU) X Remedial Investigation/Feasibility Study (RI/FS) Work Plan for regulatory agency review. BNL responded to regulatory agency comments, and the RI/FS Work Plan will be finalized once funding for the work has been secured. The AOCs identified below are now included under Operable Unit X:

AOC 33 – PFOS and PFOA groundwater and soil contamination:

- Sub-AOC 33A Former Bubble Chamber Experiment and Blockhouse Area
- Sub-AOC 33B Building 924 Area
- Sub-AOC 33C East of Building 902
- Sub-AOC 33D Current Firehouse

- Sub-AOC 33E Former Firehouse
- Sub-AOC 33F Major Petroleum Facility
- Sub-AOC 33G Building 526 Area
- Sub-AOC 33H Recreation Center Area
- Sub-AOC 33I Sewage Treatment Plant
- Sub-AOC 33J Building 170 Area
- Sub-AOC 33K Current Landfill
- Sub-AOC 33L Water Treatment Plant

AOC 34 – 1,4-Dioxane groundwater contamination

Treatment System Discharge Standards

In March 2023, NYSDEC issued Ambient Groundwater Quality Guidance Values (AWQGVs), for PFOS, PFOA and 1,4-dioxane that are lower than the State drinking water standards. The guidance values are 2.7 ng/L for PFOS, 6.7 ng/L for PFOA, and 0.35 µg/L for 1,4-dioxane. These guidance values are also applied to industrial discharges that require a SPDES permit. Based upon the initial monitoring of groundwater treatment systems for these chemicals, it became apparent that the treatment system effluent for several of BNL's on-site and off-site systems exceeded the guidance values for 1,4-dioxane and PFOS (BNL 2021). In May and July 2023, meetings were held with NYSDEC, EPA and SCDHS regarding the currently operating groundwater treatment systems and potential impacts that the new discharge guidance values may have on their continued operation. Because of the limited amount of PFOS, PFOA and 1,4-dioxane data from the effluent of these systems, in July 2023, the NYSDEC approved BNL's plan to monitor select active treatment systems that had detectable levels of PFOS, PFOA and/or 1,4-dioxane on a quarterly frequency for one year (June 2023 through April 2024). The goal of the monitoring program is to provide sufficient baseline data needed to support decision making related to possible modifications of the systems to come into compliance with the new discharge guidance levels.

The approved effluent monitoring program called for the sampling of the:

1) combined OU III Western South Boundary, Middle Road, and South Boundary system;
2) OU III LIPA/Airport system;
3) OU III North Street East system;
4) OU VI EDB system (for 1,4-dioxane only); and
5) the BGRR/WCF system.

The first set of samples from the treatment system extraction wells, influent and effluent were collected during June-July 2023, and treatment system influent and effluent samples were collected in October 2023 (**Table 3.5-1**). The results for the first two quarterly monitoring periods indicated that 1,4-dioxane levels exceeded the 0.35 µg/L discharge guidance value in the combined OU III Western South Boundary, Middle Road, and South Boundary system effluent at a maximum concentration of 2.8 µg/L, and PFOS exceeded the 2.7 ng/L guidance value with a maximum concentration of 5.24 ng/L. 1,4-Dioxane concentrations in the effluent from both the LIPA/Airport and North Street East systems exceeded the guidance value, with maximum concentrations of 1.3 µg/L and 0.92 µg/L, respectively. The guidance value for 1,4-dioxane was not exceeded in either the OU VI or BGRR/WCF systems.

During 2024, the systems will be sampled in January and April. Following review of the complete four quarters of monitoring data, BNL will develop a plan that will allow for the active treatment systems to come into compliance with the discharge guidance values. The need to modify currently closed groundwater treatment systems will be evaluated during the OU X RI/FS.

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3.5.1 Operable Unit X Current Firehouse PFAS Treatment System

The Current Firehouse Treatment System was installed as a Time Critical Removal Action (TCRA) to address PFAS-contaminated groundwater associated with the Current Firehouse and Building 170 firefighter training areas (sub-AOC 33D and sub-AOC 33J, respectively).

3.5.1.1 System Description

The groundwater remediation system constructed to remediate the PFAS plumes originating from the Current Firehouse and Building 170 source areas began startup testing on October 24, 2022. Following the successful completion of the startup period, routine operations of the system started February 1, 2023. PFAS-contaminated water is withdrawn from the aquifer using nine extraction wells. Following treatment using granular activated carbon (GAC) filters, the treated water is returned to the aquifer using the HP recharge basins that had previously been used to recharge cooling water from the former Medical Research Reactor. A complete description of the system is included in the *Operations and Maintenance Manual for the Current Firehouse Groundwater Treatment System* (BNL 2023d).

3.5.1.2 Groundwater Monitoring

Well Locations

During 2023, a network of 77 wells was used to monitor the PFAS plumes originating from the Current Firehouse and Building 170 source areas (**Figure 3.5.1-1**).

Sampling Frequency and Analysis

During 2023, a subset of 13 monitoring wells located immediately downgradient of the Current Firehouse and Building 170 source areas were monitored quarterly. The entire network of 77 wells were monitored semi-annually. (**Table 1-5)**. Samples from all monitoring wells were analyzed for PFAS using EPA Method 1633. Furthermore, samples from 19 wells were analyzed for 1,4-dioxane using EPA Method 8270D Select Ion Monitoring (SIM).

3.5.1.3 Monitoring Well Results

Appendix C contains the complete analytical results for the Current Firehouse and Building 170 plume monitoring wells that were sampled during 2023. The distribution of the PFOS/PFOA plume for June-August 2023 sample period is shown on **Figure 3.5.1-1**. **Figure 3.5.1-3** provides trends in PFOS and PFOA concentrations for select monitoring wells. Key monitoring results are summarized below:

- At the Current Firehouse, the highest concentrations of PFAS were detected in well 073-31, which was installed downgradient of the eastern (main) training area, and downgradient of extraction well CF-RW-A. The highest PFOS and PFOA concentrations were detected in January, with PFOS and PFOA concentrations of 9,500 ng/L and 160 ng/L, respectively. High concentrations of other PFAS were also detected in well 073-31 including: PFHxS at 1,600 ng/L, PFHxA at 390 ng/L, PFBS at 100 ng/L, 6:2 FTS at 70 ng/L, PFPeS at 260 ng/L and PFPeA at 320 ng/L. By October 2023, PFOS and PFOA concentrations in well 073-31 decreased to 800 ng/L and 20 ng/L, respectively.
- In the western training area of the Current Firehouse, the highest concentrations of PFAS were detected in well 073-26, which was installed downgradient of the training area, and upgradient of extraction well CF-RW-B. During January, PFOS and PFOA concentrations were 1,600 ng/L and 14 ng/L, respectively. By October, PFOS and PFOA concentrations in well 073-26 decreased to 953 ng/L and 12 ng/L, respectively.

- In the Building 170 area, the highest PFOS and PFOA concentrations were detected during February in downgradient well 093-94 at 3,800 ng/L and 87 ng/L, respectively. High concentrations of other PFAS were also detected in well 093-94 including: PFHxS at 2,400 ng/L, PFHpS at 150 ng/L, PFBS at 170 ng/L, and PFPeS at 450 ng/L. By October, PFOS and PFOA concentrations in well 093-94 decreased to 774 ng/L and 14 ng/L, respectively.
- **Figure 3.5.1-4** provides a comparison of the plume distributions for 2020-2021, 2022, and 2023. When comparing the plume distribution based upon the permanent well data to that based upon the temporary well data from the *TCRA characterization effort* (BNL 2023), there appears to be a slight easterly shift in the downgradient portion of the Current Firehouse and Building 170 plume segments. A possible cause for this easterly shift is BNL's decision in June 2018 to suspend the use of supply well BNL-6 due to PFAS contamination and the lack of GAC filters at the well, and a significant reduction in the use of supply well BNL-7. Both of these actions appear to have resulted in a more southerly (and a general shift to the east) direction of groundwater flow.

3.5.1.4 System Operational Data

During January, February, and March, the sampling frequency for the treatment system influent and effluent was weekly, and the extraction wells was monthly. Extraction wells CF-RW-C, CF-RW-E and CF-RW-H were sampled weekly and the remaining extraction wells were sampled monthly. During April the sampling frequency for the treatment system influent and effluent was twice a month. Extraction wells CF-RW-C, CF-RW-E and CF-RW-H were sampled weekly and the remaining extraction wells were sampled monthly. From May to December the sampling frequency for the treatment system influent and effluent was twice a month and the extraction wells were sampled monthly. In conformance with the SPDES equivalency permit, the sampling frequency for the influent and effluent was monthly. From January to July 2023, the system influent, effluent, and extraction well samples were analyzed for PFAS using EPA Method 537.1. Starting in August 2023, samples were analyzed for PFAS using EPA Method 1633. Treatment system influent and effluent samples were also analyzed for 1,4-dioxane using EPA Method 8270D SIM and for VOCs using EPA Method 8260 Low Level. This was done to provide additional information on the concentrations of 1,4-dioxane in groundwater and more detailed information on the carbon usage for PFAS compounds. Furthermore, the treatment system effluent was analyzed monthly for pH. **Table 3.5.1-1** provides the effluent limitations for meeting the requirements of the SPDES equivalency permit. During 2023, equivalency permit limits were not exceeded. The *Remediation System Startup and Testing Report* (BNL, 2023e) summarized the startup operations and monitoring of the Current Firehouse treatment system.

January – September 2023

Wells CF-RW-C and CF-RW-F were off for the month of January due to low concentrations of PFAS and a noticeable increase in fouling of the carbon. The low PFAS concentrations in wells C and F which are on the western edge of this plume is believed to be due to a slight shift to the east in this plume moving the higher concentrations to the east of these wells. Extraction wells CF-RW-C and CF-RW-F were restarted February 1, 2023. The system was turned off from February 6 through February 10, 2023, for piping modifications. When the system was restarted February 10, 2023, wells CF-RW-C and CF-RW-F were left off due to the low PFAS concentrations being observed in these wells. The system was off from February 22 through February 24, 2023, to backwash the lead GAC vessel. The lead GAC vessel was backwashed again March 3, 16, and 30, 2023, due to increased pressure due to fouling of the lead carbon vessel. Wells CF-RW-C and CF-RW-F were restarted on March 3, 2023. On March 16, 2023, well CF-RW-F was turned off. Well CF-RW-H was off from April 13 through 17 to change the depth of the pump setting in this well. Extraction well CF-RW-C was shut off for development on April 20 and CF-RW-F was off due to low PFAS concentrations. Extraction well CF-RW-F was restarted on

May 10 following a backwash of the GAC vessels. Well CF-RW-C was restarted on May 22 after completion of development activities. The system was backwashed again on May 24 with all wells operating except CF-RW-F. Extraction well CF-RW-F was left off for the month due to low PFAS concentrations. Well CF-RW-C ran from June 1 to June 7 and was subsequently turned off due to low PFAS concentrations. The system treated approximately 151 million gallons of water during this period.

October – December 2023

The system was shut off to backwash the lead GAG on October 2 and November 14. A carbon changeout on the lead vessel was performed on November 16 and the system was restarted the next day. The system was backwashed again on December 6. Wells CF-RW-C and CF-RW-F remained off. The system ran normally for the rest of this period. The system treated approximately 56 million gallons of water for this period.

Extraction Wells Operational Data

During 2023, the system treated approximately 207 million gallons of water. The system average flow rate for the year was approximately 399 gpm. **Table 2-2** contains the monthly pumping data for the extraction wells, and **Table 3.5.1-2** shows the monthly pumping rates. During 2023, PFOS and PFOA were detected in all samples from all nine extraction wells (CF-RW-A through CF-RW-I) (**Table F-47**). The maximum PFOS concentration was detected in extraction well CF-RW-E at 637 ng/L, and the maximum PFOA concentration was also detected in extraction well CF-RW-E at 25 ng/L. Furthermore, 1,4-dioxane was detected in extraction wells CF-RW-C, CF-RW-E and CF-RW-H at concentrations up to 2.8 µg/L. Low levels of chloroform were detected in eight of the nine extraction wells, with the highest concentration of 1.9 µg/L in CF-RW-A, well below the 7.0 µg/L AWQS. Data for the extraction wells are presented in **Table F-47**.

System Influent and Effluent

PFOS and PFOA were detected in the system influent during all of 2023. A summary of influent concentrations for PFOS, PFOA and total PFAS is presented on **Figure 3.5.1-2**. The maximum influent concentrations for PFOS and PFOA were 173 ng/L and 15 ng/L, respectively. Furthermore, the maximum influent concentration for 1,4-dioxane was 0.19 µg/L and the maximum effluent concentration was 0.24 µg/L. During 2023, PFOS and PFOA were not detected in the system effluent, and 1,4-dioxane concentrations were below the 0.35 µg/L regulatory limit specified in the SPDES equivalency permit (**Table 3.5.1-1**). Influent and effluent results for PFAS and 1,4-dioxane are shown on **Table F-48, and Table F-49**.

Cumulative Mass Removal

During 2023, the treatment system removed approximately 0.34 lbs. of total PFAS. Data for mass removal is presented in **Table F-50**.

3.5.1.5 System Evaluation

The Current Firehouse PFAS Treatment System performance can be evaluated based on decisions identified in the groundwater DQO process.

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

Yes. Groundwater monitoring results indicate that PFAS continues to be released from the Current Firehouse and Building 170 source areas at concentrations that exceed MCLs.

2. Were unexpected levels or types of contamination detected?

No. The concentrations and types of PFAS detected in the monitoring wells and treatment system samples were consistent with those observed during plume characterization.

3. Has the downgradient migration of the plume been controlled?

No. The treatment system has not been in operation long enough to make this determination and a complete characterization has not been performed.

4. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

No. The system is in its early stages of operation and has not met shutdown requirements.

4a. Are PFOS and PFOA concentrations in plume core wells above or below the 100 ng/L capture goal?

During 2023, 34 plume core wells had PFOS concentrations greater than the 100 ng/L capture goal. Three plume core wells had PFOA concentrations >100 ng/L.

4b. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

The Current Firehouse PFAS treatment system is in its early stage of operation and has not been pulsed pumped or shut down.

5. Has the groundwater cleanup goal of meeting MCLs been achieved?

The MCLs for PFOS and PFOA have not been achieved.

Table 3.5.1-1
OU X Current Firehouse PFAS Treatment System
2023 SPDES Equivalency Permit Levels

Parameters	Permit Limit	Max. Measured Value
pH (range)	5.0 – 8.5 SU	5.9 – 6.4 SU
PFOS	2.7 ng/L	ND
PFOA	6.7 ng/L	ND
1,4-Dioxane	0.35 µg/L	0.24 µg/L
Chloroform	7.0 µg/L	0.18J µg/L
Carbon Tetrachloride	5.0 µg/L	ND
Methylene Chloride	5.0 µg/L	ND
Methyl Chloride	5.0 µg/L	ND

Notes:
Required sampling frequency following startup testing is monthly.
SU = Standard Units
ND = Not detected

3.5.1.6 Recommendations

The following recommendations are made for the Current Firehouse PFAS Treatment System and groundwater monitoring program:

- Maintain full time operation of the treatment system.
- Continue sampling the treatment system influent, mid-point, and effluent two times per month, and individual extraction wells monthly. Samples will be analyzed for PFAS using EPA Method 1633, Method 8270D SIM for 1,4-dioxane, and EPA Method 8260 Low Level for VOCs.
- Continue sampling 13 source area monitoring wells on a quarterly basis, and the remaining 64 plume monitoring wells semiannually. Samples from all wells will be analyzed for PFAS using EPA Method 1633, and a select number of samples will be analyzed for 1,4-dioxane using EPA Method 8270D SIM.
- Perform additional groundwater characterization to evaluate an eastern shift of the PFAS plume. The focus of this characterization will be the areas near wells CF-RW-C, CF-RW-E

and CF-RW-F and along Princeton Avenue near extraction wells CF-RW-I, CF-RW-F, CF-RW-G, and CF-RW-H.

§ Perform additional groundwater characterization to evaluate/delineate the distribution of the plume south of Princeton Avenue. The focus of this characterization will be consistent with vertical profile wells specified in the OU X RI/FS Work Plan.

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3.5.2 Operable Unit X Former Firehouse PFAS Treatment System

The Former Firehouse Treatment System was installed as a TCRA to address PFAS-contaminated groundwater associated with the Former Firehouse firefighter training areas (sub-AOC 33E). Startup testing began on January 26, 2023 and was completed by the end of March 2023. Results of the startup testing and subsequent full-time operations are described below.

3.5.2.1 System Description

The groundwater remediation system was designed to address the PFAS plume that originates from the Former Firehouse foam training areas. PFAS-contaminated water is withdrawn from the aquifer using three extraction wells. Following treatment using GAC filters, the treated water is returned to the aquifer using the RA V recharge basin. A complete description of the system is included in the *Operations and Maintenance Manual for the Former Firehouse PFAS Source Areas Groundwater Treatment System* (BNL 2023a).

3.5.2.2 Groundwater Monitoring

Well Locations

A network of 42 wells is used to monitor the PFAS plume from the Former Firehouse source areas to the area immediately south of East Princeton Avenue (**Figure 3.5.2-1**).

Sampling Frequency and Analysis

During 2023, a subset of 10 monitoring wells located immediately downgradient of the Former Firehouse source areas were monitored quarterly. The entire network of 42 wells were monitored semi-annually. (**Table 1-5**). Samples from these monitoring wells were analyzed for PFAS using EPA Method 1633. Samples from 11 wells were analyzed for 1,4-dioxane using EPA Method 8270D SIM.

3.5.2.3 Monitoring Well Results

Appendix C contains the complete analytical results from the Former Firehouse monitoring wells that were sampled during 2023. The distribution of the PFOS/PFOA plume for the July 2023 monitoring period is shown on **Figure 3.5.2-1**. **Figure 3.5.2-3** provides trends in PFOS and PFOA concentrations for select monitoring wells. Key monitoring results are summarized below:

- High concentrations of PFAS continued to be detected in three shallow wells (075-809, 075-810 and 075-811) located immediately downgradient of the Former Firehouse area and upgradient of extraction well FF-RW-A. The highest PFOS concentration was detected in well 075-811 at 2,200 ng/L during the February sample period. The highest PFOA concentration was detected in well 075-810 at 160 ng/L. High concentrations of other PFAS were also detected in these three wells including: PFHxS at 1,900 ng/L, PFHxA at 220 ng/L, PFBS at 33 ng/L, PFBA at 33 ng/L, PFOSAm at 130 ng/L, PFPeS at 57 ng/L and PFPeA at 48 ng/L. By the October sample period, PFOS concentrations in this area decreased to a maximum of 1,300 ng/L whereas PFOA concentrations were slightly higher at a maximum of 190 ng/L.
- In February 2023, high levels of PFAS were also detected in well 085-411, located approximately 1,000 feet downgradient of the Former Firehouse area. PFOS and PFOA concentrations in well 085-411 were 1,300 ng/L and 1,500 ng/L, respectively. Furthermore, high concentrations of other PFAS were also detected in well 085-411, including PFHxS at 3.400 ng/L, PFHxA at 730 ng/L. By the July sample period, PFOS and PFOA concentrations in well 085-411 decreased to 87 ng/L and 65 ng/L, respectively.

§ **Figure 3.5.2-4** provides a comparison of the plume distributions for 2020-2021, 2022 and 2023.The 2023 plume distribution map based upon the permanent well data is consistent with the plume map prepared using the temporary well data presented the *Time Critical Removal Action Characterization Report* (BNL 2023b).

3.5.2.4 System Operational Data

Startup testing of this treatment system began on January 26, 2023 and continued until the end of March 2023. During the startup period, the sampling frequency for the treatment system influent, effluent and extraction wells was weekly. Following startup testing, the sampling frequency for the influent and effluent was twice monthly, exceeding the monthly sampling as required by the SPDES equivalency permit. The system influent, effluent and extraction well samples were analyzed for PFAS using EPA Method 537.1 until August 2023, when the method was changed to EPA Method 1633. 1,4-dioxane using EPA Method 8270D SIM and for VOCs using EPA Method 8260 Low Level. Furthermore, the treatment system effluent was analyzed twice a month for pH. **Table 3.5.2-1** provides the effluent limitations for meeting the requirements of the SPDES equivalency permit. The *Remediation System Startup and Testing Report* (BNL 2023f) summarized the startup operations and monitoring of the Former Firehouse treatment system.

Table 3.5.2-1
OU X Former Firehouse PFAS Treatment System
2023 SPDES Equivalency Permit Levels

Parameters	Permit Limit	Max. Measured Value
pH (range)	5.0 – 8.5 SU	5.7-6.4 SU
PFOS	2.7 ng/L	ND
PFOA	6.7 ng/L	ND
1,4-Dioxane	0.35 µg/L	0.26 HJ µg/L
Chloroform	7.0 µg/L	ND
Methylene Chloride	5.0 µg/L	ND

Notes:
Required sampling frequency is monthly following startup testing.
SU = Standard Units
H – Sample exceeded holding time.
J – Result is estimated.
ND = Not Detected

January – September 2023

The system ran intermittently in January for startup testing and began running full time starting January 26. Well FF-RW-A was off from April 7 to April 12 to replace the pump and motor. The system treated approximately 82 million gallons of water during this period.

October – December 2023

Well FF-RW-C was off from October 3 to October 24 to replace the pump and motor. The system operated normally during the remainder of the period. The system treated approximately 26 million gallons of water during this period.

Extraction Wells Operational Data

During 2023, the system treated approximately 108 million gallons of water. The system average flow rate for the year was approximately 202 gpm. **Table 2-2** contains the monthly pumping data for the extraction wells, and **Table 3.5.2-2** shows the monthly pumping rates. During 2023, PFOS and PFOA were detected in all samples from all three extraction wells (FF-RW-A through FF-RW-C) (**Table F-51**). The maximum PFOS concentration was detected in extraction well FF-RW-A at 417 ng/L, and the maximum PFOA concentration was also detected in extraction well FF-RW-A at 36 ng/L. Furthermore, 1,4-dioxane was detected in all three extraction wells at concentrations ranging from non-detect to 0.3 µg/L. Low levels of chloroform were detected in all three extraction wells, with the highest concentration of 0.9 µg/L in FF-RW-B, well below the 7.0 µg/L AWQS. Data for the extraction wells are presented in **Table F-51**.

System Influent and Effluent

A summary of the influent concentrations for PFOS, PFOA and total PFAS is presented on **Figure 3.5.2-2**. The maximum influent concentrations for PFOS and PFOA were 153 ng/L and 34 ng/L, respectively. Furthermore, the maximum influent concentration for 1,4-dioxane was 0.25 µg/L and the maximum effluent concentration was 0.26 µg/L. During 2023, PFOS and PFOA were not detected in the system effluent, and 1,4-dioxane concentrations were below the 0.35 µg/L regulatory limit specified in the SPDES equivalency permit (**Table 3.5.2-1**). Influent and effluent results for PFAS and 1,4-dioxane are shown in **Table F-52 and Table F-53**.

Cumulative Mass Removal

During 2023, the treatment system removed approximately 0.17 lbs of total PFAS. Data for mass removal is presented in **Table F-54**.

3.5.2.5 System Evaluation

The Former Firehouse PFAS Treatment System performance can be evaluated based on decisions identified in the groundwater DQO process.

1. Is there a continuing source of contamination? If present, has the source area been remediated or controlled?

Yes. PFAS continues to be detected in Former Firehouse source area monitoring wells at concentrations exceeding MCLs.

2. Were unexpected levels or types of contamination detected?

No. The concentrations and types of PFAS detected in the monitoring well samples were consistent with those observed during plume characterization.

3. Has the downgradient migration of the plume been controlled?

The treatment system has not been in operation long enough to make this determination and a complete characterization has not been performed.

4. Can individual extraction wells or the entire treatment system be shut down or placed in pulsed pumping operation?

No. The treatment system has not been in operation long enough to make this determination.

4a. Are PFOS and PFOA concentrations in plume core wells above or below the 100 ng/L capture goal?

During 2023, twelve plume core wells had PFOS concentrations >100 ng/L capture goal. Two plume core wells had PFOA concentrations >100 ng/L.

4b. Is there a significant concentration rebound in core wells and/or extraction wells following shutdown?

The treatment system is in full-time operation.

5. Has the groundwater cleanup goal of meeting MCLs been achieved?

The MCLs for PFOS and PFOA have not been achieved.

3.5.2.6 Recommendations

The following recommendations are made for the Former Firehouse PFAS Treatment System and groundwater monitoring program:

- Maintain full time operation of the treatment system.
- Continue sampling the treatment system influent, mid-point, and effluent two times per month. Analyze the samples by EPA Method 1633 for PFAS, EPA Method 8270D SIM for 1,4-dioxane, and EPA Method 8260 Low Level for VOCs.
- Continue sampling 10 source area monitoring wells on a quarterly basis, and the remaining 32 plume wells semi-annually. Samples from Former Firehouse monitoring wells will be analyzed for PFAS using EPA Method 1633, and a select number of samples analyzed for 1,4-dioxane using EPA Method 8270D SIM.

3.5.3 1,4-Dioxane in Groundwater

The chemical 1,4-dioxane is an emerging contaminant of concern. It has been broadly used in numerous commercial and personal care products, including as a stabilizer for the solvent 1,1,1-trichloroethane (TCA). At BNL, past releases of TCA have impacted groundwater quality in several on-site and off-site areas. In August 2020, New York State promulgated a drinking water standard for 1,4-dioxane of 1.0 µg/L. To date, only trace levels of 1,4-dioxane are periodically detected in samples from BNL's potable water supply wells. Following a request from the NYSDEC to obtain baseline data for 1,4-dioxane in groundwater, in 2017 BNL began a multiphase characterization effort.

In January 2017, twenty-two on-site and off-site groundwater monitoring wells that have or had detectable levels of TCA were sampled (BNL 2018e). Seventeen of the 22 samples collected had detectable levels of 1,4-dioxane, with a maximum concentration of 18.6 µg/L in OU III Industrial Park monitoring well 000-530. In late 2017 and early 2018, BNL collected additional samples from groundwater treatment system effluent, the Sewage Treatment Plant (STP) effluent, and from monitoring wells downgradient from the Former Landfill, the Current Landfill and the STP. The highest 1,4-dioxane concentration during this time period was 9.1 µg/L, detected in off-site monitoring well 000-122 located in the former OU V monitoring program area. 1,4-Dioxane was detected in four of the five treatment system effluent samples, with a maximum concentration of 7.14 µg/L detected in the effluent from the OU III Industrial Park Treatment System. 1,4-Dioxane was not detected in the STP effluent.

In early 2019, samples were collected from 33 permanent wells and 11 temporary wells positioned along the southern BNL boundary (BNL 2019a). The highest 1,4-dioxane concentrations were detected in the OU III Western South Boundary area, with a maximum concentration of 15.2 µg/L in deep Upper Glacial monitoring well 126-18. In the OU III South Boundary area, the maximum 1,4-dioxane concentration was 6.2 µg/L in deep Upper Glacial monitoring well 121-47.

During the 2020 Phase 4 and TCRA characterization projects, samples collected from 360 permanent on-site and off-site monitoring wells, 35 on-site temporary wells, and extraction wells and effluent samples from on-site and off-site treatment systems were tested for 1,4-dioxane (BNL 2021a and BNL 2023b). 1,4-Dioxane was detected in several on-site and off-site areas at concentrations exceeding the 1.0 µg/L MCL. The highest 1,4-dioxane concentration was detected in Western South Boundary monitoring well 119-11 at 23.9 µg/L.

3.5.3.1 Groundwater Monitoring

Well Network

A permanent monitoring program has not been established specifically for tracking 1,4-dioxane. During 2023 BNL tested for 1,4-dioxane in several of the established monitoring areas as described below.

Sampling Frequency and Analysis:

During 2023, BNL collected groundwater samples for 1,4-dioxane analyses in three areas: 1) Current Firehouse and Building 170 PFAS Treatment System; 2) Former Firehouse PFAS Treatment System; and 3) southwestern area of BNL within the on-site portion of the source water contributing area for the SCWA's William Floyd Well Field. The groundwater samples were analyzed for 1,4-dioxane by Method 8270D SIM. In February 2023, BNL also collected pre- and post-GAC samples from water supply wells BNL-7, BNL-10, BNL-11, and BNL-12. The water supply samples were analyzed for 1,4-dioxane using EPA drinking water Method 522.

3.5.3.2 Monitoring Results

1,4-Dioxane results for the four monitoring programs:

- Current Firehouse and Building 170 Areas: Nineteen monitoring wells were sampled for 1,4-dioxane. 1,4-Dioxane was detected in nine of the wells. During the February sample period, 1,4-dioxane concentrations exceeded the 1.0 µg/L MCL in wells 083-41, 084-98, and 102-40, at a maximum concentration of 2.0 µg/L in monitoring well 102-40. During the July-August sample period, 1,4-dioxane concentrations exceeded the 1.0 µg/L MCL in wells 085-95, 084-98, and 102-40, with a maximum concentration of 2.2 µg/L in monitoring well 102-40.
- Former Firehouse Area: Eleven monitoring wells were sampled for 1,4-dioxane. 1,4-Dioxane was detected in all 11 of the wells. During the February 2023 sampling period, 1,4-dioxane concentrations exceeded the 1.0 µg/L MCL at concentrations of 1.2 µg/L in wells 096-129 and 105-43. During the July sample period, 1,4-dioxane was not detected above the 1.0 µg/L MCL.
- William Floyd Well Field Sentinel Well Area: Samples from six sentinel wells were tested for 1,4-dioxane during five sampling events (**Section 3.2.10**). 1,4-Dioxane was not detected in any of the samples.
- Water Supply Wells: Trace levels of 1,4-dioxane continue to be detected in pre- and post-treatment samples from all four of BNL's active water supply wells, with a maximum concentration of 0.061 µg/L.

3.5.3.3 Program Evaluation

The monitoring data were evaluated using the following general DQO statement.

1. Is there a continuing source of 1,4-dioxane contamination? If present, has the source been remediated or controlled?

BNL is still in the early stages of the 1,4-dioxane characterization effort. The 1,4-dioxane detected in groundwater is likely to have originated from the previously identified VOC source areas where the solvent TCA had been released. These source areas have been undergoing various remediation efforts for the past 30 years, and significant progress has been made in reducing or eliminating continued contaminant releases from these areas. Monitoring conducted since 2017 indicates that 1,4-dioxane concentrations in groundwater immediately downgradient of many of the former TCA source areas do not exceed the 1.0 µg/L MCL. The need for source controls and/or remediation of 1,4-dioxane contaminated groundwater will be determined following completion of the planned OU X RI/FS, and discussions with the regulatory agencies.

3.5.3.4 Recommendations

The following are recommended for the 1,4-dioxane monitoring program:

- Monitoring requirements to track the extent of 1,4-dioxane contamination in on-site and off-site areas will be defined during the OU X RI/FS.
- Continue limited monitoring for 1,4-dioxane as part of the Current Firehouse/Building 170, Former Firehouse and William Floyd Sentinel Well monitoring programs.
- Continue monitoring BNL's water supply wells for 1,4-dioxane as required by the annual SCDHS *Minimum Monitoring Requirements* plan.

3.6 SITE BACKGROUND MONITORING

Background water quality has been monitored since 1990. Historically, low levels of VOCs were routinely detected in several background wells that are screened in the deeper portions of the Upper Glacial aquifer. Background monitoring is used to define the quality of groundwater that is completely unaffected by BNL operations.

3.6.1 Groundwater Monitoring

Well Network

The 2023 program included nine wells in the northwestern portion of the BNL property (**Figure 1-2**) hydraulically upgradient of Laboratory operations.

Sampling Frequency and Analysis

The samples are collected annually and analyzed for VOCs (Table 1-5).

3.6.2 Monitoring Well Results

The complete groundwater analytical data are provided in Appendix C. There was a low level detection of Methyl tert-butyl ether (MTBE) in well 034-03 at a maximum estimated value of of 0.29 µg/L. The AWQS is 10 µg/L. In addition, MTBE was also detected in well 017-03 at a maximum estimated value of 0.32 µg/L. Cholroform was detected in wells 017-01, 017-03, and 018-02 at estimated maximum concentrations of 0.17 µg/L, 0.18 µg/L, and 0.17 µg/L respectively.

Table 3.6-1.
Radiological Background Monitoring, 1996 – 2001

Parameter	Activity Range (pCi/L)	Contract-Required Detection Limit (pCi/L)
Cesium-137	<MDC to 7.24	12.0
Gross alpha	<MDC to 2.66	2.0
Gross beta	<MDC to 6.41	4.0
Strontium-90	<MDC to 3.84	0.8
Tritium	<MDC to 835	500.0

Note:
<MDC = Less than minimum detectable activity

While radionuclides are no longer analyzed in background wells, historic results are presented for reference purposes. Table 3.6-1 summarizes the range of radionuclide values detected in background wells from 1996 through 2001.

3.6.3 Groundwater Monitoring Program Evaluation

The program can be evaluated using the decision rule developed as part of the groundwater DQO process.

1. Were unexpected levels or types of contamination detected?

There were no VOCs detected in site background wells above AWQS during 2023.

3.6.4 Recommendation

The following are recommended for the Site Background Groundwater Monitoring Program:

- There are no changes proposed to the monitoring program.

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3.7 CURRENT AND FORMER LANDFILL GROUNDWATER MONITORING

Groundwater monitoring data from both the Current and Former Landfills are discussed in detail in the BNL 2023 Environmental Monitoring Report, Current and Former Landfill Areas (BNL 2024c). The complete groundwater monitoring results for these programs are included in **Appendix C**.

3.7.1 Current Landfill Summary

Groundwater data shows that in general, contaminant concentrations have been decreasing following the capping of the landfill in 1995. By the end of 2023, the landfill had been capped for 28 years. Groundwater quality has been slowly improving. The trend in the data suggests that the cap is effective in mitigating groundwater contamination. Groundwater monitoring wells for the Current Landfill are shown on **Figure 3.7-1**. The following is a summary of the results from the samples collected during 2023:

- Benzene was detected in downgradient well 087-11 at a concentration slightly above the AWQS with a maximum concentration of 2 µg/L in well 087-11. The other VOCs detected above the AWQS were chloroethane and 1,1-dichloroethane (DCA). DCA was detected in monitoring well 088-109 above the standard of 5 µg/L, with a maximum concentration of 10 µg/L. Chloroethane was detected above AWQS in well 088-109 with concentrations ranging up to 42 µg/L, indicating that VOCs continue to emanate from the landfill. These concentrations are naturally attenuating and no landfill related detections at the site boundary are above the drinking water standard **(Figure 3.1-1).**
- Concentrations of landfill water chemistry parameters and metals such as ammonia and iron in several downgradient wells were above background values. This suggests that leachate continues to emanate from the landfill into groundwater. Ammonia was detected above the AWQS of 2 mg/L in downgradient well 087-11 at a maximum concentration of 2.4 mg/L.
- During 2023, antimony, arsenic, iron, manganese, and sodium in several downgradient wells were detected above their respective AWQS. These parameters and concentrations are consistent with historic values.
- Tritium was not detected in any of the wells during 2023. Strontium-90 was detected in downgradient wells 088-21, 088-23 and 088-109 of the Current Landfill, but at concentrations far below the DWS of 8 pCi/L. Strontium-90 and tritium have not exceeded the DWS in the Current Landfill wells since 1998.
- Although low levels of contaminants continue to be detected, the cap has been effective at improving the quality of groundwater downgradient of the landfill.

3.7.1.1 Current Landfill Recommendations

- The monitoring well network for the Current Landfill is sufficient. However, add PFAS EPA Method 1633 and 1,4-dioxane EPA Method 8270D SIM to the analytical list of parameters for all 12 monitoring wells on an annual basis with collection during the fourth quarter sampling round.

3.7.2 Former Landfill Summary

By the end of 2023, the landfill had been capped for 27 years. From January 1997 to 2021, groundwater quality at the Former Landfill area was monitored using 14 shallow monitoring wells (three background and 11 downgradient). Based upon data collected during the past two decades as evidence, it was

recommended in the *2020 Environmental Monitoring Report, Current and Former Landfill Areas* (BNL 2021e) that groundwater monitoring of the Former Landfill monitoring well network be discontinued. With NYSDEC acceptance of the *2020 Environmental Monitoring Report, Current and Former Landfill Areas report*, these changes were implemented in CY 2021.

3.7.2.1 Former Landfill Recommendations

- Continue monthly maintenance and inspections in accordance with the Operations and Maintenance manual as well as continuing the annual soil-gas monitoring.

3.8 g-2 TRITIUM SOURCE AREA AND GROUNDWATER PLUME

In November 1999, tritium was detected in the groundwater near the former g-2 experiment within the Alternating Gradient Synchrotron (AGS) facility, at concentrations above the 20,000 pCi/L DWS. Sodium-22 was also detected in the groundwater, but at concentrations below the 400 pCi/L DWS. An investigation into the source of the contamination revealed that the tritium and sodium-22 originated from activated soil shielding located adjacent to the g-2 target building, where approximately five percent of the beam was inadvertently striking one of the beam line magnets (magnet VQ-12). Rainwater was able to infiltrate the activated soils and leach tritium and sodium-22 into the groundwater. To prevent additional rainwater infiltration into the activated soil shielding, a concrete cap was constructed over the area in December 1999. The g-2 experiment was decommissioned in April 2001. However, the structures and activated soil shielding associated with the experiment remain in place.

The g-2/BLIP/former UST ROD (BNL 2007a) requires routine inspections and maintenance of the impermeable cap, and groundwater monitoring of the source area to verify the continued effectiveness of the stormwater controls. Monitoring of the source area will continue for as long as the activated soils have the potential to impact groundwater quality. Contingency actions would be developed if tritium levels in groundwater monitoring wells exceed 1,000,000 pCi/L.

3.8.1 g-2 Tritium Source Area and Plume Groundwater Monitoring

Well Network

The g-2 tritium source area is monitored using two upgradient wells (054-65 and 054-66) and six downgradient wells (054-07, 054-124, 054-126, 054-184, 054-185, and 064-95) approximately 200 feet downgradient of the source area near Building 912A. Several other nearby wells (054-67, 054-68, and 065-125) are used to monitor the effectiveness of the cap installed over the adjacent former g-2 beam stop, which is another area that contains activated soil shielding. Fourteen wells located approximately 600 feet downgradient of the source area near Building 912 are used to verify the attenuation of tritium released from the source area (**Figure 3.8-1**).

Sampling Frequency and Analysis

During 2023, the source area wells were monitored two times, and the samples were analyzed for tritium (**Table 1-6**). The wells monitoring the former beam stop area and those located near Building 912 were sampled once during the year, and the samples were analyzed for tritium. The water samples are preferentially tested for tritium because it is more leachable than sodium-22, migrates at the same rate as groundwater, and is therefore a better indicator of the effectiveness of the cap.

3.8.2 g-2 Tritium Source Area and Plume Monitoring Well Results

The extent of the g-2 tritium plume during the fourth quarter of 2023 is depicted on **Figure 3.8-1**.

Source Area Monitoring Results

During the 2nd quarter of 2023, tritium was detected in source area well 054-07 at a concentration of 11,900 pCi/L. By the 4th quarter of 2023, the tritium concentration in well 054-07 decreased to 4,620 pCi/L. **Figure 3.8-2** provides tritium trend charts for wells that monitor the g-2 source area.

Tritium that is likely to be traceable to the g-2 source area was detected in two monitoring wells located downgradient of Building 912. Tritium was detected at 1,370 pCi/L in well 065-124 and at 1,050 pCi/L in well 065-125.

3.8.3 g-2 Tritium Source Area and Plume Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following DQO statements.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Although the activated soil shielding remains a potential threat to groundwater quality, the overall reduction in tritium concentrations observed in the groundwater since 1999 indicates that the cap is effectively preventing rainwater from infiltrating the soil. A comparison of tritium levels in the source area monitoring wells and water-table elevation data suggests that periodic natural fluctuations in the water table continue to release residual tritium from the deep vadose zone. There appears to be good correlation between high tritium concentrations detected in monitoring wells immediately downgradient of the source area and the water-table elevation about one year before the sampling (**Figure 3.8-3** and **Figure 3.8-4**). It is believed that this tritium was mobilized to the deep vadose zone soil close to the water table before the cap was constructed in December 1999. Once the cap was in place, the lack of additional rainwater infiltration kept the tritium in the vadose zone from migrating into the groundwater until a significant rise in water table mobilized it. Over time, the amount of tritium remaining in the vadose zone near the water table will decrease by means of the natural water table flushing mechanism and by radioactive decay. Since April 2021, tritium concentrations in the closest downgradient well (054-07) have been less than the 20,000 pCi/L drinking water standard.

2. Were unexpected levels of tritium detected?

No, the observed tritium levels in the source area and former beam stop monitoring wells are consistent with previous surveillance results.

3. Is the plume naturally attenuating as expected?

Yes. Tritium concentrations in source area monitoring wells have decreased to below the 20,000 pCi/L drinking water standard. Residual tritium detected downgradient of the source area is attenuating as expected.

4. Has the groundwater cleanup goal of meeting MCLs been achieved?

Yes. However, the residual tritium in the source area soils and at the nearby beam stop remain a potential threat to groundwater quality. Continued maintenance of the g-2 cap and periodic monitoring of the groundwater is required.

3.8.4 g-2 Tritium Source Area and Plume Recommendations

The following are recommended for the g-2 tritium source area and plume groundwater monitoring program for 2023:

- Continue routine inspections of the g-2 cap.
- Continue semiannual monitoring of source area wells near Building 912A. Reduce sampling frequency to annually starting in 2025 if tritium concentrations remain below 20,000 pCi/L.
- Continue annual sampling of the monitoring wells located downgradient of the former g-2 beam stop and Building 912.

3.9 BROOKHAVEN LINAC ISOTOPE PRODUCER (BLIP)

When the Brookhaven Linac Isotope Producer (BLIP) is operating, the Linear Accelerator (Linac) delivers a beam of protons that strike a series of metal targets positioned at the bottom of a 30-foot deep underground tank, referred to as the BLIP target vessel. The targets rest inside a water-filled, 18-inch-diameter shaft that runs the length of the tank, and are cooled by a 300-gallon, closed-loop primary cooling system. During irradiation of the targets, radionuclides are produced in the cooling water and the soil immediately outside the tank by the neutrons created at the target.

In 1998, tritium concentrations of 52,000 pCi/L and sodium-22 up to 151 pCi/L were detected in the groundwater approximately 40 feet downgradient of the BLIP target vessel. The drinking water standard for tritium is 20,000 pCi/L, and the standard for sodium-22 is 400 pCi/L. Due to the activation of the soil shielding surrounding the BLIP target vessel and the detection of tritium and sodium-22 in groundwater, the BLIP facility was designated as sub-AOC 16K under the IAG.

In 1998, BNL made improvements to the stormwater management program at BLIP in an effort to prevent rainwater infiltration into the activated soil below the building. In 2000, BNL undertook additional protective measures by injecting colloidal silica grout (also known as a Viscous Liquid Barrier) into the activated soil. The grout reduces the permeability of the soil, thus further reducing the ability of rainwater to leach tritium and sodium-22 from the activated soils should the primary stormwater controls fail.

In late 2004, BNL constructed a protective cap over the beam line that runs from the Linac to the BLIP facility. The cap was installed because direct soil measurements and beam loss calculations indicated that the tritium and sodium-22 concentrations in soils surrounding this beam line could result in stormwater leachate concentrations that exceed the criteria described in the Accelerator Safety SBMS (Standards Based Management System) subject area.[1] During 2015, this cap section was extended in several areas to provide protection of soil shielding that was expected to become activated following planned changes in beam line operations.

A ROD was signed in early 2007 (BNL 2007a). The ROD requires continued routine inspection and maintenance of the impermeable cap, and groundwater monitoring to verify the continued effectiveness of the stormwater controls. Maintenance of the cap and groundwater monitoring will continue for as long as the activated soils have the potential to impact groundwater quality.

3.9.1 BLIP Groundwater Monitoring

Well Network

The monitoring well network for the BLIP facility consists of one upgradient and three downgradient wells (**Figure 3.9-1**).

Sampling Frequency and Analysis

During 2023, the three wells located immediately downgradient of the BLIP facility (064-47, 064-48, 064-67) were monitored twice, and the upgradient well (064-46) was sampled once. The groundwater samples are preferentially analyzed for tritium because it is more leachable than sodium-22, it migrates at the same rate as groundwater, and is the best early indicator of a possible release (**Table 1-6**).

[1] The BNL *Accelerator Safety* SBMS subject area requires stormwater controls where rainwater infiltration into activated soil shielding could result in leachate concentrations that exceed five percent of the drinking water standard for tritium (1,000 pCi/L) or 25 percent of the drinking water standard for sodium-22 (100 pCi/L).

3.9.2 BLIP Monitoring Well Results

Monitoring results indicate that the stormwater controls are effective in preventing the release of tritium from the activated soil surrounding the BLIP target vessel. Since April 2006, tritium levels have remained below the 20,000 pCi/L DWS (**Figure 3.9-1**). During 2023, tritium was detected during the second quarter sampling of downgradient monitoring well 064-67 at a concentration of 1,890 pCi/L. Tritium was not detected in any of the wells during the fourth quarter sampling period.

3.9.3 BLIP Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following DQO statements.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Yes. Although low levels of tritium are periodically detected in the groundwater downgradient of BLIP, the tritium concentrations have remained below the 20,000 pCi/L DWS since early 2006. The decline in tritium concentrations indicates that the stormwater controls are effectively preventing the leaching of tritium from the activated soils.

2. Were unexpected levels of contamination detected?

No. With effective source controls, continued reductions in tritium concentrations were expected.

3. Has the groundwater cleanup goal of meeting MCLs been achieved?

Yes. However, the activated soil shielding below the BLIP facility needs to be protected from rainwater infiltration. Therefore, the cap needs to be maintained and groundwater surveillance is required to verify the continued effectiveness of the stormwater controls.

3.9.4 BLIP Recommendation

The following is recommended for the BLIP groundwater monitoring program:

- As required by the ROD, BNL will continue to conduct routine inspections of the cap, and to monitor groundwater quality downgradient of the BLIP facility.
- No changes to the groundwater monitoring program are recommended. Continue semiannual monitoring of the downgradient wells.

4.0 FACILITY MONITORING PROGRAM SUMMARY

During 2023, the Facility Monitoring Program at BNL monitored groundwater quality at eight research and support facilities. New York State operating permits require groundwater monitoring at the Major Petroleum Facility, Waste Management Facility, and the Sewage Treatment Plant; the remaining research and support facilities are monitored in accordance with DOE Orders 458.1 (Radiation Protection of the Public and the Environment) and 436.1 (Departmental Sustainability) or CERCLA Records of Decision. DOE Orders require the Laboratory to establish environmental monitoring programs at facilities that can potentially impact environmental quality, and to demonstrate compliance with DOE requirements and applicable federal, state, and local laws and regulations. CERCLA Records of Decision define the monitoring requirements and remedial actions for the g-2 tritium source area and plume and the BLIP source area. BNL uses monitoring data to determine whether current engineered and administrative controls effectively protect groundwater quality, determine whether additional corrective actions are needed, and to determine the effectiveness of remedial actions.

During 2023, 108 groundwater monitoring wells were sampled during 141 sampling events for facility surveillance required by state operating permits and DOE Orders. Ten additional wells were sampled during 19 monitoring events for compliance with CERCLA monitoring requirements for the g-2 Tritium Source Area and Plume and the BLIP facility. **Table 1-6** summarizes the Facility Monitoring Program by project. Complete analytical results from groundwater samples collected in 2023 are provided in **Appendix D**. Monitoring results for the g-2 source area and tritium plume and the BLIP source area are presented in **Section 3.8** and **3.9**, respectively. Information on groundwater quality at each of the remaining monitored research and support facilities is described below.

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4.1 ALTERNATING GRADIENT SYNCHROTRON (AGS) COMPLEX

The structures that constitute the AGS Complex include the AGS Ring, Linear Accelerator (Linac), BLIP, Building 912, AGS Booster Beam Stop, 914 Transfer Tunnel, former g-2 experimental area, former E-20 Catcher, former U-Line Beam Target, and the J-10 Beam Stop. Activated soil has been created near a number of these areas as the result of secondary particles (primarily neutrons) produced at beam targets and beam stops. Radionuclides can be produced by the interaction of secondary particles with the soil that surrounds these experimental areas. Once produced in the soils, some of these radionuclides can be leached from the soils by rainwater and carried to the groundwater. Of the radionuclides formed in the soil, only tritium (half-life = 12.3 years) and sodium-22 (half-life = 2.6 years) are detected in groundwater. Of these two radionuclides, tritium is more easily leached from activated soils by rainwater, and once tritium enters the water table it migrates at the same rate as groundwater flow (approximately 0.75 feet per day). Sodium-22 does not leach out of the soil as readily as tritium and migrates at a slower rate in the aquifer. The DWS for tritium is 20,000 pCi/L, and the standard for sodium-22 is 400 pCi/L.

To prevent rainwater from leaching these radionuclides from the soil, impermeable caps have been constructed over the activated soil shielding areas that have the potential to impact groundwater quality. Specifications for evaluating potential impacts to groundwater quality and the need for impermeable caps over beam loss areas are defined in the BNL Accelerator Safety subject area.[2] BNL uses 57 groundwater monitoring wells to evaluate the impact of current and historical operations at the AGS beam stop and target areas (including the g-2 and BLIP areas discussed in **Sections 3.8** and **3.9** respectively), and an additional 14 wells to monitor beam loss areas associated with the Relativistic Heavy Ion Collider (RHIC) (discussed in **Section 4.2**). The locations of monitoring wells are shown on **Figure 4.1-1**. The wells are routinely monitored for tritium because it is the best early indicator of a possible release because tritium is more leachable than sodium-22, and it migrates at the same rate as groundwater.

In the late 1990's, BNL detected four tritium plumes that originated from activated soil shielding within the AGS complex: the former g-2 experimental area (**Section 3.8**), the BLIP facility (**Section 3.9**), the former U-Line beam stop (**Section 4.1.8**), and the former E-20 Catcher (**Section 4.1.4**). The subsequent installation of impermeable caps over these soil activation areas resulted in a reduction of tritium levels to less than the 20,000 pCi/L DWS.

4.1.1 AGS Building 912

Building 912 consists of five interconnected structures that were used to house four experimental beam lines (A, B, C, and D lines). These beam line operations ended in 2002.

Beam losses at the target areas resulted in the activation of the adjacent floor, and probably the soil beneath the floor. The highest levels of soil activation beneath Building 912 are expected at the former C-Line target cave. Stormwater infiltration around the building is controlled by paving and stormwater drainage systems that direct most of the water to recharge basins located north of the AGS complex.

4.1.1.1 AGS Building 912 Groundwater Monitoring

Well Network

Twenty-three shallow Upper Glacial aquifer wells are positioned upgradient and downgradient of Building 912 (**Figure 4.1-1**). Upgradient wells are positioned to monitor potential tritium contamination

[2] The BNL *Accelerator Safety* SBMS subject area requires stormwater controls where rainwater infiltration into activated soil shielding could result in leachate concentrations that exceed five percent of the drinking water standard for tritium (i.e., 1,000 pCi/L) or 25 percent of the drinking water standard for sodium-22 (i.e., 100 pCi/L).

from sources such as the g-2 area and the former U-Line experimental area. The downgradient wells are positioned to monitor the former beam stop and target areas in Building 912. Some of the downgradient wells are also used to track tritium originating from the g-2 source area that has migrated underneath Building 912 (**Section 3.8**).

Sampling Frequency and Analysis

During 2023, the Building 912 wells were sampled one time. The groundwater samples were analyzed for tritium (**Table 1-6**).

4.1.1.2 AGS Building 912 Monitoring Well Results

As in past years, tritium that is traceable to the g-2 source area continues to be detected in some of the wells located downgradient of Building 912 (**Figure 4.1-1**). During 2023, tritium which is likely from the g-2 plume was detected in wells 065-124 at 1,370 pCi/L and 065-125 at 1,050 pCi/L. Tritium was not detected at concentrations above minimum detectable concentrations (MDCs) in the groundwater samples collected from the remainder of the Building 912 area wells.

4.1.1.3 AGS Building 912 Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Activated soils are present below the floor slab at Building 912. Other than the low level of tritium that is likely associated with the g-2 source area, there were no detections of tritium that could be directly linked to activated soil located at Building 912. This indicates that the building and associated stormwater management operations are effectively preventing rainwater infiltration into the activated soil below the experimental hall.

4.1.1.4 AGS Building 912 Recommendations

The following is recommended for the AGS Building 912 groundwater monitoring program:

- For 2024, continue sampling all Building 912 monitoring wells annually.

4.1.2 AGS Booster Beam Stop

The AGS Booster is a circular accelerator that is connected to the northwest portion of the main AGS Ring and to the Linac. The AGS Booster, which has been in operation since 1994, is used to accelerate protons and heavy ions before injecting them into the main AGS ring. To dispose of the beam during studies, a beam stop system was originally constructed at the 10 to 11 o'clock portion of the Booster. In 1999, the beam stop was repositioned to the south side (6 o'clock section) of the Booster ring to allow for the construction of the NASA Space Radiation Laboratory (NSRL) tunnel. A geomembrane cap was constructed over the original beam stop region to prevent stormwater infiltration into the activated soil. When the beam stop was repositioned to the 6 o'clock region of the Booster, a coated concrete cap was constructed over the area.

4.1.2.1 AGS Booster Groundwater Monitoring

Well Network

Two shallow Upper Glacial aquifer monitoring wells (064-51 and 064-52) are used to monitor the Booster beam stop area (**Figure 4.1-1**).

Sampling Frequency and Analysis

During 2023, the Booster area monitoring well 064-52 was sampled one time, and the sample was analyzed for tritium (**Table 1-6**). Well 064-51 could not be sampled during 2023 because the well was dry during the 4th quarter sampling event.

4.1.2.2 AGS Booster Monitoring Well Results

Although low levels of tritium were detected in the Booster area wells during 2001 and 2002 (up to 1,340 pCi/L in well 064-52), tritium has not been detected above MDCs in these wells since that time (**Figure 4.1-2**).

4.1.2.3 AGS Booster Groundwater Monitoring Program Evaluation

The groundwater monitoring results were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Activated soil shielding is present in the areas of the current and former Booster beam stops. The low levels of tritium detected in groundwater during 2001 and 2002 were related to a short-term uncovering of activated soil shielding near the former booster beam stop during the construction of the tunnel leading from the Booster to the NSRL facility. This work, which began in September 1999 and was completed by October 1999, allowed rainwater to infiltrate the low-level activated soil shielding.[3] Because tritium has not been detected at concentrations above MDCs in the Booster area monitoring wells since 2002, it is apparent that the caps have been effectively preventing rainwater infiltration into the activated soil shielding.

4.1.2.4 AGS Booster Recommendation

The following is recommended for the AGS Booster groundwater monitoring program:

- For 2024, the monitoring frequency for the Booster area monitoring wells will continue to be annually.

4.1.3 NASA Space Radiation Laboratory (NSRL)

The NSRL is jointly managed by the U.S. Department of Energy and NASA's Johnson Space Center. The NSRL uses beams of heavy ions extracted from Booster accelerator for radiobiology studies. NSRL became operational in 2003. Although the secondary particle interactions with the surrounding soil shielding are expected to result in only a minor level of soil activation, a geomembrane cap was constructed over the entire length of the beam line and the beam stop region to prevent stormwater infiltration into the soil shielding.

[3] Before construction of the NSRL tunnel commenced, soil samples were collected by drilling through the tunnel wall near the former booster beam stop to verify that the tritium and sodium-22 levels were within acceptable limits for worker safety and environmental protection.

4.1.3.1 NSRL Groundwater Monitoring

Well Network

This facility is monitored by shallow Upper Glacial aquifer monitoring wells 054-08, 054-62 and 054-191 (**Figure 4.1-1**).

Sampling Frequency and Analysis

During 2023, the NSRL monitoring wells were sampled one time, and the samples were analyzed for tritium (**Table 1-6**).

4.1.3.2 NSRL Monitoring Well Results

During 2023, tritium was not detected in the NSRL monitoring wells.

4.1.3.3 NSRL Groundwater Monitoring Program Evaluation

The groundwater monitoring results were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Activated soil shielding at the NSRL is being protected by an impermeable cap. Based on monitoring conducted to date, NSRL beam line operations have not impacted groundwater quality in the area.

4.1.3.4 NSRL Recommendation

The following is recommended for the NSRL groundwater monitoring program:

- For 2024, the monitoring frequency for the NSRL wells will continue to be annually.

4.1.4 Former AGS E-20 Catcher

The E-20 Catcher was located at the 5 o'clock portion of the AGS ring and was in operation from 1984 to 1999 (**Figure 4.1-1**). The E-20 Catcher was used to pick up or "scrape" protons that moved out of acceptable pathways.

Following the installation of monitoring wells in late 1999 and early 2000, tritium and sodium-22 were detected at levels greater than their applicable DWS, with concentrations up to 40,400 pCi/L and 704 pCi/L, respectively. In April 2000, a temporary impermeable cap was installed over the E-20 Catcher area, and a permanent cap was constructed by October 2000. Tritium and sodium-22 concentrations in groundwater dropped to below the DWS soon after the cap was installed.

4.1.4.1 Former AGS E-20 Catcher Groundwater Monitoring

Well Network

To verify the continued effectiveness of the impermeable cap over the former E-20 Catcher, the area is monitored by shallow Upper Glacial aquifer wells 064-55, 064-56, and 064-80 (**Figure 4.1-1**).

Sampling Frequency and Analysis

During 2023, the former E-20 Catcher wells were monitored one time, and the samples were analyzed for tritium (**Table 1-6**). Since 2002, groundwater samples from this area have only been analyzed for

tritium.

4.1.4.2 Former AGS E-20 Catcher Monitoring Well Results

Following the installation of the cap in 2000, tritium decreased to levels below applicable DWS. During 2023, tritium was detected in monitoring well 064-55 at a concentration of 717 pCi/L (**Figure 4.1-3**).

4.1.4.3 Former AGS E-20 Catcher Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Activated soil shielding at the former E-20 Catcher is being protected by an impermeable cap. The reduction in tritium concentrations since the impermeable cap was constructed in 2000 indicates that the cap has been effective in preventing rainwater infiltration into the activated soil that surrounds this portion of the AGS tunnel.

4.1.4.4 Former AGS E-20 Catcher Recommendation

The following is recommended for the AGS E-20 Catcher groundwater monitoring program:

- For 2024, the monitoring frequency for the former E-20 Catcher wells will continue to be annually.

4.1.5 AGS Building 914

Building 914 houses the beam transfer line between the AGS Ring and the Booster. Due to beam loss near the facility's extraction (kicker) magnet, the extraction area of Building 914 is heavily shielded with iron. Because the extraction area is housed in a large building, most soil activation is expected to be below the floor of the building, where it is protected from rainwater infiltration.

4.1.5.1 AGS Building 914 Groundwater Monitoring

Well Network

Groundwater quality downgradient of the AGS Building 914 transfer line area is monitored by shallow Upper Glacial aquifer wells 064-03, 064-53, and 064-54 (**Figure 4.1-1**).

Sampling Frequency and Analysis

During 2023, the AGS Building 914 area wells were monitored one time, and samples were analyzed for tritium (**Table 1-6**).

4.1.5.2 AGS Building 914 Monitoring Well Results

Tritium was not detected above MDCs in the samples collected during 2023. Tritium has not been detected in the Building 914 groundwater monitoring wells since 2008 (**Figure 4.1-4**).

4.1.5.3 AGS Building 914 Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

The lack of detectable levels of tritium since 2008 indicates that the building structure and associated stormwater controls are effectively preventing rainwater infiltration into activated soil below the building. Continued surveillance of groundwater quality in the Building 914 area is required.

4.1.5.4 AGS Building 914 Recommendation

The following is recommended for the AGS Building 914 groundwater monitoring program:

- For 2024, the monitoring frequency for the AGS Building 914 area wells will continue to be annually.

4.1.6 Former g-2 Beam Stop

The g-2 experiment operated from April 1997 until April 2001. The g-2 Beam Stop is composed of iron and is covered by soil shielding. To prevent rainwater from infiltrating the soil surrounding the beam stop, BNL installed a gunite cap over the stop area before the start of beam line operations.

In November 1999, tritium and sodium-22 were detected in groundwater monitoring wells approximately 200 feet downgradient of the g-2 beam stop area (see **Section 3.8**). An investigation into the source of the contamination revealed that the tritium originated from activated soil shielding adjacent to the g-2 beam stop. This section of the beam line was not a designed beam loss area, and therefore was not protected by the gunite cap installed over the beam stop. In December 1999, an impermeable cap was installed over the activated soil shielding, and joined to the beam stop cap. The monitoring program for the g-2 tritium source area and plume are described in **Section 3.8**.

4.1.6.1 Former g-2 Beam Stop Groundwater Monitoring

Well Network

Groundwater quality downgradient of the former g-2 beam stop is monitored using wells 054-67, 054-124, 054-125, and 054-126 (**Figure 4.1-1**). Wells 054-124 and 054-126 are also used to monitor the g-2 tritium source area **Section 3.8**.

Sampling Frequency and Analysis

During 2023, former g-2 Beam Stop wells 054-67 and 054-125 were monitored once, and the samples were analyzed for tritium. Wells 054-124 and 054-126 were sampled twice for tritium under the g-2 tritium plume source area program (**Table 1-6**).

4.1.6.2 Former g-2 Beam Stop Monitoring Well Results

During 2023, tritium was not detected in any of the g-2 beam stop monitoring wells.

4.1.6.3 Former g-2 Beam Stop Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Overall monitoring results indicate that the cap over the former beam stop is effectively preventing rainwater from infiltrating the activated soil shielding. The tritium previously detected in beam stop area

wells 054-124 and 054-126 (e.g., see 2022 Groundwater Status Report) is likely to have originated from the nearby g-2 source area and reflects periodic changes in groundwater flow directions due to increased use of water supply wells 10, 11 and 12 located to the east of the g-2 area.

4.1.6.4 Former g-2 Beam Stop Recommendation

The following is recommended for the former g-2 beam stop groundwater monitoring program:

- During 2024, former g-2 Beam Stop area wells 054-67 and 054-125 will continue to be monitored on an annual basis, whereas wells 054-124 and 054-126 will continue to be monitored semiannually under the g-2 tritium plume source area program.

4.1.7 AGS J-10 Beam Stop

In 1998, BNL established a beam stop at the J-10 (12 o'clock) section of the AGS Ring, replacing the E-20 Catcher as the preferred repository for any beam that might be lost in the AGS Ring (**Figure 4.1-1**). The J-10 beam stop area of the AGS Ring is covered by layers of soil-crete (a sand and concrete mixture), which reduce the ability of rainwater to infiltrate the potentially activated soil shielding. A gunite cap was constructed over a small section of the J-10 region that did not have a soil-concrete cover before beam stop operations began.

4.1.7.1 AGS J-10 Beam Stop Groundwater Monitoring

Well Network

The monitoring well network for the J-10 beam stop consists of downgradient wells 054-63 and 054-64 (**Figure 4.1-1**).

Sampling Frequency and Analysis

During 2023, the J-10 beam stop wells were monitored one time and the samples were analyzed for tritium (**Table 1-6**).

4.1.7.2 AGS J-10 Beam Stop Monitoring Well Results

During 2023, tritium was not detected above MDCs in the J-10 area wells (**Figure 4.1-5**).

4.1.7.3 AGS J-10 Beam Stop Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Groundwater monitoring results indicate that the engineered controls in place at J-10 are preventing significant rainwater infiltration into the activated soil shielding. Continued groundwater monitoring is required to verify the long-term effectiveness of the controls.

4.1.7.4 AGS J-10 Beam Stop Recommendation

The following is recommended for the AGS J-10 Beam Stop groundwater monitoring program:

- During 2024, the J-10 Beam Stop area wells will continue to be sampled on an annual basis.

4.1.8 Former AGS U-Line Beam Target and Stop Areas

The U-Line beam target area was in operation from 1974 through 1986. The entire assembly was in a ground-level tunnel covered with an earthen berm. Although the U-Line beam target has not been in operation since 1986, the associated tunnel, shielding, and overlying soil remain in place.

In late 1999, BNL installed monitoring wells downgradient of the former U-Line target area to evaluate whether residual activated soil shielding was impacting groundwater quality. Low levels of tritium and sodium-22 were detected, but at concentrations well below the applicable DWS. In early 2000, temporary wells were installed downgradient of the former U-Line beam stop, which is approximately 200 feet north of the target area. Tritium was detected at concentrations up to 71,600 pCi/L. Sodium-22 was not detected in any of the samples. During 2000, an impermeable cap was installed over the former U-Line beam stop area to prevent rainwater infiltration and the continued leaching of radionuclides out of the soil shielding.

4.1.8.1 Former AGS U-Line Groundwater Monitoring

Well Network

The former U-Line area is monitored by one upgradient well (054-127), three downgradient wells that monitor the former U-Line target area (054-66, 054-129, and 054-130), and three wells that monitor downgradient of the former U-Line beam stop area (054-128, 054-168, and 054-169) (**Figure 4.1-1**).

Sampling Frequency and Analysis

During 2023, the former U-Line area wells were monitored one time, and the samples were analyzed for tritium (**Table 1-6**).

4.1.8.2 Former AGS U-Line Groundwater Monitoring Well Results

Former U-Line Target Area

During 2023, tritium was not detected in the former U-Line Target area wells (**Figure 4.1-6**).

Former U-Line Beam Stop Area

During 2023, tritium was not detected in the former U-Line Beam Stop area wells (**Figure 4.1-7**).

4.1.8.3 Former AGS U-Line Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

The significant decrease in tritium concentrations in groundwater since 2000 indicates that the impermeable cap installed over the former U-Line Beam Stop has been effective in stopping rainwater infiltration into the residual activated soil.

4.1.8.4 Former AGS U-Line Recommendation

The following is recommended for the former AGS U-Line groundwater monitoring program:

- For 2024, the former U-Line area wells will continue to be monitored for tritium on an annual basis.

4.2 RELATIVISTIC HEAVY ION COLLIDER (RHIC)

Beam line interactions at the Relativistic Heavy Ion Collider (RHIC) Collimators and Beam Stops produce secondary particles that interact with soil surrounding the 8 o'clock and 10 o'clock portions of the RHIC tunnel and the W-Line Stop (**Figure 4.2-1**). These interactions can result in the production of tritium and sodium-22 in the nearby soil shielding, which can be leached out of the soil by rainwater. Although the level of soil activation is expected to be minor, before RHIC operations began in 2000 BNL installed impermeable caps over these beam loss areas to prevent impacts to groundwater quality.

4.2.1 RHIC Groundwater Monitoring

Well Network

Thirteen shallow wells are used to verify that the impermeable caps at the RHIC beam stops and collimators are effective in protecting groundwater quality. Six of the monitoring wells are located in the 10 o'clock beam stop area, six wells are in the collimator area, and one well is downgradient of the W-Line Beam Stop (**Figure 4.2-1**). As part of BNL's Environmental Surveillance program, surface water samples are also collected semiannually from the Peconic River downstream of the beam stop area at sample location HV (sample location 026-03). These monitoring results are used to verify that potentially contaminated groundwater is not entering the Peconic River stream bed as base flow during high water-table conditions.

Sampling Frequency and Analysis

During 2023, groundwater samples were collected from the RHIC monitoring wells on a semiannual schedule, and the samples were analyzed for tritium (**Table 1-6**). Routine analysis for sodium-22 was discontinued starting in 2002 because tritium is the best indicator of possible cap failure (i.e., tritium is more leachable than sodium-22, and it migrates at the same rate as groundwater). Annual surface water samples collected at location HV were analyzed for tritium and by gamma spectroscopy.

4.2.2 RHIC Monitoring Well Results

During 2023, tritium was not detected in any of the RHIC monitoring well samples. Furthermore, neither tritium or sodium-22 were detected in the surface water sample collected from downstream location HV (026-03).

4.2.3 RHIC Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Has the source of potential contamination been controlled?

Groundwater and surface water monitoring data continue to demonstrate that the impermeable caps installed over the RHIC beam stop and collimator areas are effectively preventing rainwater infiltration into the activated soil shielding.

4.2.4 RHIC Recommendation

The following is recommended for the RHIC groundwater monitoring program:

- During 2024, groundwater samples will continue to be collected on a semiannual basis. Surface water samples will also continue to be collected as part of the Environmental Surveillance program.

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4.3 BROOKHAVEN MEDICAL RESEARCH REACTOR (BMRR)

The Brookhaven Medical Research Reactor (BMRR) was a 3-megawatt light water reactor used for biomedical research. Research operations at the BMRR ended in December 2000. All fuel was removed in 2003 and the primary cooling water system was drained.

When it was operating, the BMRR primary cooling water system contained 2,550 gallons of water that contained approximately 5 curies (Ci) of tritium. Unlike the HFBR, the BMRR did not have a spent fuel storage canal or pressurized imbedded piping systems that contained radioactive liquids. Historically, fuel elements that required storage were either stored within the reactor vessel, or they were transferred to the HFBR spent fuel canal. The BMRR primary cooling water system piping is fully exposed in the containment structure and was accessible for routine visual inspections while it was operating.

In 1997, tritium was detected in groundwater downgradient of the BMRR. The maximum tritium concentration observed during 1997 was 11,800 pCi/L, almost one-half of the 20,000 pCi/L DWS. The highest observed tritium concentration since the start of groundwater monitoring was 17,100 pCi/L in October 1999. The tritium detected in groundwater is believed to have originated from the historical discharge of small amounts of BMRR primary cooling water to a basement floor drain and sump system that may have leaked. Although the last discharge of primary cooling water to the floor drain system occurred in 1987, the floor drains continued to be used for secondary (non-radioactive) cooling water until 1997. The infiltration of this water may have promoted the movement of residual tritium from the soil surrounding the floor drain piping system to the groundwater. The floor drains were permanently sealed in 1998.

4.3.1 BMRR Groundwater Monitoring

Well Network

The monitoring well network for the BMRR facility consists of one upgradient and three downgradient wells (**Figure 4.3-1**).

Sampling Frequency and Analysis

Following the recommendations described in the *2022 Groundwater Status Report* (BNL 2023), sampling of the BMRR wells for tritium was discontinued starting in 2023. However, monitoring well 084-28 has been incorporated into the Current Firehouse/Building 170 PFAS monitoring program.

4.3.2 BMRR Monitoring Well Results

Monitoring conducted since 1997 has shown that tritium concentrations in the BMRR wells have always been below the 20,000 pCi/L DWS (**Figure 4.3-2**). Previous analyses for gamma, gross alpha, and gross beta did not indicate the presence of any other reactor-related radionuclides.

4.3.3 BMRR Groundwater Monitoring Program Evaluation

Monitoring data were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Tritium concentrations in groundwater downgradient of the BMRR have never exceeded the 20,000 pCi/L DWS. Tritium concentrations were <5,000 pCi/L from September 2000 through 2010, <600 pCi/L during the 2012, 2014 and 2016 sample periods, and tritium was not detected during the 2018, 2020 and 2022 sample periods. Groundwater monitoring results indicate that the BMRR structure is effectively

preventing rainwater infiltration into the underlying soils, and/or that the amount of residual tritium in the vadose zone has been significantly reduced by natural radioactive decay**.**

4.3.4 BMRR Recommendation

The following is recommended for the BMRR groundwater monitoring program:

- Continue to sample well 084-28 under the Current Firehouse/Building 170 PFAS groundwater monitoring program.
- Maintain the monitoring wells for potential post-decommissioning/demolition surveillance.

4.4 SEWAGE TREATMENT PLANT (STP)

The STP processes sanitary wastewater from BNL research and support facilities. Until October 2014, treated effluent from the STP was discharged to the Peconic River under a NYSDEC SPDES permit (NY-0005835). Treated wastewater from the STP is now released to nearby groundwater recharge basins (SPDES Outfall 001) (**Figure 4.4-1**).

On average, 0.5 million gallons per day (MGD) of wastewater are processed during the summer and 0.3 MGD of water are processed during the rest of the year. Before discharge into the recharge basins, the sanitary waste stream is treated by: 1) primary clarification to remove settleable solids and floatable materials; 2) aerobic oxidation for secondary removal of the biological matter and nitrification of ammonia; 3) secondary clarification; and 4) filtration for final effluent polishing. Oxygen levels are regulated during the treatment process to remove nitrogen biologically, using nitrate-bound oxygen for respiration. As required by the NYS SPDES permit, monitoring wells are used to evaluate groundwater quality near the recharge basins.

Two emergency hold-up ponds are located east of the former sand filter beds. The hold-up ponds are used to store sanitary waste in the event of mechanical problems at the plant or if the influent contains contaminants in concentrations exceeding BNL administrative limits and/or SPDES permit effluent release criteria. The hold-up ponds have a combined holding capacity of nearly six million gallons of water and provide BNL with the ability to divert all sanitary system effluent for approximately one week. The hold-up ponds are equipped with fabric-reinforced plastic liners that are heat-welded along all seams. In 2001, improvements were made with the addition of new primary liners and a leak detection system. The older liners now serve as secondary containment. There were no diversions to the hold-up ponds during 2023.

4.4.1 STP Groundwater Monitoring

Well Network

In addition to the comprehensive influent and effluent monitoring program at the STP, the groundwater monitoring program is designed to provide a secondary means of verifying that STP operations are not impacting groundwater quality. One upgradient well (039-87) and six downgradient wells (039-88, 039-89, 039-115, 048-08, 048-09 and 048-10) are used to monitor groundwater quality in the recharge basin area (**Figure 4.4-1**). Monitoring results from three wells (039-88, 039-89, and 039-90) are also used to evaluate groundwater quality in the holding pond area, when necessary.

Sampling Frequency and Analysis

In accordance with the SPDES permit, the STP recharge basin area monitoring wells are sampled annually (**Table 1-6**). Samples were collected in November 2023. As required by the permit, the samples are analyzed for the following metals: copper, iron, lead, nickel, silver, zinc and mercury.

With the discontinued use of the corrosion inhibitor tolyltriazole (TTA), during 2022 and 2023 the STP recharge basin monitoring wells were not sampled for this chemical.

4.4.2 STP Monitoring Well Results

Most metals concentrations tracked under the SPDES permit were below the applicable AWQS. However, iron was detected in well 039-89 at 0.62 mg/L and in well 048-10 at 0.717 mg/L, which exceeded the 0.3 mg/L AWQS. As in previous years, sodium was detected at concentrations above the 20 mg/L AWQS in most of the STP recharge basin area wells. During 2023, sodium levels exceeded 20 mg/L in six wells, with maximum concentration of 108 mg/L in well 048-09.

4.4.3 STP Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Are STP operations impacting groundwater quality?

Sodium continues to be detected in most of the STP monitoring wells at concentrations above the 20 mg/L AWQS, and iron is occasionally detected at concentrations that exceed the 0.3 mg/L AWQS. Because tolyltriazole was being detected in the STP effluent at concentrations exceeding permitted limits, in 2022 BNL discontinued the use of this chemical for corrosion control. During 2023, TTA was not detected in STP discharge samples collected as part of the SPDES monitoring program.

4.4.4 STP Recommendation

For 2024, the following is recommended for the STP groundwater monitoring program:

- In accordance with the SPDES permit, the STP groundwater monitoring wells will be sampled annually, and the samples will be analyzed for the metals specified in the permit.

4.5 MOTOR POOL AREA

The Motor Pool (Building 423) consists of a five-bay automotive repair shop, which includes office and storage spaces (**Figure 4.5-1**). The facility has been used continuously since 1947.

Potential environmental concerns at the Motor Pool include: 1) the use of two 8,000-gallong capacity underground storage tanks (USTs) for gasoline; 2) a 3,000-gallon capacity UST for No. 2 heating oil; 3) an outdoor AST used for used motor oil; 4) hydraulic fluids used for lift stations; and 5) the use of solvents for parts cleaning. The gasoline and fuel oil USTs, pump islands, and associated piping conform to Suffolk County Article 12 requirements for secondary containment, leak detection devices, and overfill alarms. The Motor Pool facility has five vehicle-lift stations. The hydraulic fluid reservoirs for the lifts and new motor oil are stored in above ground storage containers with secondary containment located inside of Building 423. Used motor oil is stored in an outdoor AST that has secondary containment. Diesel fuel is stored in three outdoor ASTs at Building 651, which is approximately 300 feet west of Building 423 (**Figure 4.5-1**). The diesel ASTs are located within a secondary containment structure.

4.5.1 Motor Pool Area Groundwater Monitoring

Well Network

The groundwater monitoring program for the Motor Pool area is used to confirm that the current engineered and institutional controls for the gasoline USTs are effective in preventing contamination of the aquifer. Shallow Upper Glacial aquifer wells 102-05 and 102-06 are used to monitor for potential contaminant releases from the UST area (**Figure 4.5-1**). As needed, groundwater quality downgradient of Building 423 can also be monitored using shallow wells 102-10, 102-11, 102-12, and 102-13.

Sampling Frequency and Analysis

During 2023, the two UST area wells were monitored one time, and the samples were analyzed for VOCs (**Table 1-6**). The wells were also checked for the presence of floating petroleum hydrocarbons. The remaining Building 423 monitoring wells were not sampled.

4.5.2 Motor Pool Monitoring Well Results

Underground Storage Tank Area

During 2023, VOCs were not detected in samples from wells 102-05 and 102-06. As in previous years, no floating product was detected in the wells.

4.5.3 Motor Pool Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

During 2023, there were no reported gasoline or fuel oil spills from the USTs, diesel spills, or oil spills that could affect groundwater quality. Furthermore, all waste oils and used solvents generated from current operations are being properly stored and recycled. The gasoline and fuel oil USTs have electronic leak detection systems, and for the gasoline USTs there is a daily product reconciliation (i.e., an accounting of the volume of gasoline stored in USTs and volume of gasoline dispensed).

4.5.4 Motor Pool Recommendations

The following are recommendations for the Motor Pool area monitoring program for 2024:

- The sampling frequency for the UST area wells 102-05 and 102-06 will continue to be annually.

4.6 ON-SITE SERVICE STATION

Building 630 was a commercial automobile service station, privately operated under a contract with BNL. The station was built in 1966 and was used for automobile repair and gasoline sales until January 2018. Potential environmental concerns at the Service Station included the use of underground storage tanks (USTs) for the storage of gasoline and waste oil, hydraulic fluids used for lift stations, and the use of solvents for parts cleaning. In August 1989, the USTs, pump islands, and associated piping were upgraded to conform to Suffolk County Article 12 requirements for secondary containment, leak detection devices, and overfill alarms. The tank inventory included three 8,000-gallon USTs for storing unleaded gasoline and one 500-gallon UST used for waste oil. The facility had three hydraulic vehicle-lift stations. In early 2018, the USTs were emptied of their contents, and hydraulic oils were drained from the lift stations. In September 2018, the USTs were excavated and removed from the site for proper disposal. During the removal of the USTs, there were no reported gasoline or motor oil losses or spills that could affect groundwater quality. Furthermore, no contaminants were detected in end-point soil samples at concentrations above 6 NYCRR Part 375 cleanup guidelines.

4.6.1 Service Station Groundwater Monitoring

Well Network

Groundwater quality in the service station area was monitored using four shallow Upper Glacial wells. The monitoring program was used to confirm that the engineered and institutional controls in place are effective in preventing contamination of the aquifer and to evaluate continued impacts from historical spills (**Figure 4.6-1**).

Sampling Frequency and Analysis

No groundwater samples were collected during 2023.

4.6.2 Service Station Monitoring Well Results

Although groundwater water quality at the Service Station had been impacted by a variety of VOCs that were related to historical vehicle maintenance and refueling operations, monitoring conducted during 2015 through 2017 indicated a significant drop in VOC concentrations. During 2017, the highest VOC concentration was detected in well 085-17, with tetrachloroethylene at 3.7 µg/L, which was below the NYS AWQS of 5 µg/L.

4.6.3 Service Station Groundwater Monitoring Program Evaluation

Monitoring data collected to date were evaluated using the following Data Quality Objective statement.

1. Is there a continuing source of contamination? If present, has the source been remediated or controlled?

Based upon the last set of monitoring data collected in 2017, VOC concentrations for individual compounds have declined to less than applicable AWQS. During the removal of the USTs, there were no reported gasoline or motor oil losses or spills that could affect groundwater quality. Furthermore, no contaminants were detected in end-point soil samples at concentrations above 6 NYCRR Part 375 cleanup guidelines.

4.6.4 Service Station Groundwater Monitoring Program Recommendation

§ Because the Service Station facility has been decommissioned, and groundwater monitoring results indicated that VOC concentrations declined to less than the NYS AWQS, the monitoring program was discontinued in 2018. The monitoring wells will be retained for possible future use.

4.7 MAJOR PETROLEUM FACILITY (MPF)

The MPF is the storage area for fuel oil used at the Central Steam Facility (CSF). The fuel oil is held in a network of six above ground storage tanks, which have a combined capacity of up to 1.7 million gallons of No. 6 fuel oil and 60,000 gallons of No. 2 fuel oil. The tanks are connected to the CSF by above ground pipelines that have secondary containment and leak detection devices. The fuel storage tanks are positioned in bermed containment areas that have a capacity to hold >110 percent of the volume of the largest tank located there. The bermed areas have bentonite clay liners (consisting of bentonite clay sandwiched between geotextile material) or bentonite clay mixed into the native soil to form an impervious soil/clay layer. Fuel-unloading operations occur in a centralized building that has secondary containment features. The MPF is operated under NYSDEC Permit #1-1700 and, as required by law, a Spill Prevention Control and Countermeasures (SPCC) Plan and a Facility Response Plan have been developed for the facility. Groundwater quality near the MPF has been impacted by several oil and solvent spills and PFAS: 1) the 1977 fuel oil/solvent spill east of the MPF that was remediated under the FFA (OU IV); 2) a historical fuel/solvent spill discovered in 2013 near MPF storage tank #3; 3) historical solvent spills near the CSF; 4) solvent spills that occurred in the Building 650 area; and 5) firefighter training with PFAS containing foam occurred near several of the storage tanks.

4.7.1 MPF Groundwater Monitoring

Well Network

Eight shallow Upper Glacial aquifer wells are used to confirm that the engineered and institutional controls in place are effective in preventing contamination of the aquifer (**Figure 4.7-1**).

Sampling Frequency and Analysis

Groundwater contaminants from the fuel oil products stored at the MPF can travel both as free product and in dissolved form in groundwater. Based upon these factors, the NYSDEC Special License Conditions for the MPF requires semiannual monitoring for VOCs (using EPA Method 8260) and SVOCs (using EPA Method 8270) and monthly monitoring for floating petroleum (**Table 1-6**).

4.7.2 MPF Monitoring Well Results

During 2023, tetrachloroethene (at a maximum concentration of 3.7 µg/L), and chloroform (0.39J µg/L) continue to be detected in upgradient well 076-25 (**Figure 4.7-1**). The tetrachloroethene and chloroform concentration in upgradient well 076-25 were below the AWQSs of 5 µg/L and 7 µg/L, respectively. In the downgradient wells, tetrachloroethene was detected in well 076-380 at 7.1 µg/L and chloroform was detected in wells 076-18 and 076-379 at a maximum of 0.79 µg/L. Low levels of serval SVOCs (e.g., benzo(a)anthracene, bis(2-ethylhexyl) phthalate, and phenol) were detected in upgradient well 076-25 and downgradient wells 076-17, 076-19, 076-378, and 076-379, but at concentrations well below the 50 µg/L NYS guidance value for these chemicals. Low levels of benzene (0.94 µg/L) and toluene (1.3 µg/L) were also detected in well 076-380. The VOCs detected in the groundwater at the MPF are believed to originate from historic solvent spills that occurred near the Central Steam Facility and at an adjacent upgradient facility (Building 650). As in previous monitoring periods, no floating petroleum was detected in the MPF monitoring wells. Monitoring conducted in 2020 indicated that Per- and Polyfluoroalkyl Substances (PFAS) PFOS and PFOA are present in the groundwater downgradient of the MPF, with PFOS at concentrations >10 ng/L DWS. No sampling for PFAS in MPF area wells has been conducted since that time.

4.7.3 MPF Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Are the potential sources of contamination being controlled?

During 2023, there were no reported fuel oil leaks or spills. However, groundwater monitoring at the MPF continues to show that current fuel storage and distribution operations are not impacting groundwater quality. Low levels of VOCs and SVOCs that are periodically detected in the groundwater are likely to have originated from historical spills at the MPF, near the Central Steam Facility and near the Building 650 area to the north. Several historical spill sites near the CSF were identified during the 1990s, and the contaminated soils were excavated and disposed of in accordance with regulatory requirements. The historical use of firefighting foam in the MPF area has also impacted groundwater quality. Long-term impacts from PFAS use at the MPF will be evaluated during the planned OU X RI/FS.

4.7.4 MPF Recommendation

- For 2024, monitoring will continue as required by the NYS operating permit issued March 22, 2022, with semiannual monitoring for VOCs (using EPA Method 8260) and SVOCs (using EPA Method 8270), and monthly testing for floating product.

4.8 WASTE MANAGEMENT FACILITY (WMF)

The WMF is designed to safely handle, repackage, and temporarily store BNL-derived wastes prior to shipment to off-site disposal or treatment facilities. The WMF is a state-of-the-art facility, with administrative and engineered controls that meet all applicable federal, state, and local environmental protection requirements. The WMF consists of three buildings: the Operations Building, Reclamation Building (for radioactive waste), and the RCRA Building.

Groundwater monitoring is a requirement of the RCRA Part B permit issued for WMF operations. The groundwater monitoring program for the WMF is designed to supplement the engineered and institutional controls by providing additional means of detecting potential contaminant releases from the facility. Furthermore, because of the close proximity of the WMF to BNL potable supply wells 11 and 12, it is imperative that the engineered and institutional controls implemented at the WMF are effective in ensuring that waste handling operations do not degrade the quality of the soil and groundwater in this area.

4.8.1 WMF Groundwater Monitoring

Well Network

During 2023, groundwater quality at the WMF was monitored using nine shallow Upper Glacial aquifer wells. Two wells (055-03 and 055-10) were used to monitor background water quality, and seven wells were used to monitor groundwater quality near the two main waste handling and storage facilities. Wells 056-21, 066-220 and 066-221 are located near the RCRA Building, and wells 056-22, 056-23, 066-222 and 066-223 are located near the Reclamation Building. Periodically adjustments are made to the list of downgradient wells that are monitored due to transient changes in groundwater flow directions caused by the operations of the nearby supply wells (BNL-11 and BNL-12). BNL discontinued sampling of well 066-224 following the 2012 closure of the former Mixed Waste Building. Locations of the monitoring wells are shown on **Figure 4.8-1**.

Sampling Frequency and Analysis

During 2023, the WMF wells were sampled in February and September. Groundwater samples were analyzed twice for VOCs, tritium, gamma spectroscopy, gross alpha, and gross beta, and one time for strontium-90, metals and anions (e.g., chlorides, sulfates, and nitrates) (**Table 1-6**).

4.8.2 WMF Monitoring Well Results

Radiological Analyses

Gross alpha and beta levels in samples from both upgradient and downgradient monitoring wells were consistent with background concentrations. During 2023, a trace level of strontium-90 (Sr-90) was detected in downgradient monitoring well 066-221 at 0.78 pCi/L, which is approximately 10% of the 8 pCi/L DWS. The continued detection of trace levels of Sr-90 in several of the WMF monitoring wells is likely to be historical leakage of wastewater from the main sanitary line that ran through the current WMF area before it was re-routed south of the facility. During construction of the WMF, portions of the old sanitary line were abandoned in place. Low levels of Sr-90 were also detected in pre-operation (baseline) samples collected in May 1997 in both upgradient and downgradient wells at concentrations up to 5.4 pCi/L. The only operation at the WMF that could potentially contribute Sr-90 to the environment is the BGRR/WCF groundwater treatment system located in Building 855. However, the pipeline in the WMF area is double lined, and is monitored by a leak detector. There are no indications that this piping system has leaked.

Non-Radiological Analyses

All anions (chlorides, sulfates, and nitrates) and most metals concentrations were below applicable ambient NYS AWQS or DWS. As in previous years, sodium was detected at concentrations above the 20 mg/L AWQS. Sodium was detected at concentrations above the standard in both upgradient wells at a maximum of 68 mg/L in well 055-03, and in three downgradient wells with a maximum concentration of 51 mg/L in well 066-221. The elevated sodium concentrations are likely the result of road salting operations. Low levels of chloroform (up to 0.58 µg/L) were detected in upgradient well 055-10 which is below the 7 µg/L AWQS. Low levels of chloroform were also detected in downgradient wells 056-21 and 066-222, at a maximum concentration of 1.2 µg/L.

4.8.3 WMF Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Are potential sources of contamination within the WMF being controlled?

Groundwater monitoring results for 2023 continued to show that WMF operations are not affecting groundwater quality. Furthermore, there were no outdoor or indoor spills at the facility that could have affected soil or groundwater quality.

4.8.4 WMF Recommendation

The following are recommended for 2024:

- Continue monitoring the wells at a semiannual frequency as required by the RCRA Part B Permit.

4.9 NATIONAL SYNCHROTRON LIGHT SOURCE II (NSLS-II)

The NSLS-II is an electron accelerator that began full-time operations in 2014. High-energy particle interactions in water, air, and soil can produce radioactivity from spallation reactions or neutron capture in nitrogen, oxygen, or other materials. In high-energy proton accelerators, such as BNL's AGS, BLIP and RHIC, these interactions can produce significant activation of the soil shielding. However, electron accelerators such as the NSLS-II have significantly reduced potential for environmental impacts and can produce only about one to five percent of the induced activity of a proton accelerator. As required by the BNL SBMS *Accelerator Safety* subject area, analyses were conducted to estimate the rate of formation of tritium and sodium-22 in the surrounding soils during the operation of the NSLS-II's Linac, Booster, and Storage Ring. The results of these analyses indicated that interactions of neutrons with the soils below the tunnel floor and surrounding soil shielding (berm) have the potential to create very low levels of tritium and sodium-22 in the soil. However, because the soil beneath the concrete floor will not be exposed to rainfall, the potential leaching of radioactive isotopes from the soil to the water table at these locations will be minimal. There is also the potential to create very low levels of tritium in the water used to cool the magnets and other accelerator components.

4.9.1 NSLS-II Groundwater Monitoring

Well Network

Four monitoring wells are located downgradient of the facility's Linac, Booster and Storage Ring area where beam line operations may result in low level activation of the surrounding soil shielding (**Figure 4.9-1**). Two nearby Major Petroleum Facility monitoring wells (076-18 and 076-19) are used as upgradient/background wells for the NSLS-II facility.

Sampling Frequency and Analysis

During 2023, the four NSLS-II monitoring wells and the two MPF wells were sampled one time, and the samples were analyzed for tritium (**Table 1-6**). The water samples are preferentially tested for tritium because it is more leachable than sodium-22, migrates at the same rate as groundwater, and is therefore a better indicator of the effectiveness of the administrative and engineered controls.

4.9.2 NSLS-II Monitoring Well Results

As in past years, tritium was not detected in the groundwater samples collected during 2023.

4.9.3 NSLS-II Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Are the engineered and operational controls effective at preventing or reducing the leaching of radionuclides from activated soils to the groundwater?

Monitoring results for 2023 indicate that NSLS-II beam line operations are not impacting groundwater quality.

4.9.4 NSLS-II Recommendations

- For 2024, the four NSLS-II and two MPF (background) monitoring wells will continue to be monitored annually for tritium.

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4.10 RECHARGE BASIN HN

Recharge basins are used for the discharge of wastewaters that are suitable for direct replenishment of the aquifer. These discharges include once-through cooling water, stormwater, and cooling tower blowdown, and are regulated under State Pollutant Discharge Elimination System (SPDES) permits. One of the recharge basins known as basin HN, is located at the six o'clock area of the Relativistic Heavy Ion Collider (RHIC) facility (**Figure 4.10-1**). Basin HN receives once-through cooling water from the Alternating Gradient Synchrotron (AGS) and RHIC facilities, as well as cooling tower blowdown and stormwater runoff. Due to exceedances of the SPDES permit discharge limit for the corrosion inhibitor tolyltriazole (TTA), in late 2021 and early 2022 BNL conducted a limited characterization effort to determine whether TTA is impacting groundwater quality downgradient of basin HN and the Sewage Treatment Plant (see **Section 4.4**).

4.10.1 Basin HN Groundwater Monitoring

Well Network

A permanent groundwater monitoring program for basin HN has not been established. During October-November 2021 BNL installed three temporary wells approximately 800 feet downgradient of basin HN to evaluate potential impacts to groundwater quality. This was followed by the December 2021 and January 2022 sampling of five permanent wells located between 2,000 and 2,500 feet downgradient of the basin (wells 055-01, 055-06, 055-10, 056-01 and 056-03). The results of this effort were reported in the *2021 BNL Groundwater Status Report* (BNL 2022b).

Sampling Frequency and Analysis

In February 2023, pre- and post-granular activated carbon (GAC) filter samples collected from supply wells BNL-10, BNL-11, and BNL-12 were tested for TTA.

4.10.2 Basin HN Area Monitoring Results

All three supply wells located downgradient of the basin HN currently have operating GAC filters. During 2022 and 2023 tolyltriazole was not detected in any of the pre- and post-GAC filter samples that were collected at the three supply wells (MDL = 0.05 mg/L). Column studies performed by BNL's supplier of granular activated carbon demonstrated that GAC can effectively remove TTA. Because tolyltriazole was detected in the discharges to basin HN at concentrations exceeding permitted limits, BNL discontinued the use of this chemical for corrosion control. After stopping its use, TTA was not detected in the water discharges to basin HN during 2022 and 2023.

4.10.3 Basin HN Area Groundwater Monitoring Program Evaluation

The 2023 monitoring data were evaluated using the following Data Quality Objective statement.

1. Are Basin HN operations impacting groundwater quality?

Monitoring results for 2021 and early 2022 indicated that tolyltriazole has impacted groundwater quality downgradient of basin HN. The groundwater monitoring wells used for this evaluation were not sampled during 2023.

2. Is TTA impacting water quality at supply wells BNL-10, BNL-11, and BNL-12?

Although TTA was detected in several monitoring wells located within the source water contributing area of the supply wells at concentrations exceeding the NYS AWQS, TTA is not measurable in the pre- or post-GAC filter samples from potable supply wells BNL-10, BNL-11, or BNL-12.

4.10.4 Basin HN Recommendation

The following is recommended for 2024:

- Continue to collect pre- and post-GAC filter samples from supply wells BNL-10, BNL-11, and BNL-12 for TTA on an annual basis.

5.0 SUMMARY OF RECOMMENDATIONS

This section is provided as a quick reference to recommendations for monitoring and remediation program changes described in **Sections 3** and **4**. **Table 5-1** summarizes the changes to the monitoring well sampling programs.

OU I SOUTH BOUNDARY TREATMENT SYSTEM

- Maintain the VOC post-closure groundwater monitoring program of annual sample collection from post-closure wells: 107-40, 107-41, 115-13, 115-16, and 115-51. Maintain quarterly sampling of Current Landfill sentinel well 098-99.
- Install temporary wells as needed to fill monitoring data gaps and characterize extent of the Sr-90 plume. Install a temporary well to the west of OU I -Sr-90-GP-74 to verify the western extent of this higher concentration plume segment.

BUILDING 96 TREATMENT SYSTEM

- RTW-1 TVOC concentrations have remained below the 50 µg/L system capture goal since 2015. This well will continue to operate in a pulsed pumping mode. RTW-1 and area wells will be monitored for any significant rebound of concentrations over the system capture goal.
- Per a recommendation in the *2021 CERCLA Five-Year Review Report* (BNL, 2021d), continue to closely monitor TVOC concentrations in the plume source area and evaluate/implement a liquid carbon with ZVI in-situ treatment for the immediate source area. The in-situ liquid carbon with ZVI source area chemical treatment was started during the second quarter 2024.
- Maintain treatment wells RTW-2, RTW-3, and RTW-4 in standby mode, and restart the wells if extraction or monitoring well data indicate that TVOC concentrations exceed 50 µg/L.

MIDDLE ROAD TREATMENT SYSTEM

- Maintain extraction wells RW-1, RW-4, RW-5 and RW-6 in standby mode. Restart the well(s) if extraction or monitoring well data indicate that TVOC concentrations exceed the 50 µg/L capture goal.
- Continue full-time operation of RW-2, RW-3 and RW-7.
- Remove monitoring well 106-56 from OU III Middle Road monitoring program. This well has not had VOC concentrations above MCLs in over ten years.
- Deep Upper Glacial aquifer VOC concentrations in this area of the site are not declining at a rate that will not definitively meet the ROD cleanup goal of MCLs by 2030. As per *the 2021 CERCLA Five-Year Review Report* (BNL 2021d) recommendations, perform groundwater modeling simulations to evaluate if a system modification is appropriate to enhance the cleanup in the area. The regional groundwater model will be updated to better represent the Upton Unit to support the evaluation.

OU III SOUTH BOUNDARY TREATMENT SYSTEM

- Maintain wells EW-3, EW-4, EW-5, EW-6, EW-7, EW-8, and EW-12 in standby mode. The system's extraction wells will continue to be sampled on a quarterly basis, with the exception of EW-12. The wells will be restarted if extraction or monitoring well data indicate TVOC

concentrations exceed the 50 µg/L capture goal. Continue to operate extraction EW-17 on a full-time basis. Discontinue sampling monitoring wells 114-06, 121-18, 121-21, 122-09, 122-10 and 122-31 from OU III South Boundary monitoring program. These wells have not had VOC concentrations above MCLs in over ten years.

§ Deep Upper Glacial aquifer VOC concentrations in this area of the site are not declining at a rate that will definitively meet the ROD cleanup goal of MCLs by 2030. Per the *2021 CERCLA Five-Year Review Report* (BNL 2021b) recommendations perform groundwater modeling simulations to evaluate a system modification is appropriate to enhance the cleanup in the area. The regional groundwater model will be updated to better represent the Upton Unit to support the evaluation.

WESTERN SOUTH BOUNDARY TREATMENT SYSTEM

§ Based on the TVOC concentrations below the capture goal of 20 µg/L in WSB-2, maintain this extraction well in standby mode. If TVOC concentrations greater than 20 µg/L are observed in WSB-2 or the adjacent monitoring wells, extraction well WSB-2 may be put back into full-time operation.

§ Discontinue pumping extraction well WSB-1 as it has achieved its capture goal. Continue the current pulse pumping of the remaining four operating extraction wells. The continued pulsed pumping should help address areas of groundwater stagnation between the extraction wells. The pulsed pumping should be done with wells WSB- 3 and WSB-5 on one month while wells WSB-4 and WSB-6 are off. The following month, wells WSB-4 and WSB-6 should be on while wells WSB-3 and WSB-5 are off.

§ Based upon the concentration trends in both the monitoring and extraction wells it is anticipated that this system will have achieved its cleanup goals by the end of 2024 and a Petition for Shutdown will be submitted in 2025.

§ Continue the current monitoring frequency for the WSB monitoring wells as shown in **Table 1-5**.

INDUSTRIAL PARK TREATMENT SYSTEM

§ Maintain the seven UVB wells in standby. If TVOC concentrations exceed the 50 µg/L capture goal in these UVB wells or associated monitoring wells, they may be restarted.

§ Maintain IP-EW-8 and IP-EW-9 in standby and continue to monitor for rebound of VOCs. If TVOC concentrations approach the capture goal of 50 µg/L in the vicinity of the extraction wells the system will be evaluated for restart.

§ Continue to monitor the plume core wells. If TVOC concentrations in wells 000-537 and 00-541 remain below the capture goal during the 2024 second quarter monitoring, along with the remainder of the plume core wells, prepare a Petition for Closure of the Industrial Park Treatment System.

NORTH STREET TREATMENT SYSTEM

§ NS-1 and NS-2 will remain shut down until the OU X RI/FS characterization **(Section 3.5)** is completed. After the completion of this characterization, a determination of the future use of these wells will be made.

- Continue monitoring the seven wells on an annual monitoring schedule until the results for individual VOCs are consistently below MCLs. The remaining 11 monitoring wells will be retained until the completion of the OU X RI/FS characterization at the BNL site.

NORTH STREET EAST EDB TREATMENT SYSTEM

- Reduced full time operation of extraction wells NSE-EDB-EW-3 and NSE-EDB-EW-4 to a pulsed pumping mode in May 2024 (one month on and one month off).
- Prepare a petition for system shutdown if EDB concentrations remain below the DWS through the third quarter of 2024.
- Maintain the quarterly sampling frequency for the 12 EDB monitoring wells using Method 504, except for upgradient perimeter well 115-42 which is sampled semi-annually. Maintain annual VOC sampling using Method 8260 Low Level for all wells except for 115-42 and 000-138.

LIPA/AIRPORT TREATMENT SYSTEM

- Continue full time operation of wells RTW-1A, RTW-4A and RW-6A. Keep wells RTW-2A, RTW-3A and RTW-5A in standby mode. If concentrations above the capture goal of 10 µg/L TVOC are observed in any of the extraction wells or the monitoring wells adjacent to wells that are not operating, the well(s) will be put back into full-time or pulsed pumping operation.
- Administratively close the LIPA program extraction wells EW-1L, EW-2L, EW-3L and EW-4L but maintain them in an operationally ready state pending the completion of the OU X RI/FS.
- No changes to the current monitoring schedule are recommended at this time for the Airport System. Maintain the current monitoring schedule for the LIPA monitoring wells pending approval of the LIPA system is received from the regulators. Upon approval, begin the proposed post closure monitoring schedule of wells 000-130, 000-131, 000-425, 000-448, and 000-449 on an annual basis.

MAGOTHY MONITORING

- Continue pumping the Magothy extraction wells at Middle Road, South Boundary (EW-17 only) and the Airport. The two IP extraction wells were placed in standby in July 2019 and continue to be monitored for rebound of VOCs. Wells no longer sampled are being maintained for potential future use for PFAS and 1,4-dioxane as part of OU X and will be evaluated as part of the RI/FS.

WILLIAM FLOYD WELLFIELD SENTINEL MONITORING

- Maintain quarterly sampling of the six wells for VOCs, 1,4-dioxane, and PFAS.

BGRR/WCF STRONTIUM-90 TREATMENT SYSTEM

- Continue operating wells SR-1 and SR-2 in full-time mode. Maintain wells SR-3, SR-4, SR-5, SR-6, SR-7, SR-8, and SR-9 in standby mode.
- Resume operation of SR-3 if significant Sr-90 concentration increases are observed in source area monitoring well 075-701. A significant water table increase has been observed during the first quarter of 2024.

- Maintain a source area monitoring frequency of monthly for BGRR source area wells 075-701 and 075-664.
- Maintain the semi-annual sampling frequency in well 065-169 to evaluate the October 2022 Sr-90 concentration increase in the vicinity of Building 801.
- Discontinue sampling of existing monitoring wells 075-809, 075-810, 075-811, 075-415, 075-417, 075-419, 085-171, 085-285, 085-286, 085-287, 085-01, 085-406, 085-407, and 085-290 for Sr-90 analysis. This data were utilized to evaluate the presence of Sr-90 in the vicinity of extraction well FF-RW-A and is no longer needed. See **Figure 3.2.11-1** for these well locations.

CHEMICAL/ANIMAL HOLES STRONTIUM-90 TREATMENT SYSTEM

- Maintain the system in standby mode and quarterly sampling of the extraction wells. If significant rebound in either the extraction wells or monitoring wells is identified, these extraction wells may be restarted. Maintain the annual monitoring well sampling frequency (standby phase), except for source area wells 097-313, 097-314, 097-315, which will remain semi-annual.
- Perform updated groundwater modeling simulations based on current groundwater Sr-90 concentrations to predict the natural attenuation time frame.

HFBR TRITIUM PUMP AND RECHARGE SYSTEM

- Continue to monitor the source area with the ten wells located immediately downgradient of the HFBR. Based on the steep water table elevation increase in early 2024, maintain the quarterly sampling frequency to have sufficient data to observe any related tritium concentration increase.
- Maintain the downgradient monitoring wells and extraction wells until a determination is made on their utilization related to PFAS and 1,4-dioxane.

BUILDING 650 (SUMP OUTFALL) STRONTIUM-90 MONITORING

- Maintain annual sampling frequency for the 24 monitoring wells in this program.

OPERABLE UNIT VI EDB TREATMENT SYSTEM

- Maintain full time operation of the treatment system and continue quarterly sampling of the extraction wells.
- Conduct an aquifer pumping test to evaluate the impact of pumping the new extraction wells on the shallower segment of the plume.

OPERABLE UNIT X CURRENT FIREHOUSE PFAS TREATMENT SYSTEM

- Maintain full time operation of the treatment system.
- Continue sampling the treatment system influent, mid-point, and effluent two times per month, and individual extraction wells monthly. Samples will be analyzed for PFAS using EPA Method 1633, Method 8270D SIM for 1,4-dioxane, and EPA Method 8260 Low Level for VOCs.

- Continue sampling 13 source area monitoring wells on a quarterly basis, and the remaining 64 plume monitoring wells semiannually. Samples from all wells will be analyzed for PFAS using EPA Method 1633, and a select number of samples will be analyzed for 1,4-dioxane using EPA Method 8270D SIM.
- Perform additional groundwater characterization to evaluate an eastern shift of the PFAS plume. The focus of this characterization will be the areas near wells CF-RW-C, CF-RW-E and CF-RW-F and along Princeton Avenue near extraction wells CF-RW-I, CF-RW-F, CF-RW-G, and CF-RW-H.
- Perform additional groundwater characterization to evaluate/delineate the distribution of the plume south of Princeton Avenue. The focus of this characterization will be consistent with vertical profile wells specified in the OU X RI/FS Work Plan.

OPERABLE UNIT X FORMER FIREHOUSE PFAS TREATMENT SYSTEM

- Maintain full time operation of the treatment system. Continue sampling the treatment system influent, mid-point, and effluent two times per month. Analyze the samples by EPA Method 1633 for PFAS, EPA Method 8270D SIM for 1,4-dioxane, and EPA Method 8260 Low Level for VOCs.
- Continue sampling 10 source area monitoring wells on a quarterly basis, and the remaining 32 plume wells semi-annually. Samples from Former Firehouse monitoring wells will be analyzed for PFAS using EPA Method 1633, and a select number of samples analyzed for 1,4-dioxane using EPA Method 8270D SIM.

1,4-DIOXANE IN GROUNDWATER

- Monitoring requirements to track the extent of 1,4-dioxane contamination in on-site and off-site areas will be defined during the OU X RI/FS. Continue limited monitoring for 1,4-dioxane as part of the Current Firehouse/Building 170, Former Firehouse and William Floyd Sentinel Well monitoring programs. Continue monitoring BNL's water supply wells for 1,4-dioxane as required by the annual SCDHS *Minimum Monitoring Requirements* plan.

SITE BACKGROUND MONITORING

- There are no changes proposed to the monitoring program.

CURRENT LANDFILL GROUNDWATER MONITORING

- The monitoring well network for the Current Landfill is sufficient. However, add PFAS EPA Method 1633 and 1,4-dioxane EPA Method 8270D SIM to the analytical list of parameters for all 12 monitoring wells on an annual basis with collection during the fourth quarter sampling round.

FORMER LANDFILL GROUNDWATER MONITORING

- Continue monthly maintenance and inspections in accordance with the Operations and Maintenance manual as well as continuing the annual soil-gas monitoring.

G-2 TRITIUM SOURCE AREA AND GROUNDWATER PLUME

- Continue routine inspections of the g-2 cap.
- Continue semiannual monitoring of source area wells near Building 912A. Reduce sampling frequency to annually starting in 2025 if tritium concentrations remain below 20,000 pCi/L.
- Continue annual sampling of the monitoring wells located downgradient of the former g-2 beam stop and Building 912.

ALTERNATING GRADIENT SYNCROTRON (AGS)

- For 2024, continue sampling all Building 912 monitoring wells annually.
- For 2024, the monitoring frequency for the Booster area monitoring wells will continue to be annual*y.*
- For 2024, the monitoring frequency for the NSRL wells will continue to be annually.
- For 2024, the monitoring frequency for the former E-20 Catcher wells will continue to be annually.
- For 2024, the monitoring frequency for the AGS Building 914 area wells will continue to be annually.
- During 2024, former g-2 Beam Stop area wells 054-67 and 054-125 will continue to be monitored on an annual basis, whereas wells 054-124 and 054-126 will continue to be monitored semiannually under the g-2 tritium plume source area program.
- During 2024, the J-10 Beam Stop area wells will continue to be sampled on an annual basis.
- For 2024, the former U-Line area wells will continue to be monitored for tritium on an annual basis.

BROOKHAVEN LINAC ISOTOPE PRODUCER (BLIP) FACILITY

- As required by the ROD, BNL will continue to conduct routine inspections of the cap, and to monitor groundwater quality downgradient of the BLIP facility.
- No changes to the groundwater monitoring program are recommended. Continue semiannual monitoring of the downgradient wells.

RELATIVISTIC HEAVY ION COLLIDER (RHIC) FACILITY

- During 2024, groundwater samples will continue to be collected on a semiannual basis. Surface water samples will also continue to be collected as part of the Environmental Surveillance program.

BROOKHAVEN MEDICAL RESEARCH REACTOR (BMRR) FACILITY

- Continue to sample well 084-28 under the Current Firehouse/Building 170 PFAS groundwater monitoring program.
- Maintain the monitoring wells for potential post-decommissioning/demolition surveillance.

SEWAGE TREATMENT PLANT (STP) FACILITY

§ In accordance with the SPDES permit, the STP groundwater monitoring wells will be sampled annually, and the samples will be analyzed for the metals specified in the permit.

MOTOR POOL AREA

§ The sampling frequency for the UST area wells 102-05 and 102-06 will continue to be annually.

MAJOR PETROLEUM FACILITY (MPF) AREA

§ For 2024, monitoring will continue as required by the NYS operating permit issued March 22, 2022, with semiannual monitoring for VOCs (using EPA Method 8260) and SVOCs (using EPA Method 8270), and monthly testing for floating product.

WASTE MANAGEMENT FACILITY (WMF)

§ Continue monitoring the wells at a semiannual frequency as required by the RCRA Part B Permit.

NATIONAL SYNCHROTRON LIGHT SOURCE II (NSLS-II)

§ For 2024, the four NSLS-II and two MPF (background) monitoring wells will continue to be monitored annually for tritium.

RECHARGE BASIN HN

§ Continue to collect pre- and post-GAC filter samples from supply wells BNL-10, BNL-11, and BNL-12 for TTA on an annual basis.

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APPENDIX A

SITEWIDE GROUNDWATER ELEVATION MEASUREMENTS

Sitewide Groundwater Elevation Measurements

2023 Sitewide Groundwater Monitoring Report
Environmental Protection Division
Brookhaven National Laboratory

BNL Well Id.	M.P. Elevation (ft. above m.s.l.)	Depth To Water (ft. below M.P.)	Map Aquifer	Date	Water Table Elev.
000-100	103.35	75.55	SG	8/23/2023	27.80
000-106	117.03	87.95	SG	8/24/2023	29.08
000-109	68.71	39.02	SG	8/23/2023	29.69
000-111	51.67	NM	SG	8/24/2023	NA
000-113	74.35	43.69	SG	8/25/2023	30.66
000-115	93.61	64.27	SD	8/25/2023	29.34
000-137	60.94	29.52	SG	8/23/2023	31.42
000-147	42.51	10.56	SG	8/25/2023	31.95
000-148	68.32	39.92	SG	8/24/2023	28.40
000-37	45.32	10.07	SG	8/24/2023	35.25
000-99	99.62	73.02	SG	8/24/2023	26.60
007-03	57.63	18.77	SG	8/21/2023	38.86
013-01	71.16	30.91	SD	8/21/2023	40.25
017-01	65.14	20.00	SG	8/21/2023	45.14
018-01	55.97	11.65	SG	8/21/2023	44.32
021-01	62.73	23.36	SG	8/21/2023	39.37
022-01	60.71	22.47	SG	8/21/2023	38.24
025-02	76.63	31.33	SG	8/23/2023	45.30
025-06	57.80	13.15	SG	8/23/2023	44.65
029-01	49.93	5.80	SG	8/21/2023	44.13
030-01	54.58	15.83	SG	8/21/2023	38.75
034-05	91.94	47.50	SG	8/23/2023	44.44
037-01	68.41	26.52	SG	8/21/2023	41.89
037-02	74.58	33.99	SG	8/21/2023	40.59
038-01	56.70	12.59	SG	8/21/2023	44.11
038-02	59.98	15.06	SG	8/22/2023	44.92
039-06	49.47	6.33	SG	8/22/2023	43.14
039-07	58.67	20.12	SG	8/22/2023	38.55
039-08	60.89	22.36	SG	8/21/2023	38.53
039-11	44.67	2.60	SG	8/22/2023	42.07
039-89	50.59	12.51	SG	8/21/2023	38.08
040-04	50.03	NM	SG	8/25/2023	NA
040-05	50.39	12.93	SG	8/21/2023	37.46
042-01	75.51	31.05	SG	8/23/2023	44.46
044-13	84.47	40.49	SG	8/23/2023	43.98
046-02	88.27	48.08	SG	8/22/2023	40.19
047-01	63.16	16.57	SG	8/21/2023	46.59
048-02	55.28	17.57	SG	8/21/2023	37.71
048-08	57.57	19.19	SG	8/21/2023	38.38
048-09	55.29	17.08	SG	8/21/2023	38.21
048-10	51.65	13.77	SG	8/21/2023	37.88
049-02	52.18	14.61	SG	8/21/2023	37.57
049-04	49.62	12.76	SG	8/21/2023	36.86
053-03	73.45	30.09	SG	8/23/2023	43.36
053-05	75.60	32.38	SG	8/23/2023	43.22
054-07	72.02	29.80	SG	8/22/2023	42.22
054-09	69.81	26.74	SG	8/22/2023	43.07
054-10	76.26	33.25	SG	8/23/2023	43.01
054-62	69.14	26.48	SG	8/25/2023	42.66
054-64	94.22	52.04	SG	8/22/2023	42.18

Sitewide Groundwater Elevation Measurements

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BNL Well Id.	M.P. Elevation (ft. above m.s.l.)	Depth To Water (ft. below M.P.)	Map Aquifer	Date	Water Table Elev.
054-69	67.06	25.00	SG	8/22/2023	42.06
054-124	72.24	30.30	SG	8/22/2023	41.94
054-128	71.67	29.55	SG	8/22/2023	42.12
054-184	74.95	32.92	SG	8/22/2023	42.03
055-03	89.08	48.44	SG	8/21/2023	40.64
055-04	90.26	48.98	SG	8/22/2023	41.28
055-05	84.28	42.81	SG	8/21/2023	41.47
055-15	67.49	25.82	SG	8/22/2023	41.67
055-30	71.54	29.71	SG	8/22/2023	41.83
056-04	82.29	43.30	SG	8/22/2023	38.99
057-01	53.04	14.20	SG	8/25/2023	38.84
060-01	44.76	NM	SG	8/25/2023	NA
061-07	40.67	6.03	SG	8/24/2023	34.64
063-02	71.78	29.54	SG	8/23/2023	42.24
063-04	70.87	28.38	SG	8/23/2023	42.49
063-06	76.49	33.58	SG	8/23/2023	42.91
064-01	86.24	45.05	SG	8/22/2023	41.19
064-03	82.81	40.60	SG	8/22/2023	42.21
064-50	82.99	40.84	SG	8/24/2023	42.15
064-54	86.24	43.90	SG	8/22/2023	42.34
064-55	72.82	31.31	SG	8/22/2023	41.51
064-67	99.49	57.10	SG	8/22/2023	42.39
065-01	90.72	50.38	SG	8/22/2023	40.34
065-120	75.27	33.82	SG	8/22/2023	41.45
065-121	69.93	NM	SG	8/25/2023	NA
065-125	67.97	26.34	SG	8/22/2023	41.63
065-124	67.93	26.35	SG	8/22/2023	41.58
065-162	90.14	49.24	SG	8/22/2023	40.90
065-167	109.28	67.86	SG	8/22/2023	41.42
065-173	85.42	44.13	SG	8/22/2023	41.29
065-38	105.89	65.41	SG	8/22/2023	40.48
065-42	94.68	54.70	SG	8/25/2023	39.98
066-07	90.30	50.40	SG	8/22/2023	39.90
066-08	89.72	49.59	SG	8/22/2023	40.13
066-83	86.94	47.52	SG	8/22/2023	39.42
069-10	55.29	19.70	SG	8/24/2023	35.59
070-01	59.96	24.88	SG	8/24/2023	35.08
072-01	83.09	41.77	SG	8/23/2023	41.32
072-03	70.19	28.34	SG	8/23/2023	41.85
072-04	69.96	28.12	SG	8/23/2023	41.84
073-01	77.75	35.66	SG	8/25/2023	42.09
073-26	83.91	42.88	SG	8/22/2023	41.03
073-29	87.73	46.80	SG	8/21/2023	40.93
074-135	91.06	50.09	SG	8/22/2023	40.97
075-01	88.71	48.70	SG	8/21/2023	40.01
075-188	82.84	42.65	SG	8/21/2023	40.19
075-198	76.60	36.94	SG	8/21/2023	39.66
075-202	79.29	39.37	SG	8/21/2023	39.92
075-288	87.96	48.12	SG	8/21/2023	39.84
075-291	83.41	43.73	SG	8/21/2023	39.68

Sitewide Groundwater Elevation Measurements

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BNL Well Id.	M.P. Elevation (ft. above m.s.l.)	Depth To Water (ft. below M.P.)	Map Aquifer	Date	Water Table Elev.
075-810	73.41	34.00	SG	8/21/2023	39.41
075-418	77.44	37.97	SG	8/21/2023	39.47
076-10	79.48	39.92	SG	8/24/2023	39.56
076-122	78.03	38.32	SG	8/25/2023	39.71
076-13	80.95	41.07	SG	8/22/2023	39.88
076-16	82.50	43.02	SG	8/22/2023	39.48
076-183	79.75	40.45	SG	8/21/2023	39.30
076-19	77.83	38.00	SG	8/25/2023	39.83
076-24	77.53	37.60	SG	8/21/2023	39.93
076-25	80.48	40.65	SG	8/22/2023	39.83
076-29	70.49	30.32	SG	8/22/2023	40.17
076-173	85.46	45.70	SG	8/23/2023	39.76
076-258	82.44	42.57	SG	8/24/2023	39.87
076-373	82.77	42.90	SG	8/22/2023	39.87
076-380	75.90	36.17	SG	8/22/2023	39.73
077-02	74.39	35.81	SG	8/23/2023	38.58
080-02	51.88	17.91	SG	8/24/2023	33.97
082-01	84.21	43.47	SG	8/23/2023	40.74
083-02	94.73	54.28	MG	8/21/2023	40.45
083-03	85.50	44.78	SG	8/21/2023	40.72
083-05	109.78	70.19	SG	8/21/2023	39.59
083-06	88.40	47.80	SG	8/23/2023	40.60
083-33	92.52	52.04	SG	8/21/2023	40.48
083-44	106.83	67.00	SG	8/22/2023	39.83
083-47	94.02	54.03	SG	8/22/2023	39.99
084-12	103.52	64.06	SG	8/21/2023	39.46
084-87	97.66	57.24	SG	8/21/2023	40.42
084-90	96.47	56.41	SG	8/22/2023	40.06
084-96	110.89	71.30	SG	8/21/2023	39.59
085-235	79.71	40.71	SG	8/21/2023	39.00
085-287	72.45	33.16	SG	8/21/2023	39.29
085-289	72.61	33.52	SG	8/21/2023	39.09
085-379	64.11	25.22	SG	8/24/2023	38.89
085-67	70.52	31.31	SG	8/24/2023	39.21
085-76	68.21	29.67	SG	8/21/2023	38.54
085-404	70.57	31.57	SG	8/21/2023	39.00
086-123	74.38	35.75	SG	8/21/2023	38.63
086-42	79.25	41.46	SG	8/24/2023	37.79
087-09	67.70	30.08	SG	8/23/2023	37.62
087-22	87.37	50.36	SG	8/22/2023	37.01
087-23	72.46	36.21	SG	8/23/2023	36.25
088-109	51.83	15.05	SG	8/23/2023	36.78
089-14	49.81	15.19	SG	8/24/2023	34.62
090-02	53.31	20.07	SG	8/23/2023	33.24
090-10	45.61	11.82	SG	8/24/2023	33.79
092-01	84.61	44.63	SG	8/23/2023	39.98
092-02	90.78	50.80	SG	8/23/2023	39.98
093-02	110.87	72.57	SG	8/23/2023	38.30
093-04	89.87	50.56	SG	8/22/2023	39.31
093-05	81.13	41.23	SG	8/23/2023	39.90

Sitewide Groundwater Elevation Measurements

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BNL Well Id.	M.P. Elevation (ft. above m.s.l.)	Depth To Water (ft. below M.P.)	Map Aquifer	Date	Water Table Elev.
093-89	110.26	71.13	SG	8/22/2023	39.13
093-93	93.90	54.02	SG	8/22/2023	39.88
093-94	85.68	46.16	SG	8/22/2023	39.52
093-96	89.15	49.85	SG	8/22/2023	39.30
093-97	92.57	53.73	SG	8/22/2023	38.84
094-01	97.26	58.10	SG	8/24/2023	39.16
094-277	112.76	74.01	SG	8/22/2023	38.75
095-67	86.61	dry	SG	8/24/2023	NA
095-68	83.50	dry	SG	8/24/2023	NA
095-171	63.02	25.39	SG	8/21/2023	37.63
096-52	68.00	30.98	SG	8/22/2023	37.02
096-122	67.60	29.90	SG	8/24/2023	37.70
096-128	67.90	30.58	SG	8/22/2023	37.32
097-14	60.10	24.47	SG	8/24/2023	35.63
097-276	82.96	46.99	SG	8/22/2023	35.97
098-104	54.94	20.01	SG	8/24/2023	34.93
098-42	52.22	17.45	SG	8/23/2023	34.77
099-01	51.05	16.50	SG	8/23/2023	34.55
100-10	46.81	13.57	SG	8/23/2023	33.24
101-01	91.08	52.28	SG	8/24/2023	38.80
101-09	103.87	66.51	SG	8/22/2023	37.36
101-10	86.61	48.73	SG	8/25/2023	37.88
102-01	85.61	47.85	SG	8/22/2023	37.76
102-12	93.28	55.26	SG	8/22/2023	38.02
102-25	80.53	43.38	SG	8/22/2023	37.15
102-29	89.60	51.82	SG	8/22/2023	37.78
102-37	91.57	53.12	SG	8/22/2023	38.45
102-38	83.57	45.55	SG	8/22/2023	38.02
103-01	82.46	45.44	SG	8/22/2023	37.02
103-02	91.24	50.21	SG	8/22/2023	41.03
103-10	102.53	64.38	SG	8/22/2023	38.15
104-01	66.08	29.64	SG	8/22/2023	36.44
104-26	84.37	dry	SG	8/24/2023	NA
105-02	70.31	33.63	SG	8/22/2023	36.68
105-05	60.85	25.22	SG	8/22/2023	35.63
105-74	66.64	30.51	SG	8/22/2023	36.13
106-16	72.73	37.81	SG	8/22/2023	34.92
106-21	68.52	34.64	SG	8/22/2023	33.88
107-14	69.62	35.99	SG	8/23/2023	33.63
108-08	65.18	32.14	SG	8/23/2023	33.04
108-15	59.98	26.95	SG	8/23/2023	33.03
109-03	114.80	80.38	SG	8/21/2023	34.42
109-29	124.78	89.26	SG	8/21/2023	35.52
110-26	91.60	54.80	SG	8/22/2023	36.80
110-27	96.19	60.74	SG	8/22/2023	35.45
111-01	75.68	40.50	SG	8/22/2023	35.18
113-10	72.32	38.14	SG	8/22/2023	34.18
114-02	64.12	30.45	SG	8/22/2023	33.67
115-32	67.17	34.75	SG	8/23/2023	32.42
115-41	56.30	24.20	SG	8/25/2023	32.10

Sitewide Groundwater Elevation Measurements

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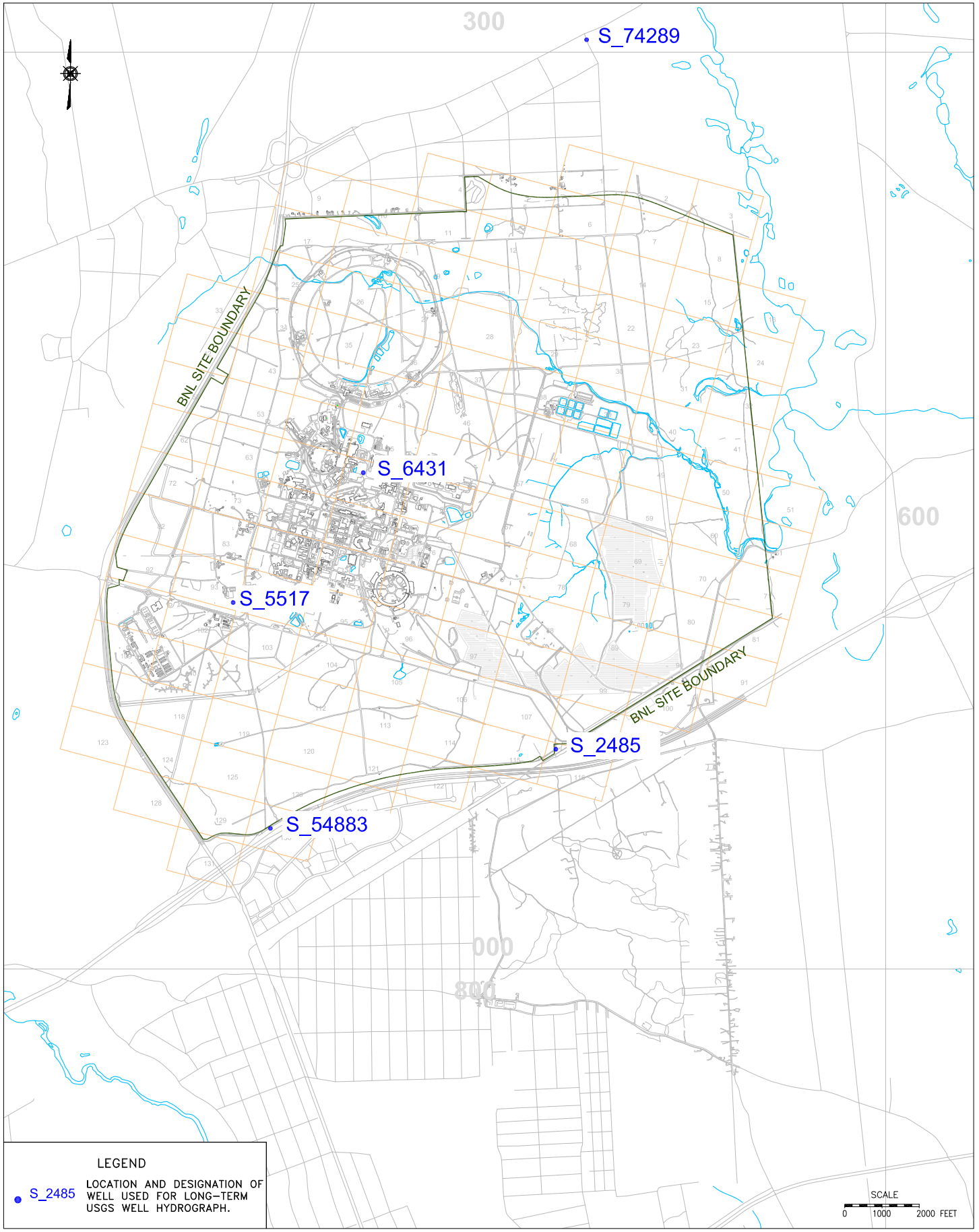
BNL Well Id.	M.P. Elevation (ft. above m.s.l.)	Depth To Water (ft. below M.P.)	Map Aquifer	Date	Water Table Elev.
116-14	68.59	36.10	SG	8/23/2023	32.49
117-01	116.14	82.74	SG	8/21/2023	33.40
117-02	112.30	80.10	SG	8/21/2023	32.20
117-04	112.56	80.37	MG	8/21/2023	32.19
117-05	111.29	79.20	MG	8/21/2023	32.09
117-06	111.73	79.15	MG	8/21/2023	32.58
117-07	105.12	72.08	SG	8/24/2023	33.04
118-01	84.86	50.35	SG	8/21/2023	34.51
118-04	113.03	77.94	SG	8/22/2023	35.09
119-01	81.85	48.43	SG	8/22/2023	33.42
119-03	82.70	48.35	SG	8/22/2023	34.35
121-06	69.00	36.65	SG	8/22/2023	32.35
122-01	61.15	NM	SG	8/22/2023	NA
124-01	99.26	66.47	SG	8/21/2023	32.79
124-04	117.05	83.80	SG	8/24/2023	33.25
126-01	83.61	52.15	SG	8/22/2023	31.46
600-18	47.61	14.98	SG	8/24/2023	32.63
600-19	43.27	12.29	SG	8/24/2023	30.98
600-25	43.63	NM	SG	8/24/2023	NA
800-26	45.54	21.73	SG	8/25/2023	23.81
800-29	55.61	39.95	SG	8/25/2023	15.66
800-39	80.25	57.88	SG	8/23/2023	22.37
800-42	78.86	56.05	SG	8/23/2023	22.81
800-51	86.90	62.70	SG	8/25/2023	24.20

NA=Not Available, NM=Not Measured

Appendix B

2023 Long Term Well Hydrographs



Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

LOCATIONS OF BNL AND USGS HYDROGRAPH WELLS

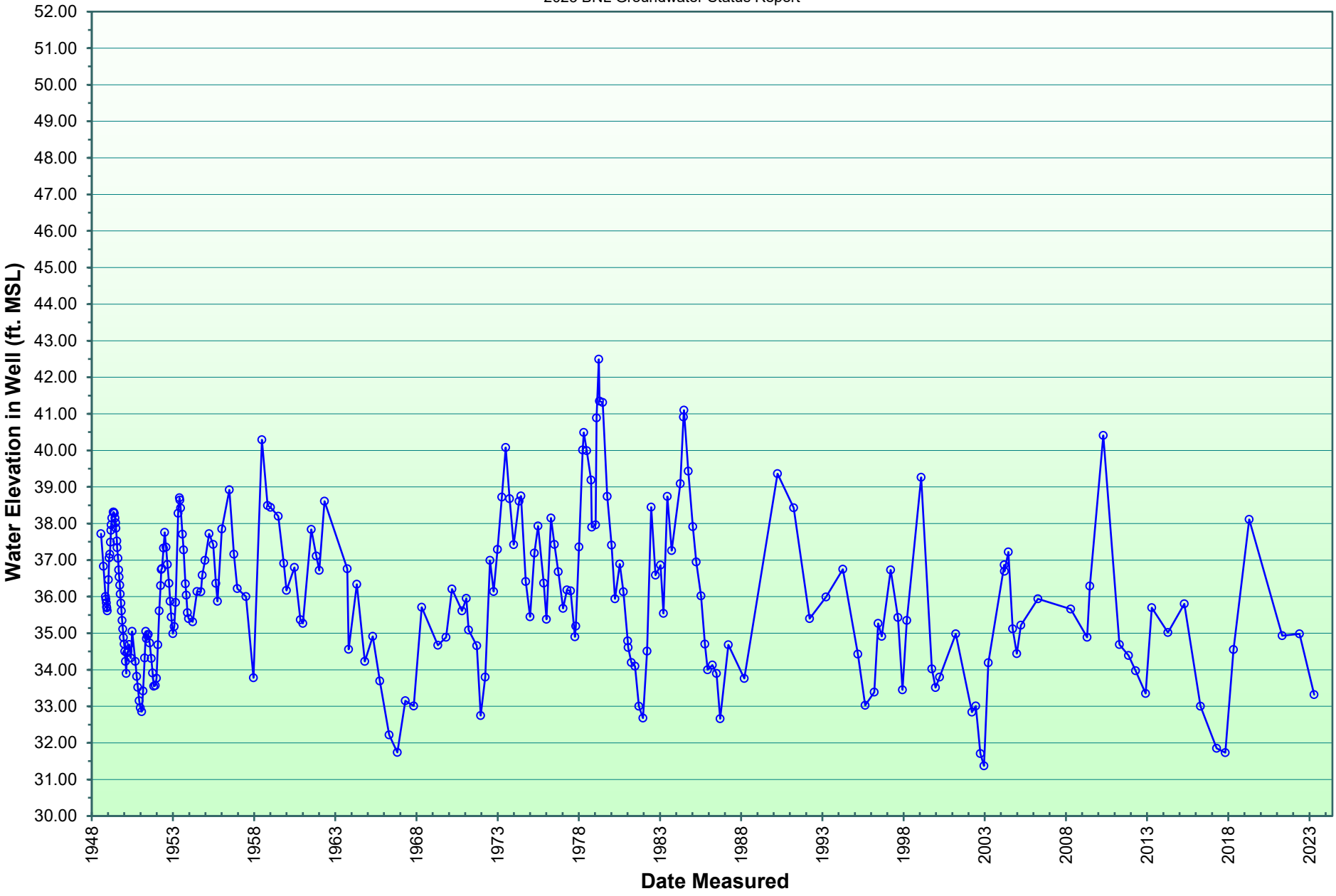
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/07/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	–	–

FIGURE NO.: B–1

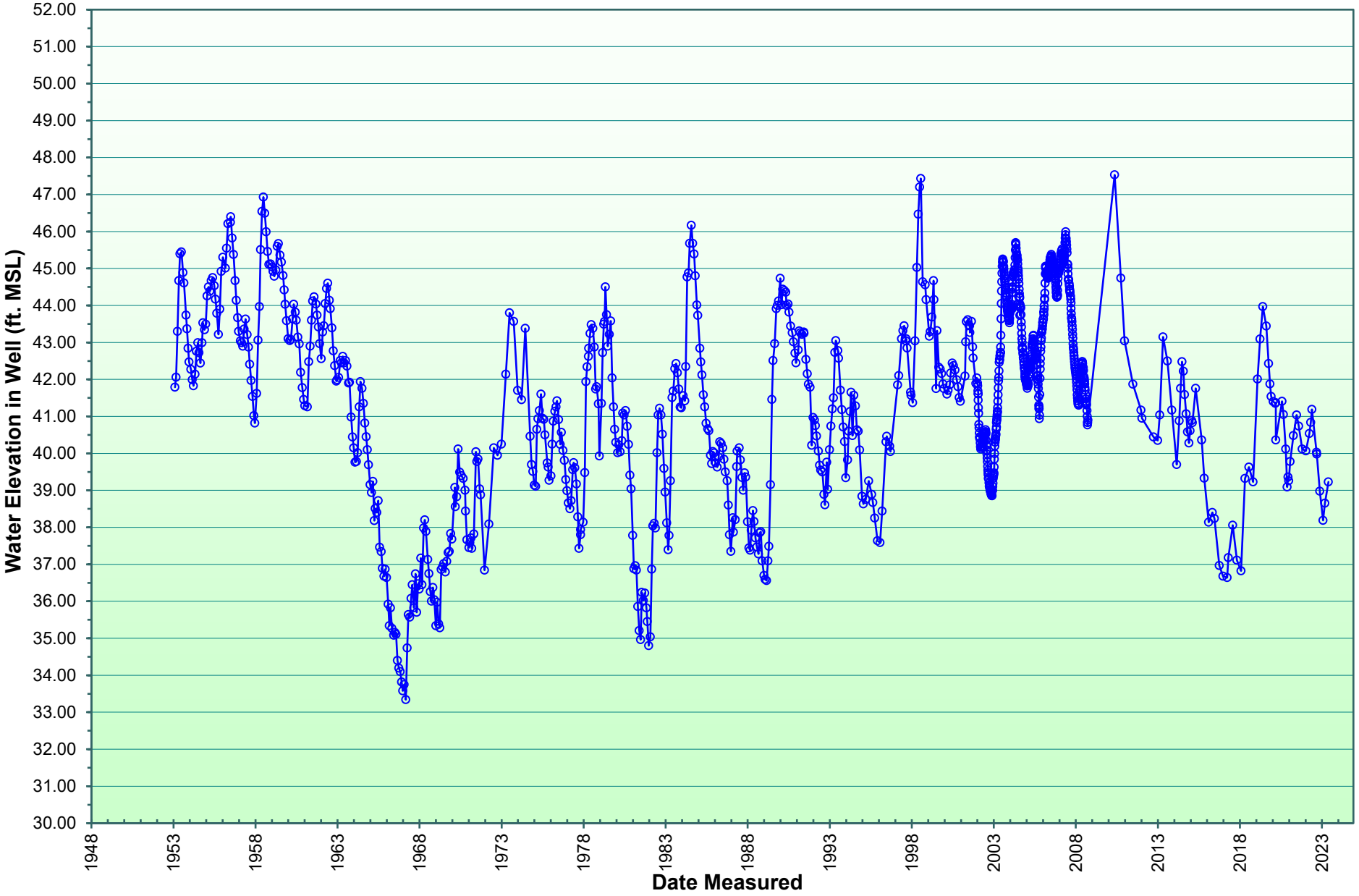
Long Term Hydrograph
for USGS Well No. S 2485. 1 (116-14) (Well Depth 75ft BLS)

2023 BNL Groundwater Status Report



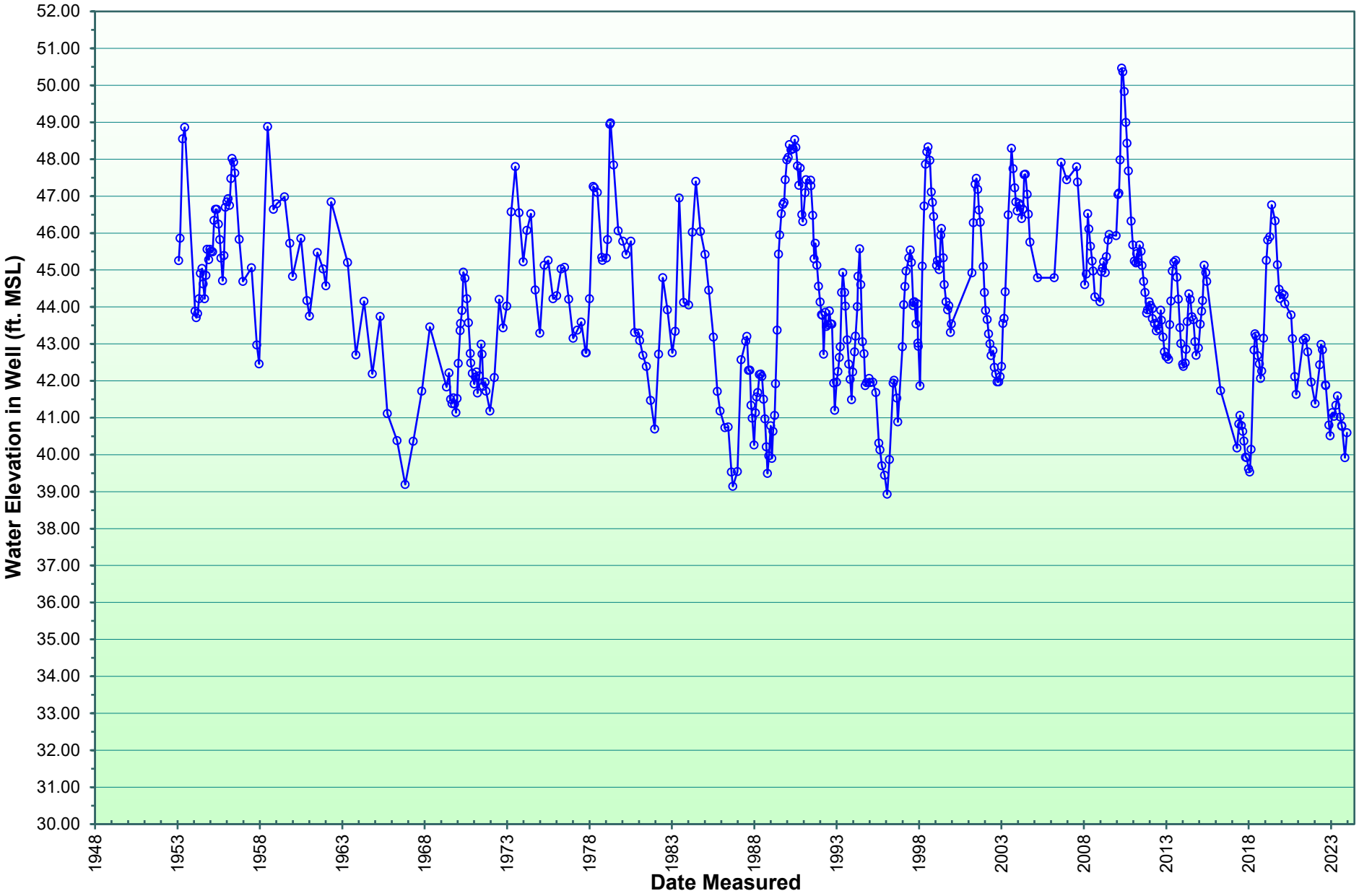
Long Term Hydrograph
for USGS Well No. S 5517. 1 (093-03) (Well Depth 91ft BLS)

2023 BNL Groundwater Status Report



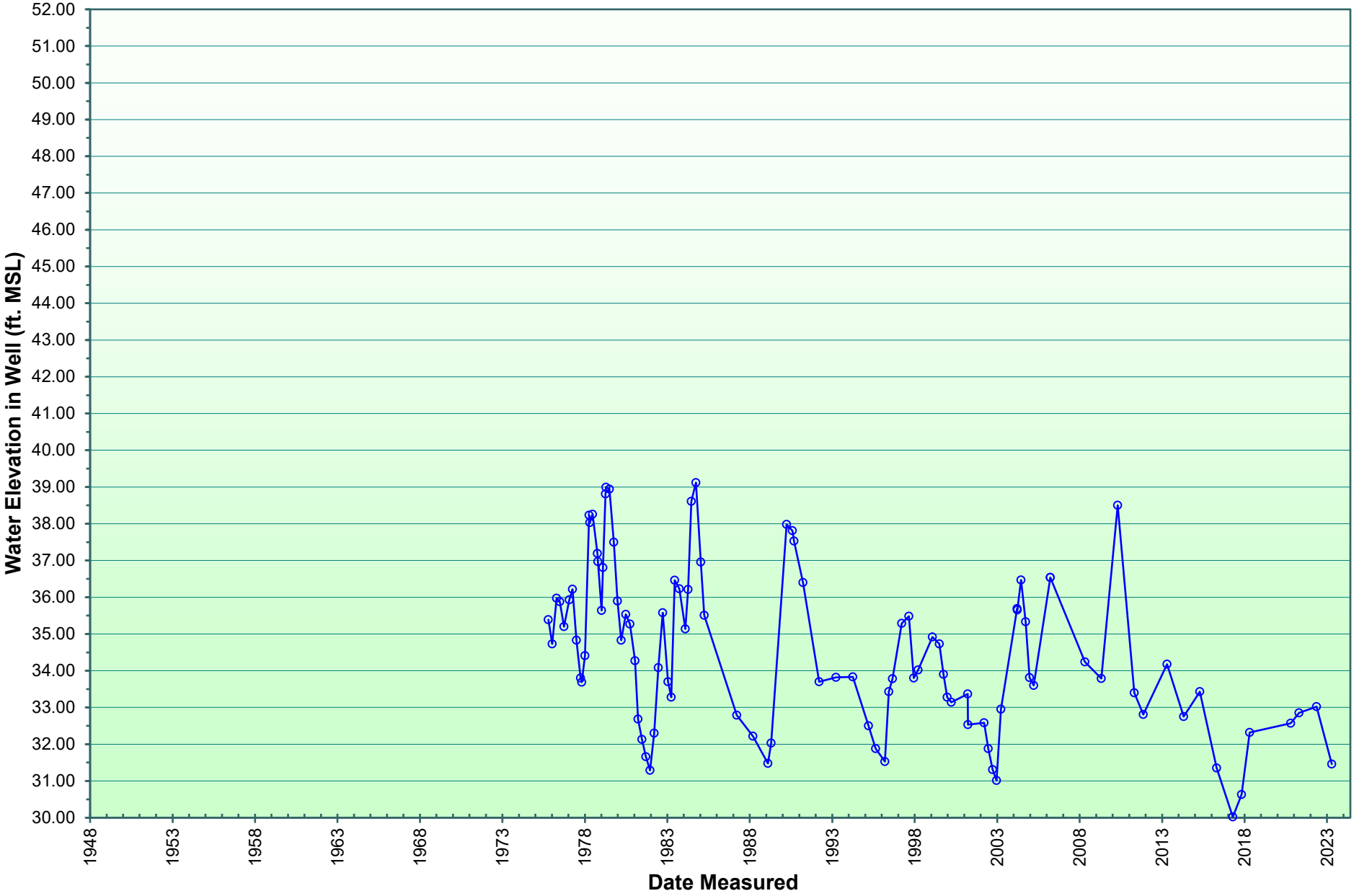
Long Term Hydrograph
for USGS Well No. S 6431. 1 (065-14) (Well Depth 125ft BLS)

2023 BNL Groundwater Status Report



Long Term Hydrograph
for USGS Well No. S 54883. 1 (130-06) (Well Depth 66ft BLS)

2023 BNL Groundwater Status Report



Appendix C

2023 CERCLA

Groundwater Results

OU I (South Boundary)

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU I (South Boundary)

	115-51 Depth : 140.00 09/27/2023 pCi/l											
Analyte	Result	Qual	MDA	Error								
Strontium-90	0.147	U	0.781	0.445								

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU I South Boundary VOCs

Analyte	098-99 Depth : 44.50 03/03/2023 ug/L		098-99 Depth : 44.50 05/24/2023 ug/L		098-99 Depth : 44.50 09/14/2023 ug/L		098-99 Depth : 44.50 11/15/2023 ug/L		107-40 Depth : 145.00 09/20/2023 ug/L		107-41 Depth : 133.00 09/20/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**4.16**		**3.88**		**3.2**		**2.5**		**1.03**		0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.43	J	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	0.5	U	1	U	1	U	0.5	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	1.02	U	0.5	U	0.5	U	0.5	U	0.6	U	0.52	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)					1.5	U	1.5	U				

8260 TVOC	4.16		3.88		3.2		2.5		1.46		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU I South Boundary VOCs

Analyte	115-13 Depth : 145.00 09/26/2023 ug/L		115-16 Depth : 130.00 09/27/2023 ug/L		115-51 Depth : 140.00 09/27/2023 ug/L							
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U						
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U						
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U						
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U						
1,1-Dichloroethane	0.5	U	**1.22**		0.5	U						
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U						
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U						
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U						
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U						
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U						
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U						
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U						
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U						
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U						
Benzene	0.5	U	0.5	U	0.5	U						
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U						
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U						
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U						
Bromobenzene	0.5	U	0.5	U	0.5	U						
Bromodichloromethane	0.5	U	0.5	U	0.5	U						
Bromoform	0.5	U	0.5	U	0.5	U						
Carbon tetrachloride	0.5	U	0.5	U	0.5	U						
Chlorobenzene	0.5	U	0.5	U	0.5	U						
Chlorobromomethane	0.5	U	0.5	U	0.5	U						
Chloroethane	0.5	U	**0.98**	J	0.5	U						
Chloroform	**1.48**		0.5	U	0.5	U						
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U						
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U						
Cymene	0.5	U	0.5	U	0.5	U						
DBCP	0.5	U	0.5	U	0.5	U						
Dibromochloromethane	0.5	U	0.5	U	0.5	U						
Dibromomethane	0.5	U	0.5	U	0.5	U						
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U						
EDB	0.5	U	0.5	U	0.5	U						
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U						
Ethylbenzene	0.5	U	0.5	U	0.5	U						
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U						
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
m/p xylene	0.5	U	0.5	U	0.5	U						
Methyl bromide	0.5	U	0.5	U	0.5	U						
Methyl chloride	0.5	U	0.5	U	0.5	U						
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U						
Methylene chloride	0.5	U	0.5	U	0.5	U						
n-Butylbenzene	0.5	U	0.5	U	0.5	U						
n-Propylbenzene	0.5	U	0.5	U	0.5	U						
Naphthalene	0.5	U	0.5	U	0.5	U						
o-Chlorotoluene	0.5	U	0.5	U	0.5	U						
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
o-Xylene	0.5	U	0.5	U	0.5	U						
p-Chlorotoluene	0.5	U	0.5	U	0.5	U						
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
sec-Butylbenzene	0.5	U	0.5	U	0.5	U						
Styrene	0.5	U	0.5	U	0.5	U						
tert-Butylbenzene	0.5	U	0.5	U	0.5	U						
Tetrachloroethylene	0.5	U	0.5	U	0.5	U						
Toluene	0.5	U	0.5	U	0.5	U						
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U						
Trichloroethylene	0.5	U	0.5	U	0.5	U						
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U						
Vinyl chloride	0.5	U	0.5	U	0.5	U						
Xylene (total)												

8260 TVOC	1.48		2.2		0							

OU III (Building 96)

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	085-293 Depth : 50.00 10/18/2023 ug/L		085-335 Depth : 35.00 02/17/2023 ug/L		085-335 Depth : 35.00 04/10/2023 ug/L		085-335 Depth : 35.00 07/28/2023 ug/L		085-335 Depth : 35.00 10/18/2023 ug/L		085-347 Depth : 22.50 04/05/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.17	J	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.87**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	**21**		**18**		**10**		**16**		**6.7**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.87		21		18		10		16.17		6.7	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	085-348 Depth : 34.50 02/28/2023 ug/L		085-348 Depth : 34.50 04/05/2023 ug/L		085-348 Depth : 34.50 07/19/2023 ug/L		085-348 Depth : 34.50 10/23/2023 ug/L		085-349 Depth : 25.50 02/16/2023 ug/L		085-349 Depth : 25.50 04/11/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.17	J	0.5	U	0.18	J	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**16**		**19**		**12**		**15**		**3.7**		**2.7**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	16		19.17		12		15.18		3.7		2.7	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Building 96)

Analyte	085-349 Depth : 24.50 07/17/2023 ug/L		085-350 Depth : 34.50 02/16/2023 ug/L		085-350 Depth : 34.50 04/03/2023 ug/L		085-350 Depth : 34.50 07/17/2023 ug/L		085-350 Depth : 34.50 10/16/2023 ug/L		085-351 Depth : 25.50 04/10/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.22	J	0.5	U	0.19	J	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**16**		**3**		**4.2**		**4.5**		**3.2**		**1.6**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	16.22		3		4.39		4.5		3.2		1.6	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Building 96)

Analyte	085-351 Depth : 26.00 07/28/2023 ug/L		085-352 Depth : 34.50 02/17/2023 ug/L		085-352 Depth : 34.50 04/03/2023 ug/L		085-352 Depth : 34.50 07/28/2023 ug/L		085-352 Depth : 34.50 10/18/2023 ug/L		085-354 Depth : 24.50 07/17/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.16	J	0.5	U	0.5	U	0.5	U	0.18	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**2.2**		**20**		**13**		**15**		**15**		**7.8**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	2.2		20.16		13		15		15		7.98	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Building 96)

Analyte	085-379 Depth : 17.00 02/27/2023 ug/L		085-379 Depth : 26.00 04/10/2023 ug/L		085-379 Depth : 23.86 07/19/2023 ug/L		085-379 Depth : 26.00 10/23/2023 ug/L		085-382 Depth : 37.50 04/11/2023 ug/L		085-382 Depth : 37.50 10/20/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.24	J	0.33	J	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**52**	D	**49**		**75**	D	**55**	D	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.24	J	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	**0.74**		**0.57**	
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	52		49.24		75.57		55		0.74		0.57	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	085-383 Depth : 37.50 04/11/2023 ug/L		085-383 Depth : 37.50 10/20/2023 ug/L		085-386 Depth : 47.50 04/07/2023 ug/L		085-386 Depth : 47.50 10/18/2023 ug/L		095-159 Depth : 50.00 02/17/2023 ug/L		095-159 Depth : 50.00 04/07/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.89**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.25	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.43	J	0.2	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	**6.5**		**52**	D
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.17	J	0.17	J	**0.51**		0.37	J	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.17		0.17		0.51		0.37		6.93		53.34	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	095-159 Depth : 50.00 07/27/2023 ug/L		095-159 Depth : 50.00 10/16/2023 ug/L		095-162 Depth : 50.00 02/17/2023 ug/L		095-162 Depth : 50.00 04/04/2023 ug/L		095-162 Depth : 50.00 07/27/2023 ug/L		095-162 Depth : 50.00 10/16/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**0.82**		0.5		0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.25	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.22	J	0.25	J	**0.73**		0.35	J	**0.98**		**0.74**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**48**	D	**34**		0.5	U	**3.5**		0.4	J	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	49.29		34.75		0.73		3.85		1.38		0.74	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	095-163 Depth : 23.00 02/27/2023 ug/L		095-163 Depth : 50.00 04/04/2023 ug/L		095-163 Depth : 50.00 07/27/2023 ug/L		095-163 Depth : 50.00 10/17/2023 ug/L		095-165 Depth : 50.00 02/27/2023 ug/L		095-165 Depth : 50.00 04/10/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.29	J	0.5	U	0.28	J	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**5.5**		**4.6**		**1.6**		0.5	U	**3.8**		**6.1**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	5.5		4.89		1.6		0.28		3.8		6.1	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Building 96)

Analyte	095-165 Depth : 50.00 07/27/2023 ug/L		095-165 Depth : 50.00 10/17/2023 ug/L		095-166 Depth : 50.00 02/27/2023 ug/L		095-166 Depth : 50.00 04/04/2023 ug/L		095-166 Depth : 50.00 07/26/2023 ug/L		095-166 Depth : 50.00 10/17/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.35	J	0.17	J	0.3	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.23	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**1.2**		**0.97**		0.2	J	0.41	J	0.5	U	**0.57**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.2		0.97		0.2		0.76		0.17		1.1	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Building 96)

Analyte	095-168 Depth : 50.00 02/16/2023 ug/L		095-168 Depth : 60.00 04/04/2023 ug/L		095-168 Depth : 50.00 07/26/2023 ug/L		095-168 Depth : 50.00 10/17/2023 ug/L		095-169 Depth : 50.00 02/16/2023 ug/L		095-169 Depth : 50.00 04/04/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.81**		**1**		**1**		**1.3**		**0.65**		**0.67**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.3	J	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.81		1.3		1		1.3		0.65		0.67	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	095-169 Depth : 50.00 07/26/2023 ug/L		095-169 Depth : 50.00 10/17/2023 ug/L		095-170 Depth : 50.00 02/16/2023 ug/L		095-170 Depth : 50.00 04/04/2023 ug/L		095-170 Depth : 50.00 07/25/2023 ug/L		095-170 Depth : 50.00 10/17/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.2**		**1.5**		**0.83**		**0.85**		**1.4**		**1.4**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.22	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.42		1.5		0.83		0.85		1.4		1.4	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	095-172 Depth : 50.00 02/28/2023 ug/L		095-172 Depth : 50.00 04/04/2023 ug/L		095-172 Depth : 50.00 07/27/2023 ug/L		095-172 Depth : 50.00 10/16/2023 ug/L		095-294 Depth : 30.00 04/07/2023 ug/L		095-294 Depth : 30.00 10/19/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.3**		**0.96**		**1.3**		**1.5**		0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.29	J	0.39	J	0.5	U	**1.6**		**1.6**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.3		1.25		1.69		1.5		1.6		1.6	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Building 96)

Analyte	095-305 Depth : 22.50 02/28/2023 ug/L		095-305 Depth : 22.50 04/06/2023 ug/L		095-305 Depth : 24.00 07/28/2023 ug/L		095-305 Depth : 22.50 10/19/2023 ug/L		095-306 Depth : 34.50 02/28/2023 ug/L		095-306 Depth : 34.50 04/06/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	**0.58**		**0.53**	
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**3.5**		**3.4**		**2.9**		**2.7**		**19**		**17**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	3.5		3.4		2.9		2.7		19.58		17.53	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	095-306 Depth : 34.50 07/28/2023 ug/L		095-306 Depth : 34.50 10/19/2023 ug/L		095-307 Depth : 32.50 04/06/2023 ug/L		095-307 Depth : 32.50 10/19/2023 ug/L		095-308 Depth : 37.50 04/06/2023 ug/L		095-308 Depth : 37.50 10/19/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**15**		**14**		**1.9**		**2.1**		**2.6**		**2.1**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	15		14		1.9		2.1		2.6		2.1	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Building 96)

Analyte	095-312 Depth : 50.00 02/28/2023 ug/L		095-312 Depth : 50.00 04/04/2023 ug/L		095-312 Depth : 50.00 07/27/2023 ug/L		095-312 Depth : 50.00 10/18/2023 ug/L		095-313 Depth : 52.50 04/06/2023 ug/L		095-313 Depth : 52.50 10/19/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.52	U	0.2	J	0.25	J	**0.55**		0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.18	J	0.5	U	**3.6**		**2.9**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0.2		0.43		0.55		3.6		2.9	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	095-318 Depth : 65.00 10/23/2023 ug/L		095-325 Depth : 45.00 02/28/2023 ug/L		095-325 Depth : 45.00 04/06/2023 ug/L		095-325 Depth : 45.00 07/28/2023 ug/L		095-325 Depth : 45.00 10/19/2023 ug/L		095-84 Depth : 35.00 02/28/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.17	J	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.6**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	**1.7**		**0.55**		0.4	J	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**1**		**16**		**29**		**22**		**20**		**16**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.6		16		30.7		22.55		20.57		16	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Building 96)

Analyte	095-84 Depth : 25.00 04/03/2023 ug/L		095-84 Depth : 25.87 07/19/2023 ug/L		095-84 Depth : 28.00 10/20/2023 ug/L		095-85 Depth : 95.00 10/20/2023 ug/L					
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U				
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U				
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U				
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U				
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
Chloroform	0.5	U	0.5	U	0.5	U	**0.51**					
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
Cymene	0.5	U	0.5	U	0.5	U	0.5	U				
DBCP	0.5	U	0.5	U	0.5	U	0.5	U				
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U				
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U				
EDB	0.5	U	0.5	U	0.5	U	0.5	U				
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U				
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U				
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
m/p xylene	1	U	1	U	1	U	1	U				
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U				
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U				
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U				
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U				
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U				
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U				
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Styrene	0.5	U	0.5	U	0.5	U	0.5	U				
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Tetrachloroethylene	**14**		**31**		**15**		0.5	U				
Toluene	0.5	U	0.5	U	0.5	U	0.5	U				
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U				
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U				

8260 TVOC	14		31		15		0.51					

OU III (Middle Road)

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	095-322 Depth : 180.00 03/08/2023 ug/L		095-322 Depth : 180.00 04/27/2023 ug/L		095-322 Depth : 180.00 09/06/2023 ug/L		095-322 Depth : 180.00 10/23/2023 ug/L		095-323 Depth : 205.00 03/08/2023 ug/L		095-323 Depth : 205.00 04/28/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**2.6**		**2.6**		**1.9**		1.64	U	**1.5**		**1.6**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**1.1**		**1**	
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.41	J	0.45	J	0.32	J	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**5.1**		**5.4**		**3.9**		**3.24**		**0.71**		**0.86**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.51	U	**0.58**		0.47	J	0.47	J	0.58	U	**0.69**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**17**		**15**		**15**		**14.5**		**9.3**		**8.8**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**8.1**		**6.9**		**7.2**		**6.7**		**4**		**3.6**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	33.21		30.93		28.79		24.91		16.61		16.55	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	095-323 Depth : 205.00 09/06/2023 ug/L		095-323 Depth : 205.00 10/23/2023 ug/L		095-92 Depth : 121.00 04/28/2023 ug/L		095-92 Depth : 121.00 10/23/2023 ug/L		104-11 Depth : 190.00 04/28/2023 ug/L		104-11 Depth : 190.00 10/24/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.2**		1.12	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	**0.91**		**1.04**		0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**0.58**		**0.63**	J	0.5	U	0.5	U	0.42	J	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.57**		**0.61**	J	0.38	J	0.5	U	**0.9**		**0.57**	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	0.5	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.29	J	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**8.3**		**7.7**		0.5	U	0.5	U	0.18	J	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**3.6**		**3.46**		0.5	U	0.5	U	0.19	J	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U			1.5	U		

8260 TVOC	15.16		13.44		0.38		0		1.98		0.57	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	104-36 Depth : 136.00 04/27/2023 ug/L		104-36 Depth : 136.00 10/25/2023 ug/L		104-37 Depth : 209.00 03/01/2023 ug/L		104-37 Depth : 209.00 04/28/2023 ug/L		104-37 Depth : 209.00 09/07/2023 ug/L		104-37 Depth : 209.00 10/24/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	**1.7**		**2.2**		**2**		1.58	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	**0.9**		**0.92**		**1.2**		**0.95**	J
1,1,2-Trichloroethane	0.5	U	0.5	U	0.48	J	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	**2.5**		**2.7**		**2.7**		**2.05**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	**2.5**		**3.4**		**2.2**		**1.68**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.7**		**0.67**	J	**0.69**		**0.8**		**0.55**		0.48	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	**77**	D	**73**	D	**70**	D	**61**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	**3.2**		**3.1**		**3.7**		**2.95**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	0.7		0.67		88.97		86.12		82.35		69.11	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	104-38 Depth : 205.00 04/28/2023 ug/L		104-38 Depth : 205.00 10/24/2023 ug/L		105-23 Depth : 180.00 03/01/2023 ug/L		105-23 Depth : 180.00 04/27/2023 ug/L		105-23 Depth : 180.00 09/07/2023 ug/L		105-23 Depth : 180.00 10/24/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**0.96**		0.6	U	0.17	J	0.5	U	0.3	J	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.48	J	0.39	J	0.5	U	0.5	U	0.23	J	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	**0.59**		**0.76**		0.45	J	**0.53**	J
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.59**		0.41	J	0.33	J	0.41	J	0.34	J	0.36	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.99**		**0.83**	J	**15**		**15**		**14**		**10.5**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.35	J	0.5	U	0.5	U	0.22	J	0.33	J	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	3.37		1.63		16.09		16.39		15.65		11.39	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Middle Rd)

Analyte	105-25 Depth : 147.50 05/01/2023 ug/L		105-25 Depth : 147.50 11/03/2023 ug/L		105-42 Depth : 147.50 04/27/2023 ug/L		105-42 Depth : 147.50 10/24/2023 ug/L		105-44 Depth : 152.50 05/03/2023 ug/L		105-44 Depth : 152.50 10/31/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.18	J	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.26	J	0.5	U	**0.57**		0.5	U	**0.6**		0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	0.5	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	**0.51**	J	**0.69**		**0.69**	J	**1.3**		**1.53**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.19	J	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U			1.5	U		

8260 TVOC	0.26		0.51		1.45		0.69		2.08		1.53	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Middle Rd)

Analyte	105-53 Depth : 175.00 05/03/2023 ug/L		105-53 Depth : 175.00 10/26/2023 ug/L		105-66 Depth : 184.00 03/08/2023 ug/L		105-66 Depth : 184.00 05/03/2023 ug/L		105-66 Depth : 184.00 09/05/2023 ug/L		105-66 Depth : 184.00 10/26/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	5	U D	**1.5**		**1**		**1.17**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	5	U D	0.44	J	0.35	J	**0.53**	J
1,1,2-Trichloroethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	5	U D	**1.1**		**0.94**		**1.15**	
1,1-Dichloropropene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	**5.9**	D	**7.7**		**5.3**		**5.98**	
Chlorobenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Chloroform	0.33	J	0.5	U	5.6	U	**0.77**		**0.55**		**0.68**	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	10	U D	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.53**		0.5	U	**140**	D	**140**	D	**130**	D	**93.4**	D
Toluene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	4.2	J D	**4.5**		**4.3**		**4.86**	
Trichlorofluoromethane	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	5	U D	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			15	U D	1.5	U	1.5	U		

8260 TVOC	0.86		0		150.1		156.01		142.44		107.77	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	105-67 Depth : 185.00 03/08/2023 ug/L		105-67 Depth : 185.00 05/03/2023 ug/L		105-67 Depth : 185.00 09/05/2023 ug/L		105-67 Depth : 185.00 10/26/2023 ug/L		105-68 Depth : 205.00 02/28/2023 ug/L		105-68 Depth : 205.00 05/03/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**3.2**		**4.2**		**2.8**		**2.8**		**0.76**		**0.97**	
1,1,2,2-Tetrachloroethane	**0.52**		**0.54**		0.46	J	**0.63**	J	**2.7**		**2.5**	
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**1**		0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**2.6**		**3.2**		**2.2**		**2.18**		**0.94**		**0.86**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.2	J	0.29	J	0.5	U	0.5	U	**6.6**		**7.4**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	**0.51**		0.45	J	**0.6**	J	**0.82**		**1**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.22	J	0.5	U	0.16	J	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**65**	D	**74**	D	**89**	D	**64.1**	D	**130**	D	**130**	D
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**1.2**		**1.1**		**1.3**		**1.43**		**12**		**11**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	72.94		83.84		96.37		71.74		154.82		153.73	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	105-68 Depth : 205.00 09/05/2023 ug/L		105-68 Depth : 152.00 10/31/2023 ug/L		105-68 Depth : 205.00 10/31/2023 ug/L		106-56 Depth : 165.00 05/10/2023 ug/L		106-56 Depth : 165.00 10/30/2023 ug/L		106-58 Depth : 205.00 05/10/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**0.67**		0.5	U	0.36	J	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	**2.2**		0.5	U	**2.49**		0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**0.78**		0.5	U	0.47	J	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**4.4**		0.5	U	**2.34**		0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.7**		0.5	U	**0.69**	J	1.1	U	0.5	U	1.3	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	0.5	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**130**	D	0.5	U	**99.5**		0.5	U	0.5	U	**1.2**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**11**		0.5	U	**8.07**		0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U					1.5	U			1.5	U

8260 TVOC	149.75		0		113.92		0		0		1.2	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	106-58 Depth : 205.00 10/30/2023 ug/L		106-62 Depth : 72.00 05/10/2023 ug/L		106-62 Depth : 72.00 10/30/2023 ug/L		113-07 Depth : 99.00 10/25/2023 ug/L		113-08 Depth : 142.00 05/02/2023 ug/L		113-08 Depth : 142.00 10/25/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.53**	J	0.5	U	**0.62**	J	**0.57**	J	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	0.5	U	0.5	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.66**	J	0.5	U	0.5	U	**0.82**	J	**0.9**		**0.6**	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U					1.5	U		

8260 TVOC	1.19		0		0.62		1.39		0.9		0.6	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Middle Rd)

Analyte	113-09 Depth : 222.00 05/02/2023 ug/L		113-09 Depth : 222.00 10/25/2023 ug/L		113-11 Depth : 201.00 05/12/2023 ug/L		113-11 Depth : 201.00 10/30/2023 ug/L		113-17 Depth : 177.00 03/10/2023 ug/L		113-17 Depth : 177.00 05/08/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.6**		0.7	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.34	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**1.7**		**0.69**	J	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.47	J	0.5	U	**1.7**		0.5	U	0.4	J	0.63	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.66**		0.5	U	**0.63**		0.5	U	**0.97**		1.2	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**55**	D	**38.4**		**6.5**		**1.83**		**14**		**17**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**3.4**		**2.61**		0.5	U	0.5	U	0.38	J	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U			1.5	U	1.5	U

8260 TVOC	63.17		41.7		8.83		1.83		15.75		17	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	113-17 Depth : 177.00 09/06/2023 ug/L		113-17 Depth : 177.00 10/30/2023 ug/L		113-19 Depth : 230.00 03/17/2023 ug/L		113-19 Depth : 230.00 05/12/2023 ug/L		113-19 Depth : 230.00 09/08/2023 ug/L		113-19 Depth : 230.00 11/03/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	**8.3**		**10**		**7.1**		**7.03**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	**1.2**		**1.4**		**1**		**1.05**	
1,1-Dichloroethylene	0.5	U	0.5	U	**4.5**		**5.6**		**4.1**		**3.91**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.33	J	0.5	U	**5.7**		**7.5**		**4.5**		**4.58**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.78**		**0.62**	J	**0.78**		**1.1**		**0.64**		**0.7**	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.43	J	0.31	J	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**18**		**11.8**		0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**0.52**		0.44	J	**4.1**		**4.2**		**3.8**		**4.31**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	19.63		12.86		24.58		30.23		21.45		21.58	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	113-22 Depth : 240.00 05/01/2023 ug/L		113-22 Depth : 240.00 11/03/2023 ug/L		113-29 Depth : 190.00 03/01/2023 ug/L		113-29 Depth : 190.00 05/03/2023 ug/L		113-29 Depth : 190.00 09/05/2023 ug/L		113-29 Depth : 190.00 10/25/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.46	J	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**8.6**		**9.15**		0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.81**		**0.85**	J	0.34	J	0.38	J	0.25	J	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	**0.96**		**0.93**		**0.62**		**0.87**	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.3	J	**0.52**	J	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	9.71		10.98		1.3		1.31		0.87		0.87	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	113-30 Depth : 190.00 03/10/2023 ug/L		113-30 Depth : 190.00 05/02/2023 ug/L		113-30 Depth : 190.00 09/06/2023 ug/L		113-30 Depth : 190.00 10/30/2023 ug/L		113-31 Depth : 190.00 03/01/2023 ug/L		113-31 Depth : 190.00 05/12/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**1.1**		**1.8**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.41	J	**0.65**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**0.9**		**0.74**		0.32	J	0.42	J	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.17	J	0.17	J	0.5	U	0.19	J	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**4.1**		**3.2**		**2.6**		**6.48**		0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.18	J	0.5	U	0.5	U	0.5	U	0.26	J	**0.56**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	5.18		4.11		3.09		6.9		1.96		3.01	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	113-31 Depth : 190.00 09/05/2023 ug/L		113-31 Depth : 190.00 10/25/2023 ug/L		114-12 Depth : 0.00 03/13/2023 ug/L		114-12 Depth : 155.00 05/01/2023 ug/L		114-12 Depth : 155.00 09/05/2023 ug/L		114-12 Depth : 155.00 11/03/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.2**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.42	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.2	J	0.5	U	**0.75**		**0.77**		0.41	J	0.42	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**0.52**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	2.34		0		0.75		0.77		0.41		0.42	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	121-45 Depth : 199.50 03/10/2023 ug/L		121-45 Depth : 204.50 05/12/2023 ug/L		121-45 Depth : 199.00 09/08/2023 ug/L		121-45 Depth : 199.50 11/03/2023 ug/L		121-53 Depth : 229.00 03/31/2023 ug/L		121-53 Depth : 229.00 05/05/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.2	J	0.49	J D	0.17	J	0.5	U	**2.2**		0.18	J
1,1,2,2-Tetrachloroethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	1	U D	0.5	U	0.5	U	0.37	J	0.5	U
1,1-Dichloroethylene	0.5	U	1	U D	0.5	U	0.5	U	**2.1**		0.5	U
1,1-Dichloropropene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.16	J	1	U D	0.5	U	0.5	U	**22**		**0.66**	
Chlorobenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.84	J D	0.34	J	0.38	J	**1.3**		0.42	J
cis-1,2-Dichloroethylene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	1	U D	0.5	U	0.5	U	0.27	J	0.5	U
EDB	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	2	U D	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**4.4**		**9.8**	D	**3.8**		**3.67**		**110**	D	**25**	
Toluene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.44	J	0.88	J D	0.4	J	0.38	J	**3.4**		0.33	J
Trichlorofluoromethane	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	1	U D	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	3	U D	1.5	U			1.5	U	1.5	U

8260 TVOC	5.2		12.01		4.71		4.43		141.64		26.59	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Middle Rd)

Analyte	121-53 Depth : 229.00 09/07/2023 ug/L		121-53 Depth : 229.50 11/06/2023 ug/L		121-54 Depth : 220.00 03/31/2023 ug/L		121-54 Depth : 220.00 05/05/2023 ug/L		121-54 Depth : 220.00 09/07/2023 ug/L		121-54 Depth : 220.00 12/13/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.9**		**2.65**		0.45	J	**0.52**		0.23	J	0.38	J
1,1,2,2-Tetrachloroethane	0.25	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.33	J	0.44	J	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**2.1**		**2.56**		0.38	J	0.46	J	0.43	J	0.34	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**15**		**13.5**		**9.1**		**8.7**		**6.4**		**6.03**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.1**		**1.09**		0.5	U	**0.59**		0.47	J	0.5	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.18	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**130**	D	**118**	D	**51**	D	**64**	D	**59**	D	**55.4**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**3.2**		**3.51**		**0.76**		**0.85**		**0.67**		**0.68**	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	154.06		141.75		61.69		75.12		67.2		63.33	

OU III (South Boundary)

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (South Boundary)

Analyte	114-06 Depth : 185.00 11/15/2023 ug/L		114-07 Depth : 205.00 11/15/2023 ug/L		121-06 Depth : 45.00 09/08/2023 ug/L		121-08 Depth : 185.00 05/08/2023 ug/L		121-08 Depth : 185.00 10/11/2023 ug/L		121-08 Depth : 185.00 11/06/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.35	J	0.35	J	0.42	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.3	J	0.44	J	0.46	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.15	J	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	**0.77**		0.32	J	0.27	J	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	**0.68**		0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.48	J	0.39	J	0.48	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	**0.82**		**0.83**		**0.93**	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)					1.5	U	1.5	U	1.5	U		

8260 TVOC	0		0		0.77		2.27		3.11		2.29	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (South Boundary)

Analyte	121-10 Depth : 165.00 05/04/2023 ug/L		121-10 Depth : 165.00 11/06/2023 ug/L		121-11 Depth : 205.00 05/04/2023 ug/L		121-11 Depth : 205.00 11/09/2023 ug/L		121-12 Depth : 50.00 09/08/2023 ug/L		121-14 Depth : 195.00 05/04/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.43	J	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.42	J	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	**4.2**		**5.26**		0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.36	J	0.37	J	0.46	J	**0.53**	J	**1.7**		0.31	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	**0.79**		0.5	U	0.5	U	0.34	J	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	**5.98**		0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.69**		**4.56**		**12**		**15.9**		0.5	U	0.26	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.34	J	**0.6**		**0.77**	J	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U			1.5	U	1.5	U

8260 TVOC	1.84		5.27		18.11		28.78		1.7		0.57	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (South Boundary)

Analyte	121-14 Depth : 195.00 11/09/2023 ug/L		121-18 Depth : 70.00 09/08/2023 ug/L		121-20 Depth : 190.00 11/13/2023 ug/L		121-21 Depth : 70.00 09/08/2023 ug/L		121-23 Depth : 190.00 11/09/2023 ug/L		121-43 Depth : 195.00 05/31/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.42	J	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	**1.2**		0.5	U	**0.97**		**0.52**	J	0.29	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.36	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	0.5	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	**5.72**		0.5	U	0.5	U	0.5	U	**5.7**		0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.77**	J	0.5	U	**3.62**		0.5	U	**0.61**	J	**1.5**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U			1.5	U			1.5	U

8260 TVOC	6.49		1.2		4.04		0.97		6.83		2.15	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (South Boundary)

Analyte	121-43 Depth : 195.00 11/30/2023 ug/L		121-45 Depth : 199.50 03/10/2023 ug/L		121-45 Depth : 204.50 05/12/2023 ug/L		121-45 Depth : 199.00 09/08/2023 ug/L		121-45 Depth : 199.50 11/03/2023 ug/L		121-47 Depth : 229.00 05/05/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.2	J	0.49	J D	0.17	J	0.5	U	**2.5**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	**1.1**	
1,1-Dichloroethylene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	**4.1**	
1,1-Dichloropropene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.16	J	1	U D	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.84	J D	0.34	J	0.38	J	**1.2**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.41	J
EDB	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	2	U D	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Methylene chloride	**0.67**	J	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**1.39**		**4.4**		**9.8**	D	**3.8**		**3.67**		0.37	J
Toluene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.44	J	0.88	J D	0.4	J	0.38	J	**1.1**	
Trichlorofluoromethane	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	1	U D	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U	3	U D	1.5	U			1.5	U

8260 TVOC	2.06		5.2		12.01		4.71		4.43		10.78	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (South Boundary)

Analyte	121-47 Depth : 229.00 11/13/2023 ug/L		121-48 Depth : 228.00 05/04/2023 ug/L		121-48 Depth : 228.00 11/09/2023 ug/L		121-49 Depth : 215.00 03/31/2023 ug/L		121-49 Depth : 215.00 05/05/2023 ug/L		121-49 Depth : 215.00 09/08/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**2.81**		**4.3**		**4.03**		**0.89**		0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**1.11**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**4.39**		**4.3**		**3.83**		**0.87**		0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.2	J	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.35	J	**2.6**		**2.22**		**5.4**		0.5	U	0.18	J
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.26**		**0.85**		**0.87**	J	0.5	U	0.5	U	0.32	J
cis-1,2-Dichloroethylene	0.5	U	**0.77**		**0.56**	J	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.27	J	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	0.5	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	**6.24**		0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.65**	J	**1.9**		**2.43**		**120**	D	0.5	U	**12**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**1.35**		**4.2**		**3.84**		**2.2**		0.5	U	0.19	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U			1.5	U	1.5	U	1.5	U

8260 TVOC	11.92		19.39		24.02		129.36		0		12.69	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (South Boundary)

Analyte	121-49 Depth : 215.00 11/13/2023 ug/L		121-53 Depth : 229.00 03/31/2023 ug/L		121-53 Depth : 229.00 05/05/2023 ug/L		121-53 Depth : 229.00 09/07/2023 ug/L		121-53 Depth : 229.50 11/06/2023 ug/L		121-54 Depth : 220.00 03/31/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	**2.2**		0.18	J	**1.9**		**2.65**		0.45	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.25	J	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.37	J	0.5	U	0.33	J	0.44	J	0.5	U
1,1-Dichloroethylene	0.5	U	**2.1**		0.5	U	**2.1**		**2.56**		0.38	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	**22**		**0.66**		**15**		**13.5**		**9.1**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.39	J	**1.3**		0.42	J	**1.1**		**1.09**		0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.27	J	0.5	U	0.18	J	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	1	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**11.3**		**110**	D	**25**		**130**	D	**118**	D	**51**	D
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	**3.4**		0.33	J	**3.2**		**3.51**		**0.76**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U	1.5	U	1.5	U			1.5	U

8260 TVOC	11.69		141.64		26.59		154.06		141.75		61.69	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (South Boundary)

Analyte	121-54 Depth : 220.00 05/05/2023 ug/L		121-54 Depth : 220.00 09/07/2023 ug/L		121-54 Depth : 220.00 12/13/2023 ug/L		122-04 Depth : 202.50 11/14/2023 ug/L		122-05 Depth : 271.50 05/05/2023 ug/L		122-05 Depth : 271.50 11/14/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**0.52**		0.23	J	0.38	J	0.5	U	**0.71**		**1.07**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.46	J	0.43	J	0.34	J	0.5	U	0.26	J	0.36	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**8.7**		**6.4**		**6.03**		0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.59**		0.47	J	0.5	J	**2.15**		0.35	J	0.45	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	**14**		**7.43**	
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	0.5	U	0.5	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**64**	D	**59**	D	**55.4**		**2.42**		**2.7**		**2.21**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**0.85**		**0.67**		**0.68**	J	0.5	U	**1.6**		**1.51**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U					1.5	U		

8260 TVOC	75.12		67.2		63.33		4.57		19.62		13.03	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (South Boundary)

Analyte	122-09 Depth : 115.00 12/13/2023 ug/L		122-10 Depth : 154.50 09/08/2023 ug/L		122-17 Depth : 210.00 05/05/2023 ug/L		122-17 Depth : 210.00 12/13/2023 ug/L		122-19 Depth : 200.00 12/13/2023 ug/L		122-20 Depth : 260.00 12/13/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.27	J	0.5	U	0.5	U	**0.99**	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	**1.4**		**0.96**	J	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.14**		0.35	J	**0.78**		**0.6**	J	0.5	U	0.38	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.17	J	0.5	U	**3.97**		**0.68**	J
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	1	U	0.5	U	0.5	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.17	J	**2**		**1.56**		**0.75**	J	**1.29**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	**1.5**		**1.21**		0.5	U	**1.36**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U	1.5	U						

8260 TVOC	1.14		0.52		6.12		4.33		4.72		4.7	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (South Boundary)

Analyte	122-21 Depth : 185.00 12/13/2023 ug/L		122-22 Depth : 205.00 12/13/2023 ug/L		122-31 Depth : 155.00 12/18/2023 ug/L		122-32 Depth : 205.00 12/18/2023 ug/L		122-33 Depth : 180.00 12/18/2023 ug/L		122-34 Depth : 200.00 12/18/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	**1.01**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.77	U	0.69	U	0.75	U	0.71	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	**0.57**	J	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)												

8260 TVOC	1.01		0.57		0		0		0		0	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (South Boundary)

Analyte	122-35 Depth : 205.00 12/18/2023 ug/L											
1,1,1,2-Tetrachloroethane	0.5	U										
1,1,1-Trichloroethane	0.5	U										
1,1,2,2-Tetrachloroethane	0.5	U										
1,1,2-Trichloroethane	0.5	U										
1,1-Dichloroethane	0.5	U										
1,1-Dichloroethylene	0.5	U										
1,1-Dichloropropene	0.5	U										
1,2,3-Trichlorobenzene	0.5	U										
1,2,3-Trichloropropane	0.5	U										
1,2,4-Trichlorobenzene	0.5	U										
1,2-Dichloroethane	0.5	U										
1,2-Dichloropropane	0.5	U										
1,3-Dichloropropane	0.5	U										
2,2-Dichloropropane	0.5	U										
Benzene	0.5	U										
Benzene, 1,2,4-trimethyl	0.5	U										
Benzene, 1,3,5-trimethyl-	0.5	U										
Benzene, 1-methylethyl-	0.5	U										
Bromobenzene	0.5	U										
Bromodichloromethane	0.5	U										
Bromoform	0.5	U										
Carbon tetrachloride	0.5	U										
Chlorobenzene	0.5	U										
Chlorobromomethane	0.5	U										
Chloroethane	0.5	U										
Chloroform	0.5	U										
cis-1,2-Dichloroethylene	0.5	U										
cis-1,3-Dichloropropene	0.5	U										
Cymene	0.5	U										
DBCP	0.5	U										
Dibromochloromethane	0.5	U										
Dibromomethane	0.5	U										
Dichlorodifluoromethane	0.5	U										
EDB	0.5	U										
Ethene, 1,2-dichloro-, (E)-	0.5	U										
Ethylbenzene	0.5	U										
Hexachlorobutadiene	0.5	U										
m-Dichlorobenzene	0.5	U										
m/p xylene	0.5	U										
Methyl bromide	0.5	U										
Methyl chloride	0.5	U										
Methyl tert-butyl ether	0.5	U										
Methylene chloride	0.67	U										
n-Butylbenzene	0.5	U										
n-Propylbenzene	0.5	U										
Naphthalene	0.5	U										
o-Chlorotoluene	0.5	U										
o-Dichlorobenzene	0.5	U										
o-Xylene	0.5	U										
p-Chlorotoluene	0.5	U										
p-Dichlorobenzene	0.5	U										
sec-Butylbenzene	0.5	U										
Styrene	0.5	U										
tert-Butylbenzene	0.5	U										
Tetrachloroethylene	0.5	U										
Toluene	0.5	U										
trans-1,3-Dichloropropene	0.5	U										
Trichloroethylene	0.5	U										
Trichlorofluoromethane	0.5	U										
Vinyl chloride	0.5	U										
Xylene (total)												

8260 TVOC	0											

OU III (Western South Boundary)

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	000-558 Depth : 165.00 03/07/2023 ug/L		000-558 Depth : 165.00 06/01/2023 ug/L		000-558 Depth : 165.00 09/07/2023 ug/L		000-558 Depth : 165.00 11/29/2023 ug/L		000-559 Depth : 215.00 03/07/2023 ug/L		000-559 Depth : 215.00 06/01/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**2.5**		**2.6**		**1.8**		**1.31**		0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**0.93**		**0.9**		**0.73**		**0.65**	J	0.5	U	0.5	U
1,1-Dichloroethylene	**3.8**		**4.1**		**3**		**2.18**		0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**3.7**		**3.6**		**2.4**		**1.92**		0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	**4**		**4.4**		**4**		**2.89**		**2.3**		**2.2**	
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**3.8**		**4**		**3.5**		**2.94**		0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	18.73		19.6		15.43		11.89		2.3		2.2	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	000-559 Depth : 215.00 09/07/2023 ug/L		000-559 Depth : 215.00 11/29/2023 ug/L		000-560 Depth : 159.50 03/07/2023 ug/L		000-560 Depth : 159.50 06/01/2023 ug/L		000-560 Depth : 159.50 09/11/2023 ug/L		000-560 Depth : 159.50 11/29/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	**2.4**		**2.2**		**1.5**		**1.02**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	**0.99**		**0.89**		**0.67**		0.49	J
1,1-Dichloroethylene	0.5	U	0.5	U	**3.5**		**3.2**		**2.5**		**1.54**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	**3.9**		**4.3**		**2.8**		**2.27**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	**1.9**		**1.46**		**4.5**		**2.7**		**2.1**		**1.26**	
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	**3.9**		**3.5**		**2.7**		**1.98**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	1.9		1.46		19.19		16.79		12.27		8.56	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	103-15 Depth : 200.00 03/21/2023 ug/L		103-15 Depth : 200.00 05/19/2023 ug/L		103-15 Depth : 200.00 09/11/2023 ug/L		103-15 Depth : 200.00 11/28/2023 ug/L		103-18 Depth : 170.00 03/22/2023 ug/L		103-18 Depth : 170.00 05/25/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**3.2**		**4**		**3.6**		**3.1**		**1.2**		**1.3**	
1,1-Dichloroethylene	**5.5**		**7.2**		**5.9**		**4.95**		**1.8**		**2**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	**11**		**8**		**5.2**		**3.75**		**3.1**		**2.7**	
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.17	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**5.5**		**5.8**		**5.3**		**4.93**		**3**		**3.2**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	25.2		25		20		16.73		9.1		9.37	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	103-18 Depth : 170.00 09/13/2023 ug/L		103-18 Depth : 170.00 11/28/2023 ug/L		103-19 Depth : 170.00 03/22/2023 ug/L		103-19 Depth : 170.00 05/23/2023 ug/L		103-19 Depth : 170.00 09/11/2023 ug/L		103-19 Depth : 170.00 11/28/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**1.2**		**1.2**		**0.87**		**1**		**0.93**		**0.89**	J
1,1-Dichloroethylene	**1.6**		**1.55**		**0.99**		**1.3**		**1**		**0.84**	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	**2.1**		**1.97**		**1.3**		**1.6**		**0.97**		**0.73**	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**2.8**		**2.64**		**2.6**		**2.7**		**2.2**		**2.12**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	7.7		7.36		5.76		6.6		5.1		4.58	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	111-15 Depth : 175.00 03/13/2023 ug/L		111-15 Depth : 175.00 05/19/2023 ug/L		111-15 Depth : 175.00 09/11/2023 ug/L		111-15 Depth : 175.00 11/21/2023 ug/L		111-16 Depth : 173.00 03/13/2023 ug/L		111-16 Depth : 173.00 06/29/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.19	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.35	J	0.37	J
1,1-Dichloroethylene	0.4	J	0.47	J	0.35	J	0.34	J	**0.81**		**0.76**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.2**		**1.3**		**0.53**		**0.76**	J	**1.1**		**0.84**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.68	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.21	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.44	J	**0.51**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	1.6		1.77		0.88		1.1		2.7		2.88	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	111-16 Depth : 173.00 09/07/2023 ug/L		111-16 Depth : 173.00 11/28/2023 ug/L		119-06 Depth : 130.00 03/17/2023 ug/L		119-06 Depth : 130.00 05/17/2023 ug/L		119-06 Depth : 130.00 09/07/2023 ug/L		119-06 Depth : 130.00 11/21/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.2	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.28	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**0.61**		0.37	J	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.96**		**1.38**		0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.75	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.34	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	2.39		1.75		0		0		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	119-10 Depth : 200.00 03/17/2023 ug/L		119-10 Depth : 200.00 05/17/2023 ug/L		119-10 Depth : 200.00 09/07/2023 ug/L		119-10 Depth : 200.00 11/21/2023 ug/L		119-11 Depth : 180.00 03/13/2023 ug/L		119-11 Depth : 180.00 05/23/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**4.3**		**4.3**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**1.4**		**2.3**		**2.1**		**1.33**		**5.5**		**5.1**	
1,1-Dichloroethylene	**1.2**		**2**		**1.6**		**1.04**		**24**		**23**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	**1.8**		**2.5**		**1.9**		**1.03**		**1.9**		**1.7**	
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.71	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**1.4**		**1.2**		**1.3**		**1.11**		**3.6**		**3.3**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	5.8		8		6.9		4.51		39.3		37.4	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	119-11 Depth : 180.00 09/11/2023 ug/L		119-11 Depth : 180.00 11/20/2023 ug/L		119-12 Depth : 179.00 03/17/2023 ug/L		119-12 Depth : 179.00 05/17/2023 ug/L		119-12 Depth : 179.00 09/11/2023 ug/L		119-12 Depth : 179.00 11/28/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**3.1**		**2.7**		**1.5**		**2.2**		**1.8**		**1.59**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**4.3**		**3.23**		0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**17**		**15.5**		**0.95**		**0.98**		**0.56**		**0.81**	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.55	U	**0.71**		0.23	J	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	**0.8**		**0.61**	J	0.5	U	0.25	J	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.74	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**2.5**		**2.78**		**1.4**		**1.4**		**1.6**		**1.97**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	27.7		24.82		3.85		5.54		4.19		4.37	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	121-42 Depth : 155.00 05/25/2023 ug/L		121-42 Depth : 155.00 11/27/2023 ug/L		126-01 Depth : 65.00 11/20/2023 ug/L		126-11 Depth : 155.00 05/18/2023 ug/L		126-11 Depth : 155.00 11/21/2023 ug/L		126-13 Depth : 155.00 05/18/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	**0.66**	J	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	0.5	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.72	U	0.5	U	0.64	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.27	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U					1.5	U			1.5	U

8260 TVOC	0.27		0		0.66		0		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	126-13 Depth : 155.00 11/21/2023 ug/L		126-14 Depth : 155.00 03/21/2023 ug/L		126-14 Depth : 155.00 05/25/2023 ug/L		126-14 Depth : 155.00 09/12/2023 ug/L		126-14 Depth : 155.00 11/20/2023 ug/L		126-15 Depth : 155.00 05/25/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	**4.8**		**4.6**		0.5	U	**2.86**		0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	**3.1**		**2.5**		0.5	U	**1.28**		0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.13	J	0.14	J	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.24	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**3.8**	
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	1	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.62	U	0.5	U	0.5	U	0.5	U	0.72	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	**1.7**		**1.5**		0.5	U	**1.29**		0.2	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U	1.5	U	1.5	U			1.5	U

8260 TVOC	0		9.73		8.74		0		5.43		4.24	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	126-15 Depth : 155.00 11/27/2023 ug/L		126-16 Depth : 135.00 03/06/2023 ug/L		126-16 Depth : 135.00 06/01/2023 ug/L		126-16 Depth : 135.00 09/11/2023 ug/L		126-16 Depth : 135.00 11/29/2023 ug/L		126-17 Depth : 140.00 03/21/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	**2**		**2.2**		**1.7**		**1.4**		0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	**1.2**		**1.1**		**0.91**		**0.89**	J	0.5	U
1,1-Dichloroethylene	0.5	U	**3.7**		**3.5**		**3.1**		**2.63**		0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	**3.2**		**3.9**		**3**		**2.84**		0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	**2.85**		**2.7**		**2.8**		**2.2**		**1.69**		0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	1	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.67	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.31	J	0.23	J	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	**2.7**		**3.3**		**3.1**		**2.91**		0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U	1.5	U	1.5	U			1.5	U

8260 TVOC	2.85		15.5		17.11		14.24		12.36		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	126-17 Depth : 140.00 05/26/2023 ug/L		126-17 Depth : 140.00 09/12/2023 ug/L		126-17 Depth : 140.00 11/21/2023 ug/L		126-18 Depth : 165.00 03/17/2023 ug/L		126-18 Depth : 165.00 05/16/2023 ug/L		126-18 Depth : 165.00 09/08/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	**3.2**		0.5	U	**0.54**		**0.73**		0.46	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	**1.4**		0.5	U	**0.91**		**1.1**		**0.65**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.16	J	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	0.5	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.7	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.2	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	**1.4**		0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U			1.5	U	1.5	U	1.5	U

8260 TVOC	0		6		0		1.45		1.99		1.31	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	126-18 Depth : 165.00 11/21/2023 ug/L		126-19 Depth : 195.00 03/21/2023 ug/L		126-19 Depth : 195.00 05/16/2023 ug/L		126-19 Depth : 195.00 09/12/2023 ug/L		126-19 Depth : 195.00 11/27/2023 ug/L		126-20 Depth : 140.00 03/21/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.35	J	**1.7**		**2.2**		**1.7**		**1.41**		**2**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	**2.2**		**2.9**		**2.5**		**2.39**		0.5	U
1,1-Dichloroethylene	0.5	J	**3.7**		**4.8**		**3.7**		**3.11**		**1.8**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.19	J
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	**1.1**		**1.2**		**1**		**0.91**	J	0.22	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	**7.4**		**6.6**		**4.2**		**4.57**		0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	1	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.57	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.33	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.47	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U	1.5	U	1.5	U			1.5	U

8260 TVOC	0.85		16.1		17.7		13.1		12.39		5.01	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	126-20 Depth : 140.00 05/18/2023 ug/L		126-20 Depth : 140.00 09/12/2023 ug/L		126-20 Depth : 140.00 11/20/2023 ug/L		126-21 Depth : 204.00 03/21/2023 ug/L		126-21 Depth : 204.00 05/23/2023 ug/L		126-21 Depth : 204.00 09/12/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**2.6**		**1.5**		**1.41**		0.32	J	0.39	J	0.18	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**2.1**		**1.2**		**1.08**		**0.56**		**0.65**		0.38	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.17	J	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.26	J	0.2	J	0.5	U	**1**		**1.3**		**0.76**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.27	J	0.41	J	0.28	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	0.5	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.78	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.48	J	0.34	J	0.34	J	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.3	J	0.37	J	0.47	J	**0.53**		**0.54**		0.34	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U			1.5	U	1.5	U	1.5	U

8260 TVOC	5.74		3.78		3.3		2.68		3.29		1.94	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	126-21 Depth : 204.00 11/20/2023 ug/L		127-04 Depth : 155.00 05/24/2023 ug/L		127-04 Depth : 155.00 11/27/2023 ug/L		127-06 Depth : 155.00 05/24/2023 ug/L		127-06 Depth : 155.00 11/27/2023 ug/L		127-07 Depth : 151.00 03/06/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.83**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.48	J
1,1-Dichloroethylene	0.44	J	0.5	U	0.5	U	0.5	U	0.5	U	**1.2**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.01**		0.5	U	0.5	U	0.5	U	0.5	U	0.87	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.96**	
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	0.5	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.77	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.2	J	0.5	U	0.2	J	0.5	U	0.17	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.49	J	**0.7**		**0.56**	J	0.39	J	0.34	J	**0.77**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U			1.5	U			1.5	U

8260 TVOC	1.94		0.9		0.56		0.59		0.34		4.41	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	127-07 Depth : 151.00 05/31/2023 ug/L		127-07 Depth : 151.00 09/11/2023 ug/L		127-07 Depth : 151.00 11/30/2023 ug/L		130-02 Depth : 115.00 05/23/2023 ug/L		130-02 Depth : 115.00 11/20/2023 ug/L		130-03 Depth : 162.50 05/23/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.3**		**1.2**		**1.04**		0.5	U	0.5	U	**3.2**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**0.52**		0.37	J	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**1.8**		**1.4**		**1.07**		0.5	U	0.5	U	**3.2**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.5**		**1.2**		**0.86**	J	**2.1**		**1.15**		**1.9**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	**0.81**		**0.61**		**0.53**	J	0.5	U	0.5	U	0.36	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	0.5	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.72	U	0.5	U	0.77	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.24	J	0.5	U	0.5	U	0.5	U	**0.75**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**1.7**		**1.7**		**1.62**		0.5	U	0.5	U	**1.1**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U			1.5	U			1.5	U

8260 TVOC	7.63		6.72		5.12		2.1		1.15		10.51	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	130-03 Depth : 162.50 11/20/2023 ug/L		130-04 Depth : 287.50 11/20/2023 ug/L		130-08 Depth : 150.00 03/06/2023 ug/L		130-08 Depth : 150.00 05/31/2023 ug/L		130-08 Depth : 150.00 09/11/2023 ug/L		130-08 Depth : 150.00 11/30/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.74**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**1.81**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.54**		0.5	U	**1.1**		**1.2**		**0.73**		**1.02**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.79	U	0.71	U	0.5	U	0.5	U	0.5	U	0.74	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.44	J	0.5	U	0.34	J	0.47	J	0.21	J	0.39	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**1.02**		0.5	U	0.19	J	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)					1.5	U	1.5	U	1.5	U		

8260 TVOC	6.55		0		1.63		1.67		0.94		1.41	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	130-09 Depth : 140.00 03/06/2023 ug/L		130-09 Depth : 140.00 05/31/2023 ug/L		130-09 Depth : 140.00 09/08/2023 ug/L		130-09 Depth : 140.00 11/29/2023 ug/L		130-10 Depth : 155.00 03/06/2023 ug/L		130-10 Depth : 155.00 06/01/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.6**		**1.7**		**1.5**		**1.59**		**1.7**		**2.1**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.75	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	1.6		1.7		1.5		1.59		1.7		2.1	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	130-10 Depth : 155.00 09/08/2023 ug/L		130-10 Depth : 155.00 11/29/2023 ug/L		130-11 Depth : 200.00 03/06/2023 ug/L		130-11 Depth : 200.00 06/01/2023 ug/L		130-11 Depth : 200.00 09/08/2023 ug/L		130-11 Depth : 200.00 11/29/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**0.61**		0.37	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	**0.82**		**0.58**	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.7**		**1.71**		**1.6**		**1.8**		**1.3**		**1.12**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.25	J	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.71	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.22	J	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U		

8260 TVOC	1.7		1.71		1.6		2.05		2.95		2.07	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Western South Boundary)

Analyte	130-14 Depth : 208.00 03/21/2023 ug/L		130-14 Depth : 208.00 05/23/2023 ug/L		130-14 Depth : 208.00 09/13/2023 ug/L		130-14 Depth : 208.00 11/28/2023 ug/L					
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloroethane	**1.2**		**1.4**		**1.1**		**1.14**					
1,1-Dichloroethylene	**1**		**1.3**		**0.75**		**0.73**	J				
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U				
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U				
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U				
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U				
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U				
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
Cymene	0.5	U	0.5	U	0.5	U	0.5	U				
DBCP	0.5	U	0.5	U	0.5	U	0.5	U				
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U				
Dichlorodifluoromethane	**18**		**16**		**12**		**11.5**					
EDB	0.5	U	0.5	U	0.5	U	0.5	U				
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U				
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U				
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
m/p xylene	1	U	1	U	1	U	0.5	U				
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U				
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U				
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U				
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U				
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U				
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U				
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Styrene	0.5	U	0.5	U	0.5	U	0.5	U				
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
Toluene	0.5	U	0.5	U	0.5	U	0.5	U				
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U				
Xylene (total)	1.5	U	1.5	U	1.5	U						

8260 TVOC	20.2		18.7		13.85		13.37					

OU III (Industrial Park)

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-112 Depth : 180.00 05/12/2023 ug/L		000-112 Depth : 180.00 10/19/2023 ug/L		000-114 Depth : 135.00 10/19/2023 ug/L		000-245 Depth : 212.00 10/23/2023 ug/L		000-248 Depth : 232.50 10/12/2023 ug/L		000-249 Depth : 264.00 05/11/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**2.9**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.75**		**0.75**		0.48	J	**0.69**		**1.2**		0.4	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.27	J	0.2	J	0.5	U	0.5	U	**1.4**		**0.75**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.17	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.02		0.95		0.48		0.69		2.6		4.52	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-249 Depth : 264.00 10/11/2023 ug/L		000-250 Depth : 298.00 10/11/2023 ug/L		000-252 Depth : 171.50 10/11/2023 ug/L		000-253 Depth : 225.50 05/11/2023 ug/L		000-253 Depth : 225.50 10/11/2023 ug/L		000-255 Depth : 222.50 10/12/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**1.3**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.48	J	0.5	U	**1.2**		**1.7**		**1.5**		**1.6**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.34	J	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.79**		0.5	U	0.5	U	**0.58**		0.29	J	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.35	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	2.92		0.34		1.2		2.28		1.79		1.6	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-256 Depth : 225.50 05/11/2023 ug/L		000-256 Depth : 222.50 10/12/2023 ug/L		000-259 Depth : 202.50 05/11/2023 ug/L		000-259 Depth : 202.50 10/13/2023 ug/L		000-261 Depth : 132.50 10/17/2023 ug/L		000-262 Depth : 182.50 05/15/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.39	J	**0.59**		0.5	U	**0.81**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.32	J	0.5	U	**0.55**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	**0.97**		**0.95**		0.5	U	0.36	J
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.4**		**1.1**		**0.53**		0.46	J	0.47	J	**0.71**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.93**	
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.32	J	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.73**		0.48	J	**6.3**		**6.8**		0.5	U	**2.5**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.46	J	**0.7**		0.5	U	**0.72**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	2.13		1.58		8.65		9.82		0.79		6.58	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-262 Depth : 182.50 10/17/2023 ug/L		000-267 Depth : 160.50 10/16/2023 ug/L		000-268 Depth : 215.50 04/20/2023 ug/L		000-268 Depth : 215.50 10/16/2023 ug/L		000-271 Depth : 215.50 04/20/2023 ug/L		000-271 Depth : 215.50 10/16/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.36	J	0.5	U	0.5	U	0.48	J	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.19	J	0.31	J	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.17	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.51**		0.45	J	0.43	J	**0.68**		0.19	J	0.38	J
cis-1,2-Dichloroethylene	**0.62**		0.5	U	0.5	U	**1.8**		0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.26	J	0.33	J	0.5	U	0.5	U	0.5	U	0.24	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**1.9**		0.5	U	**0.81**		**0.98**		0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.43	J	0.5	U	0.31	J	0.4	J	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	4.25		0.78		1.74		4.65		0.19		0.62	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-272 Depth : 191.00 10/16/2023 ug/L		000-273 Depth : 185.00 05/09/2023 ug/L		000-273 Depth : 185.00 10/25/2023 ug/L		000-274 Depth : 242.00 05/09/2023 ug/L		000-274 Depth : 242.00 10/25/2023 ug/L		000-275 Depth : 134.00 05/30/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.43	J	0.5	U	0.5	U	0.5	U	**0.91**		0.29	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.24	J	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.43		0		0		0.24		0.91		0.29	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-275 Depth : 134.00 10/24/2023 ug/L		000-276 Depth : 164.00 05/30/2023 ug/L		000-276 Depth : 164.00 10/24/2023 ug/L		000-277 Depth : 147.00 05/09/2023 ug/L		000-278 Depth : 194.00 05/09/2023 ug/L		000-278 Depth : 194.00 10/23/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**0.82**		**0.83**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.63**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	**0.58**		0.38	J	0.5	U	0.5	U	**0.52**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.53**	
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.36	J	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	**1.5**		**1.5**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	**0.8**		**1**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0.94		0.38		0		3.12		5.01	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-279 Depth : 143.00 04/17/2023 ug/L		000-279 Depth : 193.00 10/18/2023 ug/L		000-431 Depth : 260.00 05/09/2023 ug/L		000-431 Depth : 260.00 10/24/2023 ug/L		000-432 Depth : 230.00 05/30/2023 ug/L		000-432 Depth : 230.00 10/24/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**0.77**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.1**		**1**		**1.6**		**1.1**		0.29	J	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**12**		**3.9**		0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.18	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	13.87		4.9		1.6		1.1		0.29		0.18	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-528 Depth : 220.00 04/14/2023 ug/L		000-528 Depth : 220.00 10/18/2023 ug/L		000-529 Depth : 219.00 02/17/2023 ug/L		000-529 Depth : 215.00 05/10/2023 ug/L		000-529 Depth : 219.00 08/29/2023 ug/L		000-529 Depth : 215.00 10/18/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	**4.1**		**5.2**		**2.1**		**3.2**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	**2.2**		**2.5**		**1.1**		**1.9**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	**1.2**		**0.87**		**0.6**		**0.94**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.21	J	0.27	J	**0.52**		**0.65**		**0.63**		**0.57**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.21	J	0.39	J	0.23	J	0.33	J	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**1.6**		**1.8**		**6.8**		**7.4**		**3.7**		**6.1**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	**2.1**		**2.2**		**1.3**		**2**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	2.02		2.46		17.15		19.15		9.43		14.71	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-530 Depth : 210.00 02/23/2023 ug/L		000-530 Depth : 210.00 05/15/2023 ug/L		000-530 Depth : 210.00 08/30/2023 ug/L		000-530 Depth : 210.00 10/12/2023 ug/L		000-531 Depth : 205.00 02/17/2023 ug/L		000-531 Depth : 205.00 04/20/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**12**		**15**		**7.2**		**8.8**		**1.1**		**1.1**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**1.3**		**1.2**		**2.7**		**2.3**		0.5	U	0.5	U
1,1-Dichloroethylene	**7.4**		**8.7**		**5.8**		**7**		**1.2**		**1.5**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	**5.9**		**4.4**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.45	J	0.5	U	0.24	J	**0.81**		**0.87**	
cis-1,2-Dichloroethylene	0.5	U	0.26	J	0.5	U	0.5	U	0.5	U	**0.55**	
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	**0.7**		**0.57**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**0.83**		**1.2**		**0.93**		**1.1**		**6**		**5.1**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	21.53		26.81		16.63		19.44		15.71		14.09	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Industrial Park)

Analyte	000-531 Depth : 205.00 08/29/2023 ug/L		000-531 Depth : 205.00 10/16/2023 ug/L		000-538 Depth : 215.00 02/23/2023 ug/L		000-538 Depth : 215.00 05/10/2023 ug/L		000-538 Depth : 215.00 08/28/2023 ug/L		000-538 Depth : 215.00 10/17/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.1**		**1.2**		**3.3**		**4**		**2.7**		**3.1**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**1.2**		**1.5**		**1.6**		**1.5**		**1.2**		**1.2**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**3.4**		**3.7**		**0.71**		**0.81**		**0.55**		**0.7**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.76**		**0.84**		0.5	U	0.6	U	0.43	J	0.46	J
cis-1,2-Dichloroethylene	0.5		**0.55**		0.45	J	**0.52**		0.34	J	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U	0.37	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.33	J	**0.59**		**7.2**		**7.9**		**5.8**		**6.9**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**4.4**		**4.5**		**3.9**		**4.3**		**3.9**		**4.6**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	11.69		12.88		17.36		19.03		14.92		17.33	

OU III (Industrial Park East)

OU III (North Street)

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (North Street)

Analyte	000-108 Depth : 220.00 12/21/2023 ug/L		000-154 Depth : 198.00 12/21/2023 ug/L		000-212 Depth : 205.00 04/17/2023 ug/L		000-212 Depth : 205.00 12/22/2023 ug/L		000-343 Depth : 330.00 06/13/2023 ug/L		000-343 Depth : 330.00 12/22/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**0.86**		**0.68**	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**2.1**		**2.68**	
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.37	J	0.35	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.18	J	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.18	J	0.5	U
Chloroform	0.5	U	**1.14**		**1.4**		**1.1**		0.34	J	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5		0.5	J
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	0.5	U	1	U	0.5	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	**6.7**		**5.03**		0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.49	J	0.27	J	0.5	U	0.22	J	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)					1.5	U			1.5	U		

8260 TVOC	0		1.63		8.37		6.13		4.75		4.21	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street)

Analyte	000-465 Depth : 190.00 12/21/2023 ug/L		000-472 Depth : 211.00 12/12/2023 ug/L		000-474 Depth : 200.00 12/21/2023 ug/L							
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U						
1,1,1-Trichloroethane	0.5	U	**1.52**		**0.88**	J						
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U						
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U						
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U						
1,1-Dichloroethylene	0.5	U	**0.89**	J	0.5	U						
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U						
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U						
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U						
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U						
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U						
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U						
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U						
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U						
Benzene	0.5	U	0.5	U	0.5	U						
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U						
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U						
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U						
Bromobenzene	0.5	U	0.5	U	0.5	U						
Bromodichloromethane	0.5	U	0.5	U	0.5	U						
Bromoform	0.5	U	0.5	U	0.5	U						
Carbon tetrachloride	**0.98**	J	0.37	J	0.5	U						
Chlorobenzene	0.5	U	0.5	U	0.5	U						
Chlorobromomethane	0.5	U	0.5	U	0.5	U						
Chloroethane	0.5	U	0.5	U	0.5	U						
Chloroform	**1.05**		**1.98**		**2.79**							
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U						
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U						
Cymene	0.5	U	0.5	U	0.5	U						
DBCP	0.5	U	0.5	U	0.5	U						
Dibromochloromethane	0.5	U	0.5	U	0.5	U						
Dibromomethane	0.5	U	0.5	U	0.5	U						
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U						
EDB	0.5	U	0.5	U	0.5	U						
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U						
Ethylbenzene	0.5	U	0.5	U	0.5	U						
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U						
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
m/p xylene	0.5	U	0.5	U	0.5	U						
Methyl bromide	0.5	U	0.5	U	0.5	U						
Methyl chloride	0.5	U	0.5	U	0.5	U						
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U						
Methylene chloride	0.5	U	0.5	U	0.5	U						
n-Butylbenzene	0.5	U	0.5	U	0.5	U						
n-Propylbenzene	0.5	U	0.5	U	0.5	U						
Naphthalene	0.5	U	0.5	U	0.5	U						
o-Chlorotoluene	0.5	U	0.5	U	0.5	U						
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
o-Xylene	0.5	U	0.5	U	0.5	U						
p-Chlorotoluene	0.5	U	0.5	U	0.5	U						
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
sec-Butylbenzene	0.5	U	0.5	U	0.5	U						
Styrene	0.5	U	0.5	U	0.5	U						
tert-Butylbenzene	0.5	U	0.5	U	0.5	U						
Tetrachloroethylene	0.5	U	**5.29**		**9.48**							
Toluene	0.5	U	0.5	U	0.5	U						
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U						
Trichloroethylene	**0.83**	J	**0.81**	J	**1.64**							
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U						
Vinyl chloride	0.5	U	0.5	U	0.5	U						
Xylene (total)												

8260 TVOC	2.86		10.86		14.79							

OU III (North Street East)

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street East)

Analyte	000-138 Depth : 168.00 03/08/2023 ug/L		000-138 Depth : 168.00 06/15/2023 ug/L		000-138 Depth : 168.00 09/21/2023 ug/L		000-138 Depth : 168.00 12/08/2023 ug/L		000-394 Depth : 178.00 03/09/2023 ug/L		000-394 Depth : 178.00 06/15/2023 ug/L	
1,1,1,2-Tetrachloroethane												
1,1,1-Trichloroethane												
1,1,2,2-Tetrachloroethane												
1,1,2-Trichloroethane												
1,1-Dichloroethane												
1,1-Dichloroethylene												
1,1-Dichloropropene												
1,2,3-Trichlorobenzene												
1,2,3-Trichloropropane												
1,2,4-Trichlorobenzene												
1,2-Dichloroethane												
1,2-Dichloropropane												
1,3-Dichloropropane												
2,2-Dichloropropane												
Benzene												
Benzene, 1,2,4-trimethyl												
Benzene, 1,3,5-trimethyl-												
Benzene, 1-methylethyl-												
Bromobenzene												
Bromodichloromethane												
Bromoform												
Carbon tetrachloride												
Chlorobenzene												
Chlorobromomethane												
Chloroethane												
Chloroform												
cis-1,2-Dichloroethylene												
cis-1,3-Dichloropropene												
Cymene												
DBCP	0.011	U					0.01	U	0.011	U		
Dibromochloromethane												
Dibromomethane												
Dichlorodifluoromethane												
EDB	0.011	U	0.01	U	0.01	U	0.01	U	**0.073**		**0.036**	
Ethene, 1,2-dichloro-, (E)-												
Ethylbenzene												
Hexachlorobutadiene												
m-Dichlorobenzene												
m/p xylene												
Methyl bromide												
Methyl chloride												
Methyl tert-butyl ether												
Methylene chloride												
n-Butylbenzene												
n-Propylbenzene												
Naphthalene												
o-Chlorotoluene												
o-Dichlorobenzene												
o-Xylene												
p-Chlorotoluene												
p-Dichlorobenzene												
sec-Butylbenzene												
Styrene												
tert-Butylbenzene												
Tetrachloroethylene												
Toluene												
trans-1,3-Dichloropropene												
Trichloroethylene												
Trichlorofluoromethane												
Vinyl chloride												
Xylene (total)												

8260 TVOC											

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street East)

Analyte	000-394 Depth : 178.00 09/14/2023 ug/L		000-394 Depth : 176.00 12/11/2023 ug/L		000-551 Depth : 175.00 03/08/2023 ug/L		000-551 Depth : 175.00 06/13/2023 ug/L		000-551 Depth : 175.00 09/14/2023 ug/L		000-551 Depth : 175.00 12/11/2023 ug/L	
1,1,1,2-Tetrachloroethane			0.5	U							0.5	U
1,1,1-Trichloroethane			0.5	U							0.5	U
1,1,2,2-Tetrachloroethane			0.5	U							0.5	U
1,1,2-Trichloroethane			0.5	U							0.5	U
1,1-Dichloroethane			0.5	U							0.5	U
1,1-Dichloroethylene			0.5	U							0.5	U
1,1-Dichloropropene			0.5	U							0.5	U
1,2,3-Trichlorobenzene			0.5	U							0.5	U
1,2,3-Trichloropropane			0.5	U							0.5	U
1,2,4-Trichlorobenzene			0.5	U							0.5	U
1,2-Dichloroethane			0.5	U							0.5	U
1,2-Dichloropropane			0.5	U							0.5	U
1,3-Dichloropropane			0.5	U							0.5	U
2,2-Dichloropropane			0.5	U							0.5	U
Benzene			0.5	U							0.5	U
Benzene, 1,2,4-trimethyl			0.5	U							0.5	U
Benzene, 1,3,5-trimethyl-			0.5	U							0.5	U
Benzene, 1-methylethyl-			0.5	U							0.5	U
Bromobenzene			0.5	U							0.5	U
Bromodichloromethane			0.5	U							0.5	U
Bromoform			0.5	U							0.5	U
Carbon tetrachloride			0.5	U							0.5	U
Chlorobenzene			0.5	U							0.5	U
Chlorobromomethane			0.5	U							0.5	U
Chloroethane			0.5	U							0.5	U
Chloroform			0.31	J							0.38	J
cis-1,2-Dichloroethylene			0.5	U							0.5	U
cis-1,3-Dichloropropene			0.5	U							0.5	U
Cymene			0.5	U							0.5	U
DBCP			0.01	U	0.01	U					0.01	U
Dibromochloromethane			0.5	U							0.5	U
Dibromomethane			0.5	U							0.5	U
Dichlorodifluoromethane			0.5	U							0.5	U
EDB	**0.022**		**0.021**		0.01	U	0.01	U	0.011	U	0.01	U
Ethene, 1,2-dichloro-, (E)-			0.5	U							0.5	U
Ethylbenzene			0.5	U							0.5	U
Hexachlorobutadiene			0.5	U							0.5	U
m-Dichlorobenzene			0.5	U							0.5	U
m/p xylene			1	U							1	U
Methyl bromide			0.5	U							0.5	U
Methyl chloride			0.5	U							0.5	U
Methyl tert-butyl ether			0.5	U							0.5	U
Methylene chloride			0.5	U							0.5	U
n-Butylbenzene			0.5	U							0.5	U
n-Propylbenzene			0.5	U							0.5	U
Naphthalene			0.5	U							0.5	U
o-Chlorotoluene			0.5	U							0.5	U
o-Dichlorobenzene			0.5	U							0.5	U
o-Xylene			0.5	U							0.5	U
p-Chlorotoluene			0.5	U							0.5	U
p-Dichlorobenzene			0.5	U							0.5	U
sec-Butylbenzene			0.5	U							0.5	U
Styrene			0.5	U							0.5	U
tert-Butylbenzene			0.5	U							0.5	U
Tetrachloroethylene			**9.2**								**1.7**	
Toluene			0.5	U							0.5	U
trans-1,3-Dichloropropene			0.5	U							0.5	U
Trichloroethylene			0.26	J							0.21	J
Trichlorofluoromethane			0.5	U							0.5	U
Vinyl chloride			0.5	U							0.5	U
Xylene (total)			1.5	U							1.5	U

8260 TVOC			9.77							2.29		

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street East)

Analyte	000-552 Depth : 155.00 03/08/2023 ug/L		000-552 Depth : 155.00 06/13/2023 ug/L		000-552 Depth : 155.00 09/14/2023 ug/L		000-553 Depth : 175.00 03/08/2023 ug/L		000-553 Depth : 175.00 06/13/2023 ug/L		000-553 Depth : 175.00 09/14/2023 ug/L	
1,1,1,2-Tetrachloroethane												
1,1,1-Trichloroethane												
1,1,2,2-Tetrachloroethane												
1,1,2-Trichloroethane												
1,1-Dichloroethane												
1,1-Dichloroethylene												
1,1-Dichloropropene												
1,2,3-Trichlorobenzene												
1,2,3-Trichloropropane												
1,2,4-Trichlorobenzene												
1,2-Dichloroethane												
1,2-Dichloropropane												
1,3-Dichloropropane												
2,2-Dichloropropane												
Benzene												
Benzene, 1,2,4-trimethyl												
Benzene, 1,3,5-trimethyl-												
Benzene, 1-methylethyl-												
Bromobenzene												
Bromodichloromethane												
Bromoform												
Carbon tetrachloride												
Chlorobenzene												
Chlorobromomethane												
Chloroethane												
Chloroform												
cis-1,2-Dichloroethylene												
cis-1,3-Dichloropropene												
Cymene												
DBCP	0.011	U					0.011	U				
Dibromochloromethane												
Dibromomethane												
Dichlorodifluoromethane												
EDB	**0.034**		**0.017**		**0.012**		**0.014**		0.01	U	0.01	U
Ethene, 1,2-dichloro-, (E)-												
Ethylbenzene												
Hexachlorobutadiene												
m-Dichlorobenzene												
m/p xylene												
Methyl bromide												
Methyl chloride												
Methyl tert-butyl ether												
Methylene chloride												
n-Butylbenzene												
n-Propylbenzene												
Naphthalene												
o-Chlorotoluene												
o-Dichlorobenzene												
o-Xylene												
p-Chlorotoluene												
p-Dichlorobenzene												
sec-Butylbenzene												
Styrene												
tert-Butylbenzene												
Tetrachloroethylene												
Toluene												
trans-1,3-Dichloropropene												
Trichloroethylene												
Trichlorofluoromethane												
Vinyl chloride												
Xylene (total)												

8260 TVOC											

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street East)

Analyte	000-554 Depth : 195.00 03/09/2023 ug/L		000-554 Depth : 195.00 06/14/2023 ug/L		000-554 Depth : 195.00 09/21/2023 ug/L		000-554 Depth : 195.00 12/11/2023 ug/L		000-555 Depth : 200.00 03/09/2023 ug/L		000-555 Depth : 200.00 06/15/2023 ug/L	
1,1,1,2-Tetrachloroethane							0.5	U				
1,1,1-Trichloroethane							0.17	J				
1,1,2,2-Tetrachloroethane							0.5	U				
1,1,2-Trichloroethane							0.5	U				
1,1-Dichloroethane							0.5	U				
1,1-Dichloroethylene							0.5	U				
1,1-Dichloropropene							0.5	U				
1,2,3-Trichlorobenzene							0.5	U				
1,2,3-Trichloropropane							0.5	U				
1,2,4-Trichlorobenzene							0.5	U				
1,2-Dichloroethane							0.5	U				
1,2-Dichloropropane							0.5	U				
1,3-Dichloropropane							0.5	U				
2,2-Dichloropropane							0.5	U				
Benzene							0.5	U				
Benzene, 1,2,4-trimethyl							0.5	U				
Benzene, 1,3,5-trimethyl-							0.5	U				
Benzene, 1-methylethyl-							0.5	U				
Bromobenzene							0.5	U				
Bromodichloromethane							0.5	U				
Bromoform							0.5	U				
Carbon tetrachloride							0.5	U				
Chlorobenzene							0.5	U				
Chlorobromomethane							0.5	U				
Chloroethane							0.5	U				
Chloroform							**0.56**					
cis-1,2-Dichloroethylene							0.5	U				
cis-1,3-Dichloropropene							0.5	U				
Cymene							0.5	U				
DBCP	0.01	U					0.01	U	0.011	U		
Dibromochloromethane							0.5	U				
Dibromomethane							0.5	U				
Dichlorodifluoromethane							0.5	U				
EDB	**0.067**		**0.054**		**0.038**		**0.031**		0.011	U	0.011	U
Ethene, 1,2-dichloro-, (E)-							0.5	U				
Ethylbenzene							0.5	U				
Hexachlorobutadiene							0.5	U				
m-Dichlorobenzene							0.5	U				
m/p xylene							1	U				
Methyl bromide							0.5	U				
Methyl chloride							0.5	U				
Methyl tert-butyl ether							0.5	U				
Methylene chloride							0.5	U				
n-Butylbenzene							0.5	U				
n-Propylbenzene							0.5	U				
Naphthalene							0.5	U				
o-Chlorotoluene							0.5	U				
o-Dichlorobenzene							0.5	U				
o-Xylene							0.5	U				
p-Chlorotoluene							0.5	U				
p-Dichlorobenzene							0.5	U				
sec-Butylbenzene							0.5	U				
Styrene							0.5	U				
tert-Butylbenzene							0.5	U				
Tetrachloroethylene							**1.1**					
Toluene							0.5	U				
trans-1,3-Dichloropropene							0.5	U				
Trichloroethylene							**1.6**					
Trichlorofluoromethane							0.5	U				
Vinyl chloride							0.5	U				
Xylene (total)							1.5	U				

8260 TVOC							3.43				

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street East)

Analyte	000-555 Depth : 200.00 09/15/2023 ug/L		000-555 Depth : 200.00 12/11/2023 ug/L		000-563 Depth : 197.00 03/09/2023 ug/L		000-563 Depth : 197.00 06/14/2023 ug/L		000-563 Depth : 197.00 09/21/2023 ug/L		000-563 Depth : 197.00 12/11/2023 ug/L	
1,1,1,2-Tetrachloroethane			0.5	U							0.5	U
1,1,1-Trichloroethane			0.5	U							0.5	U
1,1,2,2-Tetrachloroethane			0.5	U							0.5	U
1,1,2-Trichloroethane			0.5	U							0.5	U
1,1-Dichloroethane			0.5	U							0.5	U
1,1-Dichloroethylene			0.5	U							0.5	U
1,1-Dichloropropene			0.5	U							0.5	U
1,2,3-Trichlorobenzene			0.5	U							0.5	U
1,2,3-Trichloropropane			0.5	U							0.5	U
1,2,4-Trichlorobenzene			0.5	U							0.5	U
1,2-Dichloroethane			0.5	U							0.5	U
1,2-Dichloropropane			0.5	U							0.5	U
1,3-Dichloropropane			0.5	U							0.5	U
2,2-Dichloropropane			0.5	U							0.5	U
Benzene			0.5	U							0.5	U
Benzene, 1,2,4-trimethyl			0.5	U							0.5	U
Benzene, 1,3,5-trimethyl-			0.5	U							0.5	U
Benzene, 1-methylethyl-			0.5	U							0.5	U
Bromobenzene			0.5	U							0.5	U
Bromodichloromethane			0.5	U							0.5	U
Bromoform			0.5	U							0.5	U
Carbon tetrachloride			0.5	U							0.5	U
Chlorobenzene			0.5	U							0.5	U
Chlorobromomethane			0.5	U							0.5	U
Chloroethane			0.5	U							0.5	U
Chloroform			**1.6**								**0.88**	
cis-1,2-Dichloroethylene			0.5	U							0.5	U
cis-1,3-Dichloropropene			0.5	U							0.5	U
Cymene			0.5	U							0.5	U
DBCP			0.01	U	0.01	U					0.01	U
Dibromochloromethane			0.5	U							0.5	U
Dibromomethane			0.5	U							0.5	U
Dichlorodifluoromethane			0.5	U							0.5	U
EDB	0.01	U	0.01	U	0.01	U	0.011	U	0.01	U	0.01	U
Ethene, 1,2-dichloro-, (E)-			0.5	U							0.5	U
Ethylbenzene			0.5	U							0.5	U
Hexachlorobutadiene			0.5	U							0.5	U
m-Dichlorobenzene			0.5	U							0.5	U
m/p xylene			1	U							1	U
Methyl bromide			0.5	U							0.5	U
Methyl chloride			0.5	U							0.5	U
Methyl tert-butyl ether			0.5	U							0.5	U
Methylene chloride			0.5	U							0.5	U
n-Butylbenzene			0.5	U							0.5	U
n-Propylbenzene			0.5	U							0.5	U
Naphthalene			0.5	U							0.5	U
o-Chlorotoluene			0.5	U							0.5	U
o-Dichlorobenzene			0.5	U							0.5	U
o-Xylene			0.5	U							0.5	U
p-Chlorotoluene			0.5	U							0.5	U
p-Dichlorobenzene			0.5	U							0.5	U
sec-Butylbenzene			0.5	U							0.5	U
Styrene			0.5	U							0.5	U
tert-Butylbenzene			0.5	U							0.5	U
Tetrachloroethylene			0.5	U							**2.5**	
Toluene			0.5	U							0.5	U
trans-1,3-Dichloropropene			0.5	U							0.5	U
Trichloroethylene			0.5	U							**1.6**	
Trichlorofluoromethane			0.5	U							0.5	U
Vinyl chloride			0.5	U							0.5	U
Xylene (total)			1.5	U							1.5	U

8260 TVOC			1.6							4.98	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street East)

Analyte	000-564 Depth : 188.00 03/09/2023 ug/L		000-564 Depth : 188.00 06/14/2023 ug/L		000-564 Depth : 188.00 09/21/2023 ug/L		000-564 Depth : 188.00 12/11/2023 ug/L		000-565 Depth : 210.00 03/09/2023 ug/L		000-565 Depth : 210.00 06/15/2023 ug/L	
1,1,1,2-Tetrachloroethane							0.5	U				
1,1,1-Trichloroethane							0.5	U				
1,1,2,2-Tetrachloroethane							0.5	U				
1,1,2-Trichloroethane							0.5	U				
1,1-Dichloroethane							0.5	U				
1,1-Dichloroethylene							0.5	U				
1,1-Dichloropropene							0.5	U				
1,2,3-Trichlorobenzene							0.5	U				
1,2,3-Trichloropropane							0.5	U				
1,2,4-Trichlorobenzene							0.5	U				
1,2-Dichloroethane							0.5	U				
1,2-Dichloropropane							0.5	U				
1,3-Dichloropropane							0.5	U				
2,2-Dichloropropane							0.5	U				
Benzene							0.5	U				
Benzene, 1,2,4-trimethyl							0.5	U				
Benzene, 1,3,5-trimethyl-							0.5	U				
Benzene, 1-methylethyl-							0.5	U				
Bromobenzene							0.5	U				
Bromodichloromethane							0.5	U				
Bromoform							0.5	U				
Carbon tetrachloride							0.5	U				
Chlorobenzene							0.5	U				
Chlorobromomethane							0.5	U				
Chloroethane							0.5	U				
Chloroform							**1.4**					
cis-1,2-Dichloroethylene							0.5	U				
cis-1,3-Dichloropropene							0.5	U				
Cymene							0.5	U				
DBCP	0.01	U					0.01	U	0.01	U		
Dibromochloromethane							0.5	U				
Dibromomethane							0.5	U				
Dichlorodifluoromethane							0.5	U				
EDB	0.01	U	0.011	U	0.01	U	0.01	U	**0.014**		0.011	U
Ethene, 1,2-dichloro-, (E)-							0.5	U				
Ethylbenzene							0.5	U				
Hexachlorobutadiene							0.5	U				
m-Dichlorobenzene							0.5	U				
m/p xylene							1	U				
Methyl bromide							0.5	U				
Methyl chloride							0.5	U				
Methyl tert-butyl ether							0.5	U				
Methylene chloride							0.5	U				
n-Butylbenzene							0.5	U				
n-Propylbenzene							0.5	U				
Naphthalene							0.5	U				
o-Chlorotoluene							0.5	U				
o-Dichlorobenzene							0.5	U				
o-Xylene							0.5	U				
p-Chlorotoluene							0.5	U				
p-Dichlorobenzene							0.5	U				
sec-Butylbenzene							0.5	U				
Styrene							0.5	U				
tert-Butylbenzene							0.5	U				
Tetrachloroethylene							0.5	U				
Toluene							0.5	U				
trans-1,3-Dichloropropene							0.5	U				
Trichloroethylene							**0.68**					
Trichlorofluoromethane							0.5	U				
Vinyl chloride							0.5	U				
Xylene (total)							1.5	U				

8260 TVOC							2.08				

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street East)

Analyte	000-565 Depth : 210.00 09/15/2023 ug/L		000-565 Depth : 210.00 12/12/2023 ug/L		000-566 Depth : 210.00 03/09/2023 ug/L		000-566 Depth : 210.00 06/15/2023 ug/L		000-566 Depth : 210.00 09/15/2023 ug/L		000-566 Depth : 210.00 12/12/2023 ug/L	
1,1,1,2-Tetrachloroethane			0.5	U							0.5	U
1,1,1-Trichloroethane			**2.7**								**0.79**	
1,1,2,2-Tetrachloroethane			0.5	U							0.5	U
1,1,2-Trichloroethane			0.5	U							0.5	U
1,1-Dichloroethane			0.28	J							0.5	U
1,1-Dichloroethylene			**2.1**								0.24	J
1,1-Dichloropropene			0.5	U							0.5	U
1,2,3-Trichlorobenzene			0.5	U							0.5	U
1,2,3-Trichloropropane			0.5	U							0.5	U
1,2,4-Trichlorobenzene			0.5	U							0.5	U
1,2-Dichloroethane			0.5	U							0.5	U
1,2-Dichloropropane			0.5	U							0.5	U
1,3-Dichloropropane			0.5	U							0.5	U
2,2-Dichloropropane			0.5	U							0.5	U
Benzene			0.5	U							0.5	U
Benzene, 1,2,4-trimethyl			0.5	U							0.5	U
Benzene, 1,3,5-trimethyl-			0.5	U							0.5	U
Benzene, 1-methylethyl-			0.5	U							0.5	U
Bromobenzene			0.5	U							0.5	U
Bromodichloromethane			0.5	U							0.5	U
Bromoform			0.5	U							0.5	U
Carbon tetrachloride			0.46	J							0.5	
Chlorobenzene			0.5	U							0.5	U
Chlorobromomethane			0.5	U							0.5	U
Chloroethane			0.5	U							0.5	U
Chloroform			**1.4**								**0.82**	
cis-1,2-Dichloroethylene			0.5	U							0.5	U
cis-1,3-Dichloropropene			0.5	U							0.5	U
Cymene			0.5	U							0.5	U
DBCP			0.01	U	0.011	U					0.01	U
Dibromochloromethane			0.5	U							0.5	U
Dibromomethane			0.5	U							0.5	U
Dichlorodifluoromethane			0.5	U							0.5	U
EDB	0.0077	J	0.01	U	0.011	U	0.01	U	**0.046**		0.01	U
Ethene, 1,2-dichloro-, (E)-			0.5	U							0.5	U
Ethylbenzene			0.5	U							0.5	U
Hexachlorobutadiene			0.5	U							0.5	U
m-Dichlorobenzene			0.5	U							0.5	U
m/p xylene			1	U							1	U
Methyl bromide			0.5	U							0.5	U
Methyl chloride			0.5	U							0.5	U
Methyl tert-butyl ether			**0.72**								0.5	U
Methylene chloride			0.5	U							0.5	U
n-Butylbenzene			0.5	U							0.5	U
n-Propylbenzene			0.5	U							0.5	U
Naphthalene			0.5	U							0.5	U
o-Chlorotoluene			0.5	U							0.5	U
o-Dichlorobenzene			0.5	U							0.5	U
o-Xylene			0.5	U							0.5	U
p-Chlorotoluene			0.5	U							0.5	U
p-Dichlorobenzene			0.5	U							0.5	U
sec-Butylbenzene			0.5	U							0.5	U
Styrene			0.5	U							0.5	U
tert-Butylbenzene			0.5	U							0.5	U
Tetrachloroethylene			0.5	U							0.5	U
Toluene			0.5	U							0.5	U
trans-1,3-Dichloropropene			0.5	U							0.5	U
Trichloroethylene			**1.8**								**0.64**	
Trichlorofluoromethane			0.5	U							0.5	U
Vinyl chloride			0.5	U							0.5	U
Xylene (total)			1.5	U							1.5	U

8260 TVOC			9.46							2.99		

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (North Street East)

Analyte	115-42 Depth : 168.00 06/16/2023 ug/L		115-42 Depth : 168.00 12/20/2023 ug/L									
1,1,1,2-Tetrachloroethane												
1,1,1-Trichloroethane												
1,1,2,2-Tetrachloroethane												
1,1,2-Trichloroethane												
1,1-Dichloroethane												
1,1-Dichloroethylene												
1,1-Dichloropropene												
1,2,3-Trichlorobenzene												
1,2,3-Trichloropropane												
1,2,4-Trichlorobenzene												
1,2-Dichloroethane												
1,2-Dichloropropane												
1,3-Dichloropropane												
2,2-Dichloropropane												
Benzene												
Benzene, 1,2,4-trimethyl												
Benzene, 1,3,5-trimethyl-												
Benzene, 1-methylethyl-												
Bromobenzene												
Bromodichloromethane												
Bromoform												
Carbon tetrachloride												
Chlorobenzene												
Chlorobromomethane												
Chloroethane												
Chloroform												
cis-1,2-Dichloroethylene												
cis-1,3-Dichloropropene												
Cymene												
DBCP												
Dibromochloromethane												
Dibromomethane												
Dichlorodifluoromethane												
EDB	0.01	U	0.01	U								
Ethene, 1,2-dichloro-, (E)-												
Ethylbenzene												
Hexachlorobutadiene												
m-Dichlorobenzene												
m/p xylene												
Methyl bromide												
Methyl chloride												
Methyl tert-butyl ether												
Methylene chloride												
n-Butylbenzene												
n-Propylbenzene												
Naphthalene												
o-Chlorotoluene												
o-Dichlorobenzene												
o-Xylene												
p-Chlorotoluene												
p-Dichlorobenzene												
sec-Butylbenzene												
Styrene												
tert-Butylbenzene												
Tetrachloroethylene												
Toluene												
trans-1,3-Dichloropropene												
Trichloroethylene												
Trichlorofluoromethane												
Vinyl chloride												
Xylene (total)												

8260 TVOC											

OU III (LIPA)

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-101 Depth : 195.00 02/24/2023 ug/L		000-101 Depth : 195.00 06/05/2023 ug/L		000-101 Depth : 195.00 08/31/2023 ug/L		000-101 Depth : 195.00 11/08/2023 ug/L		000-102 Depth : 315.00 02/24/2023 ug/L		000-102 Depth : 315.00 06/05/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.91**		**1.4**		**1.2**		**1**		0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	**0.51**		0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.91		1.4		1.71		1		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-102 Depth : 315.00 08/31/2023 ug/L		000-102 Depth : 315.00 11/08/2023 ug/L		000-104 Depth : 205.00 02/27/2023 ug/L		000-104 Depth : 205.00 06/06/2023 ug/L		000-104 Depth : 205.00 09/05/2023 ug/L		000-104 Depth : 205.00 11/07/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.28	J	0.39	J	0.26	J	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.3	J	0.41	J	0.19	J	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.14	J	0.18	J	0.16	J	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.57	U	**0.53**		0.38	J	0.36	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.28	J	0.24	J	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0.72		1.79		1.23		0.36	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-105 Depth : 285.00 02/27/2023 ug/L		000-105 Depth : 285.00 06/06/2023 ug/L		000-105 Depth : 285.00 08/31/2023 ug/L		000-105 Depth : 285.00 10/30/2023 ug/L		000-130 Depth : 280.00 06/09/2023 ug/L		000-130 Depth : 280.00 09/07/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.2	J	**0.88**		**0.63**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.36	J	0.38	J
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0.2		1.24		1.01	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-130 Depth : 280.00 10/25/2023 ug/L		000-131 Depth : 227.50 02/27/2023 ug/L		000-131 Depth : 227.50 06/05/2023 ug/L		000-131 Depth : 225.00 08/30/2023 ug/L		000-131 Depth : 227.50 11/07/2023 ug/L		000-425 Depth : 315.00 03/03/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.32	J	**0.58**		0.48	J	**0.6**		0.36	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	**0.64**		**0.86**		**0.56**		**0.89**		0.18	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.6**	J	**1.2**		**1.1**		**1.1**		**1**		0.44	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.4	J	0.5	U	0.5	U	0.5	U	0.5	U	**1.7**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	**0.54**		**0.56**		0.37	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1		2.16		2.54		2.68		3.05		3.35	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (LIPA)

Analyte	000-425 Depth : 315.00 06/12/2023 ug/L		000-425 Depth : 315.00 09/01/2023 ug/L		000-425 Depth : 315.00 10/26/2023 ug/L		000-445 Depth : 219.00 06/02/2023 ug/L		000-445 Depth : 219.00 09/05/2023 ug/L		000-445 Depth : 219.00 11/08/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.34	J	0.37	J	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.2	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.33	J	0.26	J	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.46	J	0.43	J	**0.51**	J	**0.52**		0.49	J	0.49	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	0.5	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**1.4**		**1.5**		**1.31**		0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**0.85**		**0.53**		0.49	J	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U			1.5	U	1.5	U	1.5	U

8260 TVOC	3.58		3.09		2.31		0.52		0.49		0.49	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-446 Depth : 212.00 03/02/2023 ug/L		000-446 Depth : 212.00 06/02/2023 ug/L		000-446 Depth : 212.00 09/05/2023 ug/L		000-446 Depth : 212.00 11/08/2023 ug/L		000-447 Depth : 219.00 03/03/2023 ug/L		000-447 Depth : 219.00 06/13/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.17	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J	0.17	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.61**		0.38	J	0.36	J	0.35	J	**0.72**		**0.61**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.61		0.38		0.36		0.35		1.02		0.95	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-447 Depth : 219.00 09/06/2023 ug/L		000-447 Depth : 219.00 10/27/2023 ug/L		000-448 Depth : 212.00 02/27/2023 ug/L		000-448 Depth : 212.00 06/06/2023 ug/L		000-448 Depth : 212.00 08/31/2023 ug/L		000-448 Depth : 212.00 11/14/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	**1.2**		**1.4**		**1.8**		**2.1**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	**1.3**		**2.3**		**2.6**		**2.6**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.22	J	0.39	J	0.4	J	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.19	J	0.22	J	0.22	J	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.91**		**0.87**		0.51	U	**0.78**		**0.72**		**0.65**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.2	J	0.3	J	0.42	J	**0.78**		**0.71**		**0.7**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.11		1.17		3.33		5.87		6.45		6.05	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-449 Depth : 193.00 03/02/2023 ug/L		000-449 Depth : 193.00 06/09/2023 ug/L		000-449 Depth : 193.00 09/06/2023 ug/L		000-449 Depth : 193.00 11/07/2023 ug/L		000-450 Depth : 208.00 03/03/2023 ug/L		000-450 Depth : 208.00 06/12/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**0.9**		**0.79**		0.4	J	0.35	J	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**0.91**		0.47	J	0.25	J	0.27	J	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.24	J	0.5	U	0.15	J	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.49	J	0.42	J	0.43	J	**1.5**		**1.3**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.18	J	0.5	U	0.43	J	0.41	J	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	2.23		1.75		1.65		1.46		1.5		1.3	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-450 Depth : 208.00 09/06/2023 ug/L		000-450 Depth : 208.00 11/14/2023 ug/L		000-451 Depth : 193.00 02/27/2023 ug/L		000-451 Depth : 193.00 06/05/2023 ug/L		000-451 Depth : 193.00 08/30/2023 ug/L		000-451 Depth : 193.00 11/07/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.31	J	0.26	J	0.3	J	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.2**		**1.4**		**1.8**		**1.7**		**1.4**		**1.5**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	**0.57**		**0.73**		**0.65**		**0.73**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.2		1.4		2.68		2.69		2.35		2.23	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-452 Depth : 217.00 03/02/2023 ug/L		000-452 Depth : 217.00 06/05/2023 ug/L		000-452 Depth : 217.00 09/05/2023 ug/L		000-452 Depth : 217.00 11/01/2023 ug/L		000-458 Depth : 301.00 03/28/2023 ug/L		000-458 Depth : 301.00 06/13/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.31	J	0.5	U	0.29	J	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.95**		**1.1**		**1**		0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.43	J	0.5	U	**0.6**		**0.52**		0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.69		1.1		1.89		0.52		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (LIPA)

Analyte	000-458 Depth : 301.00 09/06/2023 ug/L		000-458 Depth : 301.00 10/27/2023 ug/L		000-459 Depth : 304.00 03/28/2023 ug/L		000-459 Depth : 304.00 06/13/2023 ug/L		000-459 Depth : 304.00 09/07/2023 ug/L		000-459 Depth : 304.00 12/08/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.33	J
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0		0		0.33	

OU III (Airport)

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	000-428 Depth : 300.50 02/24/2023 ug/L		000-428 Depth : 298.00 06/12/2023 ug/L		000-428 Depth : 301.00 08/31/2023 ug/L		000-428 Depth : 298.00 12/08/2023 ug/L		800-100 Depth : 214.00 01/11/2023 ug/L		800-100 Depth : 214.00 06/26/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.75	U	**0.77**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0		0		0.77	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Airport)

Analyte	800-100 Depth : 214.00 12/05/2023 ug/L		800-101 Depth : 280.00 01/11/2023 ug/L		800-101 Depth : 280.00 06/27/2023 ug/L		800-101 Depth : 280.00 12/05/2023 ug/L		800-102 Depth : 304.00 01/11/2023 ug/L		800-102 Depth : 304.00 06/27/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	**2.5**		**3**		**3**		0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	**4.5**		**5.3**		**4.8**		0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.26	J	0.31	J	0.3	J	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	**3**		**3.3**		**4.7**		0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	**0.99**		**0.96**		**1**		0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	**4.1**		**3.7**		**3.3**		0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.89**		**9**		**8.4**		**8.5**		0.73	U	**0.58**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.19	J	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	**15**		**15**		**15**		0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.27	J	0.31	J	0.27	J	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.89		39.62		40.47		40.87		0		0.58	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-102 Depth : 304.00 12/05/2023 ug/L		800-103 Depth : 225.00 01/11/2023 ug/L		800-103 Depth : 225.00 06/27/2023 ug/L		800-103 Depth : 225.00 12/05/2023 ug/L		800-104 Depth : 170.00 01/11/2023 ug/L		800-104 Depth : 170.00 06/26/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.38	J	0.5	U	**0.9**		**1.1**		0.5	U	0.31	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.38		0		0.9		1.1		0		0.31	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-104 Depth : 170.00 12/05/2023 ug/L		800-105 Depth : 233.00 01/11/2023 ug/L		800-105 Depth : 233.00 06/26/2023 ug/L		800-105 Depth : 233.00 12/05/2023 ug/L		800-106 Depth : 217.00 01/09/2023 ug/L		800-106 Depth : 217.00 06/28/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.23	J	**2.4**		**2.2**		**2.2**		0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.44	J	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.23		2.4		2.64		2.2		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-106 Depth : 217.00 12/06/2023 ug/L		800-108 Depth : 216.00 01/11/2023 ug/L		800-108 Depth : 216.00 03/16/2023 ug/L		800-108 Depth : 216.00 06/26/2023 ug/L		800-108 Depth : 216.00 09/12/2023 ug/L		800-108 Depth : 216.00 12/05/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	**0.57**		0.29	J	0.43	J	**0.66**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.31	J
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0.57		0.29		0.43		0.97	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-126 Depth : 175.00 01/13/2023 ug/L		800-126 Depth : 175.00 03/15/2023 ug/L		800-126 Depth : 175.00 06/27/2023 ug/L		800-126 Depth : 175.00 09/11/2023 ug/L		800-126 Depth : 175.00 12/04/2023 ug/L		800-127 Depth : 175.00 01/06/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-127 Depth : 175.00 03/15/2023 ug/L		800-127 Depth : 175.00 06/27/2023 ug/L		800-127 Depth : 175.00 09/12/2023 ug/L		800-127 Depth : 175.00 12/06/2023 ug/L		800-128 Depth : 180.00 01/06/2023 ug/L		800-128 Depth : 180.00 03/16/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-128 Depth : 180.00 06/23/2023 ug/L		800-128 Depth : 180.00 09/12/2023 ug/L		800-128 Depth : 180.00 12/01/2023 ug/L		800-129 Depth : 180.00 01/06/2023 ug/L		800-129 Depth : 180.00 06/23/2023 ug/L		800-129 Depth : 180.00 12/01/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.18	J	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J	0.23	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0		0.48		0.23	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-130 Depth : 185.00 01/06/2023 ug/L		800-130 Depth : 185.00 06/23/2023 ug/L		800-130 Depth : 185.00 12/04/2023 ug/L		800-131 Depth : 194.00 01/06/2023 ug/L		800-131 Depth : 194.00 03/15/2023 ug/L		800-131 Depth : 194.00 06/27/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**3.7**		**3.4**		**1.9**		**0.61**		0.49	J	**0.89**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.63	U	**0.61**		**0.53**		0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**11**		**12**		**6.5**		0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	14.7		16.01		8.93		0.61		0.49		0.89	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-131 Depth : 194.00 09/12/2023 ug/L		800-131 Depth : 194.00 12/01/2023 ug/L		800-133 Depth : 225.00 01/11/2023 ug/L		800-133 Depth : 225.00 03/16/2023 ug/L		800-133 Depth : 225.00 06/26/2023 ug/L		800-133 Depth : 225.00 09/13/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.35	J	0.3	J	0.4	J	0.3	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**3**		**4.9**		**0.57**		**0.62**		**4.3**		**5**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.22	J	0.37	J	1.5	U	**1.4**		**1.6**		**1.5**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	3.22		5.27		0.92		2.32		6.3		6.8	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-133 Depth : 225.00 12/07/2023 ug/L		800-138 Depth : 250.00 01/09/2023 ug/L		800-138 Depth : 250.00 06/27/2023 ug/L		800-138 Depth : 250.00 12/06/2023 ug/L		800-43 Depth : 157.00 01/13/2023 ug/L		800-43 Depth : 157.00 06/28/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.42	J	0.5	U	0.16	J	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	J
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**9**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.7**		1.4	U	**1.5**		**1.3**		**1.7**		**1.1**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.31	J	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	**0.58**		**0.69**		**0.7**		0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	11.12		0.58		2.35		2.31		1.7		1.1	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-43 Depth : 157.00 12/07/2023 ug/L		800-44 Depth : 212.00 01/13/2023 ug/L		800-44 Depth : 212.00 06/28/2023 ug/L		800-44 Depth : 212.00 12/07/2023 ug/L		800-50 Depth : 205.00 01/16/2023 ug/L		800-50 Depth : 205.00 06/28/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.18	J	0.17	J	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	**4.4**		**5.7**		**4.5**		0.22	J	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.2**		0.47	J	0.41	J	0.36	J	**0.81**		**0.79**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	1.2		4.87		6.29		5.33		1.03		0.79	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Airport)

Analyte	800-50 Depth : 205.00 12/07/2023 ug/L		800-59 Depth : 208.00 01/09/2023 ug/L		800-59 Depth : 208.00 06/27/2023 ug/L		800-59 Depth : 208.00 12/06/2023 ug/L		800-60 Depth : 210.00 01/09/2023 ug/L		800-60 Depth : 210.00 03/16/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.85**		0.54	U	0.42	J	0.5	U	0.5	U	0.48	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.33	J	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.85		0		0.42		0.33		0		0.48	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-60 Depth : 215.00 06/28/2023 ug/L		800-60 Depth : 210.00 09/13/2023 ug/L		800-60 Depth : 210.00 12/06/2023 ug/L		800-63 Depth : 206.00 01/16/2023 ug/L		800-63 Depth : 206.00 06/28/2023 ug/L		800-63 Depth : 206.00 12/07/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.44	J	**0.54**		**0.67**		0.35	J	0.3	J	0.25	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.29	J
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5		0.49	J	**0.57**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.44		0.54		0.67		0.85		0.79		1.11	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-90 Depth : 255.00 01/09/2023 ug/L		800-90 Depth : 255.00 06/28/2023 ug/L		800-90 Depth : 255.00 12/06/2023 ug/L		800-92 Depth : 200.00 01/09/2023 ug/L		800-92 Depth : 200.00 06/28/2023 ug/L		800-92 Depth : 200.00 12/06/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**0.7**		**0.61**		0.49	J	0.39	J	0.45	J	0.38	J
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**1.6**		**1.2**		**1.3**		1.5	U	**1.4**		**1.1**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.32	J	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**1**		**0.85**		**0.92**		**1.4**		**1.2**		**1.3**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	3.3		2.66		3.03		1.79		3.05		2.78	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Airport)

Analyte	800-94 Depth : 185.00 01/11/2023 ug/L		800-94 Depth : 185.00 06/28/2023 ug/L		800-94 Depth : 185.00 12/07/2023 ug/L		800-95 Depth : 187.00 01/11/2023 ug/L		800-95 Depth : 187.00 06/28/2023 ug/L		800-95 Depth : 187.00 12/07/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.9**		**1.4**		**1.6**		0.45	J	**0.57**		**0.84**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**3.5**		**2.6**		**3.6**		**1**		**1.1**		**2**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	J	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.46	J	0.32	J	0.39	J	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**27**		**25**		**24**		**8.6**		**9.6**		**11**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	1.3	U	**1.1**		**1**		0.95	U	**0.79**		**0.83**	
cis-1,2-Dichloroethylene	**0.7**		0.47	J	**0.55**		0.5	U	0.16	J	0.18	J
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**23**		**19**		**23**		**5.4**		**4.8**		**7.1**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	56.56		49.89		54.14		15.45		17.02		21.95	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (Airport)

Analyte	800-96 Depth : 189.00 01/06/2023 ug/L		800-96 Depth : 189.00 06/23/2023 ug/L		800-96 Depth : 189.00 12/01/2023 ug/L		800-97 Depth : 199.00 01/06/2023 ug/L		800-97 Depth : 199.00 06/26/2023 ug/L		800-97 Depth : 199.00 12/01/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**1.8**		**2.4**		**1.2**		0.5	U	0.2	J	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**3.5**		**3.5**		**1.7**		0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.4	J	0.35	J	0.17	J	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**25**		**31**		**18**		**3.7**		**2.9**		**2.7**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.88	U	**1.1**		**0.78**		0.5	U	0.3	J	0.32	J
cis-1,2-Dichloroethylene	**1.2**		**1.3**		**0.56**		0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**26**		**48**		**35**		0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	57.9		87.65		57.41		3.7		3.4		3.02	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Airport)

Analyte	800-98 Depth : 184.00 01/09/2023 ug/L		800-98 Depth : 184.00 06/27/2023 ug/L		800-98 Depth : 184.00 10/26/2023 ug/L		800-99 Depth : 248.00 01/09/2023 ug/L		800-99 Depth : 248.00 06/27/2023 ug/L		800-99 Depth : 248.00 10/26/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	**0.97**		**0.81**		**0.65**	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	**1.1**		**0.86**		**0.63**	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.19	J	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.2	J	0.18	J	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.41	J	0.36	J	**4.1**		**3.7**		**3.72**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.18	J	0.17	J	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	**0.86**		**0.57**		**0.53**	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U		

8260 TVOC	0		0.41		0.36		7.6		6.29		5.53	

Magothy

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	000-102 Depth : 315.00 02/24/2023 ug/L		000-102 Depth : 315.00 06/05/2023 ug/L		000-102 Depth : 315.00 08/31/2023 ug/L		000-102 Depth : 315.00 11/08/2023 ug/L		000-105 Depth : 285.00 02/27/2023 ug/L		000-105 Depth : 285.00 06/06/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	000-105 Depth : 285.00 08/31/2023 ug/L		000-105 Depth : 285.00 10/30/2023 ug/L		000-130 Depth : 280.00 06/09/2023 ug/L		000-130 Depth : 280.00 09/07/2023 ug/L		000-130 Depth : 280.00 10/25/2023 ug/L		000-249 Depth : 264.00 05/11/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**2.9**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.2	J	**0.88**		**0.63**		**0.6**	J	0.4	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.36	J	0.38	J	0.4	J	**0.75**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.17	J
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U			1.5	U

8260 TVOC	0		0.2		1.24		1.01		1		4.52	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	000-249 Depth : 264.00 10/11/2023 ug/L		000-250 Depth : 298.00 10/11/2023 ug/L		000-343 Depth : 330.00 06/13/2023 ug/L		000-343 Depth : 330.00 12/22/2023 ug/L		000-425 Depth : 315.00 03/03/2023 ug/L		000-425 Depth : 315.00 06/12/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	**0.86**		**0.68**	J	0.36	J	0.34	J
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	**2.1**		**2.68**		0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.37	J	0.35	J	0.18	J	0.2	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.18	J	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**1.3**		0.5	U	0.5	U	0.5	U	0.3	J	0.33	J
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.18	J	0.5	U	0.5	U	0.5	U
Chloroform	0.48	J	0.5	U	0.34	J	0.5	U	0.44	J	0.46	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5		0.5	J	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.34	J	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**0.79**		0.5	U	0.5	U	0.5	U	**1.7**		**1.4**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.35	J	0.5	U	0.22	J	0.5	U	0.37	J	**0.85**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	2.92		0.34		4.75		4.21		3.35		3.58	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	000-425 Depth : 315.00 09/01/2023 ug/L		000-425 Depth : 315.00 10/26/2023 ug/L		000-428 Depth : 300.50 02/24/2023 ug/L		000-428 Depth : 298.00 06/12/2023 ug/L		000-428 Depth : 301.00 08/31/2023 ug/L		000-428 Depth : 298.00 12/08/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.37	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.26	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.43	J	**0.51**	J	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**1.5**		**1.31**		0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**0.53**		0.49	J	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	3.09		2.31		0		0		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	000-458 Depth : 301.00 03/28/2023 ug/L		000-458 Depth : 301.00 06/13/2023 ug/L		000-458 Depth : 301.00 09/06/2023 ug/L		000-458 Depth : 301.00 10/27/2023 ug/L		000-459 Depth : 304.00 03/28/2023 ug/L		000-459 Depth : 304.00 06/13/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	000-459 Depth : 304.00 09/07/2023 ug/L		000-459 Depth : 304.00 12/08/2023 ug/L		113-09 Depth : 222.00 05/02/2023 ug/L		113-09 Depth : 222.00 10/25/2023 ug/L		113-19 Depth : 230.00 03/17/2023 ug/L		113-19 Depth : 230.00 05/12/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	**1.6**		0.7	U	**8.3**		**10**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.34	J	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**1.2**		**1.4**	
1,1-Dichloroethylene	0.5	U	0.5	U	**1.7**		**0.69**	J	**4.5**		**5.6**	
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.47	J	0.5	U	**5.7**		**7.5**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	**0.66**		0.5	U	**0.78**		**1.1**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.43	J
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	1	U	1	U
Methyl bromide	0.5	U	0.33	J	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	**55**	D	**38.4**		0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	**3.4**		**2.61**		**4.1**		**4.2**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U			1.5	U	1.5	U

8260 TVOC	0		0.33		63.17		41.7		24.58		30.23	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	113-19 Depth : 230.00 09/08/2023 ug/L		113-19 Depth : 230.00 11/03/2023 ug/L		113-22 Depth : 240.00 05/01/2023 ug/L		113-22 Depth : 240.00 11/03/2023 ug/L		122-05 Depth : 271.50 05/05/2023 ug/L		122-05 Depth : 271.50 11/14/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**7.1**		**7.03**		0.5	U	0.46	J	**0.71**		**1.07**	
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**1**		**1.05**		0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	**4.1**		**3.91**		0.5	U	0.5	U	0.26	J	0.36	J
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	**4.5**		**4.58**		**8.6**		**9.15**		0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.64**		**0.7**	J	**0.81**		**0.85**	J	0.35	J	0.45	J
cis-1,2-Dichloroethylene	0.31	J	0.5	U	0.5	U	0.5	U	**14**		**7.43**	
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	0.5	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	**2.7**		**2.21**	
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**3.8**		**4.31**		0.3	J	**0.52**	J	**1.6**		**1.51**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U			1.5	U		

8260 TVOC	21.45		21.58		9.71		10.98		19.62		13.03	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	122-20 Depth : 260.00 12/13/2023 ug/L		130-04 Depth : 287.50 11/20/2023 ug/L		800-101 Depth : 280.00 01/11/2023 ug/L		800-101 Depth : 280.00 06/27/2023 ug/L		800-101 Depth : 280.00 12/05/2023 ug/L		800-102 Depth : 304.00 01/11/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	**0.99**	J	0.5	U	**2.5**		**3**		**3**		0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	**4.5**		**5.3**		**4.8**		0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.26	J	0.31	J	0.3	J	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	**3**		**3.3**		**4.7**		0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	**0.99**		**0.96**		**1**		0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	**4.1**		**3.7**		**3.3**		0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.38	J	0.5	U	**9**		**8.4**		**8.5**		0.73	U
cis-1,2-Dichloroethylene	**0.68**	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.19	J	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	0.5	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.71	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	**1.29**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	**1.36**		0.5	U	**15**		**15**		**15**		0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.27	J	0.31	J	0.27	J	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)					1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	4.7		0		39.62		40.47		40.87		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	800-102 Depth : 304.00 06/27/2023 ug/L		800-102 Depth : 304.00 12/05/2023 ug/L		800-105 Depth : 233.00 01/11/2023 ug/L		800-105 Depth : 233.00 06/26/2023 ug/L		800-105 Depth : 233.00 12/05/2023 ug/L		800-90 Depth : 255.00 01/09/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.7**	
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.58**		0.38	J	**2.4**		**2.2**		**2.2**		**1.6**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.44	J	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**1**	
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.58		0.38		2.4		2.64		2.2		3.3	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU III (Magothy) Sampling Program

Analyte	800-90 Depth : 255.00 06/28/2023 ug/L		800-90 Depth : 255.00 12/06/2023 ug/L		800-99 Depth : 248.00 01/09/2023 ug/L		800-99 Depth : 248.00 06/27/2023 ug/L		800-99 Depth : 248.00 10/26/2023 ug/L			
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,1,1-Trichloroethane	0.5	U	0.5	U	**0.97**		**0.81**		**0.65**	J		
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,1-Dichloroethylene	0.5	U	0.5	U	**1.1**		**0.86**		**0.63**	J		
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,2-Dichloroethane	0.5	U	0.5	U	0.19	J	0.5	U	0.5	U		
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Carbon tetrachloride	**0.61**		0.49	J	0.2	J	0.18	J	0.5	U		
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Chloroform	**1.2**		**1.3**		**4.1**		**3.7**		**3.72**			
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Dichlorodifluoromethane	0.5	U	0.5	U	0.18	J	0.17	J	0.5	U		
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
m/p xylene	1	U	1	U	1	U	1	U	0.5	U		
Methyl bromide	0.5	U	0.32	J	0.5	U	0.5	U	0.5	U		
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Trichloroethylene	**0.85**		**0.92**		**0.86**		**0.57**		**0.53**	J		
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U				

8260 TVOC	2.66		3.03		7.6		6.29		5.53			

OU III South Boundary Radionuclide

OU III (AOC 29/HFBR Tritium)

OU III (BGRR/WCF Sr-90)

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-06 Depth : 60.00 11/27/2023 pCi/l				065-160 Depth : 44.00 04/24/2023 pCi/l				065-162 Depth : 51.00 11/16/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	-0.337	U-DL	0.95	0.539	1.07	N2	0.668	0.485	0.635	N2	0.59	0.393
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-163 Depth : 75.00 11/21/2023 pCi/l				065-164 Depth : 75.00 11/06/2023 pCi/l				065-169 Depth : 85.00 04/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.112	U	0.477	0.278	0.577	UJ(-)B	0.767	0.482	**14.7**		0.517	1.13
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-169 Depth : 85.00 11/14/2023 pCi/l				065-170 Depth : 85.00 12/26/2023 pCi/l				065-174 Depth : 44.00 11/28/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137	1.3	U	6.26	3.15	-0.41	U	6.55	3.56				
Strontium-90	**99.8**		0.638	3.14	**41**		0.721	2.33	**2.54**		0.698	0.696
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-175 Depth : 40.00 04/25/2023 pCi/l				065-175 Depth : 45.00 11/16/2023 pCi/l				065-176 Depth : 43.00 11/08/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**61.4**		0.782	2.2	**12.9**		0.763	1.3	0.184	U	0.439	0.259
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-178 Depth : 80.00 11/03/2023 pCi/l				065-325 Depth : 77.00 04/27/2023 pCi/l				065-325 Depth : 77.00 11/13/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.461	U	0.777	0.47	**13.3**		0.58	1.13	**17.7**		0.65	1.42
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-360 Depth : 45.00 11/02/2023 pCi/l				065-361 Depth : 55.00 11/02/2023 pCi/l				065-362 Depth : 48.00 11/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	1.24	N2	0.792	0.563	1.21	N2	0.786	0.529	0.904	N2	0.778	0.52
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-363 Depth : 60.00 11/06/2023 pCi/l				065-364 Depth : 70.00 11/06/2023 pCi/l				065-365 Depth : 80.00 11/06/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.251	UJ(-)B	0.412	0.246	0.574	UJ(-)B	0.793	0.49	0.295	UJ(-)B	0.473	0.283
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-367 Depth : 95.00 11/13/2023 pCi/l				065-37 Depth : 76.60 04/26/2023 pCi/l				065-37 Depth : 77.00 11/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137					-0.553	U	5.89	3.64	-1.29	U	7.28	4.03
Strontium-90	0.146	U	0.333	0.197	**10.5**		0.612	1.1	**21.1**		0.613	1.61
Tritium					39	U	375	213	102	U	316	181

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-38 Depth : 63.00 04/24/2023 pCi/l				065-38 Depth : 63.00 11/03/2023 pCi/l				065-39 Depth : 87.40 04/24/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.507	U	0.785	0.476	0.195	U	0.767	0.439	**5.67**		0.492	0.772
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-39 Depth : 87.40 11/03/2023 pCi/l				065-401 Depth : 73.00 04/19/2023 pCi/l				065-401 Depth : 75.00 11/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**9.27**		0.798	1.06	0.334	U	0.517	0.316	-0.544	U	0.771	0.422
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-402 Depth : 52.00 04/25/2023 pCi/l				065-402 Depth : 52.00 11/22/2023 pCi/l				065-404 Depth : 100.00 04/24/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.024	U	0.794	0.436	0.411	U	0.525	0.318	-0.0534	U	0.445	0.212
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	065-404 Depth : 100.00 11/22/2023 pCi/l				065-405 Depth : 80.00 04/27/2023 pCi/l				065-405 Depth : 80.00 11/13/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**1.31**		0.593	0.473	0.786	N2	0.661	0.443	**4.93**		0.613	0.848
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-189 Depth : 69.50 11/07/2023 pCi/l				075-193 Depth : 85.00 10/31/2023 pCi/l				075-194 Depth : 145.00 10/31/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**2.09**	UJ(-)B	0.739	0.619	0.294	U	0.666	0.39	0.569	U	0.788	0.479
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-201 Depth : 68.00 11/08/2023 pCi/l				075-210 Depth : 58.00 04/19/2023 pCi/l				075-210 Depth : 58.00 11/15/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.507	U	0.536	0.358	0.442	U	0.733	0.448	0.657	U	0.78	0.498
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-39 Depth : 56.00 11/06/2023 pCi/l				075-40 Depth : 122.50 01/05/2023 pCi/l				075-40 Depth : 122.50 04/12/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.6	UJ(-)B	0.616	0.377								
Tritium					75.839	U	360.288	211.306	-110.922	U	407.846	234.827

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-40 Depth : 122.50 07/07/2023 pCi/l				075-40 Depth : 122.50 10/05/2023 pCi/l				075-41 Depth : 195.50 11/07/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90									-0.139	UJ(-)B	0.42	0.233
Tritium	-131.95	U	398.138	228.249	-43.722	U	508.931	295.825				

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-415 Depth : 114.00 09/01/2023 pCi/l				075-417 Depth : 62.00 08/18/2023 pCi/l				075-417 Depth : 62.00 09/01/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	-0.164	U	0.781	0.395	-0.429	U	0.757	0.369	0.342	U	0.763	0.448
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-419 Depth : 58.00 02/23/2023 pCi/l				075-419 Depth : 58.00 08/18/2023 pCi/l				075-46 Depth : 44.00 11/07/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.432	U	0.767	0.462	-0.199	U	0.749	0.346	0.583	U	0.665	0.423
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-47 Depth : 36.30 04/18/2023 pCi/l				075-47 Depth : 42.00 10/31/2023 pCi/l				075-48 Depth : 68.00 04/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.493	U	0.585	0.373	0.306	U	0.789	0.459	1.03	N2	1.02	0.661
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-48 Depth : 68.00 10/31/2023 pCi/l				075-664 Depth : 65.00 01/05/2023 pCi/l				075-664 Depth : 68.00 02/10/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.0453	U	0.791	0.417	0.324	U	0.781	0.459	1.15	N2	0.777	0.537
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-664 Depth : 68.00 04/13/2023 pCi/l				075-664 Depth : 68.00 05/30/2023 pCi/l				075-664 Depth : 62.85 06/29/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**1.68**		0.794	0.551	0.0843	U	0.424	0.247	-0.0789	U	0.53	0.263
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-664 Depth : 69.00 07/26/2023 pCi/l				075-664 Depth : 70.00 08/29/2023 pCi/l				075-664 Depth : 70.00 09/13/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.689	U-DL	0.838	0.506	0.616	U	0.755	0.474	0.758	U	0.759	0.492
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-664 Depth : 68.00 10/27/2023 pCi/l				075-664 Depth : 70.00 11/21/2023 pCi/l				075-664 Depth : 69.00 12/13/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.153	U	0.635	0.349	-0.141	U-DL	0.942	0.536	0.517	U	0.786	0.472
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-665 Depth : 82.00 11/08/2023 pCi/l				075-666 Depth : 51.00 11/16/2023 pCi/l				075-669 Depth : 60.00 11/16/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	-0.0359	U	0.564	0.323	**11.3**		0.739	1.04	0.45	N2	0.447	0.302
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-670 Depth : 94.00 04/25/2023 pCi/l				075-670 Depth : 94.00 11/03/2023 pCi/l				075-671 Depth : 109.00 04/25/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.73	U	0.778	0.495	0.35	U	0.792	0.464	**1.51**		0.792	0.571
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-671 Depth : 109.00 11/03/2023 pCi/l				075-672 Depth : 112.00 11/02/2023 pCi/l				075-673 Depth : 43.50 11/16/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.727	U	0.755	0.493	1.11	N2	0.788	0.519	0.685	N2	0.67	0.434
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-674 Depth : 75.00 10/31/2023 pCi/l				075-675 Depth : 95.00 10/31/2023 pCi/l				075-681 Depth : 59.00 11/07/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.765	U	0.771	0.49	0.597	U	0.774	0.485	0.242	UJ(-)B	0.742	0.424
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-682 Depth : 81.00 04/25/2023 pCi/l				075-682 Depth : 81.00 11/07/2023 pCi/l				075-683 Depth : 81.00 11/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.525	U	0.777	0.475	1.26	UJ(-)B	0.772	0.549	**2.3**		0.792	0.604
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-684 Depth : 79.00 04/18/2023 pCi/l				075-684 Depth : 79.00 10/31/2023 pCi/l				075-699 Depth : 85.00 04/24/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**2.49**		0.667	0.629	**2.23**		0.782	0.595	0.14	U	0.673	0.369
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-699 Depth : 85.00 11/13/2023 pCi/l				075-700 Depth : 66.00 04/13/2023 pCi/l				075-700 Depth : 69.00 11/08/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.653	U	0.788	0.475	-0.814	U	0.791	0.371	-0.414	U	0.687	0.387
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-701 Depth : 62.63 01/05/2023 pCi/l				075-701 Depth : 62.25 02/10/2023 pCi/l				075-701 Depth : 64.00 03/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**3.25**		0.781	0.694	**3.41**		0.763	0.684	**2.45**		0.787	0.626
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-701 Depth : 61.64 04/13/2023 pCi/l				075-701 Depth : 67.52 05/30/2023 pCi/l				075-701 Depth : 68.00 06/29/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**1.18**		0.648	0.497	0.721	U	0.736	0.498	**2.62**		0.771	0.68
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-701 Depth : 63.17 07/26/2023 pCi/l				075-701 Depth : 64.03 08/29/2023 pCi/l				075-701 Depth : 58.00 09/13/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**3.05**		0.986	0.667	0.0203	U	0.626	0.32	0.351	U	0.747	0.44
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-701 Depth : 64.00 10/27/2023 pCi/l				075-701 Depth : 58.00 11/21/2023 pCi/l				075-701 Depth : 64.00 12/13/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	1.04	N2	0.651	0.5	**3.54**		0.563	0.658	**9.32**		0.735	0.639
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-705 Depth : 90.00 04/19/2023 pCi/l				075-705 Depth : 90.00 11/22/2023 pCi/l				075-706 Depth : 95.00 04/19/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**1.13**		0.391	0.336	0.504	U	0.619	0.403	**1.52**		0.856	0.615
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-706 Depth : 95.00 11/07/2023 pCi/l				075-707 Depth : 75.00 04/18/2023 pCi/l				075-707 Depth : 75.00 11/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**2.11**		0.773	0.554	**1.98**		0.564	0.508	1.25	N2	0.797	0.596
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-85 Depth : 67.50 11/02/2023 pCi/l				075-86 Depth : 107.50 11/07/2023 pCi/l				075-87 Depth : 108.00 04/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**34.1**		0.754	2.01	**1.29**		0.633	0.439	-0.059	U	0.776	0.415
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	075-87 Depth : 107.50 10/31/2023 pCi/l				085-01 Depth : 75.00 08/18/2023 pCi/l				085-171 Depth : 130.00 08/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	-0.105	U	0.781	0.394	0.216	U	0.743	0.423	-0.117	U	0.783	0.382
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	085-285 Depth : 66.00 09/13/2023 pCi/l				085-286 Depth : 66.00 09/13/2023 pCi/l				085-287 Depth : 66.00 08/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.549	U	0.784	0.491	0.166	U	0.76	0.426	0.216	U	0.778	0.443
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	085-290 Depth : 66.00 08/18/2023 pCi/l				085-398 Depth : 130.00 04/21/2023 pCi/l				085-398 Depth : 130.00 11/09/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	0.603	U	0.764	0.479	**8.64**		0.836	1.14	**1.91**		0.803	0.574
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	085-399 Depth : 65.00 04/26/2023 pCi/l				085-399 Depth : 65.00 11/09/2023 pCi/l				085-402 Depth : 100.00 04/26/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**2.05**		0.595	0.526	0.577	U	0.64	0.39	**3.15**		0.493	0.52
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	085-402 Depth : 100.00 11/09/2023 pCi/l				085-403 Depth : 120.00 04/21/2023 pCi/l				085-403 Depth : 120.00 11/09/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Cesium-137												
Strontium-90	**2.27**		0.663	0.631	**6.44**		1.27	1.32	**2.65**		0.757	0.72
Tritium												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

	095-326 Depth : 120.00 04/21/2023 pCi/l				095-326 Depth : 120.00 11/16/2023 pCi/l							
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error				
Cesium-137												
Strontium-90	0.989	N2	0.679	0.476	-0.276	U	0.575	0.257				
Tritium												

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU III (BGRR/WCF Sr-90)

Analyte	065-06 Depth : 60.00 11/27/2023 ug/L											
1,1,1,2-Tetrachloroethane	0.5	U										
1,1,1-Trichloroethane	0.5	U										
1,1,2,2-Tetrachloroethane	0.5	U										
1,1,2-Trichloroethane	0.5	U										
1,1-Dichloroethane	0.5	U										
1,1-Dichloroethylene	0.5	U										
1,1-Dichloropropene	0.5	U										
1,2,3-Trichlorobenzene	0.5	U										
1,2,3-Trichloropropane	0.5	U										
1,2,4-Trichlorobenzene	0.5	U										
1,2-Dichloroethane	0.5	U										
1,2-Dichloropropane	0.5	U										
1,3-Dichloropropane	0.5	U										
2,2-Dichloropropane	0.5	U										
Benzene	0.5	U										
Benzene, 1,2,4-trimethyl	0.5	U										
Benzene, 1,3,5-trimethyl-	0.5	U										
Benzene, 1-methylethyl-	0.5	U										
Bromobenzene	0.5	U										
Bromodichloromethane	0.5	U										
Bromoform	0.5	U										
Carbon tetrachloride	0.5	U										
Chlorobenzene	0.5	U										
Chlorobromomethane	0.5	U										
Chloroethane	0.5	U										
Chloroform	0.5	U										
cis-1,2-Dichloroethylene	0.5	U										
cis-1,3-Dichloropropene	0.5	U										
Cymene	0.5	U										
DBCP	0.5	U										
Dibromochloromethane	0.5	U										
Dibromomethane	0.5	U										
Dichlorodifluoromethane	0.5	U										
EDB	0.5	U										
Ethene, 1,2-dichloro-, (E)-	0.5	U										
Ethylbenzene	0.5	U										
Hexachlorobutadiene	0.5	U										
m-Dichlorobenzene	0.5	U										
m/p xylene	0.5	U										
Methyl bromide	0.5	U										
Methyl chloride	0.5	U										
Methyl tert-butyl ether	0.5	U										
Methylene chloride	0.5	U										
n-Butylbenzene	0.5	U										
n-Propylbenzene	0.5	U										
Naphthalene	0.5	U										
o-Chlorotoluene	0.5	U										
o-Dichlorobenzene	0.5	U										
o-Xylene	0.5	U										
p-Chlorotoluene	0.5	U										
p-Dichlorobenzene	0.5	U										
sec-Butylbenzene	0.5	U										
Styrene	0.5	U										
tert-Butylbenzene	0.5	U										
Tetrachloroethylene	0.5	U										
Toluene	0.5	U										
trans-1,3-Dichloropropene	0.5	U										
Trichloroethylene	0.5	U										
Trichlorofluoromethane	0.5	U										
Vinyl chloride	0.5	U										
8260 TVOC	0											

Chemical/Animal Holes Sr-90

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	097-313 Depth : 36.00 03/07/2023 pCi/l				097-313 Depth : 36.96 08/02/2023 pCi/l				097-314 Depth : 40.00 03/08/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**7.05**		0.768	0.719	**7.55**		0.669	0.812	**21.3**		0.763	1.27

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	097-314 Depth : 36.86 08/02/2023 pCi/l				097-315 Depth : 38.68 03/07/2023 pCi/l				097-315 Depth : 36.76 08/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**31.9**		0.458	1.54	**7.69**		0.761	0.739	**3.2**		0.447	0.532

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-100 Depth : 34.04 07/31/2023 pCi/l				106-101 Depth : 34.81 08/02/2023 pCi/l				106-102 Depth : 33.46 08/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**2.29**		0.325	0.274	**4.96**		0.526	0.686	-0.129	U	0.751	0.372

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-103 Depth : 33.43 07/31/2023 pCi/l				106-104 Depth : 33.52 07/31/2023 pCi/l				106-105 Depth : 33.64 07/31/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**52.6**		0.835	1.47	**9.72**		0.597	0.613	**1.8**		0.611	0.415

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-119 Depth : 40.00 08/03/2023 pCi/l				106-120 Depth : 40.00 08/03/2023 pCi/l				106-121 Depth : 40.00 08/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	-0.417	U	0.79	0.323	0.0969	U	0.743	0.413	0.41	U	0.783	0.467

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-122 Depth : 40.00 08/03/2023 pCi/l				106-125 Depth : 36.18 08/10/2023 pCi/l				106-13 Depth : 37.69 08/10/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	0.424	U	0.752	0.451	**1.22**	UJ(-)B	0.584	0.44	**1.79**	UJ(-)B	0.515	0.486

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-135 Depth : 32.70 08/03/2023 pCi/l				106-136 Depth : 33.87 08/10/2023 pCi/l				106-14 Depth : 38.57 08/08/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	0.766	U	0.773	0.509	**8.27**	UJ(-)B	0.774	0.973	0.327	UJ(-)B	0.635	0.378

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-16 Depth : 37.81 08/08/2023 pCi/l				106-46 Depth : 32.96 08/08/2023 pCi/l				106-47 Depth : 32.88 08/08/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**41**	UJ(-)B	0.567	2	0.462	UJ(-)B	0.578	0.363	0.43	UJ(-)B	0.637	0.39

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-48 Depth : 33.65 08/03/2023 pCi/l				106-49 Depth : 34.53 08/03/2023 pCi/l				106-50 Depth : 34.87 08/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	0.0391	U	0.762	0.423	0.572	U	0.746	0.462	-0.333	U	0.77	0.338

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-94 Depth : 37.58 08/08/2023 pCi/l				106-95 Depth : 37.51 08/08/2023 pCi/l				106-96 Depth : 36.84 08/10/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**19.4**	UJ(-)B	0.754	1.43	**11.4**	UJ(-)B	0.76	1.27	-0.069	UJ(-)B	0.529	0.257

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Chemical/Animal Holes Sr-90

	106-98 Depth : 32.84 08/02/2023 pCi/l				106-99 Depth : 33.31 08/02/2023 pCi/l							
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error				
Strontium-90	**4.3**		0.582	0.628	**17.4**		0.631	1.36				

OU III (AOC 29/HFBR Tritium)

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-11 Depth : 61.50 01/12/2023 pCi/l				075-11 Depth : 61.50 04/12/2023 pCi/l				075-11 Depth : 61.50 07/07/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	132.82	U	360.565	213.097	**2893.389**		409.176	301.969	169.141	U	396.943	235.38

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-11 Depth : 61.50 10/05/2023 pCi/l				075-288 Depth : 54.00 01/12/2023 pCi/l				075-288 Depth : 54.00 04/13/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-109.505	U	509.862	294.808	18.974	U	360.555	209.821	37.131	U	409.572	239.535

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-288 Depth : 54.00 07/12/2023 pCi/l				075-288 Depth : 54.00 10/05/2023 pCi/l				075-40 Depth : 122.50 01/05/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	**2298.788**		394.745	283.349	768.024	N2	510.851	315.565	75.839	U	360.288	211.306

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-40 Depth : 122.50 04/12/2023 pCi/l				075-40 Depth : 122.50 07/07/2023 pCi/l				075-40 Depth : 122.50 10/05/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-110.922	U	407.846	234.827	-131.95	U	398.138	228.249	-43.722	U	508.931	295.825

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-802 Depth : 52.03 01/10/2023 pCi/l				075-802 Depth : 51.00 04/12/2023 pCi/l				075-802 Depth : 52.27 07/07/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	113.851	U	360.581	212.565	18.743	U	413.497	241.365	0	U	400.049	232.823

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-802 Depth : 56.20 10/05/2023 pCi/l				075-803 Depth : 52.78 01/10/2023 pCi/l				075-803 Depth : 51.73 04/12/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-21.767	U	506.75	295.072	171.06	U	361.181	214.542	-194.179	U	428.382	244.686

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-803 Depth : 56.28 07/07/2023 pCi/l				075-803 Depth : 56.88 10/03/2023 pCi/l				075-804 Depth : 53.15 01/10/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	189.034	U	399.267	237.24	395.31	U	511.273	307.402	495.632	N2	362.247	224.178

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-804 Depth : 52.13 04/13/2023 pCi/l				075-804 Depth : 56.32 07/07/2023 pCi/l				075-804 Depth : 57.20 10/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	**7404.192**		411.449	381.934	**1765.895**		396.789	273.07	**899.432**		510.707	318.392

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-805 Depth : 52.85 01/10/2023 pCi/l				075-805 Depth : 51.75 04/13/2023 pCi/l				075-805 Depth : 56.22 07/07/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	**4968.079**		358.965	321.708	**3473.445**		409.777	313.53	**939.21**		396.749	254.189

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-805 Depth : 56.92 10/03/2023 pCi/l				075-806 Depth : 52.39 01/10/2023 pCi/l				075-806 Depth : 51.37 04/11/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	389.938	U	504.326	303.225	**852.345**		359.933	232.336	**2628.762**		411.302	297.988

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-806 Depth : 55.62 07/07/2023 pCi/l				075-806 Depth : 56.45 10/03/2023 pCi/l				075-807 Depth : 51.56 01/10/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	**960.403**		397.746	255.273	261.177	U	506.688	301.644	**1620.91**		362.376	253.039

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-807 Depth : 50.50 04/11/2023 pCi/l				075-807 Depth : 54.82 07/12/2023 pCi/l				075-807 Depth : 52.85 10/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	0	U	409.856	238.777	-112.978	U	397.708	228.5	-172.207	U	501.129	288.218

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-808 Depth : 50.16 01/12/2023 pCi/l				075-808 Depth : 49.09 04/11/2023 pCi/l				075-808 Depth : 53.46 07/12/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	170.277	U	359.528	213.56	74.429	U	410.498	240.998	433.625	N2	398.208	242.782

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU III (AOC 29/HFBR Tritium)

	075-808 Depth : 54.28 10/03/2023 pCi/l											
Analyte	Result	Qual	MDA	Error								
Tritium	0	U	507.786	296.19								

OU IV (AOC 6 Sr-90)

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	066-189 Depth : 36.00 09/19/2023 pCi/l				076-04 Depth : 40.00 09/28/2023 pCi/l				076-06 Depth : 40.00 03/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	-0.188	U	0.791	0.375	**12**	UJ(-)B	0.786	1.19	**1.39**		0.782	0.563

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-06 Depth : 40.00 09/18/2023 pCi/l				076-07 Depth : 60.00 09/28/2023 pCi/l				076-13 Depth : 41.00 03/20/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	0.553	U	0.759	0.473	-0.983	UJ(-)B	0.732	0.388	**5.14**		1.09	0.782

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-13 Depth : 41.00 09/19/2023 pCi/l				076-168 Depth : 46.00 03/20/2023 pCi/l				076-168 Depth : 46.00 09/19/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**2.82**		0.632	0.611	**5.47**		0.705	0.639	**2.98**		0.474	0.592

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-169 Depth : 46.00 03/20/2023 pCi/l				076-169 Depth : 46.00 09/19/2023 pCi/l				076-181 Depth : 65.00 09/28/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**1.49**		0.811	0.536	0.313	U	0.786	0.456	0.734	UJ(-)B	0.781	0.473

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-182 Depth : 85.00 09/28/2023 pCi/l				076-184 Depth : 65.00 03/14/2023 pCi/l				076-184 Depth : 65.00 09/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	0.0604	UJ(-)B	0.588	0.338	**25.2**		0.856	1	**47.4**		0.629	2.24

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-20 Depth : 34.40 09/18/2023 pCi/l				076-22 Depth : 57.00 09/28/2023 pCi/l				076-24 Depth : 40.00 03/14/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	0.156	U	0.783	0.437	**5.01**	UJ(-)B	0.771	0.873	**7.89**		1.11	0.924

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-24 Depth : 40.00 09/18/2023 pCi/l				076-25 Depth : 42.00 03/20/2023 pCi/l				076-25 Depth : 42.00 09/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**4.57**		0.584	0.727	**6.81**		0.616	0.56	**7.86**		0.532	0.95

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-262 Depth : 75.00 09/18/2023 pCi/l				076-28 Depth : 45.00 03/20/2023 pCi/l				076-28 Depth : 45.00 09/19/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	-0.207	U	0.786	0.36	**2.23**		1.31	0.833	**3.21**		0.656	0.65

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-317 Depth : 41.00 09/18/2023 pCi/l				076-373 Depth : 44.00 09/19/2023 pCi/l				076-415 Depth : 55.00 03/20/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	0.222	U	0.781	0.44	-0.0781	U	0.711	0.371	0.303	U	0.405	0.245

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-415 Depth : 55.00 09/28/2023 pCi/l				076-416 Depth : 55.00 03/20/2023 pCi/l				076-416 Depth : 55.00 09/28/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	0.0718	UJ(-)B	0.411	0.237	0.425	U	0.656	0.394	0.0137	UJ(-)B	0.822	0.476

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-418 Depth : 52.00 03/27/2023 pCi/l				076-418 Depth : 52.00 09/19/2023 pCi/l				076-419 Depth : 50.00 03/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**7.47**		0.763	0.98	**3.65**		0.565	0.669	**19.5**		0.752	1.52

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-419 Depth : 50.00 09/18/2023 pCi/l				076-420 Depth : 42.00 03/27/2023 pCi/l				076-420 Depth : 42.00 09/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Strontium-90	**2.86**		0.539	0.614	**2.31**		0.79	0.617	0.48	U	0.749	0.457

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

	076-421 Depth : 42.00 03/27/2023 pCi/l				076-421 Depth : 42.00 09/18/2023 pCi/l							
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error				
Strontium-90	**2.49**		0.775	0.662	0.264	U	0.772	0.445				

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: OU IV (AOC 6 Sr-90)

Analyte	076-25 Depth : 41.60 04/19/2023 ug/L		076-25 Depth : 42.00 10/11/2023 ug/L									
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U								
1,1,1-Trichloroethane	0.5	U	0.5	U								
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U								
1,1,2-Trichloroethane	0.5	U	0.5	U								
1,1-Dichloroethane	0.5	U	0.5	U								
1,1-Dichloroethylene	0.5	U	0.5	U								
1,1-Dichloropropene	0.5	U	0.5	U								
1,2,3-Trichlorobenzene	0.5	U	0.5	U								
1,2,3-Trichloropropane	0.5	U	0.5	U								
1,2,4-Trichlorobenzene	0.5	U	0.5	U								
1,2-Dichloroethane	0.5	U	0.5	U								
1,2-Dichloropropane	0.5	U	0.5	U								
1,3-Dichloropropane	0.5	U	0.5	U								
2,2-Dichloropropane	0.5	U	0.5	U								
Benzene	0.5	U	0.5	U								
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U								
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U								
Benzene, 1-methylethyl-	0.5	U	0.5	U								
Bromobenzene	0.5	U	0.5	U								
Bromodichloromethane	0.5	U	0.5	U								
Bromoform	0.5	U	0.5	U								
Carbon tetrachloride	0.5	U	0.5	U								
Chlorobenzene	0.5	U	0.5	U								
Chlorobromomethane	0.5	U	0.5	U								
Chloroethane	0.5	U	0.5	U								
Chloroform	0.26	J	0.39	J								
cis-1,2-Dichloroethylene	0.5	U	0.5	U								
cis-1,3-Dichloropropene	0.5	U	0.5	U								
Cymene	0.5	U	0.5	U								
DBCP	0.5	U	0.5	U								
Dibromochloromethane	0.5	U	0.5	U								
Dibromomethane	0.5	U	0.5	U								
Dichlorodifluoromethane	0.5	U	0.5	U								
EDB	0.5	U	0.5	U								
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U								
Ethylbenzene	0.5	U	0.5	U								
Hexachlorobutadiene	0.5	U	0.5	U								
m-Dichlorobenzene	0.5	U	0.5	U								
m/p xylene	1	U	1	U								
Methyl bromide	0.5	U	0.5	U								
Methyl chloride	0.5	U	0.5	U								
Methyl tert-butyl ether	0.5	U	0.5	U								
Methylene chloride	0.5	U	0.5	U								
n-Butylbenzene	0.5	U	0.5	U								
n-Propylbenzene	0.5	U	0.5	U								
Naphthalene	0.5	U	0.5	U								
o-Chlorotoluene	0.5	U	0.5	U								
o-Dichlorobenzene	0.5	U	0.5	U								
o-Xylene	0.5	U	0.5	U								
p-Chlorotoluene	0.5	U	0.5	U								
p-Dichlorobenzene	0.5	U	0.5	U								
sec-Butylbenzene	0.5	U	0.5	U								
Styrene	0.5	U	0.5	U								
tert-Butylbenzene	0.5	U	0.5	U								
Tetrachloroethylene	**3.7**		**1.9**									
Toluene	0.5	U	0.5	U								
trans-1,3-Dichloropropene	0.5	U	0.5	U								
Trichloroethylene	0.5	U	0.5	U								
Trichlorofluoromethane	0.5	U	0.5	U								
Vinyl chloride	0.5	U	0.5	U								
Xylene (total)	1.5	U	1.5	U								

8260 TVOC	3.96		2.29									

OU VI EDB

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-173 Depth : 111.00 12/15/2023 ug/L		000-178 Depth : 133.00 06/21/2023 ug/L		000-178 Depth : 133.00 12/14/2023 ug/L		000-283 Depth : 107.00 06/21/2023 ug/L		000-283 Depth : 107.00 12/14/2023 ug/L		000-284 Depth : 107.00 06/21/2023 ug/L	
DBCP												
EDB	**0.025**		**0.19**		**0.16**		**0.068**		**0.069**		**0.011**	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-284 Depth : 107.00 12/15/2023 ug/L		000-498 Depth : 135.00 06/21/2023 ug/L		000-498 Depth : 135.00 12/15/2023 ug/L		000-499 Depth : 110.00 06/20/2023 ug/L		000-499 Depth : 110.00 12/14/2023 ug/L		000-500 Depth : 135.00 03/13/2023 ug/L	
DBCP											0.011	U
EDB	**0.015**		0.01	U	0.011	U	0.01	U	0.01	U	**0.18**	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-500 Depth : 135.00 06/20/2023 ug/L		000-500 Depth : 135.00 09/22/2023 ug/L		000-500 Depth : 135.00 12/14/2023 ug/L		000-501 Depth : 125.00 06/20/2023 ug/L		000-501 Depth : 125.00 12/14/2023 ug/L		000-507 Depth : 125.00 06/21/2023 ug/L	
DBCP												
EDB	**0.16**		**0.086**		**0.12**		0.01	U	0.01	U	**0.012**	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-507 Depth : 125.00 12/15/2023 ug/L		000-508 Depth : 120.00 03/10/2023 ug/L		000-508 Depth : 120.00 06/20/2023 ug/L		000-508 Depth : 120.00 09/22/2023 ug/L		000-508 Depth : 120.00 12/14/2023 ug/L		000-519 Depth : 130.00 03/10/2023 ug/L	
DBCP			0.011	U							0.011	U
EDB	**0.014**		0.011	U	0.01	U	0.011	U	0.01	U	0.011	U

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-519 Depth : 130.00 06/20/2023 ug/L		000-519 Depth : 130.00 09/22/2023 ug/L		000-519 Depth : 130.00 12/14/2023 ug/L		000-520 Depth : 140.00 06/16/2023 ug/L		000-520 Depth : 140.00 12/20/2023 ug/L		000-524 Depth : 140.00 06/22/2023 ug/L	
DBCP												
EDB	0.011	U	0.01	U	0.01	U	**0.12**		**0.23**		0.011	U

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-524 Depth : 140.00 12/19/2023 ug/L		000-527 Depth : 145.00 03/10/2023 ug/L		000-527 Depth : 145.00 06/20/2023 ug/L		000-527 Depth : 145.00 10/10/2023 ug/L		000-527 Depth : 145.00 12/14/2023 ug/L		000-549 Depth : 145.00 03/14/2023 ug/L	
DBCP			0.011	U							0.01	U
EDB	0.01	U	0.011	U	0.01	U	0.01	U	0.01	U	**0.38**	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-549 Depth : 145.00 06/21/2023 ug/L		000-549 Depth : 145.00 09/21/2023 ug/L		000-549 Depth : 145.00 12/14/2023 ug/L		000-550 Depth : 130.00 03/14/2023 ug/L		000-550 Depth : 130.00 06/22/2023 ug/L		000-550 Depth : 130.00 09/21/2023 ug/L	
DBCP							0.01	U				
EDB	**0.35**		**0.19**		**0.2**		**0.31**		**0.25**		**0.21**	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-550 Depth : 130.00 12/14/2023 ug/L		000-567 Depth : 145.00 03/14/2023 ug/L		000-567 Depth : 145.00 06/16/2023 ug/L		000-567 Depth : 145.00 09/22/2023 ug/L		000-567 Depth : 145.00 12/15/2023 ug/L		000-568 Depth : 160.00 03/14/2023 ug/L	
DBCP			0.01	U							0.1	U D
EDB	**0.35**		**0.15**		**0.25**		**0.068**		**0.084**		**0.64**	D

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-568 Depth : 160.00 06/16/2023 ug/L		000-568 Depth : 160.00 09/22/2023 ug/L		000-568 Depth : 160.00 12/15/2023 ug/L		000-570 Depth : 160.00 03/13/2023 ug/L		000-570 Depth : 160.00 06/21/2023 ug/L		000-570 Depth : 160.00 09/22/2023 ug/L	
DBCP							0.11	U D				
EDB	**0.58**	D	**0.28**		**0.5**	D	**1.3**	D	**1.2**	D	**0.93**	D

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-570 Depth : 160.00 12/19/2023 ug/L		000-571 Depth : 175.00 03/13/2023 ug/L		000-571 Depth : 175.00 06/20/2023 ug/L		000-571 Depth : 175.00 09/22/2023 ug/L		000-571 Depth : 175.00 12/20/2023 ug/L		000-572 Depth : 200.00 03/13/2023 ug/L	
DBCP			0.1	U D							0.11	U D
EDB	**1.1**	D	**1.8**	D	**1.8**	D	**1.1**	D	**2**	D	**0.71**	D

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: OU VI EDB

Analyte	000-572 Depth : 200.00 06/20/2023 ug/L		000-572 Depth : 200.00 09/22/2023 ug/L		000-572 Depth : 200.00 12/14/2023 ug/L							
DBCP												
EDB	**0.61**	D	**0.39**	D	**0.58**	D						

Site Background

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Site Background

Analyte	017-01 Depth : 20.00 09/15/2023 ug/L		017-03 Depth : 120.00 09/15/2023 ug/L		017-04 Depth : 165.00 09/15/2023 ug/L		018-01 Depth : 25.00 09/15/2023 ug/L		018-02 Depth : 75.00 09/15/2023 ug/L		018-04 Depth : 145.00 09/15/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.17	J	0.18	J	0.5	U	0.5	U	0.17	J	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.32	J	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0.17		0.5		0		0		0.17		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Site Background

Analyte	018-05 Depth : 275.00 09/15/2023 ug/L		034-02 Depth : 135.00 09/14/2023 ug/L		034-03 Depth : 175.00 09/14/2023 ug/L							
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U						
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U						
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U						
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U						
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U						
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U						
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U						
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U						
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U						
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U						
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U						
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U						
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U						
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U						
Benzene	0.5	U	0.5	U	0.5	U						
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U						
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U						
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U						
Bromobenzene	0.5	U	0.5	U	0.5	U						
Bromodichloromethane	0.5	U	0.5	U	0.5	U						
Bromoform	0.5	U	0.5	U	0.5	U						
Carbon tetrachloride	0.5	U	0.5	U	0.5	U						
Chlorobenzene	0.5	U	0.5	U	0.5	U						
Chlorobromomethane	0.5	U	0.5	U	0.5	U						
Chloroethane	0.5	U	0.5	U	0.5	U						
Chloroform	0.5	U	0.5	U	0.5	U						
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U						
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U						
Cymene	0.5	U	0.5	U	0.5	U						
DBCP	0.5	U	0.5	U	0.5	U						
Dibromochloromethane	0.5	U	0.5	U	0.5	U						
Dibromomethane	0.5	U	0.5	U	0.5	U						
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U						
EDB	0.5	U	0.5	U	0.5	U						
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U						
Ethylbenzene	0.5	U	0.5	U	0.5	U						
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U						
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
m/p xylene	1	U	1	U	1	U						
Methyl bromide	0.5	U	0.5	U	0.5	U						
Methyl chloride	0.5	U	0.5	U	0.5	U						
Methyl tert-butyl ether	0.5	U	0.5	U	0.29	J						
Methylene chloride	0.5	U	0.5	U	0.5	U						
n-Butylbenzene	0.5	U	0.5	U	0.5	U						
n-Propylbenzene	0.5	U	0.5	U	0.5	U						
Naphthalene	0.5	U	0.5	U	0.5	U						
o-Chlorotoluene	0.5	U	0.5	U	0.5	U						
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
o-Xylene	0.5	U	0.5	U	0.5	U						
p-Chlorotoluene	0.5	U	0.5	U	0.5	U						
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U						
sec-Butylbenzene	0.5	U	0.5	U	0.5	U						
Styrene	0.5	U	0.5	U	0.5	U						
tert-Butylbenzene	0.5	U	0.5	U	0.5	U						
Tetrachloroethylene	0.5	U	0.5	U	0.5	U						
Toluene	0.5	U	0.5	U	0.5	U						
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U						
Trichloroethylene	0.5	U	0.5	U	0.5	U						
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U						
Vinyl chloride	0.5	U	0.5	U	0.5	U						
Xylene (total)	1.5	U	1.5	U	1.5	U						

8260 TVOC	0		0		0.29							

Current Landfill

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Current Landfill

Analyte	087-09 Depth : 29.00 05/22/2023 ug/L		087-09 Depth : 32.00 11/14/2023 ug/L		087-11 Depth : 16.00 05/24/2023 ug/L		087-11 Depth : 19.00 11/15/2023 ug/L		087-23 Depth : 35.00 05/24/2023 ug/L		087-23 Depth : 37.50 11/15/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	**1.96**		**1.5**		0.5	U	0.48	J
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	**0.9**	J	0.49	J	0.5	U	0.5	
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	**1.56**		**1.7**		0.47	J	0.5	U
Chloroform	0.5	U	0.32	J	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	0.5	U	1	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**0.51**	
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.32	J
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U			1.5	U			1.5	U

8260 TVOC	0		0.32		4.42		3.69		0.47		1.81	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Current Landfill

Analyte	087-24 Depth : 75.00 11/15/2023 ug/L		087-26 Depth : 75.00 05/22/2023 ug/L		087-26 Depth : 75.00 11/15/2023 ug/L		087-27 Depth : 12.50 05/22/2023 ug/L		087-27 Depth : 20.00 11/16/2023 ug/L		088-109 Depth : 13.50 03/03/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	**2.45**	
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	**0.68**	J	**0.65**		0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	**0.58**		0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	**0.54**		**8.49**	
Chloroform	0.47	J	**3.43**		**3.8**		0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	0.5	U	1	U	0.5	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.26	J	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U			1.5	U			1.5	U		

8260 TVOC	0.47		3.43		3.8		0.68		2.03		10.94	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Current Landfill

Analyte	088-109 Depth : 13.50 05/22/2023 ug/L		088-109 Depth : 13.50 09/14/2023 ug/L		088-109 Depth : 16.50 11/14/2023 ug/L		088-110 Depth : 17.50 05/22/2023 ug/L		088-110 Depth : 17.50 11/15/2023 ug/L		088-21 Depth : 12.50 05/24/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	**5.09**		**9.3**		**10**		0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.36	J	**0.51**		**0.75**		0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	**12.5**		**24**		**42**		**1.1**		0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	1	U	1	U	0.5	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)			1.5	U	1.5	U			1.5	U		

8260 TVOC	17.95		33.81		52.75		1.1		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Current Landfill

Analyte	088-21 Depth : 12.50 11/16/2023 ug/L		088-22 Depth : 75.00 11/16/2023 ug/L		088-23 Depth : 125.00 11/16/2023 ug/L		098-99 Depth : 44.50 03/03/2023 ug/L		098-99 Depth : 44.50 05/24/2023 ug/L		098-99 Depth : 44.50 09/14/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	**4.16**		**3.88**		**3.2**	
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	**4.4**		0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	1.02	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U					1.5	U

8260 TVOC	0		4.4		0		4.16		3.88		3.2	

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: Current Landfill

Analyte	098-99 Depth : 44.50 11/15/2023 ug/L											
1,1,1,2-Tetrachloroethane	0.5	U										
1,1,1-Trichloroethane	0.5	U										
1,1,2,2-Tetrachloroethane	0.5	U										
1,1,2-Trichloroethane	0.5	U										
1,1-Dichloroethane	**2.5**											
1,1-Dichloroethylene	0.5	U										
1,1-Dichloropropene	0.5	U										
1,2,3-Trichlorobenzene	0.5	U										
1,2,3-Trichloropropane	0.5	U										
1,2,4-Trichlorobenzene	0.5	U										
1,2-Dichloroethane	0.5	U										
1,2-Dichloropropane	0.5	U										
1,3-Dichloropropane	0.5	U										
2,2-Dichloropropane	0.5	U										
Benzene	0.5	U										
Benzene, 1,2,4-trimethyl	0.5	U										
Benzene, 1,3,5-trimethyl-	0.5	U										
Benzene, 1-methylethyl-	0.5	U										
Bromobenzene	0.5	U										
Bromodichloromethane	0.5	U										
Bromoform	0.5	U										
Carbon tetrachloride	0.5	U										
Chlorobenzene	0.5	U										
Chlorobromomethane	0.5	U										
Chloroethane	0.5	U										
Chloroform	0.5	U										
cis-1,2-Dichloroethylene	0.5	U										
cis-1,3-Dichloropropene	0.5	U										
Cymene	0.5	U										
DBCP	0.5	U										
Dibromochloromethane	0.5	U										
Dibromomethane	0.5	U										
Dichlorodifluoromethane	0.5	U										
EDB	0.5	U										
Ethene, 1,2-dichloro-, (E)-	0.5	U										
Ethylbenzene	0.5	U										
Hexachlorobutadiene	0.5	U										
m-Dichlorobenzene	0.5	U										
m/p xylene	1	U										
Methyl bromide	0.5	U										
Methyl chloride	0.5	U										
Methyl tert-butyl ether	0.5	U										
Methylene chloride	0.5	U										
n-Butylbenzene	0.5	U										
n-Propylbenzene	0.5	U										
Naphthalene	0.5	U										
o-Chlorotoluene	0.5	U										
o-Dichlorobenzene	0.5	U										
o-Xylene	0.5	U										
p-Chlorotoluene	0.5	U										
p-Dichlorobenzene	0.5	U										
sec-Butylbenzene	0.5	U										
Styrene	0.5	U										
tert-Butylbenzene	0.5	U										
Tetrachloroethylene	0.5	U										
Toluene	0.5	U										
trans-1,3-Dichloropropene	0.5	U										
Trichloroethylene	0.5	U										
Trichlorofluoromethane	0.5	U										
Vinyl chloride	0.5	U										
Xylene (total)	1.5	U										

8260 TVOC	2.5											

2023 Groundwater Data : Metals
Brookhaven National Laboratory
Project: Current Landfill

Analyte	087-09 Depth : 29.00 05/22/2023 ug/L		087-09 Depth : 32.00 11/14/2023 ug/L		087-11 Depth : 16.00 05/24/2023 ug/L		087-11 Depth : 19.00 11/15/2023 ug/L		087-23 Depth : 35.00 05/24/2023 ug/L		087-23 Depth : 37.50 11/15/2023 ug/L	
Aluminum	68	U	16	B	68	U	**120**		68	U	27	B
Antimony	**6.64**	B	2	U	3.5	U	2	U	3.5	U	2	U
Arsenic	2	U	5	U	**6.82**		**17**		**13.1**		**11**	
Barium	**19.1**	B	**30**		**24.6**	B	**21**		**25.8**	B	**28**	
Beryllium	1	U	2	U	1	U	2	U	1	U	2	U
Cadmium	1	U	2	U	1	U	2	U	1	U	2	U
Calcium	**9860**		**7200**		**17500**		**19000**		**3230**	B	**3800**	
Chromium	**7.63**	B	**15**		**1.17**	B	1.1	B	1	U	3	U
Cobalt	1	U	1.7	B	1	U	3	B	**12**	B	**12**	
Copper	3	U	2.9	B	**10.5**	B	**21**		3	U	1.2	B
Iron	**49.2**	B	140	B	**81600**		**76000**		**36900**		**38000**	
Lead	0.5	U	1	U	0.5	U	0.67	B	0.5	U	0.39	B
Magnesium	**4790**	B	**3000**		**2890**	B	**2500**		**916**	B	**1100**	
Manganese	**4.04**	B	**40**		**1260**		**1100**		**2780**		**3000**	
Mercury	0.067	U	0.2	U	0.067	U	0.2	U	0.067	U	0.2	U
Nickel	1.5	U	**90**		1.5	U	1.8	B	1.5	U	1.8	B
Potassium	**793**	B	970	B	**2400**	B	**2200**		**932**	B	980	B
Selenium	1.5	UN	5	U	1.5	U	5	U	1.5	U	5	U
Silver	1	U	1	U	**1.08**	B	1	U	1	U	1	U
Sodium	**31000**		**46000**		**4500**	B	**3400**		**5940**		**6400**	
Thallium	0.6	U	0.5	U	0.6	U	0.5	U	0.6	U	0.5	U
Vanadium	1	U	5	U	**2.18**	B	5	U	1	U	5	U
Zinc	3.3	U	4.4	B	3.3	U	**150**		**3.84**	B	6.7	B

2023 Groundwater Data : Metals
Brookhaven National Laboratory
Project: Current Landfill

Analyte	087-24 Depth : 75.00 05/24/2023 ug/L		087-24 Depth : 75.00 11/15/2023 ug/L		087-26 Depth : 75.00 05/22/2023 ug/L		087-26 Depth : 75.00 11/15/2023 ug/L		087-27 Depth : 12.50 05/22/2023 ug/L		087-27 Depth : 20.00 11/16/2023 ug/L	
Aluminum	68	U	50	U	68	U	50	U	68	U	23	B
Antimony	**7.4**	B	2	U	**6.72**	B	2	U	**7.65**	B	2	U
Arsenic	2	U	5	U	2	U	5	U	**5.56**		**7.1**	
Barium	**27.6**	B	13	B	**30.9**	B	**59**		**32**	B	**36**	
Beryllium	1	U	2	U	1	U	2	U	1	U	2	U
Cadmium	1	U	2	U	1	U	2	U	1	U	2	U
Calcium	**9270**		**3200**		**6650**		**15000**		**15100**		**19000**	
Chromium	1	U	3	U	1	U	3	U	1	U	3	U
Cobalt	1	U	5	U	1	U	5	U	**5.79**	B	3.8	B
Copper	3	U	10	U	3	U	1.7	B	3	U	5	U
Iron	30	U	27	B	**186**		180	B	**48400**		**51000**	
Lead	0.5	U	1	U	0.5	U	1	U	0.5	U	1	U
Magnesium	**5510**		**1700**		**3860**	B	**8500**		**3570**	B	**3500**	
Manganese	2	U	0.93	B	2	U	2	B	**1060**		**1300**	
Mercury	0.067	U	0.2	U	0.067	U	0.2	U	0.067	U	0.2	U
Nickel	1.5	U	10	U	1.5	U	10	U	1.5	U	10	U
Potassium	**1760**	B	1000	B	**1460**	B	1900	B	**2760**	B	**3400**	
Selenium	1.5	U	5	U	1.5	UN	5	U	1.5	UN	5	U
Silver	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	**56800**		**46000**		**34200**		**36000**		**29100**		**40000**	
Thallium	0.6	U	0.5	U	0.6	U	0.5	U	0.6	U	0.5	U
Vanadium	1	U	5	U	1	U	5	U	1	U	5	U
Zinc	3.3	U	10	U	3.3	U	10	U	3.3	U	4.3	B

2023 Groundwater Data : Metals
Brookhaven National Laboratory
Project: Current Landfill

Analyte	088-109 Depth : 13.50 05/22/2023 ug/L		088-109 Depth : 16.50 11/14/2023 ug/L		088-110 Depth : 17.50 05/22/2023 ug/L		088-110 Depth : 17.50 11/15/2023 ug/L		088-21 Depth : 12.50 05/24/2023 ug/L		088-21 Depth : 12.50 11/16/2023 ug/L	
Aluminum	68	U	15	B	68	U	50	U	68	U	44	B
Antimony	**8.32**	B	2	U	3.5	U	2	U	**4.58**	B	2	U
Arsenic	**5.59**		**6.8**		**7.93**		**7.2**		2	U	5	U
Barium	**38.5**	B	**42**		**29.4**	B	**27**		**39.2**	B	20	
Beryllium	1	U	2	U	1	U	2	U	1	U	2	U
Cadmium	1	U	2	U	1	U	2	U	1	U	2	U
Calcium	**24100**		**30000**		**14300**		**11000**		**6200**		**4700**	
Chromium	1	U	3	U	1	U	3	U	1	U	3	U
Cobalt	**2.62**	B	3.9	B	**1.72**	B	1.2	B	1	U	5	U
Copper	3	U	10	U	3	U	10	U	3	U	5	U
Iron	**40700**		**50000**		**31400**		**21000**		**162**		170	B
Lead	0.5	U	1	U	0.5	U	1	U	0.5	U	1	U
Magnesium	**5070**		**5800**		**3800**	B	**2600**		**3460**	B	**2500**	
Manganese	**1170**		**1100**		**2620**		**2600**		**37.3**		**16**	
Mercury	0.067	U	0.2	U	0.067	U	0.2	U	0.067	U	0.2	U
Nickel	1.5	U	10	U	1.5	U	10	U	1.5	U	10	U
Potassium	**3410**	B	**4800**		**2100**	B	**2100**		**1780**	B	750	B
Selenium	1.5	UN	5	U	1.5	UN	5	U	1.5	U	5	U
Silver	1	U	1	U	1	U	1	U	1	U	1	U
Sodium	**12100**		**17000**		**21500**		**22000**		**69700**		**22000**	
Thallium	0.6	U	0.5	U	0.6	U	0.5	U	0.6	U	0.5	U
Vanadium	1	U	5	U	1	U	5	U	1	U	1.1	B
Zinc	**3.9**	B	2.6	B	3.3	U	10	U	3.3	U	2.1	B

2023 Groundwater Data : Metals
Brookhaven National Laboratory
Project: Current Landfill

Analyte	088-22 Depth : 75.00 11/16/2023 ug/L		088-23 Depth : 125.00 11/16/2023 ug/L									
Aluminum	50	U	14	B								
Antimony	2	U	2	U								
Arsenic	5	U	5	U								
Barium	**44**		3.9	B								
Beryllium	2	U	2	U								
Cadmium	2	U	2	U								
Calcium	**8300**		**13000**									
Chromium	3	U	3	U								
Cobalt	5	U	0.96	B								
Copper	5	U	5	U								
Iron	190	B	**340**									
Lead	1	U	1	U								
Magnesium	**5600**		**2900**									
Manganese	**24**		**63**									
Mercury	0.2	U	0.2	U								
Nickel	10	U	10	U								
Potassium	**1900**		580	B								
Selenium	5	U	1.1	B								
Silver	1	U	1	U								
Sodium	**29000**		**13000**									
Thallium	0.5	U	0.5	U								
Vanadium	5	U	5	U								
Zinc	10	U	10	U								

2023 Groundwater Data : General Chemistry

Brookhaven National Laboratory

Project: Current Landfill

Analyte	087-09 Depth : 29.00 05/22/2023 ug/L		087-09 Depth : 32.00 11/14/2023 ug/L		087-11 Depth : 16.00 05/24/2023 ug/L		087-11 Depth : 19.00 11/15/2023 ug/L		087-23 Depth : 35.00 05/24/2023 ug/L		087-23 Depth : 37.50 11/15/2023 ug/L	
Alkalinity (as CaCO3)	**30.4**		**29**		**150**		**120**		**49.2**		**51**	
Ammonia (as N)	0.025	U	0.1	U	**2.36**		**2.3**		**0.321**		**0.42**	
Chloride	**40.2**		**93**		**8.86**		**6.6**		**9.91**		**13**	
Cyanide	0.00167	U	0.01	U	0.00167	U	0.01	U	0.00167	U	0.01	U
Nitrate (as N)	**1.14**		0.22	B	0.165	U	0.5	U	0.033	U	0.14	B
Nitrite (as N)	0.033	U	0.5	U	0.033	U	0.5	U	0.033	U	0.5	U
Nitrite + Nitrate-N	**1.19**		**0.27**		0.017	U	0.1	U	0.017	U	0.057	B
Nitrogen	**1.19**		**1**		**2.64**		**2.7**		**0.424**		0.1	U
Sulfate	**19.1**		**6.9**		**0.345**	J	**2**		**1.76**		**4.6**	
TDS	**105**				**163**				**62**			
Total Kjeldahl Nitrogen	0.033	U	0.74	B	**2.64**		**2.7**		**0.418**		1	U
TSS	0.814	U			**22.4**				**10.9**			

2023 Groundwater Data : General Chemistry
Brookhaven National Laboratory
Project: Current Landfill

Analyte	087-24 Depth : 75.00 05/24/2023 ug/L		087-24 Depth : 75.00 11/15/2023 ug/L		087-26 Depth : 75.00 05/22/2023 ug/L		087-26 Depth : 75.00 11/15/2023 ug/L		087-27 Depth : 12.50 05/22/2023 ug/L		087-27 Depth : 20.00 11/16/2023 ug/L	
Alkalinity (as CaCO3)	**38.5**		**37**		**31.1**		**30**		**106**		**88**	
Ammonia (as N)	0.017	U	0.1	U	0.017	U	0.1	U	**1.43**		**1.8**	
Chloride	**76.9**		**63**		**47.6**		**97**		**47.7**		**85**	
Cyanide	0.00167	U	0.01	U	0.00167	U	0.01	U	0.00167	U	0.01	U
Nitrate (as N)	**0.269**		0.39	B	**0.412**		**0.93**		0.033	U	0.5	U
Nitrite (as N)	0.033	U	0.5	U	0.033	U	0.5	U	0.033	U	0.5	U
Nitrite + Nitrate-N	**0.295**		**0.42**		**0.437**		**0.96**		0.0296	U	0.1	U
Nitrogen	**0.295**		**0.42**		**0.465**		**0.96**		**1.66**		**2.1**	
Sulfate	**15.4**		**11**		**9.29**		**9.5**		**3.95**		**9.2**	
TDS	**184**				**107**				**204**			
Total Kjeldahl Nitrogen	0.033	U	1	U	0.033	U	1	U	**1.63**		**2.1**	
TSS	**1**	J			**0.857**	J			**5.29**			

2023 Groundwater Data : General Chemistry
Brookhaven National Laboratory
Project: Current Landfill

Analyte	088-109 Depth : 13.50 05/22/2023 ug/L		088-109 Depth : 16.50 11/14/2023 ug/L		088-110 Depth : 17.50 05/22/2023 ug/L		088-110 Depth : 17.50 11/15/2023 ug/L		088-21 Depth : 12.50 05/24/2023 ug/L		088-21 Depth : 12.50 11/16/2023 ug/L	
Alkalinity (as CaCO3)	**108**		10	U	**76.7**		**45**		**31.8**		**26**	
Ammonia (as N)	**1.48**		**2.4**		**0.408**		**0.24**		0.017	U	0.1	U
Chloride	**16.1**		**26**		**38**		**39**		**101**		**47**	
Cyanide	0.00167	U	0.01	U	0.00167	U	0.01	U	0.00167	U	0.01	U
Nitrate (as N)	0.033	U	0.5	U	0.033	U	0.5	U	**0.236**		0.5	U
Nitrite (as N)	0.033	U	0.5	U	0.033	U	0.5	U	0.033	U	0.5	U
Nitrite + Nitrate-N	0.026	U	0.1	U	0.0267	U	0.1	U	**0.249**		**0.12**	
Nitrogen	**1.74**		**2.9**		**0.447**		0.1	U	**0.365**		**0.12**	
Sulfate	**8.19**		**3.9**		**12.3**		**17**		**4.73**		**3.9**	
TDS	**108**				**145**				**207**			
Total Kjeldahl Nitrogen	**1.71**		**2.9**		**0.42**		1	U	**0.116**		1	U
TSS	**24**				**5**				**1.57**	J		

2023 Groundwater Data : General Chemistry

Brookhaven National Laboratory

Project: Current Landfill

Analyte	088-22 Depth : 75.00 11/16/2023 ug/L		088-23 Depth : 125.00 11/16/2023 ug/L									
Alkalinity (as CaCO3)	**28**		**37**									
Ammonia (as N)	0.1	U	0.1	U								
Chloride	**68**		**20**									
Cyanide	0.01	U	0.01	U								
Nitrate (as N)	0.23	B	0.38	B								
Nitrite (as N)	0.5	U	0.5	U								
Nitrite + Nitrate-N	**0.36**		**0.54**									
Nitrogen	**0.36**		**0.54**									
Sulfate	**8.6**		**14**									
TDS												
Total Kjeldahl Nitrogen	1	U	1	U								
TSS												

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Current Landfill

	087-23 Depth : 37.50 11/15/2023 pCi/l				087-27 Depth : 20.00 11/16/2023 pCi/l				088-109 Depth : 16.50 11/14/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	-6.78	U DL	26.5	15.9	-0.0785	U	23.9	14.1	-3.9	U	24.2	14.4
Beryllium-7	-11.6	U DL	75.3	54.7	19.9	U DL	60.2	50.2	10.4	U DL	68.8	54.9
Cesium-134	3.47	U DL	18.2	10.8	-3.53	U DL	17.7	10.5	5.08	U DL	19.2	7.4
Cesium-137	-1.98	U	8.99	7.36	0.17	U	9.22	7.77	0	U	8.99	2.26
Co-60	-8.4	U	14.7	8.78	3.75	U	7.14	6.6	-6.53	U	13.8	9.7
Cobalt-57	0	U DL	7.65	1.89	0.359	U DL	5.92	3.47	-2.43	U DL	7.58	4.56
Europium-152	-46.3	U DL	146	87.2	10.3	U DL	118	10.8	25.7	U DL	128	33.6
Europium-154	4.27	U DL	85.5	23.1	14.2	U DL	76.6	9.27	17.8	U DL	78.8	66
Europium-155	-12.3	U	34.7	20.9	6.06	U	29.4	7	-6.95	U	34.7	38.9
Manganese-54	-1.71	U DL	12.4	9.87	-4.62	U DL	10.9	6.59	0.0976	U DL	8.81	4.95
Sodium-22	-8.36	U DL	15.3	9.43	-8.14	U DL	14.4	8.89	4.47	U DL	9.12	5.6
Strontium-90	**0.676**		0.314	0.24	0.466	N2	0.346	0.239	**0.687**		0.372	0.275
Tritium	-4.5	U	391	215	-64.9	U	391	208	-104	U	398	206
Zinc-65	-1.96	U DL	30.1	17.3	0	U DL	26.7	2.48	0.617	U DL	30.7	17.5

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: Current Landfill

	088-21 Depth : 12.50 11/16/2023 pCi/l											
Analyte	Result	Qual	MDA	Error								
Americium-241	-3.39	U	24.5	14.6								
Beryllium-7	15.8	U	56.3	45								
Cesium-134	1.28	U DL	17.2	3.05								
Cesium-137	-2.45	U	8.52	7								
Co-60	-5.79	U	11.9	7.23								
Cobalt-57	-2.56	U DL	7	4.22								
Europium-152	6.28	U DL	134	9.87								
Europium-154	28.2	U DL	78.8	30.7								
Europium-155	6.35	U	32.8	15.2								
Manganese-54	-0.709	U DL	10.4	10.1								
Sodium-22	-1.14	U DL	11.9	6.57								
Strontium-90	**0.652**		0.31	0.242								
Tritium	-115	U	384	199								
Zinc-65	0	U DL	28.6	2.76								

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: g-2

	054-07 Depth : 35.00 04/17/2023 pCi/l				054-07 Depth : 35.00 10/17/2023 pCi/l				054-124 Depth : 32.50 04/17/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	**11900**		342	1310	**4620**		334	607	115	U	353	206

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: g-2

	054-124 Depth : 32.50 10/17/2023 pCi/l				054-126 Depth : 35.00 04/17/2023 pCi/l				054-126 Depth : 35.00 10/17/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	4.5	U	327	187	192	U	354	217	-136	U	360	187

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: g-2

	054-184 Depth : 32.50 04/17/2023 pCi/l				054-184 Depth : 32.50 10/17/2023 pCi/l				054-185 Depth : 32.50 04/17/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	73.4	U	351	200	49.5	U	349	201	106	U	354	206

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: g-2

	054-185 Depth : 32.50 10/17/2023 pCi/l				054-65 Depth : 25.20 04/17/2023 pCi/l				054-65 Depth : 25.20 10/17/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	131	U	344	206	21.2	U	351	193	-85.6	U	337	182

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: g-2

	064-95 Depth : 32.50 04/17/2023 pCi/l				064-95 Depth : 32.50 10/18/2023 pCi/l				065-121 Depth : 26.50 10/24/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	228	U	353	221	140	U	344	207	49.5	U	333	190

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: g-2

	065-122 Depth : 28.80 10/27/2023 pCi/l				065-123 Depth : 25.70 10/25/2023 pCi/l				065-124 Depth : 25.80 10/25/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	4.5	U	342	190	-9.01	U	333	185	**1370**		326	311

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: g-2

	065-193 Depth : 55.00 10/24/2023 pCi/l				065-194 Depth : 50.00 10/25/2023 pCi/l				065-321 Depth : 32.00 10/24/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	31.5	U	356	198	-77.5	U	348	184	122	U	345	203

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: g-2

	065-322 Depth : 32.00 10/24/2023 pCi/l				065-323 Depth : 30.00 10/25/2023 pCi/l				065-324 Depth : 28.00 10/25/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	171	U	331	202	180	U	338	206	31.5	U	333	189

BLIP Facility
Analytical Results

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: BLIP Facility (BLIP)

	064-46 Depth : 54.50 10/18/2023 pCi/l				064-47 Depth : 55.50 04/18/2023 pCi/l				064-47 Depth : 55.50 10/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	116	U	348	202	18	U	491	267	16.7	U	352	190

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: BLIP Facility (BLIP)

	064-48 Depth : 55.50 04/18/2023 pCi/l				064-48 Depth : 55.50 10/18/2023 pCi/l				064-67 Depth : 58.50 04/18/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	404	N2	350	241	-2.7	U	343	184	**1890**		353	402

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: BLIP Facility (BLIP)

	064-67 Depth : 58.50 10/18/2023 pCi/l											
Analyte	Result	Qual	MDA	Error								
Tritium	140	U	357	210								

William Floyd Wellfield Sentinel

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	109-03 Depth : 130.00 01/03/2023 ug/L		109-03 Depth : 130.00 03/29/2023 ug/L		109-03 Depth : 130.00 06/21/2023 ug/L		109-03 Depth : 130.00 09/26/2023 ug/L		109-03 Depth : 130.00 12/28/2023 ug/L		117-01 Depth : 80.00 01/04/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dioxane	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	**0.59**	J	**0.53**	J	**0.58**		**0.6**		**0.74**		**0.66**	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	0.5	U	0.5	U	1	U	1	U	1	U	0.5	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Xylene (total)					1.5	U	1.5	U	1.5	U		
8260 TVOC	0.59		0.53		0.58		0.6		0.74		0.66	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-01 Depth : 80.00 03/29/2023 ug/L		117-01 Depth : 87.00 06/21/2023 ug/L		117-01 Depth : 85.00 09/26/2023 ug/L		117-01 Depth : 85.00 12/27/2023 ug/L		117-02 Depth : 79.00 01/03/2023 ug/L		117-02 Depth : 79.00 03/29/2023 ug/L	
1,1,1,2-Tetrachloroethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dioxane	0.2	U	0.2	U	0.21	U	0.2	U	0.2	U	0.2	U
2,2-Dichloropropane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform			**0.78**		0.47	J	**0.74**		**0.51**	J	**0.53**	J
cis-1,2-Dichloroethylene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene			1	U	1	U	1	U	0.5	U	0.5	U
Methyl bromide			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride			0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Xylene (total)			1.5	U	1.5	U	1.5	U				
8260 TVOC			0.78		0.47		0.74		0.51		0.53	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-02 Depth : 79.00 06/21/2023 ug/L		117-02 Depth : 79.00 09/26/2023 ug/L		117-02 Depth : 79.00 12/27/2023 ug/L		117-04 Depth : 135.00 01/03/2023 ug/L		117-04 Depth : 135.00 03/29/2023 ug/L		117-04 Depth : 135.00 06/21/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dioxane	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.47	J	0.32	J	0.19	J	**0.78**	J	**0.91**	J	**1**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	0.5	U	0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Xylene (total)	1.5	U	1.5	U	1.5	U					1.5	U
8260 TVOC	0.47		0.32		0.19		0.78		0.91		1	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-04 Depth : 135.00 09/26/2023 ug/L		117-04 Depth : 135.00 12/28/2023 ug/L		117-05 Depth : 135.00 01/04/2023 ug/L		117-05 Depth : 135.00 03/29/2023 ug/L		117-05 Depth : 135.00 03/30/2023 ug/L		117-05 Depth : 135.00 06/21/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,4-Dioxane	0.2	U	0.2	U	0.2	U	0.2	U			0.2	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Chloroform	**0.68**		**0.57**		0.5	U			0.4	J	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
m/p xylene	1	U	1	U	0.5	U			0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U

Xylene (total)	1.5	U	1.5	U							1.5	U
8260 TVOC	0.68		0.57		0				0.4		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-05 Depth : 135.00 09/26/2023 ug/L		117-05 Depth : 135.00 12/27/2023 ug/L		117-06 Depth : 135.00 01/04/2023 ug/L		117-06 Depth : 135.00 03/29/2023 ug/L		117-06 Depth : 135.00 03/30/2023 ug/L		117-06 Depth : 135.00 06/21/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
1,4-Dioxane	0.2	U	0.2	U	0.2	U	0.2	U			0.2	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Chloroform	0.4	J	0.5	U	**1.18**				**1.55**		**1.1**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
m/p xylene	1	U	1	U	0.5	U			0.5	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U			0.5	U	0.5	U

Xylene (total)	1.5	U	1.5	U							1.5	U
8260 TVOC	0.4		0		1.18				1.55		1.1	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-06 Depth : 135.00 09/26/2023 ug/L		117-06 Depth : 135.00 12/28/2023 ug/L									
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U								
1,1,1-Trichloroethane	0.5	U	0.5	U								
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U								
1,1,2-Trichloroethane	0.5	U	0.5	U								
1,1-Dichloroethane	0.5	U	0.5	U								
1,1-Dichloroethylene	0.5	U	0.5	U								
1,1-Dichloropropene	0.5	U	0.5	U								
1,2,3-Trichlorobenzene	0.5	U	0.5	U								
1,2,3-Trichloropropane	0.5	U	0.5	U								
1,2,4-Trichlorobenzene	0.5	U	0.5	U								
1,2-Dichloroethane	0.5	U	0.5	U								
1,2-Dichloropropane	0.5	U	0.5	U								
1,3-Dichloropropane	0.5	U	0.5	U								
1,4-Dioxane	0.2	U	0.2	U								
2,2-Dichloropropane	0.5	U	0.5	U								
Benzene	0.5	U	0.5	U								
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U								
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U								
Benzene, 1-methylethyl-	0.5	U	0.5	U								
Bromobenzene	0.5	U	0.5	U								
Bromodichloromethane	0.5	U	0.5	U								
Bromoform	0.5	U	0.5	U								
Carbon tetrachloride	0.5	U	0.5	U								
Chlorobenzene	0.5	U	0.5	U								
Chlorobromomethane	0.5	U	0.5	U								
Chloroethane	0.5	U	0.5	U								
Chloroform	**0.67**		**0.66**									
cis-1,2-Dichloroethylene	0.5	U	0.5	U								
cis-1,3-Dichloropropene	0.5	U	0.5	U								
Cymene	0.5	U	0.5	U								
DBCP	0.5	U	0.5	U								
Dibromochloromethane	0.5	U	0.5	U								
Dibromomethane	0.5	U	0.5	U								
Dichlorodifluoromethane	0.5	U	0.5	U								
EDB	0.5	U	0.5	U								
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U								
Ethylbenzene	0.5	U	0.5	U								
Hexachlorobutadiene	0.5	U	0.5	U								
m-Dichlorobenzene	0.5	U	0.5	U								
m/p xylene	1	U	1	U								
Methyl bromide	0.5	U	0.5	U								
Methyl chloride	0.5	U	0.5	U								
Methyl tert-butyl ether	0.5	U	0.5	U								
Methylene chloride	0.5	U	0.5	U								
n-Butylbenzene	0.5	U	0.5	U								
n-Propylbenzene	0.5	U	0.5	U								
Naphthalene	0.5	U	0.5	U								
o-Chlorotoluene	0.5	U	0.5	U								
o-Dichlorobenzene	0.5	U	0.5	U								
o-Xylene	0.5	U	0.5	U								
p-Chlorotoluene	0.5	U	0.5	U								
p-Dichlorobenzene	0.5	U	0.5	U								
sec-Butylbenzene	0.5	U	0.5	U								
Styrene	0.5	U	0.5	U								
tert-Butylbenzene	0.5	U	0.5	U								
Tetrachloroethylene	0.5	U	0.5	U								
Toluene	0.5	U	0.5	U								
trans-1,3-Dichloropropene	0.5	U	0.5	U								
Trichloroethylene	0.5	U	0.5	U								
Trichlorofluoromethane	0.5	U	0.5	U								
Vinyl chloride	0.5	U	0.5	U								

Xylene (total)	1.5	U	1.5	U								
8260 TVOC	0.67		0.66									

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: William Floyd Wellfield Sentinel

	109-03 Depth : 130.00 01/03/2023 pCi/l				109-03 Depth : 130.00 03/29/2023 pCi/l				109-03 Depth : 130.00 06/21/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)	-0.468	U	5.52	3.31	-0.585	U	15.7	9.69	-3.46	U	21.9	13.9
Beryllium-7	-16.6	U	32.7	19.7	-10.3	U	27.9	16.2	8.6	U	36.1	19.7
Cesium-134	0.24	U	4.2	2.15	-0.331	U	3	1.71	-1.02	U	3.66	2.1
Cesium-137	0.809	U	3.97	2.09	0.781	U	2.89	1.51	-1.07	U	2.88	1.65
Co-60	0.0469	U	4.23	2.22	0.2	U	2.74	1.38	-0.594	U	3.07	1.65
Cobalt-57	0.00562	U	2.31	1.32	-0.11	U	2.3	1.35	2.13	U	3.04	1.67
Europium-152	0.0733	U	9.55	5.15	-0.439	U	7.71	4.23	0.573	U	9.45	5.25
Europium-154	0.247	U	11.6	6.05	2.65	U	9.13	4.44	-5.59	U	9.1	5.54
Europium-155	-2.46	U	8.72	6.11	-4.99	U	9.17	5.62	2.42	U	11.7	6.79
Manganese-54	0.398	U	4.5	2.46	-0.551	U	2.87	1.67	-0.0797	U	3.12	1.68
Potassium-40												
Radium-226												
Sodium-22	-0.627	U	4.08	2.25	1.04	U	3.23	1.55	-1.91	U	3.27	1.97
Strontium-90	0.774	U	0.795	0.5	0.0774	U	0.771	0.418	0.445	U	0.599	0.382
Thorium-228												
Tritium	-36.7	U	402	223	-87.7	U	455	252	-122	U	347	174
Zinc-65	-1.16	U	8.37	4.57	-1.25	U	5.48	3.45	-1.28	U	7.02	4

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: William Floyd Wellfield Sentinel

	109-03 Depth : 130.00 09/26/2023 pCi/l				109-03 Depth : 130.00 12/28/2023 pCi/l				117-01 Depth : 80.00 01/04/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)					0.695	U	20.7	12.5	0.246	U	7.51	4.57
Beryllium-7	-0.566	U	82.5	43.4	2.19	U	20.6	11.2	-6.61	U	23.1	13.2
Cesium-134					0.665	U	2.38	1.27	0.223	U	3.08	1.66
Cesium-137	2.89	U	9.11	4.5	0.221	U	2.36	1.47	-1.41	U	2.19	1.38
Co-60	0.944	U	7.3	3.17	-0.417	U	2.41	1.34	1.39	U	2.82	1.16
Cobalt-57	0.985	U	6.12	3.33	-1.18	U	1.93	1.84	0.748	U	2.24	1.25
Europium-152					1.86	U	6.97	3.97	1.62	U	7.17	6.18
Europium-154					-0.638	U	6.61	3.61	1.6	U	7.75	3.64
Europium-155					2.09	U	8.55	4.69	-5.18	U	8.32	5.17
Manganese-54	-0.306	U	7.48	4	-0.668	U	2.11	1.24	1.7	U	2.96	1.4
Potassium-40	-44.8	U	130	69.7								
Radium-226	124	U	139	132								
Sodium-22	-0.418	U	7.64	3.76	0.101	U	2.37	1.26	0.429	U	2.66	1.26
Strontium-90	0.285	U	0.778	0.453	-0.402	U	0.648	0.362	0.191	U	0.767	0.437
Thorium-228	-7.14	U	15.3	9.9								
Tritium	23.7	U	336	183	-84.5	U	232	102	303	U	343	213
Zinc-65					-0.0831	U	4.99	2.7	-1.36	U	4.38	2.81

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	117-01 Depth : 87.00 06/21/2023 pCi/l				117-01 Depth : 85.00 09/26/2023 pCi/l				117-01 Depth : 85.00 12/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)	-5.5	U	12.7	7.34					-5.74	U	23.9	15.7
Beryllium-7	13.2	U	27.8	18.2	2.62	U	60.6	32.9	-0.139	U	25.2	13.6
Cesium-134	-0.402	U	2.7	1.54					-0.0248	U	2.77	1.69
Cesium-137	3.06	J-UI	2.25	3.29	3.14	U	6.46	5.63	1.21	U	3.19	1.62
Co-60	0.336	U	3.37	1.73	-0.44	U	6.72	3.57	-0.152	U	2.89	1.57
Cobalt-57	-0.374	U	2.27	1.32	1.75	U	4.11	2.24	0.598	U	2.85	1.63
Europium-152	0.815	U	7.74	4.1					1.39	U	8.43	5.06
Europium-154	-0.658	U	8.34	4.45					1.42	U	9.21	4.8
Europium-155	1.56	U	9.34	5.19					-6.11	U	11.3	6.85
Manganese-54	-1.11	U	2.59	1.6	2.3	U	7.52	3.74	-0.238	U	2.96	1.77
Potassium-40					5.16	U	101	52.9				
Radium-226					74.6	U	93.8	138				
Sodium-22	-0.261	U	2.94	1.57	-2.41	U	4.9	3.56	0.548	U	3.27	1.7
Strontium-90	0.371	U	0.571	0.35	0.373	U	0.785	0.463	-0.224	U	0.59	0.279
Thorium-228					15.2	UI	12.5	13.3				
Tritium	-26.2	U	359	190	45.2	U	333	185	-38.3	U	243	118
Zinc-65	1.15	U	5.69	3.07					-2.23	U	5.45	3.78

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	117-02 Depth : 79.00 01/03/2023 pCi/l				117-02 Depth : 79.00 03/29/2023 pCi/l				117-02 Depth : 79.00 06/21/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)	-4.04	U	6.67	4.15	-13.1	U	22.7	13	1.46	U	5.44	3.12
Beryllium-7	-6.94	U	22.7	12.5	50.4	N2	34.6	35.6	18.1	U	38.3	19
Cesium-134	-0.225	U	2.64	1.42	0.201	U	4.07	2.2	-2.68	U	3.86	2.53
Cesium-137	0.205	U	2.61	1.5	-0.853	U	3.48	1.97	1.99	U	4.19	2.07
Co-60	0.281	U	2.3	1.11	0.214	U	4.21	2.19	-1.16	U	3.31	2.03
Cobalt-57	-0.664	U	2.28	1.31	0.159	U	2.58	1.45	0.972	U	2.06	1.57
Europium-152	-0.633	U	6.74	3.94	0.697	U	9.45	5.18	0.567	U	8.74	4.63
Europium-154	-0.702	U	7.41	4.07	-3.18	U	10.9	6.25	-8.2	U	9.79	7.95
Europium-155	-1.41	U	9.31	5.66	1.88	U	10.9	5.94	0.566	U	8.48	4.75
Manganese-54	-1.72	U	2.47	1.77	-0.805	U	3.65	2.11	1.6	U	4.88	2.44
Potassium-40												
Radium-226												
Sodium-22	-0.847	U	2.63	1.56	-1.17	U	3.83	2.21	-2.91	U	3.47	2.82
Strontium-90	0.585	U	0.792	0.486	0.518	U	0.776	0.478	-0.0327	U	0.616	0.319
Thorium-228												
Tritium	-36.6	U	403	224	-218	U	469	252	15.6	U	354	193
Zinc-65	2.01	U	5.95	2.85	3.46	U	8.08	5.48	-1.38	U	7.68	4.88

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	117-02 Depth : 79.00 09/26/2023 pCi/l				117-02 Depth : 79.00 12/27/2023 pCi/l				117-04 Depth : 135.00 01/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)					-0.439	U	5.51	3.44	-6.52	U-DL	25.3	15.3
Beryllium-7	51	U	84.8	40.4	-11.8	U	33.6	20	14.2	U	35.1	17.2
Cesium-134					0.354	U	4.54	2.37	2	U	3.65	2.65
Cesium-137	-2.24	U	7.91	4.5	0.808	U	4.07	2.05	0.126	U	3.52	1.88
Co-60	0.593	U	10.1	5.15	0.588	U	4.51	2.3	0.53	U	3.67	1.8
Cobalt-57	-0.67	U	4.53	2.58	0.33	U	2.39	1.39	0.0763	U	2.55	1.46
Europium-152					3.41	U	10.7	8.75	-1.44	U	9.66	5.54
Europium-154					1.84	U	12.4	6.3	-0.886	U	10.3	5.55
Europium-155					2.94	U	9.52	5.44	4.24	U	12.1	6.61
Manganese-54	3.49	U	8.47	3.96	0.743	U	3.82	2.42	0.94	U	3.24	3.01
Potassium-40	-37.6	U	109	63.4								
Radium-226	-66.5	U	161	101								
Sodium-22	-2.98	U	6.98	4.18	0.771	U	4.45	2.24	-0.276	U	3.68	1.97
Strontium-90	-0.0243	U	0.745	0.383	0.0763	U	0.764	0.42	-0.0359	U	0.76	0.422
Thorium-228	7.63	U	10.4	12.9								
Tritium	-41.7	U	338	177	-101	U	240	104	-87.3	U	342	183
Zinc-65					-0.225	U	7.9	4.82	0.00886	U	8.97	4.79

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	117-04 Depth : 135.00 03/29/2023 pCi/l				117-04 Depth : 135.00 06/21/2023 pCi/l				117-04 Depth : 135.00 09/26/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)	0.594	U	5.54	3.24	2.31	U	17.7	10.4				
Beryllium-7	0.555	U	31.9	17.1	6.8	U	32.4	17.5	-11.6	U	65.4	43.5
Cesium-134	1.47	U	4.62	2.24	-0.4	U	3.57	2.08				
Cesium-137	0.144	U	3.75	2.05	1.48	U	3.2	2.32	4.85	U	5.9	7.71
Co-60	-0.387	U	3.64	1.96	1.31	U	3.73	1.82	1.24	U	7.04	3.33
Cobalt-57	0.933	U	2.29	1.23	1.52	U	3.01	1.66	-0.87	U	4.18	2.45
Europium-152	-0.313	U	8.95	5.39	0.947	U	9.3	5.06				
Europium-154	-0.0691	U	10.2	5.26	2.08	U	11	5.7				
Europium-155	1.86	U	9.32	5.17	0.532	U	11.6	6.63				
Manganese-54	-0.24	U	3.65	1.92	0.24	U	3.37	1.78	0.206	U	5.88	2.96
Potassium-40									1.01	U	74.9	61.9
Radium-226									40.3	U	109	140
Sodium-22	-0.0245	U	3.62	1.86	0.737	U	3.88	2.02	1.14	U	7.58	3.72
Strontium-90	1.22	UJ(+)-B	0.749	0.544	-0.0362	U	0.541	0.276	-0.25	U	0.771	0.386
Thorium-228									7.43	U	10.4	9.73
Tritium	-57.2	U	468	261	54.2	U	351	195	-38.9	U	337	177
Zinc-65	3.81	U	8.99	4.12	0.545	U	7.45	3.97				

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	117-04 Depth : 135.00 12/28/2023 pCi/l				117-05 Depth : 135.00 01/04/2023 pCi/l				117-05 Depth : 135.00 03/30/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)	6.29	U	21.1	12.1	1.58	U	9.81	5.93	0.294	U	21.3	12.1
Beryllium-7	-0.729	U	19.5	10.7	8.04	U	27	14	-4.14	U	24.4	20.6
Cesium-134	0.648	U	2.55	1.36	-0.0485	U	3.25	1.84	0.136	U	2.25	1.39
Cesium-137	-0.562	U	2.48	1.81	2.86	N2	2.34	3.15	-0.217	U	2.11	1.2
Co-60	0.252	U	2.65	1.38	0.187	U	3.03	1.56	1.51	U	2.88	1.39
Cobalt-57	-1.21	U	1.88	1.44	-0.518	U	2.02	1.22	-0.393	U	2.07	1.23
Europium-152	-0.247	U	6.6	3.59	4.22	U	7.98	4.04	0.821	U	6.61	3.59
Europium-154	1.01	U	6.62	3.35	-1.62	U	6.73	3.73	1.49	U	6.05	2.95
Europium-155	2.08	U	8.47	4.7	2.08	U	8.77	4.99	-0.0297	U	8.69	5.06
Manganese-54	-0.0639	U	2.17	1.22	0.585	U	2.6	1.42	0.681	U	2.32	1.24
Potassium-40												
Radium-226												
Sodium-22	0.0794	U	2.32	1.21	-0.494	U	2.44	1.34	0.563	U	2.16	1.05
Strontium-90	0.133	U	0.752	0.422	0.319	U	0.79	0.459	0.806	UJ(+)-B	0.78	0.492
Thorium-228												
Tritium	-53.3	U	234	109	181	U	345	205	-213	U	453	243
Zinc-65	0.624	U	4.97	2.89	1.98	U	5.65	2.61	-1.81	U	4.65	3.05

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	117-05 Depth : 135.00 06/21/2023 pCi/l				117-05 Depth : 135.00 09/26/2023 pCi/l				117-05 Depth : 135.00 12/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)	-0.59	U	22.4	13.8					7.25	U	22	12.6
Beryllium-7	-9.86	U	20.8	12.1	-2.39	U	67.3	36.1	-6.04	U	20.4	11.6
Cesium-134	-0.419	U	2.47	1.43					-1.22	U	2.34	1.81
Cesium-137	0.073	U	2.44	1.95	-0.0613	U	6.59	3.55	1.03	U	2.61	1.36
Co-60	0.313	U	2.74	1.42	-2.04	U	6.41	3.57	1.3	U	3.33	3.46
Cobalt-57	0.274	U	1.98	1.12	-1.05	U	4.55	2.64	-0.426	U	2.06	1.21
Europium-152	-3.77	U	6.3	4.88					0.909	U	6.75	3.6
Europium-154	-1.03	U	5.94	3.22					3.18	U	7.71	4.27
Europium-155	-0.0574	U	8.29	5.06					-0.193	U	8.9	5.09
Manganese-54	0.0386	U	2.13	1.18	4.41	U	8.5	4.15	0.35	U	2.33	1.26
Potassium-40					-13.3	U	98.3	57.8				
Radium-226					-20.4	U	145	90				
Sodium-22	-0.452	U	2.1	1.15	1.08	U	5.94	2.85	1.12	U	2.71	1.51
Strontium-90	0.422	U	0.582	0.365	0.0686	U	0.763	0.399	-0.00667	U	0.354	0.2
Thorium-228					0.936	U	12.3	10.8				
Tritium	-63.2	U	354	184	18.6	U	336	183	-20.6	U	237	117
Zinc-65	-1.07	U	4.79	3.02					-1.06	U	4.74	2.99

2023 Groundwater Data : Radionuclides
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	117-06 Depth : 135.00 01/04/2023 pCi/l				117-06 Depth : 135.00 03/30/2023 pCi/l				117-06 Depth : 135.00 06/21/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241 (isotope)	0.421	U	5.42	3.19	-0.262	U	7.41	4.24	-0.342	U	17.9	10.3
Beryllium-7	-8.16	U	15.3	8.75	5.3	U	23.5	13.1	33.4	J-UI	30	40.2
Cesium-134	1.08	U	1.94	1.29	0.0232	U	3	1.63	-0.535	U	3.55	1.97
Cesium-137	0.273	U	1.78	0.946	1.35	U	2.84	2.26	-0.408	U	3.12	1.77
Co-60	0.748	U	1.83	0.905	-0.446	U	2.63	1.39	-0.331	U	2.85	1.51
Cobalt-57	0.325	U	1.62	0.907	2.33	N2	2.02	1.56	-0.0597	U	2.42	1.36
Europium-152	-0.439	U	4.81	2.86	1.52	U	6.58	3.36	-1.84	U	7.6	4.2
Europium-154	2.82	U	5.84	3.21	0.684	U	7.56	3.67	-0.849	U	11.6	6.3
Europium-155	2.6	U	6.32	3.46	3.97	U	8.75	4.8	2.91	U	10.2	5.47
Manganese-54	0.214	U	1.74	1.04	-0.25	U	2.35	1.3	-0.403	U	3.26	1.75
Potassium-40												
Radium-226												
Sodium-22	1.39	U	2.09	1.08	0.296	U	2.71	1.31	-0.241	U	4.12	2.24
Strontium-90	0.138	U	0.79	0.432	-0.446	U	0.716	0.343	0.0349	U	0.543	0.282
Thorium-228												
Tritium	132	U	346	202	-280	U	463	244	15.5	U	356	194
Zinc-65	1.02	U	3.88	2.26	2.27	U	6.34	3.11	0.846	U	7.63	3.88

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	117-06 Depth : 135.00 09/26/2023 pCi/l				117-06 Depth : 135.00 12/28/2023 pCi/l							
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error				
Americium-241 (isotope)					-7.98	U	17.4	9.85				
Beryllium-7	1.72	U	69.7	37.7	-2.61	U	27.3	15.1				
Cesium-134					-1.44	U	3.52	2				
Cesium-137	-1.76	U	6.65	4.13	0.875	U	3.31	1.7				
Co-60	0.834	U	6.72	3.11	1.09	U	3.2	1.9				
Cobalt-57	-1.58	U	4.74	2.92	0.202	U	2.54	1.41				
Europium-152					-1.56	U	8.55	4.71				
Europium-154					0.121	U	10	5.2				
Europium-155					-0.163	U	10.1	5.62				
Manganese-54	1.17	U	6.94	3.38	-1.14	U	2.99	1.96				
Potassium-40	3.73	U	71.4	74.1								
Radium-226	-190	U	184	107								
Sodium-22	0.536	U	8.59	4.35	-0.477	U	3.54	1.94				
Strontium-90	0.142	U	0.739	0.404	0.123	U	0.746	0.412				
Thorium-228	2.72	U	14.5	12.7								
Tritium	-19.8	U	339	180	1.85	U	238	122				
Zinc-65					2.73	U	7.4	3.44				

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	109-03 Depth : 130.00 01/03/2023 ng/L		109-03 Depth : 130.00 03/29/2023 ng/L		109-03 Depth : 130.00 06/21/2023 ng/L		109-03 Depth : 130.00 09/26/2023 ng/L		109-03 Depth : 130.00 12/28/2023 ng/L		117-01 Depth : 80.00 01/04/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	5.8	U	5.8	U	5.7	U	6.2	U	6.1	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	5.8	U	5.8	U	5.7	U	6.2	U	6.1	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	36	U	36	U	36	U	39	U	38	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	36	U	36	U	36	U	39	U	38	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	7.3	U	7.2	U	7.1	U	7.7	U	7.6	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	5.8	U	5.8	U	5.7	U	6.2	U	6.1	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	5.8	U	5.8	U	5.7	U	6.2	U	6.1	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	5.8	U	5.8	U	5.7	U	6.2	U	6.1	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	3.6	J	5.8	U	5.8	U	5.7	U	6.2	U	1.7	J
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	5.8	U	5.8	U	5.7	U	6.2	U	6.1	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	15	U	14	U	14	U	15	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	15	U	14	U	14	U	15	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	2.9	U	2.9	U	2.9	U	3.1	U	3	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	2.9	U	2.9	U	2.9	U	3.1	U	3	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	2.9	U	2.9	U	2.9	U	3.1	U	3	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	2.9	U	2.9	U	2.9	U	3.1	U	3	U
Perfluorobutanesulfonate (PFBS)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	**2**	
Perfluorobutyric acid (PFBA)	5.7	U	5.8	U	5.8	U	5.7	U	6.2	U	1.5	J
Perfluorodecanesulfonate (PFDS)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluoroheptanoic acid (PFHpA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.3	J
Perfluorohexanesulfonate (PFHxS)	0.48	J	0.59	J	0.62	J	0.45	J	0.51	J	0.87	J
Perfluorohexanoic acid (PFHxA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.4	J
Perfluorononanesulfonate (PFNS)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluorononanoic acid (PFNA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	1.5	U	0.095	J	1.4	U	1.5	U	1.5	U
Perfluorooctanesulfonate (PFOS)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	**5.4**	
Perfluorooctanoic acid (PFOA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	**4.9**	
Perfluoropentanesulfonate (PFPeS)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluoropentanoic acid (PFPeA)	2.9	U	2.9	U	2.9	U	2.9	U	3.1	U	1.1	J
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.5	U	1.4	U	1.4	U	1.5	U	1.5	U
1633 TPFAS	**4.08**		**0.59**		**0.715**		**0.45**		**0.51**		**20.17**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-01 Depth : 80.00 03/29/2023 ng/L		117-01 Depth : 87.00 06/21/2023 ng/L		117-01 Depth : 85.00 09/26/2023 ng/L		117-01 Depth : 85.00 12/27/2023 ng/L		117-02 Depth : 79.00 03/29/2023 ng/L		117-02 Depth : 79.00 06/21/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6	U	8.2	U	5.8	U	6.2	U	5.9	U	5.8	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6	U	8.2	U	5.8	U	6.2	U	5.9	U	5.8	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38	U	51	U	37	U	39	U	37	U	36	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38	U	51	U	37	U	39	U	37	U	36	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.6	U	10	U	7.3	U	7.7	U	7.3	U	7.2	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6	U	8.2	U	5.8	U	6.2	U	5.9	U	5.8	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6	U	8.2	U	5.8	U	6.2	U	5.9	U	5.8	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6	U	8.2	U	5.8	U	6.2	U	5.9	U	5.8	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6	U	8.2	U	5.8	U	6.2	U	5.9	U	5.8	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6	U	8.2	U	5.8	U	6.2	U	5.9	U	5.8	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	20	U	15	U	15	U	15	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	20	U	15	U	15	U	15	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3	U	4.1	U	2.9	U	3.1	U	2.9	U	2.9	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3	U	4.1	U	2.9	U	3.1	U	2.9	U	2.9	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3	U	4.1	U	2.9	U	3.1	U	2.9	U	2.9	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3	U	4.1	U	2.9	U	3.1	U	2.9	U	2.9	U
Perfluorobutanesulfonate (PFBS)	**1.6**		**2.7**		1.4	J	1.5		0.41	J	1.4	U
Perfluorobutyric acid (PFBA)	2.8	J	1.7	J	1.7	J	1.2	J	5.9	U	0.71	J
Perfluorodecanesulfonate (PFDS)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
Perfluorodecanoic acid (PFDA)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	1.5	U	2	U	0.59	J	1.5	U	1.5	U	1.4	U
Perfluoroheptanoic acid (PFHpA)	**2.6**		**2.2**		1.2	J	0.85	J	1.5	U	0.2	J
Perfluorohexanesulfonate (PFHxS)	1.5		1.7	J	**2.4**		**1.9**		0.68	J	0.39	J
Perfluorohexanoic acid (PFHxA)	**2.8**		**2.7**		1.3	J	0.99	J	1.5	U	1.4	U
Perfluorononanesulfonate (PFNS)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
Perfluorononanoic acid (PFNA)	1.5	U	0.59	J	0.98	J	0.53	J	1.5	U	1.4	U
Perfluorooctane sulfonamide (PFOSAm)	1.5	U	0.13	J	1.5	U	1.5	U	1.5	U	1.4	U
Perfluorooctanesulfonate (PFOS)	**3.2**		**6.9**		**14**		**13**		**2.8**		**2**	
Perfluorooctanoic acid (PFOA)	**7.2**		**6.3**		**6.6**		**4.8**		1.5	U	0.66	J
Perfluoropentanesulfonate (PFPeS)	1.5	U	2	U	0.31	J	1.5	U	1.5	U	1.4	U
Perfluoropentanoic acid (PFPeA)	3		2.1	J	1.2	J	0.83	J	2.9	U	2.9	U
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	2	U	1.5	U	1.5	U	1.5	U	1.4	U
1633 TPFAS	**24.7**		**27.02**		**31.68**		**25.6**		**3.89**		**3.96**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-02 Depth : 79.00 09/26/2023 ng/L		117-02 Depth : 79.00 12/27/2023 ng/L		117-04 Depth : 135.00 01/03/2023 ng/L		117-04 Depth : 135.00 03/29/2023 ng/L		117-04 Depth : 135.00 06/21/2023 ng/L		117-04 Depth : 135.00 09/26/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.8	U	5.9	U	5.7	U	6.9	U	5.7	U	5.9	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.8	U	5.9	U	5.7	U	6.9	U	5.7	U	5.9	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	37	U	36	U	43	U	36	U	37	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	37	U	36	U	43	U	36	U	37	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.3	U	7.3	U	7.2	U	8.6	U	7.2	U	7.4	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.8	U	5.9	U	5.7	U	6.9	U	5.7	U	5.9	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.8	U	5.9	U	5.7	U	6.9	U	5.7	U	5.9	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.8	U	5.9	U	5.7	U	6.9	U	5.7	U	5.9	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.8	U	5.9	U	5.7	U	6.9	U	5.7	U	5.9	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.8	U	5.9	U	5.7	U	6.9	U	5.7	U	5.9	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	15	U	14	U	17	U	14	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	15	U	14	U	17	U	14	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	2.9	U	2.9	U	3.4	U	2.9	U	3	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	2.9	U	2.9	U	3.4	U	2.9	U	3	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	2.9	U	2.9	U	3.4	U	2.9	U	3	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	2.9	U	2.9	U	3.4	U	2.9	U	3	U
Perfluorobutanesulfonate (PFBS)	0.73	J	0.83	J	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorobutyric acid (PFBA)	5.8	U	0.63	J	5.7	U	6.9	U	5.7	U	5.9	U
Perfluorodecanesulfonate (PFDS)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluoroheptanesulfonate (PFHpS)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluoroheptanoic acid (PFHpA)	0.19	J	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorohexanesulfonate (PFHxS)	0.72	J	1.3	J	0.3	J	1.7	U	0.34	J	0.35	J
Perfluorohexanoic acid (PFHxA)	0.2	J	0.18	J	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorononanesulfonate (PFNS)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorononanoic acid (PFNA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorooctane sulfonamide (PFOSAm)	1.5	U	1.5	U	1.4	U	0.14	J	1.4	U	1.5	U
Perfluorooctanesulfonate (PFOS)	**5.8**		**9.1**		1.4	U	1.7	U	**2**		1.5	U
Perfluorooctanoic acid (PFOA)	0.73	J	0.68	J	1.4	U	1.7	U	1.4	U	1.5	U
Perfluoropentanesulfonate (PFPeS)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluoropentanoic acid (PFPeA)	2.9	U	2.9	U	2.9	U	3.4	U	2.9	U	3	U
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	1.5	U	1.4	U	1.7	U	1.4	U	1.5	U
1633 TPFAS	**8.37**		**12.72**		**0.3**		**0.14**		**2.34**		**0.35**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-04 Depth : 135.00 12/28/2023 ng/L		117-05 Depth : 135.00 01/04/2023 ng/L		117-05 Depth : 135.00 03/29/2023 ng/L		117-05 Depth : 135.00 06/21/2023 ng/L		117-05 Depth : 135.00 09/26/2023 ng/L		117-05 Depth : 135.00 12/27/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.8	U	6.2	U	5.8	U	6.1	U	5.8	U	6.3	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.8	U	6.2	U	5.8	U	6.1	U	5.8	U	6.3	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	39	U	36	U	38	U	36	U	39	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	39	U	36	U	38	U	36	U	39	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.2	U	7.7	U	7.2	U	7.6	U	7.3	U	7.8	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.8	U	6.2	U	5.8	U	6.1	U	5.8	U	6.3	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.8	U	6.2	U	5.8	U	6.1	U	5.8	U	6.3	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.8	U	6.2	U	5.8	U	6.1	U	5.8	U	6.3	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.8	U	2.4	J	5.8	U	6.1	U	5.8	U	6.3	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.8	U	6.2	U	5.8	U	6.1	U	5.8	U	6.3	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	15	U	14	U	15	U	15	U	16	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	15	U	14	U	15	U	15	U	16	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	3.1	U	2.9	U	3	U	2.9	U	3.1	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	3.1	U	2.9	U	3	U	2.9	U	3.1	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	3.1	U	2.9	U	3	U	2.9	U	3.1	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	3.1	U	2.9	U	3	U	2.9	U	3.1	U
Perfluorobutanesulfonate (PFBS)	1.4	U	0.34	J	0.45	J	1.5	U	1.5	U	1.6	U
Perfluorobutyric acid (PFBA)	5.8	U	6.2	U	5.8	U	6.1	U	5.8	U	6.3	U
Perfluorodecanesulfonate (PFDS)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluoroheptanoic acid (PFHpA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluorohexanesulfonate (PFHxS)	0.26	J	0.46	J	0.88	J	0.43	J	1.5	U	1.6	U
Perfluorohexanoic acid (PFHxA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluorononanesulfonate (PFNS)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluorononanoic acid (PFNA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	0.27	J	1.4	U	0.14	J	0.2	J	1.6	U
Perfluorooctanesulfonate (PFOS)	1.4	U	1.5	U	0.63	J	1.5	U	1.5	U	1.6	U
Perfluorooctanoic acid (PFOA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluoropentanesulfonate (PFPeS)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluoropentanoic acid (PFPeA)	2.9	U	3.1	U	2.9	U	3	U	2.9	U	3.1	U
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U	1.6	U
1633 TPFAS	**0.26**		**3.47**		**1.96**		**0.57**		**0.2**		0	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: William Floyd Wellfield Sentinel

Analyte	117-06 Depth : 135.00 01/04/2023 ng/L		117-06 Depth : 135.00 03/29/2023 ng/L		117-06 Depth : 135.00 06/21/2023 ng/L		117-06 Depth : 135.00 09/26/2023 ng/L		117-06 Depth : 135.00 12/28/2023 ng/L			
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7.7	U	6.2	U	6.8	U	5.8	U	6.1	U		
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.7	U	6.2	U	6.8	U	5.8	U	6.1	U		
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	48	U	39	U	43	U	36	U	38	U		
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	48	U	39	U	43	U	36	U	38	U		
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	9.7	U	7.8	U	8.5	U	7.2	U	7.6	U		
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7.7	U	6.2	U	6.8	U	5.8	U	6.1	U		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7.7	U	6.2	U	6.8	U	5.8	U	6.1	U		
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7.7	U	6.2	U	6.8	U	5.8	U	6.1	U		
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7.7	U	6.2	U	6.8	U	5.8	U	6.1	U		
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.7	U	6.2	U	6.8	U	5.8	U	6.1	U		
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	19	U	16	U	17	U	14	U	15	U		
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	19	U	16	U	17	U	14	U	15	U		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.9	U	3.1	U	3.4	U	2.9	U	3	U		
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.9	U	3.1	U	3.4	U	2.9	U	3	U		
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.9	U	3.1	U	3.4	U	2.9	U	3	U		
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.9	U	3.1	U	3.4	U	2.9	U	3	U		
Perfluorobutanesulfonate (PFBS)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorobutyric acid (PFBA)	7.7	U	6.2	U	6.8	U	5.8	U	6.1	U		
Perfluorodecanesulfonate (PFDS)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorodecanoic acid (PFDA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorododecane sulfonic acid (PFDoS)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorododecanoic acid (PFDoA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluoroheptanesulfonate (PFHpS)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluoroheptanoic acid (PFHpA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorohexanesulfonate (PFHxS)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorohexanoic acid (PFHxA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorononanesulfonate (PFNS)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorononanoic acid (PFNA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorooctane sulfonamide (PFOSAm)	1.9	U	1.6	U	1.7	U	0.11	J	1.5	U		
Perfluorooctanesulfonate (PFOS)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorooctanoic acid (PFOA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluoropentanesulfonate (PFPeS)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluoropentanoic acid (PFPeA)	3.9	U	3.1	U	3.4	U	2.9	U	3	U		
Perfluorotetradecanoic acid (PFTeDA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluorotridecanoic acid (PFTrDA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
Perfluoroundecanoic acid (PFUdA)	1.9	U	1.6	U	1.7	U	1.4	U	1.5	U		
1633 TPFAS	0		0		0		**0.11**		0			

OU10 Former Firehouse

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	073-01 Depth : 47.00 01/30/2023 ng/L		073-01 Depth : 42.00 08/02/2023 ng/L		073-26 Depth : 44.50 01/17/2023 ng/L		073-26 Depth : 42.50 06/08/2023 ng/L		073-26 Depth : 42.50 08/17/2023 ng/L		073-26 Depth : 46.00 10/11/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.1	U	7.64	U	6.2	U	6.94	U	7.05	U	7.52	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.1	U	7.76	U	6.2	U	7.05	U	7.16	U	7.63	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38	U	40.4	U	39	U	36.7	U	37.3	U	39.8	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38	U	40.4	U	39	U	36.7	U	37.3	U	39.8	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.6	U	8.08	U	7.7	U	7.34	U	7.46	U	7.95	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.1	U	7.64	U	6.2	U	6.94	U	7.05	U	7.52	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.1	U	7.55	U	6.2	U	6.86	U	6.97	U	7.44	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.1	U	7.58	U	6.2	U	6.88	U	6.99	U	7.46	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	**55**		7.68	U	1	J	6.97	U	7.08	U	7.56	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.1	U	8.08	U	6.2	U	7.34	U	7.46	U	7.95	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	2.02	U	1.5	U	1.83	U	1.86	U	1.99	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	2.02	U	1.5	U	1.83	U	1.86	U	1.99	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	20.2	U	15	U	18.3	U	18.6	U	19.9	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	2.02	U	1.5	U	1.83	U	1.86	U	1.99	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	2.02	U	1.5	U	1.83	U	1.86	U	1.99	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	20.2	U	15	U	18.3	U	18.6	U	19.9	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.1	U	4.04	U	3.1	U	3.67	U	3.73	U	3.98	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.1	U	3.6	U	3.1	U	3.27	U	3.32	U	3.54	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.1	U	4.04	U	3.1	U	3.67	U	3.73	U	3.98	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.1	U	4.04	U	3.1	U	3.67	U	3.73	U	3.98	U
Perfluorobutanesulfonate (PFBS)	1.5	U	1.79	U	**3.3**		**2.34**		**3**		**2.21**	
Perfluorobutyric acid (PFBA)	**18**		**8.37**		5.6	J	2.96	J	5.94	J	2.82	J
Perfluorodecanesulfonate (PFDS)	1.5	U	1.95	U	1.5	U	1.77	U	1.8	U	1.92	U
Perfluorodecanoic acid (PFDA)	1.5	U	2.02	U	0.35	J	1.83	U	1.86	U	1.99	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.96	U	1.5	U	1.78	U	1.81	U	1.93	U
Perfluorododecanoic acid (PFDoA)	1.5	U	2.02	U	1.5	U	1.83	U	1.86	U	1.99	U
Perfluoroheptanesulfonate (PFHpS)	1.5	U	1.93	U	**22**		**7.58**		**7.49**		**8.98**	
Perfluoroheptanoic acid (PFHpA)	0.35	J	2.02	U	**6**		**3.64**		**7.86**		**5.33**	
Perfluorohexanesulfonate (PFHxS)	0.93	J	1.85	U	**120**		**142**		**167**		**140**	
Perfluorohexanoic acid (PFHxA)	0.94	J	0.693	J	**13**		**7.48**		**16**		**7.05**	
Perfluorononanesulfonate (PFNS)	1.5	U	1.94	U	1.5	U	1.76	U	0.61	J	1.91	U
Perfluorononanoic acid (PFNA)	0.6	J	2.02	U	**2.3**		**2.26**		**4.11**		**2.53**	
Perfluorooctane sulfonamide (PFOSAm)	1.5	U	2.02	U	0.14	J	0.803	J	1.86	U	1.99	U
Perfluorooctanesulfonate (PFOS)	**6.3**		**3.83**		**1600**	D	**1020**	D	**1010**		**953**	D
Perfluorooctanoic acid (PFOA)	0.84	J	2.02	U	**14**		**9.63**		**15.6**		**11.9**	
Perfluoropentanesulfonate (PFPeS)	1.5	U	1.9	U	**4.2**		**5.02**		**9.2**		**5.09**	
Perfluoropentanoic acid (PFPeA)	1.6	J	0.72	J	**7.5**		**4.23**		**8.35**		**3.53**	
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	2.02	U	1.5	U	1.83	U	1.86	U	1.99	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	2.02	U	0.69	J	0.74	J	1.86	U	1.99	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	2.02	U	**15**		**16.7**		**11.1**		**6.25**	
1633 TPFAS	**84.56**		**13.613**		**1815.08**		**1225.383**		**1266.26**		**1148.69**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	073-27 Depth : 42.50 01/23/2023 ng/L		073-27 Depth : 42.50 06/08/2023 ng/L		073-27 Depth : 42.50 08/17/2023 ng/L		073-27 Depth : 46.20 10/11/2023 ng/L		073-28 Depth : 42.50 01/23/2023 ng/L		073-28 Depth : 42.50 06/08/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.4	U	6.57	U	7.1	U	6.66	U	6.4	U	7.16	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.4	U	6.67	U	7.21	U	6.76	U	6.4	U	7.27	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	40	U	34.8	U	37.6	U	35.2	U	40	U	37.9	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	40	U	34.8	U	37.6	U	35.2	U	40	U	37.9	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.9	U	6.95	U	7.52	U	7.05	U	8	U	7.57	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.4	U	6.57	U	7.1	U	6.66	U	6.4	U	7.16	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.4	U	6.5	U	7.03	U	6.59	U	6.4	U	7.08	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.4	U	6.52	U	7.05	U	6.61	U	6.4	U	7.1	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.4	U	6.6	U	7.14	U	6.69	U	1.2	J	**9.3**	
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.4	U	6.95	U	7.52	U	7.05	U	6.4	U	7.57	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	16	U	17.4	U	18.8	U	17.6	U	16	U	18.9	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	16	U	17.4	U	18.8	U	17.6	U	16	U	18.9	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.2	U	3.48	U	3.76	U	3.52	U	3.2	U	3.79	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.2	U	3.09	U	3.34	U	3.14	U	3.2	U	3.37	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.2	U	3.48	U	3.76	U	3.52	U	3.2	U	3.79	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.2	U	3.48	U	3.76	U	3.52	U	3.2	U	3.79	U
Perfluorobutanesulfonate (PFBS)	**2.2**		**11.9**		**4.34**		**4.88**		**11**		**21.1**	
Perfluorobutyric acid (PFBA)	1.3	J	**8.66**		4.44	J	3.45	J	4.8	J	**10.9**	
Perfluorodecanesulfonate (PFDS)	1.6	U	1.68	U	1.81	U	1.7	U	1.6	U	1.83	U
Perfluorodecanoic acid (PFDA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
Perfluorododecane sulfonic acid (PFDoS)	1.6	U	1.69	U	1.82	U	1.71	U	1.6	U	1.84	U
Perfluorododecanoic acid (PFDoA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
Perfluoroheptanesulfonate (PFHpS)	1.6	U	**4.02**		**2.84**		**1.96**		**1.8**		**12.5**	
Perfluoroheptanoic acid (PFHpA)	1.6	U	**5.94**		1.39	J	**2.08**		**5.5**		**26.4**	
Perfluorohexanesulfonate (PFHxS)	**18**		**206**	D	**48.1**		**68.5**		**47**		**353**	D
Perfluorohexanoic acid (PFHxA)	1.4	J	**82.5**		**11.4**		**12**		**28**		**86.4**	
Perfluorononanesulfonate (PFNS)	1.6	U	1.67	U	1.81	U	1.69	U	1.6	U	1.82	U
Perfluorononanoic acid (PFNA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
Perfluorooctane sulfonamide (PFOSAm)	0.14	J	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
Perfluorooctanesulfonate (PFOS)	**170**		**412**	D	**228**		**204**	D	**330**		**761**	D
Perfluorooctanoic acid (PFOA)	1.6	U	**12.6**		**3.65**		**4.14**		1.6		**27.5**	
Perfluoropentanesulfonate (PFPeS)	**1.7**		**36.2**		**8.41**		**7.36**		**17**		**61.1**	
Perfluoropentanoic acid (PFPeA)	0.56	J	**12.4**		**2.16**		**2.69**		**23**		**54.7**	
Perfluorotetradecanoic acid (PFTeDA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
Perfluorotridecanoic acid (PFTrDA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
Perfluoroundecanoic acid (PFUdA)	1.6	U	1.74	U	1.88	U	1.76	U	1.6	U	1.89	U
1633 TPFAS	**195.3**		**792.22**		**314.73**		**311.06**		**470.9**		**1423.9**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	073-28 Depth : 42.50 08/17/2023 ng/L		073-28 Depth : 46.00 10/11/2023 ng/L		073-29 Depth : 42.50 01/30/2023 ng/L		073-29 Depth : 42.50 06/09/2023 ng/L		073-29 Depth : 42.50 08/02/2023 ng/L		073-29 Depth : 47.50 10/03/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7.24	U	6.94	U	6	U	6.38	U	6.89	U	7.03	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.36	U	7.05	U	6	U	6.48	U	7	U	7.14	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38.3	U	36.7	U	37	U	33.8	U	36.4	U	37.2	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38.3	U	36.7	U	37	U	33.8	U	36.4	U	37.2	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.67	U	7.34	U	7.5	U	6.75	U	7.29	U	7.44	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7.24	U	6.94	U	6	U	6.38	U	6.89	U	7.03	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7.17	U	6.87	U	6	U	6.32	U	6.82	U	6.96	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7.19	U	6.88	U	6	U	6.33	U	6.83	U	6.98	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.2	J	6.98	U	6	U	6.42	U	6.92	U	7.07	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.67	U	7.34	U	6	U	6.75	U	7.29	U	7.44	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	19.2	U	18.4	U	15	U	16.9	U	18.2	U	18.6	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	19.2	U	18.4	U	15	U	16.9	U	18.2	U	18.6	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.83	U	3.67	U	3	U	3.38	U	3.64	U	3.72	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.41	U	3.27	U	3	U	3.01	U	3.24	U	3.31	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.83	U	3.67	U	3	U	3.38	U	3.64	U	3.72	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.83	U	3.67	U	3	U	3.38	U	3.64	U	3.72	U
Perfluorobutanesulfonate (PFBS)	**8.39**		**2.69**		**7.3**		1.5	U	1.3	J	**7.84**	
Perfluorobutyric acid (PFBA)	5.25	J	7.34	U	**6.7**		6.75	U	7.29	U	7.31	J
Perfluorodecanesulfonate (PFDS)	1.85	U	1.77	U	1.5	U	1.63	U	1.76	U	1.8	U
Perfluorodecanoic acid (PFDA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
Perfluorododecane sulfonic acid (PFDoS)	1.86	U	1.78	U	1.5	U	1.64	U	1.77	U	1.8	U
Perfluorododecanoic acid (PFDoA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
Perfluoroheptanesulfonate (PFHpS)	**6.09**		1.35	J	1.5	U	1.61	U	1.74	U	1.77	U
Perfluoroheptanoic acid (PFHpA)	**10**		**1.88**		1.3	J	1.69	U	1.82	U	0.713	J
Perfluorohexanesulfonate (PFHxS)	**119**		**21.3**		**9.8**		0.974	J	1.02	J	**2.12**	
Perfluorohexanoic acid (PFHxA)	**45**		**8.93**		**9.6**		0.697	J	1.21	J	**7.1**	
Perfluorononanesulfonate (PFNS)	1.84	U	1.77	U	1.5	U	1.62	U	1.75	U	1.79	U
Perfluorononanoic acid (PFNA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
Perfluorooctane sulfonamide (PFOSAm)	1.92	U	1.84	U	0.14	J	1.69	U	1.82	U	1.86	U
Perfluorooctanesulfonate (PFOS)	**233**		**101**		0.98	J	1.57	U	0.666	J	1.73	U
Perfluorooctanoic acid (PFOA)	**9.42**		**2.07**		1.5	U	1.69	U	1.82	U	1.86	U
Perfluoropentanesulfonate (PFPeS)	**30.6**		**4.71**		**4.4**		1.59	U	1.71	U	**3.38**	
Perfluoropentanoic acid (PFPeA)	**18.7**		**4.91**		**15**		1.1	J	1.71	J	**12.1**	
Perfluorotetradecanoic acid (PFTeDA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
Perfluorotridecanoic acid (PFTrDA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
Perfluoroundecanoic acid (PFUdA)	1.92	U	1.84	U	1.5	U	1.69	U	1.82	U	1.86	U
1633 TPFAS	**490.65**		**148.84**		**55.22**		**2.771**		**5.906**		**40.563**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	073-30 Depth : 43.50 01/17/2023 ng/L		073-30 Depth : 42.50 06/08/2023 ng/L		073-30 Depth : 42.50 08/04/2023 ng/L		073-30 Depth : 46.00 10/10/2023 ng/L		073-31 Depth : 42.50 01/23/2023 ng/L		073-31 Depth : 42.50 06/07/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.1	U	6.61	U	7.31	U	7.34	U	6.2	U	6.79	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.1	U	6.72	U	7.43	U	7.45	U	**10**		3.75	J
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38	U	35	U	38.7	U	38.8	U	39	U	35.9	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38	U	35	U	38.7	U	38.8	U	39	U	35.9	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.6	U	7	U	7.74	U	7.76	U	7.7	U	7.18	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.1	U	6.61	U	7.31	U	7.34	U	6.2	U	6.79	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.1	U	6.54	U	7.23	U	7.26	U	6.2	U	6.72	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.1	U	6.56	U	7.25	U	7.28	U	6.2	U	6.73	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.1	U	6.65	U	7.35	U	7.38	U	**70**		**10.7**	
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.1	U	7	U	7.74	U	7.76	U	6.2	U	7.18	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.75	U	1.93	U	1.94	U	1.5	U	1.8	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.75	U	1.93	U	1.94	U	**3**		1.8	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	17.5	U	19.3	U	19.4	U	15	U	18	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.75	U	1.93	U	1.94	U	1.5	U	1.8	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.75	U	1.93	U	1.94	U	**1.7**		1.8	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	17.5	U	19.3	U	19.4	U	15	U	18	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3	U	3.5	U	3.87	U	3.88	U	3.1	U	3.59	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3	U	3.11	U	3.44	U	3.46	U	3.1	U	3.2	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3	U	3.5	U	3.87	U	3.88	U	3.1	U	3.59	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3	U	3.5	U	3.87	U	3.88	U	3.1	U	3.59	U
Perfluorobutanesulfonate (PFBS)	**2.6**		**2.1**		**3.43**		1.28	J	**100**		**34.9**	
Perfluorobutyric acid (PFBA)	4.2	J	3.36	J	7.74	U	7.76	U	**74**		**27.2**	
Perfluorodecanesulfonate (PFDS)	1.5	U	1.69	U	1.87	U	1.87	U	**3.8**		1.73	U
Perfluorodecanoic acid (PFDA)	0.4	J	0.94	J	1.93	U	0.774	J	**4**		1.43	J
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.7	U	1.88	U	1.88	U	1.5	U	0.882	J
Perfluorododecanoic acid (PFDoA)	1.5	U	1.75	U	1.93	U	1.94	U	1.5	U	1.8	U
Perfluoroheptanesulfonate (PFHpS)	**16**		**6.58**		1.54	J	1.85	U	**110**		**30.3**	
Perfluoroheptanoic acid (PFHpA)	0.55	J	1.34	J	0.995	J	1.48	J	**120**		**52**	
Perfluorohexanesulfonate (PFHxS)	**7.2**		**16.9**		**6.44**		**5.95**		**1600**	D	**1070**	D
Perfluorohexanoic acid (PFHxA)	**2.2**		**3.25**		1.64	J	1.06	J	**390**		**133**	
Perfluorononanesulfonate (PFNS)	1.5	U	1.68	U	1.86	U	1.87	U	**40**		1.02	J
Perfluorononanoic acid (PFNA)	0.34	J	1.75	U	1.93	U	1.94	U	**7.2**		**2.71**	
Perfluorooctane sulfonamide (PFOSAm)	1.5	U	1.75	U	1.93	U	1.94	U	**18**		**9.41**	
Perfluorooctanesulfonate (PFOS)	**150**		**202**		**148**		**374**	D	**9400**		**1220**	D
Perfluorooctanoic acid (PFOA)	**2.5**		**5.25**		**2.76**		**2.82**		**160**		**48**	
Perfluoropentanesulfonate (PFPeS)	1.5	U	0.665	J	1.82	U	1.83	U	**260**		**141**	
Perfluoropentanoic acid (PFPeA)	1.2	J	**2.31**		0.984	J	0.722	J	**320**		**110**	
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.75	U	1.93	U	1.94	U	1.5	U	1.8	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.75	U	1.93	U	1.94	U	1.5	U	1.8	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	1.75	U	1.93	U	1.94	U	1	J	1.8	U
1633 TPFAS	**187.19**		**244.695**		**165.789**		**388.086**		**12692.7**		**2896.302**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	073-31 Depth : 42.50 08/02/2023 ng/L		073-31 Depth : 47.50 10/03/2023 ng/L		073-32 Depth : 60.00 01/23/2023 ng/L		073-32 Depth : 60.00 06/07/2023 ng/L		073-32 Depth : 60.00 08/02/2023 ng/L		073-32 Depth : 60.00 10/03/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	15.1	U	6.49	U	5.6	U	6.82	U	7.17	U	6.75	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	15.4	U	6.59	U	5.4	J	6.93	U	7.29	U	6.85	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	80	U	34.3	U	35	U	36.1	U	38	U	35.7	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	80	U	34.3	U	35	U	36.1	U	38	U	35.7	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	16	U	6.86	U	7	U	7.21	U	7.59	U	7.14	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	15.1	U	6.49	U	5.6	U	6.82	U	7.17	U	6.75	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	15	U	6.42	U	5.6	U	6.75	U	7.1	U	6.68	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	15	U	6.43	U	5.6	U	6.76	U	7.12	U	6.69	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.12	J	2.61	J	**20**		6.85	U	7.21	U	6.78	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	16	U	6.86	U	5.6	U	7.21	U	7.59	U	7.14	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	4	U	1.72	U	1.4	U	1.8	U	1.9	U	1.78	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4	U	1.72	U	1.4	U	1.8	U	1.9	U	1.78	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	40	U	17.2	U	14	U	18	U	19	U	17.8	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	4	U	1.72	U	1.4	U	1.8	U	1.9	U	1.78	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4	U	1.72	U	1.4	U	1.8	U	1.9	U	1.78	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	40	U	17.2	U	14	U	18	U	19	U	17.8	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	8	U	3.43	U	2.8	U	3.61	U	3.8	U	3.57	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	7.12	U	3.05	U	2.8	U	3.21	U	3.38	U	3.18	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	8	U	3.43	U	2.8	U	3.61	U	3.8	U	3.57	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	8	U	3.43	U	2.8	U	3.61	U	3.8	U	3.57	U
Perfluorobutanesulfonate (PFBS)	**40.5**		**14.5**		**17**		0.689	J	0.68	J	0.558	J
Perfluorobutyric acid (PFBA)	**20.8**		**9.12**		**17**		7.21	U	7.59	U	7.14	U
Perfluorodecanesulfonate (PFDS)	3.86	U	1.66	U	1.4	U	1.74	U	1.83	U	1.72	U
Perfluorodecanoic acid (PFDA)	2.17	J	1.46	J	1.4		1.8	U	1.9	U	1.78	U
Perfluorododecane sulfonic acid (PFDoS)	3.88	U	1.66	U	1.4	U	1.75	U	1.84	U	1.73	U
Perfluorododecanoic acid (PFDoA)	4	U	1.72	U	1.4	U	1.8	U	1.9	U	1.78	U
Perfluoroheptanesulfonate (PFHpS)	**17.6**		**7.45**		**43**		1.72	U	1.81	U	1.7	U
Perfluoroheptanoic acid (PFHpA)	**42.1**		**10.3**		**21**		1.8	U	1.9	U	1.78	U
Perfluorohexanesulfonate (PFHxS)	**1000**	D	**258**	D	**480**		**11.2**		**9.29**		**6.12**	
Perfluorohexanoic acid (PFHxA)	**90**		**25.4**		**120**		**1.83**		1.24	J	1.78	U
Perfluorononanesulfonate (PFNS)	1.48	J	0.607	J	**14**		1.74	U	1.83	U	1.72	U
Perfluorononanoic acid (PFNA)	2.2	J	**2.01**		**3.2**		1.8	U	1.9	U	1.78	U
Perfluorooctane sulfonamide (PFOSAm)	**8.38**		**5.93**		**5.4**		**1.99**		1.01	J	1.78	U
Perfluorooctanesulfonate (PFOS)	**1840**	D	**800**	D	**2400**	D	**41.4**		**21.8**		**16.7**	
Perfluorooctanoic acid (PFOA)	**27.9**		**20**		**110**		1.15	J	1.9	U	1.78	U
Perfluoropentanesulfonate (PFPeS)	**77**		**17.4**		**29**		0.772	J	0.648	J	0.56	J
Perfluoropentanoic acid (PFPeA)	**65.6**		**17.1**		**51**		1.15	J	0.717	J	1.78	U
Perfluorotetradecanoic acid (PFTeDA)	4	U	1.72	U	1.4	U	1.8	U	1.9	U	1.78	U
Perfluorotridecanoic acid (PFTrDA)	4	U	1.72	U	1.4	U	1.8	U	1.9	U	1.78	U
Perfluoroundecanoic acid (PFUdA)	4	U	1.72	U	1.4	U	1.8	U	1.9	U	1.78	U
1633 TPFAS	**3241.85**		**1191.887**		**3337.4**		**60.181**		**35.385**		**23.938**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	073-33 Depth : 49.95 01/23/2023 ng/L		073-33 Depth : 42.50 06/08/2023 ng/L		073-33 Depth : 49.31 08/04/2023 ng/L		073-33 Depth : 50.00 10/03/2023 ng/L		074-135 Depth : 60.00 01/23/2023 ng/L		074-135 Depth : 60.00 06/07/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	13	U	6.9	U	6.99	U	50.4	U	6.1	U	6.63	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	13	U	7.01	U	7.1	U	51.2	U	6.1	U	6.74	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	80	U	36.5	U	37	U	267	U	38	U	35.1	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	80	U	36.5	U	37	U	267	U	38	U	35.1	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	16	U	7.3	U	7.4	U	53.3	U	7.7	U	7.02	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	13	U	6.9	U	6.99	U	50.4	U	6.1	U	6.63	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	13	U	6.83	U	6.92	U	49.9	U	6.1	U	6.56	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	13	U	6.85	U	6.94	U	50	U	6.1	U	6.58	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	13	U	6.94	U	2.92	J	50.7	U	6.1	U	6.67	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	13	U	7.3	U	7.4	U	53.3	U	6.1	U	7.02	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	32	U	18.3	U	18.5	U	133	U	15	U	17.5	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	32	U	18.3	U	18.5	U	133	U	15	U	17.5	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6.4	U	3.65	U	3.7	U	26.7	U	3.1	U	3.51	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6.4	U	3.25	U	3.29	U	23.7	U	3.1	U	3.12	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	6.4	U	3.65	U	3.7	U	26.7	U	3.1	U	3.51	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	6.4	U	3.65	U	3.7	U	26.7	U	3.1	U	3.51	U
Perfluorobutanesulfonate (PFBS)	**16**		**10**		**29**		**21.2**		**32**		**1.94**	
Perfluorobutyric acid (PFBA)	8.1	J	3.93	J	**15.8**		53.3	U	**16**		3.03	J
Perfluorodecanesulfonate (PFDS)	3.2	U	1.76	U	1.78	U	12.9	U	1.5	U	1.69	U
Perfluorodecanoic acid (PFDA)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
Perfluorododecane sulfonic acid (PFDoS)	3.2	U	1.77	U	1.79	U	12.9	U	1.5	U	1.7	U
Perfluorododecanoic acid (PFDoA)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
Perfluoroheptanesulfonate (PFHpS)	**12**		1.16	J	**13**		5.13	J	**5.4**		1.67	U
Perfluoroheptanoic acid (PFHpA)	**7.9**		1.26	J	**15.4**		9.82	J	**22**		**2.18**	
Perfluorohexanesulfonate (PFHxS)	**91**		**38**		**214**	D	**112**		**260**		**12.4**	
Perfluorohexanoic acid (PFHxA)	**26**		**5.41**		**39.5**		**25.2**		**54**		**7.79**	
Perfluorononanesulfonate (PFNS)	3.2	U	1.76	U	1.78	U	12.8	U	1.5	U	1.69	U
Perfluorononanoic acid (PFNA)	**3.9**		1.83	U	**2.21**		13.3	U	0.57	J	1.75	U
Perfluorooctane sulfonamide (PFOSAm)	0.9	J	1.83	U	0.74	J	13.3	U	1.5	U	1.75	U
Perfluorooctanesulfonate (PFOS)	**5000**	D	**475**	D	**1290**	D	**2040**	D	**100**		**16.5**	
Perfluorooctanoic acid (PFOA)	**11**		**1.99**		**10**		6.75	J	**31**		**3.47**	
Perfluoropentanesulfonate (PFPeS)	**11**		**7.16**		**33.6**		**15.6**		**43**		**1.72**	
Perfluoropentanoic acid (PFPeA)	**15**		**6.29**		**46.6**		**27.8**		**51**		**7.56**	
Perfluorotetradecanoic acid (PFTeDA)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
Perfluorotridecanoic acid (PFTrDA)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
Perfluoroundecanoic acid (PFUdA)	3.2	U	1.83	U	1.85	U	13.3	U	1.5	U	1.75	U
1633 TPFAS	**5202.8**		**550.2**		**1712.77**		**2263.5**		**614.97**		**56.59**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	074-135 Depth : 60.00 08/04/2023 ng/L		074-135 Depth : 60.00 10/03/2023 ng/L		083-01 Depth : 85.00 02/03/2023 ng/L		083-01 Depth : 85.00 08/17/2023 ng/L		083-02 Depth : 135.00 02/03/2023 ng/L		083-02 Depth : 135.00 08/02/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.39	U	6.72	U	5.6	U	9.45	U	6.3	U	6.73	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.5	U	6.83	U	5.6	U	9.6	U	6.3	U	6.83	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	33.8	U	35.6	U	35	U	50	U	39	U	35.6	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	33.8	U	35.6	U	35	U	50	U	39	U	35.6	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6.77	U	7.11	U	7	U	10	U	7.9	U	7.12	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.39	U	6.72	U	5.6	U	9.45	U	6.3	U	6.73	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.33	U	6.65	U	5.6	U	9.35	U	6.3	U	6.66	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.34	U	6.67	U	5.6	U	9.38	U	6.3	U	6.67	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.43	U	6.76	U	5.6	U	9.5	U	6.3	U	6.76	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.77	U	7.11	U	5.6	U	10	U	6.3	U	7.12	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	16.9	U	17.8	U	14	U	25	U	16	U	17.8	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	16.9	U	17.8	U	14	U	25	U	16	U	17.8	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.38	U	3.56	U	2.8	U	5	U	3.2	U	3.56	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.01	U	3.17	U	2.8	U	4.45	U	3.2	U	3.17	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.38	U	3.56	U	2.8	U	5	U	3.2	U	3.56	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.38	U	3.56	U	2.8	U	5	U	3.2	U	3.56	U
Perfluorobutanesulfonate (PFBS)	**2.05**		0.925	J	1.4	U	2.22	U	1.6	U	1.58	U
Perfluorobutyric acid (PFBA)	6.77	U	7.11	U	5.6	U	10	U	6.3	U	7.12	U
Perfluorodecanesulfonate (PFDS)	1.63	U	1.72	U	1.4	U	2.41	U	1.6	U	1.72	U
Perfluorodecanoic acid (PFDA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
Perfluorododecane sulfonic acid (PFDoS)	1.64	U	1.73	U	1.4	U	2.43	U	1.6	U	1.73	U
Perfluorododecanoic acid (PFDoA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
Perfluoroheptanesulfonate (PFHpS)	1.61	U	1.69	U	1.4	U	2.38	U	1.6	U	1.7	U
Perfluoroheptanoic acid (PFHpA)	**1.93**		1.69	J	0.32	J	2.5	U	1.6	U	1.78	U
Perfluorohexanesulfonate (PFHxS)	**8.01**		**6.23**		0.53	J	2.29	U	**3**		0.869	J
Perfluorohexanoic acid (PFHxA)	**5.45**		**3.38**		1.4	U	2.5	U	1.6	U	0.635	J
Perfluorononanesulfonate (PFNS)	1.63	U	1.71	U	1.4	U	2.41	U	1.6	U	1.71	U
Perfluorononanoic acid (PFNA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
Perfluorooctane sulfonamide (PFOSAm)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
Perfluorooctanesulfonate (PFOS)	**13.1**		**12.3**		**5.7**		2.21	J	**19**		**5.88**	
Perfluorooctanoic acid (PFOA)	**2.76**		**2.93**		1.4	U	2.5	U	1.6	U	0.704	J
Perfluoropentanesulfonate (PFPeS)	1	J	0.602	J	1.4	U	2.35	U	1.6	U	1.67	U
Perfluoropentanoic acid (PFPeA)	**5.32**		**4.74**		2.8	U	2.5	U	3.2	U	0.608	J
Perfluorotetradecanoic acid (PFTeDA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
Perfluorotridecanoic acid (PFTrDA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
Perfluoroundecanoic acid (PFUdA)	1.69	U	1.78	U	1.4	U	2.5	U	1.6	U	1.78	U
1633 TPFAS	**39.62**		**32.797**		**6.55**		**2.21**		**22**		**8.696**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	083-05 Depth : 72.00 02/07/2023 ng/L		083-05 Depth : 70.00 08/17/2023 ng/L		083-33 Depth : 55.00 01/31/2023 ng/L		083-33 Depth : 55.00 07/31/2023 ng/L		083-34 Depth : 55.00 01/31/2023 ng/L		083-34 Depth : 75.00 07/31/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	13	U	6.72	U	5.9	U	7.36	U	6.2	U	6.7	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	13	U	6.83	U	5.9	U	7.48	U	6.2	U	6.81	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	80	U	35.6	U	37	U	38.9	U	39	U	35.5	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	80	U	35.6	U	37	U	38.9	U	39	U	35.5	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	16	U	7.11	U	7.3	U	7.79	U	7.7	U	7.09	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	13	U	6.72	U	5.9	U	7.36	U	6.2	U	6.7	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	13	U	6.65	U	5.9	U	7.28	U	6.2	U	6.63	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	13	U	6.67	U	5.9	U	7.3	U	6.2	U	6.65	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	13	U	6.75	U	**7**		7.4	U	6.2	U	6.74	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	13	U	7.11	U	5.9	U	7.79	U	6.2	U	7.09	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	32	U	17.8	U	15	U	19.5	U	15	U	17.7	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	32	U	17.8	U	15	U	19.5	U	15	U	17.7	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6.4	U	3.56	U	2.9	U	3.89	U	3.1	U	3.55	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6.4	U	3.16	U	2.9	U	3.47	U	3.1	U	3.16	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	6.4	U	3.56	U	2.9	U	3.89	U	3.1	U	3.55	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	6.4	U	3.56	U	2.9	U	3.89	U	3.1	U	3.55	U
Perfluorobutanesulfonate (PFBS)	3.2	U	1.58	U	1.1	J	1.73	U	0.6	J	0.608	J
Perfluorobutyric acid (PFBA)	**16**		**8.82**		1.5	J	7.79	U	0.6	J	7.09	U
Perfluorodecanesulfonate (PFDS)	3.2	U	1.72	U	1.5	U	1.88	U	1.5	U	1.71	U
Perfluorodecanoic acid (PFDA)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
Perfluorododecane sulfonic acid (PFDoS)	3.2	U	1.72	U	1.5	U	1.89	U	1.5	U	1.72	U
Perfluorododecanoic acid (PFDoA)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
Perfluoroheptanesulfonate (PFHpS)	3.2	U	1.69	U	1.5	U	1.86	U	1.5	U	1.69	U
Perfluoroheptanoic acid (PFHpA)	3.2	U	1.78	U	0.82	J	1.95	U	0.25	J	1.77	U
Perfluorohexanesulfonate (PFHxS)	0.68	J	1.62	U	**1.9**		0.93	J	**2**		**1.65**	
Perfluorohexanoic acid (PFHxA)	3.2	U	1.33	J	1.5	U	1.95	U	1	J	1.32	J
Perfluorononanesulfonate (PFNS)	3.2	U	1.71	U	1.5	U	1.87	U	1.5	U	1.71	U
Perfluorononanoic acid (PFNA)	3.2	U	1.78	U	0.7	J	1.95	U	1.5	U	1.77	U
Perfluorooctane sulfonamide (PFOSAm)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
Perfluorooctanesulfonate (PFOS)	2.8	J	**4.78**		**13**		**4.43**		**14**		**15.2**	
Perfluorooctanoic acid (PFOA)	3.2	U	0.911	J	**3.2**		1.14	J	1.5	U	1.39	J
Perfluoropentanesulfonate (PFPeS)	3.2	U	1.67	U	1.5	U	1.83	U	1.5	U	1.67	U
Perfluoropentanoic acid (PFPeA)	6.4	U	1.78	U	0.64	J	1.95	U	0.44	J	0.602	J
Perfluorotetradecanoic acid (PFTeDA)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
Perfluorotridecanoic acid (PFTrDA)	3.2	U	1.78	U	1.2	J	1.01	J	1.5	U	1.77	U
Perfluoroundecanoic acid (PFUdA)	3.2	U	1.78	U	1.5	U	1.95	U	1.5	U	1.77	U
1633 TPFAS	**19.48**		**15.841**		**31.06**		**7.51**		**18.89**		**20.77**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	083-35 Depth : 55.00 01/31/2023 ng/L		083-35 Depth : 55.00 07/31/2023 ng/L		083-36 Depth : 75.00 01/31/2023 ng/L		083-36 Depth : 75.00 07/31/2023 ng/L		083-37 Depth : 55.00 01/31/2023 ng/L		083-37 Depth : 55.00 07/31/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.4	U	6.59	U	6.3	U	6.89	U	6.2	U	6.75	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.4	U	6.69	U	6.3	U	7	U	6.2	U	6.85	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	40	U	34.8	U	39	U	36.5	U	39	U	35.7	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	40	U	34.8	U	39	U	36.5	U	39	U	35.7	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8	U	6.97	U	7.8	U	7.29	U	7.8	U	7.14	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.4	U	6.59	U	6.3	U	6.89	U	6.2	U	6.75	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.4	U	6.52	U	6.3	U	6.82	U	6.2	U	6.67	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.4	U	6.53	U	6.3	U	6.84	U	6.2	U	6.69	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.4	U	6.62	U	6.3	U	6.93	U	6.2	U	6.78	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.4	U	6.97	U	6.3	U	7.29	U	6.2	U	7.14	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.6	U	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.6	U	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	16	U	17.4	U	16	U	18.2	U	16	U	17.8	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.6	U	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.6	U	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	16	U	17.4	U	16	U	18.2	U	16	U	17.8	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.2	U	3.48	U	3.1	U	3.65	U	3.1	U	3.57	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.2	U	3.1	U	3.1	U	3.25	U	3.1	U	3.18	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.2	U	3.48	U	3.1	U	3.65	U	3.1	U	3.57	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.2	U	3.48	U	3.1	U	3.65	U	3.1	U	3.57	U
Perfluorobutanesulfonate (PFBS)	**3.2**		**2.07**		**2.3**		1.62	U	1.6		0.586	J
Perfluorobutyric acid (PFBA)	3	J	6.97	U	3.4	J	7.29	U	2.1	J	7.14	U
Perfluorodecanesulfonate (PFDS)	1.6	U	1.68	U	1.6	U	1.76	U	1.6	U	1.72	U
Perfluorodecanoic acid (PFDA)	0.42	J	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
Perfluorododecane sulfonic acid (PFDoS)	1.6	U	1.69	U	1.6	U	1.77	U	1.6	U	1.73	U
Perfluorododecanoic acid (PFDoA)	1.6	U	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
Perfluoroheptanesulfonate (PFHpS)	1.6		1.66	U	1.6		1.74	U	1.3	J	1.7	U
Perfluoroheptanoic acid (PFHpA)	**2.5**		0.763	J	**3**		1.82	U	1.3	J	1.78	U
Perfluorohexanesulfonate (PFHxS)	**11**		**5.12**		**58**		**4.54**		**29**		**4.8**	
Perfluorohexanoic acid (PFHxA)	**5.4**		**1.84**		**7.2**		1.65	J	**4.6**		1.39	J
Perfluorononanesulfonate (PFNS)	1.6	U	1.68	U	1.6	U	1.75	U	1.6	U	1.72	U
Perfluorononanoic acid (PFNA)	**8.4**		1.04	J	**4.8**		1.1	J	**12**		**8.03**	
Perfluorooctane sulfonamide (PFOSAm)	1.6	U	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
Perfluorooctanesulfonate (PFOS)	**440**		**95.2**		**150**		**20.4**		**460**		**85.4**	
Perfluorooctanoic acid (PFOA)	**6.4**		1.16	J	**6.8**		1.12	J	1.2	J	0.737	J
Perfluoropentanesulfonate (PFPeS)	1.5	U	1.64	U	**3.2**		1.72	U	0.68	J	1.68	U
Perfluoropentanoic acid (PFPeA)	2.7	J	1.02	J	**6.3**		0.884	J	1.7	J	0.691	J
Perfluorotetradecanoic acid (PFTeDA)	1.6	U	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
Perfluorotridecanoic acid (PFTrDA)	1.6	U	1.74	U	1.6	U	1.82	U	1.6	U	1.78	U
Perfluoroundecanoic acid (PFUdA)	1.4	J	1.74	U	**2.4**		1.02	J	**4**		0.928	J
1633 TPFAS	**486.02**		**108.213**		**249**		**30.714**		**519.48**		**102.562**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	083-38 Depth : 75.00 02/01/2023 ng/L		083-38 Depth : 75.00 07/31/2023 ng/L		083-39 Depth : 65.00 02/06/2023 ng/L		083-39 Depth : 65.00 07/31/2023 ng/L		083-40 Depth : 105.00 02/02/2023 ng/L		083-40 Depth : 105.00 07/26/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	6.83	U	5.8	U	6.71	U	5.9	U	6.88	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	6.94	U	5.8	U	6.82	U	5.9	U	6.99	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	36.2	U	36	U	35.5	U	37	U	36.4	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	36.2	U	36	U	35.5	U	37	U	36.4	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	7.23	U	7.3	U	7.11	U	7.4	U	7.28	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	6.83	U	5.8	U	6.71	U	5.9	U	6.88	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	6.76	U	5.8	U	6.64	U	5.9	U	6.81	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	6.78	U	5.8	U	6.66	U	5.9	U	6.82	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.7	U	6.87	U	5.8	U	6.75	U	5.9	U	6.92	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	7.23	U	5.8	U	7.11	U	5.9	U	7.28	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.81	U	1.5	U	1.78	U	1.5	U	1.82	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.81	U	1.5	U	1.78	U	1.5	U	1.82	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	18.1	U	15	U	17.8	U	15	U	18.2	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.81	U	1.5	U	1.78	U	1.5	U	1.82	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.81	U	1.5	U	1.78	U	1.5	U	1.82	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	18.1	U	15	U	17.8	U	15	U	18.2	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	3.62	U	2.9	U	3.55	U	2.9	U	3.64	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	3.22	U	2.9	U	3.16	U	2.9	U	3.24	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	3.62	U	2.9	U	3.55	U	2.9	U	3.64	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	3.62	U	2.9	U	3.55	U	2.9	U	3.64	U
Perfluorobutanesulfonate (PFBS)	1.4	U	1.36	J	**4.1**		**2.66**		0.86	J	1.61	U
Perfluorobutyric acid (PFBA)	0.86	J	7.23	U	4.3	J	2.95	J	2	J	7.28	U
Perfluorodecanesulfonate (PFDS)	1.4	U	1.74	U	1.5	U	1.71	U	1.5	U	1.76	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.81	U	0.58	J	1.78	U	1.5	U	1.82	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.75	U	1.5	U	1.72	U	1.5	U	1.77	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.81	U	1.5	U	1.78	U	1.5	U	1.82	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	**4.2**		**15**		**3.91**		1.5	U	1.73	U
Perfluoroheptanoic acid (PFHpA)	1.4	U	**1.97**		**3.9**		**1.99**		0.87	J	1.82	U
Perfluorohexanesulfonate (PFHxS)	**3.1**		**65.8**		**170**		**50**		**9.2**		**2.56**	
Perfluorohexanoic acid (PFHxA)	1.4	U	**8.65**		**22**		**8.2**		**3.5**		**3.33**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.74	U	1.5	U	1.71	U	1.5	U	1.75	U
Perfluorononanoic acid (PFNA)	**2**		**23.6**		**260**		**85.2**		**12**		**2.28**	
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	1.81	U	1	J	1.78	U	0.16	J	1.82	U
Perfluorooctanesulfonate (PFOS)	**19**		**654**	D	**1900**	D	**403**	D	**35**		**14.1**	
Perfluorooctanoic acid (PFOA)	1.5	U	**4.78**		**12**		**5.16**		**3.7**		1.41	J
Perfluoropentanesulfonate (PFPeS)	1.4	U	**2.43**		**8.8**		**3.04**		0.85	J	1.71	U
Perfluoropentanoic acid (PFPeA)	2.8	U	**3.14**		**7.4**		**3.14**		1.6	J	1.14	J
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.81	U	1.5	U	1.78	U	1.5	U	1.82	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.81	U	1.5	U	1.78	U	1.5	U	1.82	U
Perfluoroundecanoic acid (PFUdA)	0.66	J	1.21	J	1.5	U	1.78	U	1.5	U	1.82	U
1633 TPFAS	**25.62**		**771.14**		**2409.08**		**569.25**		**69.74**		**24.82**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	083-41 Depth : 125.00 02/01/2023 ng/L		083-41 Depth : 125.00 08/11/2023 ng/L		083-42 Depth : 95.00 01/18/2023 ng/L		083-42 Depth : 95.00 08/10/2023 ng/L		083-43 Depth : 125.00 01/18/2023 ng/L		083-43 Depth : 125.00 08/10/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	13	U	18.9	U	19	U	7.39	U	10	U	7.14	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	13	U	19.2	U	19	U	7.51	U	10	U	7.25	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	79	U	100	U	120	U	39.1	U	63	U	37.8	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	79	U	100	U	120	U	39.1	U	63	U	37.8	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	16	U	20	U	24	U	7.82	U	13	U	7.55	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	13	U	18.9	U	19	U	7.39	U	10	U	7.14	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	13	U	18.7	U	19	U	7.32	U	10	U	7.06	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	13	U	18.8	U	19	U	7.34	U	10	U	7.08	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	13	U	19	U	19	U	7.43	U	10	U	7.17	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	13	U	20	U	19	U	7.82	U	10	U	7.55	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	32	U	50	U	48	U	19.6	U	25	U	18.9	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	32	U	50	U	48	U	19.6	U	25	U	18.9	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	6.3	U	10	U	9.6	U	3.91	U	5	U	3.78	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	6.3	U	8.9	U	9.6	U	3.48	U	5	U	3.36	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	6.3	U	10	U	9.6	U	3.91	U	5	U	3.78	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	6.3	U	10	U	9.6	U	3.91	U	5	U	3.78	U
Perfluorobutanesulfonate (PFBS)	0.87	J	4.44	U	4.8	U	1.73	U	1.1	J	1.67	U
Perfluorobutyric acid (PFBA)	2	J	20	U	2.6	J	7.82	U	1.6	J	7.55	U
Perfluorodecanesulfonate (PFDS)	3.2	U	4.83	U	4.8	U	1.89	U	2.5	U	1.82	U
Perfluorodecanoic acid (PFDA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
Perfluorododecane sulfonic acid (PFDoS)	3.2	U	4.85	U	4.8	U	1.9	U	2.5	U	1.83	U
Perfluorododecanoic acid (PFDoA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
Perfluoroheptanesulfonate (PFHpS)	3.2	U	4.77	U	4.8	U	1.86	U	2.5	U	1.8	U
Perfluoroheptanoic acid (PFHpA)	0.57	J	5	U	4.8	U	1.96	U	0.53	J	1.89	U
Perfluorohexanesulfonate (PFHxS)	**5.6**		2.06	J	2.4	J	1.37	J	**30**		**4.62**	
Perfluorohexanoic acid (PFHxA)	3.2	U	5	U	4.8	U	0.76	J	**3.1**		**2.56**	
Perfluorononanesulfonate (PFNS)	3.2	U	4.81	U	4.8	U	1.88	U	2.5	U	1.82	U
Perfluorononanoic acid (PFNA)	3.2	U	5	U	4.8	U	1.96	U	2.2	J	1.02	J
Perfluorooctane sulfonamide (PFOSAm)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
Perfluorooctanesulfonate (PFOS)	**12**		**6.91**		**8.4**		**3.17**		**150**		**92.3**	
Perfluorooctanoic acid (PFOA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	0.746	J
Perfluoropentanesulfonate (PFPeS)	3.2	U	4.71	U	4.8	U	1.84	U	1.1	J	1.78	U
Perfluoropentanoic acid (PFPeA)	0.86	J	5	U	9.6	U	1.96	U	3.2	J	**3.86**	
Perfluorotetradecanoic acid (PFTeDA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
Perfluorotridecanoic acid (PFTrDA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
Perfluoroundecanoic acid (PFUdA)	3.2	U	5	U	4.8	U	1.96	U	2.5	U	1.89	U
1633 TPFAS	**21.9**		**8.97**		**13.4**		**5.3**		**192.83**		**105.106**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	083-44 Depth : 75.00 02/01/2023 ng/L		083-44 Depth : 75.00 08/11/2023 ng/L		083-47 Depth : 60.00 02/03/2023 ng/L		083-47 Depth : 60.00 08/16/2023 ng/L		084-03 Depth : 105.00 02/06/2023 ng/L		084-03 Depth : 105.00 07/26/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	6.76	U	6	U	6.7	U	5.7	U	7.74	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	6.87	U	6	U	6.81	U	5.7	U	7.86	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35	U	35.8	U	38	U	35.5	U	36	U	40.9	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35	U	35.8	U	38	U	35.5	U	36	U	40.9	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	7.16	U	7.5	U	7.09	U	7.1	U	8.19	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	6.76	U	6	U	6.7	U	5.7	U	7.74	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	6.69	U	6	U	6.63	U	5.7	U	7.65	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	6.71	U	6	U	6.65	U	5.7	U	7.67	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.7	U	6.8	U	6	U	6.74	U	5.7	U	7.78	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	7.16	U	6	U	7.09	U	5.7	U	8.19	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	17.9	U	15	U	17.7	U	14	U	20.5	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	17.9	U	15	U	17.7	U	14	U	20.5	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	3.58	U	3	U	3.55	U	2.8	U	4.09	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	3.19	U	3	U	3.16	U	2.8	U	3.64	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	3.58	U	3	U	3.55	U	2.8	U	4.09	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	3.58	U	3	U	3.55	U	2.8	U	4.09	U
Perfluorobutanesulfonate (PFBS)	1.4	U	1.59	U	0.38	J	1.57	U	**2.8**		**1.92**	
Perfluorobutyric acid (PFBA)	1.6	J	7.16	U	0.78	J	7.09	U	2.1	J	8.19	U
Perfluorodecanesulfonate (PFDS)	1.4	U	1.73	U	1.5	U	1.71	U	1.4	U	1.97	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.74	U	1.5	U	1.72	U	1.4	U	1.99	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	1.71	U	1.5	U	1.69	U	1.4	U	0.979	J
Perfluoroheptanoic acid (PFHpA)	0.35	J	1.79	U	0.26	J	1.77	U	1.1	J	2.05	U
Perfluorohexanesulfonate (PFHxS)	0.96	J	1.64	U	**3.4**		**5.35**		**22**		**25**	
Perfluorohexanoic acid (PFHxA)	1.4	U	1.79	U	1.5	U	1.77	U	**4.7**		**3.04**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.72	U	1.5	U	1.71	U	1.4	U	1.97	U
Perfluorononanoic acid (PFNA)	1.4	U	1.79	U	1.5	U	1.77	U	**2.1**		1.34	J
Perfluorooctane sulfonamide (PFOSAm)	0.096	J	1.79	U	0.13	J	1.77	U	1.4	U	2.05	U
Perfluorooctanesulfonate (PFOS)	**1.5**		**1.83**		**5.9**		**3.43**		**48**		**58.2**	
Perfluorooctanoic acid (PFOA)	1.5	U	1.11	J	1.5	U	1.77	U	**1.8**		1.38	J
Perfluoropentanesulfonate (PFPeS)	1.4	U	1.68	U	1.5	U	1.46	J	**3.3**		**3.11**	
Perfluoropentanoic acid (PFPeA)	0.82	J	1.79	U	3	U	1.77	U	2.2	J	1.22	J
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.79	U	1.5	U	1.77	U	1.4	U	2.05	U
1633 TPFAS	**5.326**		**2.94**		**10.85**		**10.24**		**90.1**		**96.189**	

2023 Groundwater Data : PFAS
Brookhaven National Laboratory
Project: OU X Current Firehouse MW

Analyte	084-04 Depth : 150.00 02/06/2023 ng/L		084-04 Depth : 150.00 07/26/2023 ng/L		084-28 Depth : 55.50 02/07/2023 ng/L		084-28 Depth : 55.50 08/15/2023 ng/L		084-86 Depth : 125.00 02/02/2023 ng/L		084-86 Depth : 125.00 07/26/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6	U	7.12	U	6.2	U	6.62	U	5.7	U	7.31	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6	U	7.23	U	6.2	U	6.73	U	5.7	U	7.43	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38	U	37.6	U	39	U	35	U	36	U	38.7	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38	U	37.6	U	39	U	35	U	36	U	38.7	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.5	U	7.53	U	7.7	U	7.01	U	7.1	U	7.74	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6	U	7.12	U	6.2	U	6.62	U	5.7	U	7.31	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6	U	7.04	U	6.2	U	6.55	U	5.7	U	7.23	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6	U	7.06	U	6.2	U	6.57	U	5.7	U	7.25	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6	U	7.15	U	6.2	U	6.66	U	5.7	U	7.35	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6	U	7.53	U	6.2	U	7.01	U	5.7	U	7.74	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.88	U	1.5	U	1.75	U	1.4	U	1.93	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.88	U	1.5	U	1.75	U	1.4	U	1.93	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	18.8	U	15	U	17.5	U	14	U	19.3	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.88	U	1.5	U	1.75	U	1.4	U	1.93	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.88	U	1.5	U	1.75	U	1.4	U	1.93	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	18.8	U	15	U	17.5	U	14	U	19.3	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3	U	3.76	U	3.1	U	3.5	U	2.8	U	3.87	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3	U	3.35	U	3.1	U	3.12	U	2.8	U	3.44	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3	U	3.76	U	3.1	U	3.5	U	2.8	U	3.87	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3	U	3.76	U	3.1	U	3.5	U	2.8	U	3.87	U
Perfluorobutanesulfonate (PFBS)	0.46	J	1.67	U	**9.5**		**8.58**		0.76	J	0.672	J
Perfluorobutyric acid (PFBA)	0.55	J	7.44	J	**12**		5.59	J	1.3	J	7.74	U
Perfluorodecanesulfonate (PFDS)	1.5	U	1.82	U	1.5	U	1.69	U	1.4	U	1.87	U
Perfluorodecanoic acid (PFDA)	1.5	U	1.88	U	**3.5**		1.75	U	1.4	U	1.93	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.83	U	1.5	U	1.7	U	1.4	U	1.88	U
Perfluorododecanoic acid (PFDoA)	1.5	U	1.88	U	0.79	J	1.75	U	1.4	U	1.93	U
Perfluoroheptanesulfonate (PFHpS)	1.5	U	1.79	U	1.5	U	1.67	U	1.4	U	1.84	U
Perfluoroheptanoic acid (PFHpA)	1.5	U	0.861	J	**6.6**		**3.96**		0.58	J	1.93	U
Perfluorohexanesulfonate (PFHxS)	**2.9**		**2.15**		**15**		**4.9**		**7.8**		**5.1**	
Perfluorohexanoic acid (PFHxA)	1.5	U	1.26	J	**10**		**5.63**		**2.8**		**3.5**	
Perfluorononanesulfonate (PFNS)	1.5	U	1.81	U	1.5	U	1.69	U	1.4	U	1.86	U
Perfluorononanoic acid (PFNA)	1.5	U	1.88	U	**8.7**		0.823	J	1.4		0.918	J
Perfluorooctane sulfonamide (PFOSAm)	1.5	U	1.88	U	1.5	U	1.75	U	0.2	J	1.93	U
Perfluorooctanesulfonate (PFOS)	**3**		**3.57**		**26**		**13.2**		**19**		**18.1**	
Perfluorooctanoic acid (PFOA)	1.5	U	1.88	U	**12**		**8.45**		1.5	U	1.68	J
Perfluoropentanesulfonate (PFPeS)	0.37	J	1.77	U	1.5		0.873	J	0.95	J	0.764	J
Perfluoropentanoic acid (PFPeA)	3	U	**6.2**		**9.5**		**5.69**		0.94	J	0.846	J
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.88	U	1.5	U	1.75	U	1.4	U	1.93	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.88	U	1.5	U	1.75	U	1.4	U	1.93	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	1.88	U	**6.7**		1.75	U	1.4	U	1.93	U
1633 TPFAS	**7.28**		**21.481**		**121.79**		**57.696**		**35.73**		**31.58**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	084-87 Depth : 65.00 02/02/2023 ng/L		084-87 Depth : 65.00 07/26/2023 ng/L		084-88 Depth : 95.00 02/02/2023 ng/L		084-88 Depth : 95.00 07/26/2023 ng/L		084-89 Depth : 125.00 02/02/2023 ng/L		084-89 Depth : 125.00 07/26/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.9	U	6.85	U	6	U	6.51	U	5.6	U	6.78	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.9	U	6.96	U	6	U	6.61	U	5.6	U	6.88	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	37	U	36.3	U	38	U	34.4	U	35	U	35.9	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	37	U	36.3	U	38	U	34.4	U	35	U	35.9	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.4	U	7.25	U	7.5	U	6.89	U	7	U	7.17	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.9	U	6.85	U	6	U	6.51	U	5.6	U	6.78	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.9	U	6.78	U	6	U	6.44	U	5.6	U	6.71	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.9	U	6.8	U	6	U	6.46	U	5.6	U	6.72	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.9	U	6.89	U	6	U	6.55	U	3.5	J	6.81	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.9	U	7.25	U	6	U	6.89	U	5.6	U	7.17	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	18.1	U	15	U	17.2	U	14	U	17.9	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	18.1	U	15	U	17.2	U	14	U	17.9	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3	U	3.63	U	3	U	3.44	U	2.8	U	3.59	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3	U	3.23	U	3	U	3.07	U	2.8	U	3.19	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3	U	3.63	U	3	U	3.44	U	2.8	U	3.59	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3	U	3.63	U	3	U	3.44	U	2.8	U	3.59	U
Perfluorobutanesulfonate (PFBS)	**5.7**		**3.31**		0.39	J	**6.68**		**9.3**		**3.05**	
Perfluorobutyric acid (PFBA)	4	J	7.25	U	1	J	3.65	J	**6.4**		7.17	U
Perfluorodecanesulfonate (PFDS)	1.5	U	1.75	U	1.5	U	1.66	U	1.4	U	1.73	U
Perfluorodecanoic acid (PFDA)	0.34	J	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.76	U	1.5	U	1.67	U	1.4	U	1.74	U
Perfluorododecanoic acid (PFDoA)	1.5	U	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
Perfluoroheptanesulfonate (PFHpS)	**3.7**		**2.37**		1.5	U	**7.97**		**10**		**3.29**	
Perfluoroheptanoic acid (PFHpA)	**4.3**		**1.9**		0.77	J	**5.1**		**8.3**		**2.54**	
Perfluorohexanesulfonate (PFHxS)	**79**		**36.7**		**5.6**		**159**		**200**		**54.6**	
Perfluorohexanoic acid (PFHxA)	**11**		**6.79**		**1.8**		**17.8**		**24**		**8.56**	
Perfluorononanesulfonate (PFNS)	1.5	U	1.74	U	1.5	U	1.66	U	1.4	U	1.72	U
Perfluorononanoic acid (PFNA)	**5.4**		**2.72**		0.51	J	0.949	J	1.2	J	1.79	U
Perfluorooctane sulfonamide (PFOSAm)	**6.7**		**4.25**		1.2	J	**4.5**		**2.7**		**2.32**	
Perfluorooctanesulfonate (PFOS)	**280**		**268**	D	**23**		**744**	D	**680**	E	**225**	D
Perfluorooctanoic acid (PFOA)	**23**		**3.84**		1.5	U	**26.7**		**21**		**4.68**	
Perfluoropentanesulfonate (PFPeS)	**6.2**		**2.86**		0.51	J	**9.77**		**20**		**5.01**	
Perfluoropentanoic acid (PFPeA)	**7.6**		**3.28**		1.4	J	**6.93**		**19**		**6.33**	
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	1.81	U	1.5	U	1.72	U	1.4	U	1.79	U
1633 TPFAS	**436.94**		**336.02**		**36.18**		**993.049**		**955.4**		**315.38**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	084-90 Depth : 95.00 01/12/2023 ng/L		084-90 Depth : 95.00 08/16/2023 ng/L		084-91 Depth : 125.00 01/12/2023 ng/L		084-91 Depth : 125.00 08/16/2023 ng/L		084-92 Depth : 145.00 01/12/2023 ng/L		084-92 Depth : 145.00 08/16/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	6.4	U	6.2	U	7.12	U	6.3	U	6.72	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	6.5	U	6.2	U	7.24	U	6.3	U	6.83	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	33.8	U	39	U	37.7	U	39	U	35.6	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	33.8	U	39	U	37.7	U	39	U	35.6	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	6.77	U	7.8	U	7.54	U	7.8	U	7.11	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	6.4	U	6.2	U	7.12	U	6.3	U	6.72	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	6.33	U	6.2	U	7.05	U	6.3	U	6.65	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	6.35	U	6.2	U	7.07	U	6.3	U	6.67	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.7	U	6.43	U	6.2	U	7.16	U	2	J	6.76	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	6.77	U	6.2	U	7.54	U	6.3	U	7.11	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	16.9	U	16	U	18.8	U	16	U	17.8	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	16.9	U	16	U	18.8	U	16	U	17.8	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	3.38	U	3.1	U	3.77	U	3.1	U	3.56	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	3.01	U	3.1	U	3.35	U	3.1	U	3.16	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	3.38	U	3.1	U	3.77	U	3.1	U	3.56	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	3.38	U	3.1	U	3.77	U	3.1	U	3.56	U
Perfluorobutanesulfonate (PFBS)	**1.5**		1.5	U	**2.1**		0.834	J	**28**		**17.5**	
Perfluorobutyric acid (PFBA)	1.1	J	6.77	U	1.7	J	**8.77**		**11**		**9.93**	
Perfluorodecanesulfonate (PFDS)	1.4	U	1.63	U	1.6	U	1.82	U	1.6	U	1.72	U
Perfluorodecanoic acid (PFDA)	0.21	J	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.64	U	1.6	U	1.83	U	1.6	U	1.72	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
Perfluoroheptanesulfonate (PFHpS)	**4.2**		1.61	U	1.6	U	1.8	U	**15**		**15.2**	
Perfluoroheptanoic acid (PFHpA)	**1.6**		1.69	U	1.3	J	1.48	J	**9.9**		**11.4**	
Perfluorohexanesulfonate (PFHxS)	**46**		**2.77**		**23**		**3.43**		**370**		**421**	
Perfluorohexanoic acid (PFHxA)	**6.2**		0.896	J	**5.7**		**4.14**		**69**		**80.8**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.63	U	1.6	U	1.81	U	1.6	U	1.71	U
Perfluorononanoic acid (PFNA)	**98**		**3.92**		1.2	J	1.72	J	1	J	1.2	J
Perfluorooctane sulfonamide (PFOSAm)	0.39	J	1.69	U	1.6	U	1.88	U	0.45	J	1.78	U
Perfluorooctanesulfonate (PFOS)	**260**		**12.8**		**56**		**9.28**		**1100**	D	**919**	
Perfluorooctanoic acid (PFOA)	**4.8**		0.672	J	**5**		**4.31**		**34**		**44.7**	
Perfluoropentanesulfonate (PFPeS)	**2**		1.59	U	**2.7**		1.77	U	**35**		**41.5**	
Perfluoropentanoic acid (PFPeA)	2.7	J	1.69	U	2.2	J	1.88	U	**39**		**27.8**	
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.69	U	1.6	U	1.88	U	1.6	U	1.78	U
1633 TPFAS	**428.7**		**21.058**		**100.9**		**33.964**		**1714.35**		**1590.03**	

2023 Groundwater Data : PFAS
Brookhaven National Laboratory
Project: OU X Current Firehouse MW

Analyte	084-93 Depth : 95.00 01/23/2023 ng/L		084-93 Depth : 95.00 07/28/2023 ng/L		084-94 Depth : 125.00 01/23/2023 ng/L		084-94 Depth : 125.00 07/28/2023 ng/L		084-95 Depth : 145.00 01/24/2023 ng/L		084-95 Depth : 145.00 07/28/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.5	U	6.84	U	5.8	U	6.77	U	13	U	6.39	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.5	U	6.94	U	5.8	U	6.87	U	13	U	6.49	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	40	U	36.2	U	36	U	35.8	U	80	U	33.8	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	40	U	36.2	U	36	U	35.8	U	80	U	33.8	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	8.1	U	7.23	U	7.3	U	7.16	U	16	U	6.76	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.5	U	6.84	U	5.8	U	6.77	U	13	U	6.39	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.5	U	6.76	U	5.8	U	6.69	U	13	U	6.32	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.5	U	6.78	U	5.8	U	6.71	U	13	U	6.34	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.5	U	6.87	U	5.8	U	6.8	U	13	U	6.42	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.5	U	7.23	U	5.8	U	7.16	U	13	U	6.76	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	16	U	18.1	U	15	U	17.9	U	32	U	16.9	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	16	U	18.1	U	15	U	17.9	U	32	U	16.9	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.2	U	3.62	U	2.9	U	3.58	U	6.4	U	3.38	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.2	U	3.22	U	2.9	U	3.19	U	6.4	U	3.01	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.2	U	3.62	U	2.9	U	3.58	U	6.4	U	3.38	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.2	U	3.62	U	2.9	U	3.58	U	6.4	U	3.38	U
Perfluorobutanesulfonate (PFBS)	**1.9**		**2.19**		**5.7**		**5.53**		1.2	J	**1.82**	
Perfluorobutyric acid (PFBA)	1.2	J	7.23	U	4.1	J	2.88	J	1.5	J	6.76	U
Perfluorodecanesulfonate (PFDS)	1.6	U	1.75	U	1.5	U	1.73	U	3.2	U	1.63	U
Perfluorodecanoic acid (PFDA)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
Perfluorododecane sulfonic acid (PFDoS)	1.6	U	1.75	U	1.5	U	1.74	U	3.2	U	1.64	U
Perfluorododecanoic acid (PFDoA)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
Perfluoroheptanesulfonate (PFHpS)	1.1	J	**2.02**		**2.5**		**2.29**		3.2	U	1.61	U
Perfluoroheptanoic acid (PFHpA)	1.1	J	1.26	J	**4**		**3.72**		3.2	U	1.69	U
Perfluorohexanesulfonate (PFHxS)	**30**		**42.6**		**69**		**75.6**		**5.7**		**7.1**	
Perfluorohexanoic acid (PFHxA)	**3.4**		**3.51**		**13**		**11.9**		3.2	U	**3.22**	
Perfluorononanesulfonate (PFNS)	1.6	U	1.74	U	1.5	U	1.72	U	3.2	U	1.63	U
Perfluorononanoic acid (PFNA)	**70**		**59**		1.1	J	**7.29**		3.2	U	1.69	U
Perfluorooctane sulfonamide (PFOSAm)	0.55	J	1.81	U	0.77	J	0.78	J	3.2	U	1.69	U
Perfluorooctanesulfonate (PFOS)	**64**		**130**		**110**		**96.5**		3.2	U	1.57	U
Perfluorooctanoic acid (PFOA)	**4.7**		**3.54**		**17**		**7.14**		3.2	U	1.69	U
Perfluoropentanesulfonate (PFPeS)	**2.2**		**2.86**		**8.7**		**9.26**		0.96	J	1.59	
Perfluoropentanoic acid (PFPeA)	2	J	1.48	J	**9.9**		**6.69**		0.79	J	0.818	J
Perfluorotetradecanoic acid (PFTeDA)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
Perfluorotridecanoic acid (PFTrDA)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
Perfluoroundecanoic acid (PFUdA)	1.6	U	1.81	U	1.5	U	1.79	U	3.2	U	1.69	U
1633 TPFAS	**182.15**		**248.46**		**245.77**		**229.58**		**10.15**		**14.548**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	084-96 Depth : 95.00 01/24/2023 ng/L		084-96 Depth : 95.00 07/27/2023 ng/L		084-97 Depth : 125.00 01/24/2023 ng/L		084-97 Depth : 125.00 07/27/2023 ng/L		084-98 Depth : 145.00 02/07/2023 ng/L		084-98 Depth : 145.00 07/27/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6	U	6.84	U	6.2	U	6.81	U	13	U	6.63	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6	U	6.95	U	6.2	U	6.92	U	13	U	6.74	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38	U	36.2	U	38	U	36	U	80	U	35.1	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38	U	36.2	U	38	U	36	U	80	U	35.1	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.5	U	7.24	U	7.7	U	7.21	U	16	U	7.02	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6	U	6.84	U	6.2	U	6.81	U	13	U	6.63	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6	U	6.77	U	6.2	U	6.74	U	13	U	6.56	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6	U	6.78	U	6.2	U	6.76	U	13	U	6.58	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	3.4	J	4.9	J	0.91	J	6.85	U	13	U	6.67	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6	U	7.24	U	6.2	U	7.21	U	13	U	7.02	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	18.1	U	15	U	18	U	32	U	17.6	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	18.1	U	15	U	18	U	32	U	17.6	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3	U	3.62	U	3.1	U	3.6	U	6.4	U	3.51	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3	U	3.22	U	3.1	U	3.21	U	6.4	U	3.12	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3	U	3.62	U	3.1	U	3.6	U	6.4	U	3.51	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3	U	3.62	U	3.1	U	3.6	U	6.4	U	3.51	U
Perfluorobutanesulfonate (PFBS)	**28**		**26.6**		**14**		**13**		2.7	J	**1.93**	
Perfluorobutyric acid (PFBA)	**14**		**12.2**		**7.1**		6.34	J	13	U	7.02	U
Perfluorodecanesulfonate (PFDS)	1.5	U	1.75	U	1.5	U	1.74	U	3.2	U	1.69	U
Perfluorodecanoic acid (PFDA)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.75	U	1.5	U	1.75	U	3.2	U	1.7	U
Perfluorododecanoic acid (PFDoA)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
Perfluoroheptanesulfonate (PFHpS)	**33**		**58.5**		**10**		**12.3**		3.2	U	1.67	U
Perfluoroheptanoic acid (PFHpA)	**20**		**21.5**		**7.9**		**8.48**		3.2	U	1.76	U
Perfluorohexanesulfonate (PFHxS)	**520**		**908**	D	**190**		**225**	D	**3.8**		**4.78**	
Perfluorohexanoic acid (PFHxA)	**79**		**105**		**43**		**40.1**		3.2	U	1.76	U
Perfluorononanesulfonate (PFNS)	1.5	U	1.74	U	1.5	U	1.73	U	3.2	U	1.69	U
Perfluorononanoic acid (PFNA)	1.2	J	**1.88**		**1.8**		1.8	J	3.2	U	1.76	U
Perfluorooctane sulfonamide (PFOSAm)	**1.6**		1.63	J	0.12	J	1.8	U	3.2	U	1.76	U
Perfluorooctanesulfonate (PFOS)	**1700**	D	**1830**	D	**600**	D	**722**	D	3.2	U	1.63	U
Perfluorooctanoic acid (PFOA)	**210**		**258**	D	**38**		**21.3**		3.2	U	1.76	U
Perfluoropentanesulfonate (PFPeS)	**41**		**85.2**		**14**		**22.2**		1.9	J	**2.17**	
Perfluoropentanoic acid (PFPeA)	**57**		**45.8**		**24**		**21.6**		6.4	U	1.76	U
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	1.81	U	1.5	U	1.8	U	3.2	U	1.76	U
1633 TPFAS	**2708.2**		**3359.21**		**950.83**		**1094.12**		**8.4**		**8.88**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	093-04 Depth : 49.00 02/22/2023 ng/L		093-04 Depth : 49.50 06/07/2023 ng/L		093-04 Depth : 49.00 08/07/2023 ng/L		093-04 Depth : 51.00 10/05/2023 ng/L		093-88 Depth : 125.00 02/03/2023 ng/L		093-88 Depth : 125.00 08/07/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	37.8	U	6.74	U	50.4	U	5.7	U	6.98	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	38.4	U	6.85	U	51.2	U	5.7	U	7.09	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35	U	200	U	35.7	U	267	U	35	U	36.9	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35	U	200	U	35.7	U	267	U	35	U	36.9	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	40	U	7.13	U	53.3	U	7.1	U	7.38	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	37.8	U	6.74	U	50.4	U	5.7	U	6.98	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	37.4	U	6.67	U	49.9	U	5.7	U	6.9	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	37.5	U	6.69	U	50	U	5.7	U	6.92	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	**6.5**		38	U	4.8	J	50.7	U	5.7	U	7.01	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	40	U	7.13	U	53.3	U	5.7	U	7.38	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	100	U	17.8	U	133	U	14	U	18.5	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	100	U	17.8	U	133	U	14	U	18.5	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	20	U	3.57	U	26.7	U	2.8	U	3.69	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	17.8	U	3.17	U	23.7	U	2.8	U	3.29	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	20	U	3.57	U	26.7	U	2.8	U	3.69	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	20	U	3.57	U	26.7	U	2.8	U	3.69	U
Perfluorobutanesulfonate (PFBS)	**77**		**35**		**35.8**		**36.5**		1.4	U	1.64	U
Perfluorobutyric acid (PFBA)	**20**		40	U	**9.44**		53.3	U	5.7	U	7.38	U
Perfluorodecanesulfonate (PFDS)	1.4	U	9.65	U	1.72	U	12.9	U	1.4	U	1.78	U
Perfluorodecanoic acid (PFDA)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	9.7	U	1.73	U	12.9	U	1.4	U	1.79	U
Perfluorododecanoic acid (PFDoA)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
Perfluoroheptanesulfonate (PFHpS)	**46**		**37.8**		**49.4**		**20.7**		1.4	U	1.76	U
Perfluoroheptanoic acid (PFHpA)	**43**		**15.5**		**20.5**		**26.1**		1.4	U	1.85	U
Perfluorohexanesulfonate (PFHxS)	**1300**	E	**468**		**612**	D	**697**		0.74	J	1.69	U
Perfluorohexanoic acid (PFHxA)	**84**		**43.1**		**50.6**		**62.4**		1.4	U	1.85	U
Perfluorononanesulfonate (PFNS)	1.4	U	9.62	U	1.72	U	12.8	U	1.4	U	1.78	U
Perfluorononanoic acid (PFNA)	**4.2**		4.4	J	**5.34**		5.29	J	1.4	U	1.85	U
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	10	U	1.78	U	13.3	U	0.8	J	1.85	U
Perfluorooctanesulfonate (PFOS)	**1800**	E	**2020**	D	**3760**	D	**2530**	D	1	J	0.716	J
Perfluorooctanoic acid (PFOA)	**85**		**39.7**		**42.1**		**44.9**		1.4	U	1.85	U
Perfluoropentanesulfonate (PFPeS)	**86**		**37.9**		**61.9**		**47.9**		1.4	U	1.74	U
Perfluoropentanoic acid (PFPeA)	**42**		**17.4**		**21.7**		**26.5**		2.8	U	1.85	U
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	10	U	1.78	U	13.3	U	1.4	U	1.85	U
1633 TPFAS	**3693.7**		**2718.8**		**4673.58**		**3497.29**		**2.54**		**0.716**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	093-89 Depth : 75.00 01/30/2023 ng/L		093-89 Depth : 75.00 08/14/2023 ng/L		093-90 Depth : 105.00 01/30/2023 ng/L		093-90 Depth : 105.00 08/14/2023 ng/L		093-91 Depth : 85.00 01/30/2023 ng/L		093-91 Depth : 85.00 08/11/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.2	U	6.66	U	6.1	U	7.01	U	6.1	U	6.4	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.2	U	6.77	U	6.1	U	7.12	U	6.1	U	6.5	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	39	U	35.2	U	38	U	37.1	U	38	U	33.8	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	39	U	35.2	U	38	U	37.1	U	38	U	33.8	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.8	U	7.05	U	7.6	U	7.42	U	7.7	U	6.77	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.2	U	6.66	U	6.1	U	7.01	U	6.1	U	6.4	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.2	U	6.59	U	6.1	U	6.93	U	6.1	U	6.33	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.2	U	6.61	U	6.1	U	6.95	U	6.1	U	6.34	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	1.2	J	6.7	U	6.1	U	7.05	U	3.8	J	6.43	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.2	U	7.05	U	6.1	U	7.42	U	6.1	U	6.77	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	16	U	17.6	U	15	U	18.5	U	15	U	16.9	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	16	U	17.6	U	15	U	18.5	U	15	U	16.9	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.1	U	3.52	U	3	U	3.71	U	3.1	U	3.38	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.1	U	3.14	U	3	U	3.3	U	3.1	U	3.01	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.1	U	3.52	U	3	U	3.71	U	3.1	U	3.38	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.1	U	3.52	U	3	U	3.71	U	3.1	U	3.38	U
Perfluorobutanesulfonate (PFBS)	0.65	J	0.652	J	0.35	J	1.64	U	0.53	J	0.515	J
Perfluorobutyric acid (PFBA)	1.3	J	7.05	U	0.81	J	7.42	U	2.1	J	6.77	U
Perfluorodecanesulfonate (PFDS)	1.6	U	1.7	U	1.5	U	1.79	U	1.5	U	1.63	U
Perfluorodecanoic acid (PFDA)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
Perfluorododecane sulfonic acid (PFDoS)	1.6	U	1.71	U	1.5	U	1.8	U	1.5	U	1.64	U
Perfluorododecanoic acid (PFDoA)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
Perfluoroheptanesulfonate (PFHpS)	1.6	U	1.68	U	1.5	U	1.77	U	1.5	U	1.61	U
Perfluoroheptanoic acid (PFHpA)	0.61	J	1.76	U	0.36	J	1.85	U	1.4	J	1.53	J
Perfluorohexanesulfonate (PFHxS)	0.97	J	1.61	U	**1.6**		1.69	U	**5.1**		**2.32**	
Perfluorohexanoic acid (PFHxA)	1.6	U	0.666	J	1.2	J	1.85	U	**4.8**		**6.84**	
Perfluorononanesulfonate (PFNS)	1.6	U	1.7	U	1.5	U	1.78	U	1.5	U	1.63	U
Perfluorononanoic acid (PFNA)	0.76	J	0.634	J	0.26	J	1.85	U	**2**		0.651	J
Perfluorooctane sulfonamide (PFOSAm)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
Perfluorooctanesulfonate (PFOS)	**4**		**2.99**		**5.9**		0.992	J	**22**		**16.5**	
Perfluorooctanoic acid (PFOA)	1.6	U	0.748	J	1.5	U	1.85	U	**3.3**		**2.71**	
Perfluoropentanesulfonate (PFPeS)	1.6	U	1.66	U	1.5	U	1.74	U	1.5	U	1.59	U
Perfluoropentanoic acid (PFPeA)	0.58	J	1.76	U	0.62	J	1.85	U	3	J	**4.36**	
Perfluorotetradecanoic acid (PFTeDA)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
Perfluorotridecanoic acid (PFTrDA)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
Perfluoroundecanoic acid (PFUdA)	1.6	U	1.76	U	1.5	U	1.85	U	1.5	U	1.69	U
1633 TPFAS	**10.07**		**5.69**		**11.1**		**0.992**		**48.03**		**35.426**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	093-92 Depth : 105.00 01/30/2023 ng/L		093-92 Depth : 105.00 08/11/2023 ng/L		093-93 Depth : 60.00 02/03/2023 ng/L		093-93 Depth : 60.00 06/07/2023 ng/L		093-93 Depth : 60.00 08/16/2023 ng/L		093-93 Depth : 60.00 10/05/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	7.18	U	6	U	6.68	U	6.51	U	6.45	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	7.29	U	6	U	6.79	U	6.61	U	6.56	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	38	U	37	U	35.4	U	34.4	U	34.1	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	38	U	37	U	35.4	U	34.4	U	34.1	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.2	U	7.6	U	7.4	U	7.07	U	6.89	U	6.83	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	7.18	U	6	U	6.68	U	6.51	U	6.45	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	7.1	U	6	U	6.61	U	6.44	U	6.39	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	7.12	U	6	U	6.63	U	6.46	U	6.4	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	**11**		7.22	U	6	U	6.72	U	6.54	U	6.49	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	7.6	U	6	U	7.07	U	6.89	U	6.83	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	19	U	15	U	17.7	U	17.2	U	17.1	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	19	U	15	U	17.7	U	17.2	U	17.1	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	3.8	U	3	U	3.54	U	3.44	U	3.41	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	3.38	U	3	U	3.15	U	3.07	U	3.04	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	3.8	U	3	U	3.54	U	3.44	U	3.41	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	3.8	U	3	U	3.54	U	3.44	U	3.41	U
Perfluorobutanesulfonate (PFBS)	1.3	J	0.65	J	1	J	1.57	U	1.53	U	1.2	J
Perfluorobutyric acid (PFBA)	2.3	J	7.6	U	0.83	J	7.07	U	6.89	U	6.83	U
Perfluorodecanesulfonate (PFDS)	1.4	U	1.83	U	1.5	U	1.71	U	1.66	U	1.65	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.84	U	1.5	U	1.71	U	1.67	U	1.66	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	1.81	U	1.5	U	1.68	U	1.64	U	**3.36**	
Perfluoroheptanoic acid (PFHpA)	1.4		1.9	U	0.88	J	1.77	U	1.72	U	0.923	J
Perfluorohexanesulfonate (PFHxS)	**17**		**11.1**		**46**		1.38	J	**9.72**		**67.1**	
Perfluorohexanoic acid (PFHxA)	**8.8**		1.56	J	**2.9**		1.77	U	1.72	U	**3.95**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.83	U	1.5	U	1.7	U	1.66	U	1.64	U
Perfluorononanoic acid (PFNA)	**3.1**		0.799	J	1.5	U	1.77	U	1.72	U	1.71	U
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
Perfluorooctanesulfonate (PFOS)	**73**		**55.5**		**93**		**7.17**		**29.7**		**287**	D
Perfluorooctanoic acid (PFOA)	**2.9**		0.753	J	1.5	U	1.77	U	1.72	U	**3.92**	
Perfluoropentanesulfonate (PFPeS)	0.96	J	1.13	J	**3.3**		1.66	U	0.631	J	**2.79**	
Perfluoropentanoic acid (PFPeA)	2.5	J	1.9	U	0.56	J	1.77	U	1.72	U	0.899	J
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.9	U	1.5	U	1.77	U	1.72	U	1.71	U
1633 TPFAS	**124.26**		**71.492**		**148.47**		**8.55**		**40.051**		**371.142**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	093-94 Depth : 50.00 02/03/2023 ng/L		093-94 Depth : 50.00 06/07/2023 ng/L		093-94 Depth : 50.00 08/16/2023 ng/L		093-94 Depth : 50.00 10/05/2023 ng/L		093-95 Depth : 65.00 02/03/2023 ng/L		093-95 Depth : 65.00 06/07/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.5	U	6.91	U	7.08	U	6.79	U	6.8	U	6.97	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.5	U	7.02	U	7.2	U	6.9	U	6.8	U	7.08	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	34	U	36.6	U	37.5	U	35.9	U	42	U	36.9	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34	U	36.6	U	37.5	U	35.9	U	42	U	36.9	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6.8	U	7.32	U	7.5	U	7.18	U	8.5	U	7.37	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.5	U	6.91	U	7.08	U	6.79	U	6.8	U	6.97	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.5	U	6.84	U	7.01	U	6.72	U	6.8	U	6.89	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.5	U	6.86	U	7.03	U	6.73	U	6.8	U	6.91	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	1.1	J	6.95	U	7.12	U	6.82	U	6.8	U	7	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.5	U	7.32	U	7.5	U	7.18	U	6.8	U	7.37	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	18.3	U	18.7	U	18	U	17	U	18.4	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	18.3	U	18.7	U	18	U	17	U	18.4	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.7	U	3.66	U	3.75	U	3.59	U	3.4	U	3.69	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.7	U	3.26	U	3.34	U	3.2	U	3.4	U	3.28	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.7	U	3.66	U	3.75	U	3.59	U	3.4	U	3.69	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.7	U	3.66	U	3.75	U	3.59	U	3.4	U	3.69	U
Perfluorobutanesulfonate (PFBS)	**170**		**21.7**		**4.25**		**13.2**		**3.4**		1.63	U
Perfluorobutyric acid (PFBA)	**18**		7.32	U	4.72	J	7.18	U	2.5	J	7.37	U
Perfluorodecanesulfonate (PFDS)	1.4	U	1.77	U	1.81	U	1.73	U	1.7	U	1.78	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.77	U	1.82	U	1.74	U	1.7	U	1.79	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
Perfluoroheptanesulfonate (PFHpS)	**150**		**38.1**		**26.9**		**30.4**		**2.5**		0.658	J
Perfluoroheptanoic acid (PFHpA)	**17**		**5.05**		1.33	J	**1.99**		**2.8**		1.84	U
Perfluorohexanesulfonate (PFHxS)	**2800**	E	**559**	D	**72.4**		**208**		**70**		**10.5**	
Perfluorohexanoic acid (PFHxA)	**190**		**21.3**		**7.12**		**10.9**		**6.7**		1.74	J
Perfluorononanesulfonate (PFNS)	1.4	U	1.76	U	1.8	U	1.73	U	1.7	U	1.77	U
Perfluorononanoic acid (PFNA)	0.77	J	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
Perfluorooctanesulfonate (PFOS)	**4400**	E	**2160**	D	**2260**		**774**	D	**270**		**83.4**	
Perfluorooctanoic acid (PFOA)	**87**		**47.1**		**8.72**		**14.2**		**3**		1.21	J
Perfluoropentanesulfonate (PFPeS)	**450**		**48**		**9.78**		**27.1**		**6.5**		0.805	J
Perfluoropentanoic acid (PFPeA)	**47**		**5.1**		**1.95**		**2.3**		**4.7**		1.05	J
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.83	U	1.87	U	1.8	U	1.7	U	1.84	U
1633 TPFAS	**7330.87**		**2905.35**		**2397.17**		**1082.09**		**372.1**		**99.363**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	093-95 Depth : 65.00 08/16/2023 ng/L		093-96 Depth : 60.00 02/03/2023 ng/L		093-96 Depth : 60.00 08/07/2023 ng/L		093-97 Depth : 63.00 02/03/2023 ng/L		093-97 Depth : 63.00 08/16/2023 ng/L		093-98 Depth : 65.00 02/03/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.36	U	5.9	U	7.13	U	6.1	U	6.69	U	6.2	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.46	U	5.9	U	7.24	U	6.1	U	6.8	U	6.2	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	33.6	U	37	U	37.7	U	38	U	35.4	U	39	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	33.6	U	37	U	37.7	U	38	U	35.4	U	39	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6.73	U	7.4	U	7.55	U	7.6	U	7.08	U	7.7	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.36	U	5.9	U	7.13	U	6.1	U	6.69	U	6.2	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.29	U	5.9	U	7.05	U	6.1	U	6.62	U	6.2	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.31	U	5.9	U	7.07	U	6.1	U	6.64	U	6.2	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.39	U	5.9	U	7.17	U	6.1	U	6.72	U	5.6	J
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.73	U	5.9	U	7.55	U	6.1	U	7.08	U	6.2	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	16.8	U	15	U	18.9	U	15	U	17.7	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	16.8	U	15	U	18.9	U	15	U	17.7	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.36	U	3	U	3.77	U	3	U	3.54	U	3.1	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.99	U	3	U	3.36	U	3	U	3.15	U	3.1	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.36	U	3	U	3.77	U	3	U	3.54	U	3.1	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.36	U	3	U	3.77	U	3	U	3.54	U	3.1	U
Perfluorobutanesulfonate (PFBS)	1.49	U	**13**		**31.9**		**4.9**		1.57	U	**19**	
Perfluorobutyric acid (PFBA)	6.73	U	1.5	J	7.55	U	1.7	J	7.08	U	**8.8**	
Perfluorodecanesulfonate (PFDS)	1.62	U	1.5	U	1.82	U	1.5	U	1.71	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
Perfluorododecane sulfonic acid (PFDoS)	1.63	U	1.5	U	1.83	U	1.5	U	1.72	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
Perfluoroheptanesulfonate (PFHpS)	1.6	U	**5.9**		**2.7**		**3.2**		0.729	J	**24**	
Perfluoroheptanoic acid (PFHpA)	1.68	U	0.96	J	1.39	J	**2.4**		0.615	J	**9.2**	
Perfluorohexanesulfonate (PFHxS)	**3.14**		**150**		**278**	D	**190**		**33.1**		**470**	
Perfluorohexanoic acid (PFHxA)	0.645	J	**7.3**		**16**		**7.4**		**3**		**63**	
Perfluorononanesulfonate (PFNS)	1.62	U	1.5	U	1.81	U	1.5	U	1.7	U	1.5	U
Perfluorononanoic acid (PFNA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	0.9	J
Perfluorooctane sulfonamide (PFOSAm)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
Perfluorooctanesulfonate (PFOS)	**21.3**		**68**		**20.1**		**110**		**44.1**		**1700**	E
Perfluorooctanoic acid (PFOA)	1.68	U	**10**		**12.8**		**11**		**2.4**		17	U D
Perfluoropentanesulfonate (PFPeS)	1.58	U	**16**		**49.6**		**14**		**2.18**		**39**	
Perfluoropentanoic acid (PFPeA)	1.68	U	2.6	J	**4.26**		2.1	J	0.647	J	**23**	
Perfluorotetradecanoic acid (PFTeDA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.68	U	1.5	U	1.89	U	1.5	U	1.77	U	1.5	U
1633 TPFAS	**25.085**		**275.26**		**416.75**		**346.7**		**86.771**		**2062.5**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	093-98 Depth : 65.00 08/16/2023 ng/L		094-275 Depth : 85.00 01/25/2023 ng/L		094-275 Depth : 85.00 08/14/2023 ng/L		094-276 Depth : 105.00 01/25/2023 ng/L		094-276 Depth : 105.00 08/14/2023 ng/L		094-277 Depth : 75.00 02/01/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.6	U	6	U	6.86	U	6.1	U	7.04	U	5.9	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.71	U	6	U	6.97	U	6.1	U	7.15	U	5.9	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	34.9	U	37	U	36.3	U	38	U	37.2	U	37	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.9	U	37	U	36.3	U	38	U	37.2	U	37	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6.99	U	7.4	U	7.26	U	7.6	U	7.45	U	7.3	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.6	U	6	U	6.86	U	6.1	U	7.04	U	5.9	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.53	U	6	U	6.79	U	6.1	U	6.96	U	5.9	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.55	U	6	U	6.81	U	6.1	U	6.98	U	5.9	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.64	U	6	U	6.9	U	6.1	U	7.08	U	5.9	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.99	U	6	U	7.26	U	6.1	U	7.45	U	5.9	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	17.5	U	15	U	18.2	U	15	U	18.6	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	17.5	U	15	U	18.2	U	15	U	18.6	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.49	U	3	U	3.63	U	3	U	3.72	U	2.9	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.11	U	3	U	3.23	U	3	U	3.31	U	2.9	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.49	U	3	U	3.63	U	3	U	3.72	U	2.9	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.49	U	3	U	3.63	U	3	U	3.72	U	2.9	U
Perfluorobutanesulfonate (PFBS)	1.32	J	0.53	J	0.656	J	0.94	J	1.21	J	1.2	J
Perfluorobutyric acid (PFBA)	6.99	U	1.6	J	7.26	U	0.94	J	7.45	U	3.8	J
Perfluorodecanesulfonate (PFDS)	1.69	U	1.5	U	1.75	U	1.5	U	1.8	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
Perfluorododecane sulfonic acid (PFDoS)	1.69	U	1.5	U	1.76	U	1.5	U	1.81	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
Perfluoroheptanesulfonate (PFHpS)	1.52	J	1.5	U	1.73	U	1.5	U	1.56	J	1.5	U
Perfluoroheptanoic acid (PFHpA)	1.03	J	0.62	J	1.82	U	0.67	J	1.29	J	1.4	J
Perfluorohexanesulfonate (PFHxS)	**42.3**		**4.2**		**6.64**		**18**		**40.4**		**13**	
Perfluorohexanoic acid (PFHxA)	**7.03**		**1.9**		**2.92**		**2.4**		**5.52**		**2.8**	
Perfluorononanesulfonate (PFNS)	1.68	U	1.5	U	1.75	U	1.5	U	1.79	U	1.5	U
Perfluorononanoic acid (PFNA)	1.75	U	1.4	J	**2.23**		**11**		**5.08**		**5.9**	
Perfluorooctane sulfonamide (PFOSAm)	1.75	U	0.1	J	1.82	U	1.5	U	1.86	U	1.5	U
Perfluorooctanesulfonate (PFOS)	**144**		**9.7**		**19.9**		**81**		**164**		**36**	
Perfluorooctanoic acid (PFOA)	**2.88**		1.5	U	1.51	J	1.7	U	**3**		**3.4**	
Perfluoropentanesulfonate (PFPeS)	**3.9**		1.5	U	0.848	J	**2.4**		**3.56**		1.1	J
Perfluoropentanoic acid (PFPeA)	**1.95**		1.1	J	1.5	J	1.3	J	**3**		2.3	J
Perfluorotetradecanoic acid (PFTeDA)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.75	U	1.5	U	1.82	U	1.5	U	1.86	U	1.5	U
1633 TPFAS	**205.93**		**21.15**		**36.204**		**118.65**		**228.62**		**70.9**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	094-277 Depth : 75.00 08/14/2023 ng/L		094-278 Depth : 105.00 02/01/2023 ng/L		094-278 Depth : 105.00 08/14/2023 ng/L		102-12 Depth : 58.00 02/22/2023 ng/L		102-12 Depth : 58.00 08/17/2023 ng/L		102-26 Depth : 95.00 01/25/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.36	U	6	U	6.58	U	5.7	U	7.01	U	5.8	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.46	U	6	U	6.68	U	5.7	U	7.12	U	5.8	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	33.7	U	37	U	34.8	U	35	U	37.1	U	36	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	33.7	U	37	U	34.8	U	35	U	37.1	U	36	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6.73	U	7.4	U	6.96	U	7.1	U	7.42	U	7.3	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.36	U	6	U	6.58	U	5.7	U	7.01	U	5.8	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.29	U	6	U	6.51	U	5.7	U	6.93	U	5.8	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.31	U	6	U	6.52	U	5.7	U	6.95	U	5.8	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.39	U	6	U	6.61	U	5.7	U	7.05	U	5.8	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.73	U	6	U	6.96	U	5.7	U	7.42	U	5.8	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	16.8	U	15	U	17.4	U	14	U	18.5	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	16.8	U	15	U	17.4	U	14	U	18.5	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.37	U	3	U	3.48	U	2.8	U	3.71	U	2.9	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3	U	3	U	3.1	U	2.8	U	3.3	U	2.9	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.37	U	3	U	3.48	U	2.8	U	3.71	U	2.9	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.37	U	3	U	3.48	U	2.8	U	3.71	U	2.9	U
Perfluorobutanesulfonate (PFBS)	0.79	J	**8.1**		**1.98**		**5.8**		1.4	J	0.75	J
Perfluorobutyric acid (PFBA)	6.73	U	5.6	J	6.96	U	4.5	J	3.87	J	1.3	J
Perfluorodecanesulfonate (PFDS)	1.62	U	1.5	U	1.68	U	1.4	U	1.79	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
Perfluorododecane sulfonic acid (PFDoS)	1.63	U	1.5	U	1.69	U	1.4	U	1.8	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
Perfluoroheptanesulfonate (PFHpS)	1.6	U	**2.1**		0.731	J	**1.9**		1.77	U	1.5	U
Perfluoroheptanoic acid (PFHpA)	0.904	J	**5.4**		1.1	J	**3.4**		1.46	J	0.68	J
Perfluorohexanesulfonate (PFHxS)	**7.8**		**82**		**20.7**		**69**		2.99	U	**26**	
Perfluorohexanoic acid (PFHxA)	1.45	J	**19**		**4.67**		**7.7**		**5.11**		1.3	J
Perfluorononanesulfonate (PFNS)	1.62	U	1.5	U	1.67	U	1.4	U	1.78	U	1.5	U
Perfluorononanoic acid (PFNA)	**6.14**		**3.4**		**19.7**		1.4	U	1.85	U	1.5	U
Perfluorooctane sulfonamide (PFOSAm)	1.68	U	1.5	U	1.74	U	0.24	J	1.85	U	1.5	U
Perfluorooctanesulfonate (PFOS)	**28.4**		**130**		**48.9**		**88**		**7.17**		**55**	
Perfluorooctanoic acid (PFOA)	**2.73**		**4.3**		**2.56**		**4.6**		1.3	J	**1.9**	
Perfluoropentanesulfonate (PFPeS)	1.19	J	**13**		**3.3**		**4**		0.912	J	1.5	J
Perfluoropentanoic acid (PFPeA)	1.01	J	**13**		**1.96**		**8.8**		**6.99**	B	1	J
Perfluorotetradecanoic acid (PFTeDA)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.68	U	1.5	U	1.74	U	1.4	U	1.85	U	1.5	U
1633 TPFAS	**50.414**		**285.9**		**105.601**		**197.94**		**28.212**		**89.43**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	102-26 Depth : 95.00 08/09/2023 ng/L		102-27 Depth : 115.00 01/25/2023 ng/L		102-27 Depth : 115.00 08/09/2023 ng/L		102-28 Depth : 145.00 01/25/2023 ng/L		102-28 Depth : 145.00 08/09/2023 ng/L		102-29 Depth : 95.00 01/26/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.93	U	6	U	7.36	U	13	U	37.8	U	6.2	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.04	U	6	U	7.47	U	13	U	38.4	U	6.2	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36.7	U	37	U	38.9	U	80	U	200	U	39	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36.7	U	37	U	38.9	U	80	U	200	U	39	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.33	U	7.4	U	7.78	U	16	U	40	U	7.8	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.93	U	6	U	7.36	U	13	U	37.8	U	6.2	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.86	U	6	U	7.28	U	13	U	37.4	U	6.2	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.87	U	6	U	7.3	U	13	U	37.5	U	6.2	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.97	U	6	U	7.39	U	13	U	38	U	6.2	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.33	U	6	U	7.78	U	13	U	40	U	6.2	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	18.3	U	15	U	19.5	U	32	U	100	U	16	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	18.3	U	15	U	19.5	U	32	U	100	U	16	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.67	U	3	U	3.89	U	6.4	U	20	U	3.1	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.26	U	3	U	3.46	U	6.4	U	17.8	U	3.1	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.67	U	3	U	3.89	U	6.4	U	20	U	3.1	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.67	U	3	U	3.89	U	6.4	U	20	U	3.1	U
Perfluorobutanesulfonate (PFBS)	1.63	U	1.5	U	1.73	U	1.2	J	8.87	U	1.3	J
Perfluorobutyric acid (PFBA)	7.33	U	0.93	J	7.78	U	13	U	40	U	2.6	J
Perfluorodecanesulfonate (PFDS)	1.77	U	1.5	U	1.88	U	3.2	U	9.65	U	1.6	U
Perfluorodecanoic acid (PFDA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
Perfluorododecane sulfonic acid (PFDoS)	1.78	U	1.5	U	1.89	U	3.2	U	9.7	U	1.6	U
Perfluorododecanoic acid (PFDoA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
Perfluoroheptanesulfonate (PFHpS)	1.75	U	1.5	U	1.85	U	3.2	U	9.53	U	1.6	U
Perfluoroheptanoic acid (PFHpA)	1.83	U	0.41	J	1.95	U	3.2	U	10	U	1.5	J
Perfluorohexanesulfonate (PFHxS)	0.821	J	**1.6**		1.78	U	**20**		9.14	U	**29**	
Perfluorohexanoic acid (PFHxA)	1.83	U	0.93	J	1.95	U	3.2	U	10	U	**10**	
Perfluorononanesulfonate (PFNS)	1.76	U	1.5	U	1.87	U	3.2	U	9.62	U	1.6	U
Perfluorononanoic acid (PFNA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	**6.3**	
Perfluorooctane sulfonamide (PFOSAm)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	0.22	J
Perfluorooctanesulfonate (PFOS)	**3.79**		**5.6**		**3.79**		**16**		9.28	U	**120**	
Perfluorooctanoic acid (PFOA)	1.83	U	1.5	U	1.14	J	3.2	U	10	U	**3.2**	
Perfluoropentanesulfonate (PFPeS)	1.72	U	1.5	U	1.83	U	2.2	J	9.41	U	**2.2**	
Perfluoropentanoic acid (PFPeA)	1.83	U	1.1	J	1.95	U	0.91	J	10	U	**5**	
Perfluorotetradecanoic acid (PFTeDA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
Perfluorotridecanoic acid (PFTrDA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
Perfluoroundecanoic acid (PFUdA)	1.83	U	1.5	U	1.95	U	3.2	U	10	U	1.6	U
1633 TPFAS	**4.611**		**10.57**		**4.93**		**40.31**		0		**181.32**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	102-29 Depth : 95.00 08/11/2023 ng/L		102-30 Depth : 115.00 01/26/2023 ng/L		102-30 Depth : 115.00 08/10/2023 ng/L		102-31 Depth : 135.00 01/26/2023 ng/L		102-31 Depth : 135.00 08/11/2023 ng/L		102-36 Depth : 75.00 02/06/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.75	U	6	U	7.13	U	6.3	U	6.68	U	6.3	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.85	U	6	U	7.24	U	6.3	U	6.79	U	6.3	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35.7	U	37	U	37.7	U	40	U	35.4	U	39	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35.7	U	37	U	37.7	U	40	U	35.4	U	39	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.14	U	7.5	U	7.55	U	7.9	U	7.07	U	7.9	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.75	U	6	U	7.13	U	6.3	U	6.68	U	6.3	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.68	U	6	U	7.05	U	6.3	U	6.61	U	6.3	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.69	U	6	U	7.07	U	6.3	U	6.63	U	6.3	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.78	U	6	U	7.17	U	6.3	U	6.72	U	6.3	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.14	U	6	U	7.55	U	6.3	U	7.07	U	6.3	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	17.8	U	15	U	18.9	U	16	U	17.7	U	16	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	17.8	U	15	U	18.9	U	16	U	17.7	U	1.1	J
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.57	U	3	U	3.77	U	3.2	U	3.54	U	3.2	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.18	U	3	U	3.36	U	3.2	U	3.15	U	3.2	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.57	U	3	U	3.77	U	3.2	U	3.54	U	3.2	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.57	U	3	U	3.77	U	3.2	U	3.54	U	3.2	U
Perfluorobutanesulfonate (PFBS)	**2.76**		1.2	J	0.673	J	**9.1**		**6.36**		1.6	U
Perfluorobutyric acid (PFBA)	2.54	J	1.7	J	7.55	U	4.2	J	3.27	J	6.3	U
Perfluorodecanesulfonate (PFDS)	1.72	U	1.5	U	1.82	U	1.6	U	1.71	U	1.6	U
Perfluorodecanoic acid (PFDA)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
Perfluorododecane sulfonic acid (PFDoS)	1.73	U	1.5	U	1.83	U	1.6	U	1.72	U	1.6	U
Perfluorododecanoic acid (PFDoA)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
Perfluoroheptanesulfonate (PFHpS)	0.582	J	1.5	U	1.8	U	**4.1**		**2.73**		1.6	U
Perfluoroheptanoic acid (PFHpA)	1.06	J	0.65	J	1.89	U	**4.2**		1.53	J	1.6	U
Perfluorohexanesulfonate (PFHxS)	**3.87**		**18**		**4.52**		**110**		**75**		**2.1**	
Perfluorohexanoic acid (PFHxA)	**2.53**		**4.3**		**2.13**		**22**		**7.95**		1.6	U
Perfluorononanesulfonate (PFNS)	1.72	U	1.5	U	1.81	U	1.6	U	1.7	U	1.6	U
Perfluorononanoic acid (PFNA)	0.92	J	**5.2**		1.18	J	**1.8**		1.68	J	1.6	U
Perfluorooctane sulfonamide (PFOSAm)	1.78	U	0.21	J	1.89	U	1.6	U	1.77	U	1.6	U
Perfluorooctanesulfonate (PFOS)	**9.26**		**94**		**20.8**		**300**		**145**		**2.5**	
Perfluorooctanoic acid (PFOA)	**4.78**		1.1	J	0.978	J	**16**		**3.69**		1.6	U
Perfluoropentanesulfonate (PFPeS)	0.791	J	1	J	1.77	U	**13**		**9.98**		1.6	U
Perfluoropentanoic acid (PFPeA)	**2.25**		2	J	1.89	U	**6.8**		**4.5**		3.2	U
Perfluorotetradecanoic acid (PFTeDA)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
Perfluorotridecanoic acid (PFTrDA)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
Perfluoroundecanoic acid (PFUdA)	1.78	U	1.5	U	1.89	U	1.6	U	1.77	U	1.6	U
1633 TPFAS	**31.343**		**129.36**		**30.281**		**491.2**		**261.69**		**5.7**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	102-36 Depth : 75.00 08/09/2023 ng/L		102-37 Depth : 70.00 02/06/2023 ng/L		102-37 Depth : 70.00 08/09/2023 ng/L		102-38 Depth : 75.00 03/31/2023 ng/L		102-38 Depth : 75.00 08/16/2023 ng/L		102-39 Depth : 75.00 01/26/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.75	U	5.7	U	6.97	U	5.9	U	7.39	U	6	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.86	U	5.7	U	7.08	U	5.9	U	7.51	U	6	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35.7	U	35	U	36.9	U	37	U	39.1	U	38	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35.7	U	35	U	36.9	U	37	U	39.1	U	38	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.15	U	7.1	U	7.38	U	7.3	U	7.82	U	7.5	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.75	U	5.7	U	6.97	U	5.9	U	7.39	U	6	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.68	U	5.7	U	6.9	U	5.9	U	7.31	U	6	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.7	U	5.7	U	6.92	U	5.9	U	7.33	U	6	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.79	U	5.7	U	7.01	U	5.9	U	7.43	U	6	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.15	U	5.7	U	7.38	U	5.9	U	7.82	U	6	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	17.9	U	14	U	18.4	U	15	U	19.6	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	17.9	U	14	U	18.4	U	15	U	19.6	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.57	U	2.8	U	3.69	U	2.9	U	3.91	U	3	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.18	U	2.8	U	3.28	U	2.9	U	3.48	U	3	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.57	U	2.8	U	3.69	U	2.9	U	3.91	U	3	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.57	U	2.8	U	3.69	U	2.9	U	3.91	U	3	U
Perfluorobutanesulfonate (PFBS)	1.59	U	**5.8**		1.64	U	0.88	J	1.73	U	**8.1**	
Perfluorobutyric acid (PFBA)	7.15	U	4.9	J	7.38	U	1.1	J	7.82	U	2.5	J
Perfluorodecanesulfonate (PFDS)	1.72	U	1.4	U	1.78	U	1.5	U	1.89	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
Perfluorododecane sulfonic acid (PFDoS)	1.73	U	1.4	U	1.79	U	1.5	U	1.9	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
Perfluoroheptanesulfonate (PFHpS)	1.7	U	**33**		1.76	U	1.5	U	0.886	J	**5.3**	
Perfluoroheptanoic acid (PFHpA)	1.79	U	**7.1**		0.789	J	0.8	J	0.666	J	**1.8**	
Perfluorohexanesulfonate (PFHxS)	0.761	J	**340**		**6.96**		**4.5**		**14.6**		**190**	
Perfluorohexanoic acid (PFHxA)	1.79	U	**25**		**2.62**		1.4	J	0.807	J	**12**	
Perfluorononanesulfonate (PFNS)	1.72	U	1.4	U	1.77	U	1.5	U	1.88	U	1.5	U
Perfluorononanoic acid (PFNA)	1.79	U	0.84	J	1.84	U	0.72	J	1.96	U	1.5	U
Perfluorooctane sulfonamide (PFOSAm)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
Perfluorooctanesulfonate (PFOS)	**1.87**		**1300**	D	**24.9**		**5.7**		**15.1**		**220**	
Perfluorooctanoic acid (PFOA)	0.728	J	**20**		**2**		**2.4**		1.26	J	**4.8**	
Perfluoropentanesulfonate (PFPeS)	1.68	U	**18**		0.67	J	1.5	U	0.944	J	**20**	
Perfluoropentanoic acid (PFPeA)	1.79	U	**8.2**		0.687	J	0.86	J	1.7	J	**3.7**	
Perfluorotetradecanoic acid (PFTeDA)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.79	U	1.4	U	1.84	U	1.5	U	1.96	U	1.5	U
1633 TPFAS	**3.359**		**1762.84**		**38.626**		**18.36**		**35.963**		**468.2**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	102-39 Depth : 75.00 08/16/2023 ng/L		102-40 Depth : 140.00 01/26/2023 ng/L		102-40 Depth : 150.00 08/10/2023 ng/L		103-10 Depth : 65.00 03/28/2023 ng/L		103-10 Depth : 62.00 08/15/2023 ng/L		103-30 Depth : 95.00 01/25/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7.23	U	13	U	37.8	U	6.1	U	7.2	U	5.5	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.35	U	13	U	38.4	U	6.1	U	7.31	U	5.5	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38.3	U	80	U	200	U	38	U	38.1	U	34	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38.3	U	80	U	200	U	38	U	38.1	U	34	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.65	U	16	U	40	U	7.6	U	7.62	U	6.9	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7.23	U	13	U	37.8	U	6.1	U	7.2	U	5.5	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7.16	U	13	U	37.4	U	6.1	U	7.12	U	5.5	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7.17	U	13	U	37.5	U	6.1	U	7.14	U	5.5	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7.27	U	13	U	38	U	6.1	U	7.24	U	5.5	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.65	U	13	U	40	U	6.1	U	7.62	U	5.5	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	19.1	U	32	U	100	U	15	U	19	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	19.1	U	32	U	100	U	15	U	19	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.83	U	6.4	U	20	U	3	U	3.81	U	2.8	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.41	U	6.4	U	17.8	U	3	U	3.39	U	2.8	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.83	U	6.4	U	20	U	3	U	3.81	U	2.8	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.83	U	6.4	U	20	U	3	U	3.81	U	2.8	U
Perfluorobutanesulfonate (PFBS)	**2.05**		**12**		**10.1**		1.5	U	1.69	U	**3.3**	
Perfluorobutyric acid (PFBA)	7.65	U	3	J	40	U	0.61	J	7.62	U	2.7	J
Perfluorodecanesulfonate (PFDS)	1.85	U	3.2	U	9.65	U	1.5	U	1.84	U	1.4	U
Perfluorodecanoic acid (PFDA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.86	U	3.2	U	9.7	U	1.5	U	1.85	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	1.03	J	**6.4**		4.94	J	1.5	U	1.81	U	**2.1**	
Perfluoroheptanoic acid (PFHpA)	1.91	U	3	J	10	U	1.5	U	1.9	U	**1.9**	
Perfluorohexanesulfonate (PFHxS)	**30.8**		**160**		**111**		0.45	J	1.74	U	**43**	
Perfluorohexanoic acid (PFHxA)	**3.86**		**17**		**18.5**		1.5	U	1.9	U	**6.9**	
Perfluorononanesulfonate (PFNS)	1.84	U	3.2	U	9.62	U	1.5	U	1.83	U	1.4	U
Perfluorononanoic acid (PFNA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	**69**	
Perfluorooctane sulfonamide (PFOSAm)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
Perfluorooctanesulfonate (PFOS)	**35.1**		**300**		**301**		1.5	U	1.77	U	**96**	
Perfluorooctanoic acid (PFOA)	**3.08**		**12**		9.46	J	1.5	U	1.9	U	**4.4**	
Perfluoropentanesulfonate (PFPeS)	**5.07**		**18**		**13.7**		1.5	U	1.79	U	**3.2**	
Perfluoropentanoic acid (PFPeA)	0.854	J	5.9	J	5.56	J	3	U	1.9	U	**4.2**	
Perfluorotetradecanoic acid (PFTeDA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.91	U	3.2	U	10	U	1.5	U	1.9	U	1.4	U
1633 TPFAS	**81.844**		**537.3**		**474.26**		**1.06**		0		**236.7**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	103-30 Depth : 95.00 07/27/2023 ng/L		103-31 Depth : 115.00 01/25/2023 ng/L		103-31 Depth : 115.00 07/27/2023 ng/L		103-32 Depth : 135.00 01/25/2023 ng/L		103-32 Depth : 135.00 07/27/2023 ng/L		103-33 Depth : 95.00 01/30/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	7.36	U	5.6	U	6.62	U	5.7	U	6.93	U	5.7	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	7.48	U	5.6	U	6.72	U	5.7	U	7.04	U	5.7	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	39	U	35	U	35	U	36	U	36.7	U	36	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	39	U	35	U	35	U	36	U	36.7	U	36	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.79	U	7	U	7	U	7.1	U	7.34	U	7.1	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	7.36	U	5.6	U	6.62	U	5.7	U	6.93	U	5.7	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	7.29	U	5.6	U	6.55	U	5.7	U	6.86	U	5.7	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	7.31	U	5.6	U	6.56	U	5.7	U	6.88	U	5.7	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	7.4	U	5.6	U	6.65	U	5.7	U	6.97	U	5.7	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.79	U	5.6	U	7	U	5.7	U	7.34	U	5.7	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	19.5	U	14	U	17.5	U	14	U	18.3	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	19.5	U	14	U	17.5	U	14	U	18.3	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.9	U	2.8	U	3.5	U	2.8	U	3.67	U	2.8	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.47	U	2.8	U	3.12	U	2.8	U	3.26	U	2.8	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.9	U	2.8	U	3.5	U	2.8	U	3.67	U	2.8	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.9	U	2.8	U	3.5	U	2.8	U	3.67	U	2.8	U
Perfluorobutanesulfonate (PFBS)	**2.04**		**9.3**		**4.49**		**20**		**17.1**		**8.9**	
Perfluorobutyric acid (PFBA)	7.79	U	**6**		7	U	**9.7**		7.04	J	5.3	J
Perfluorodecanesulfonate (PFDS)	1.88	U	1.4	U	1.69	U	1.4	U	1.77	U	1.4	U
Perfluorodecanoic acid (PFDA)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.89	U	1.4	U	1.7	U	1.4	U	1.78	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	0.846	J	**3.6**		1.4	J	**9.5**		**9.06**		**2.5**	
Perfluoroheptanoic acid (PFHpA)	0.824	J	**4.3**		1.72	J	**7.5**		**6.81**		**3.4**	
Perfluorohexanesulfonate (PFHxS)	**21.1**		**110**		**36**		**240**		**72.8**	D	**75**	
Perfluorohexanoic acid (PFHxA)	**2.92**		**25**		**7.37**		**39**		**35.5**		**8**	
Perfluorononanesulfonate (PFNS)	1.87	U	1.4	U	1.68	U	1.4	U	1.76	U	1.4	U
Perfluorononanoic acid (PFNA)	**24.6**		**21**		**17.9**		1.3	J	0.761	J	**1.9**	
Perfluorooctane sulfonamide (PFOSAm)	1.95	U	0.35	J	1.75	U	1.4	U	1.83	U	0.43	J
Perfluorooctanesulfonate (PFOS)	**61.1**		**200**		**66**		**300**		**104**	D	**100**	
Perfluorooctanoic acid (PFOA)	**2**		**7.2**		**3.75**		**14**		**16.8**		**17**	
Perfluoropentanesulfonate (PFPeS)	**2.45**		**14**		**4.99**		**29**		**29.4**		**11**	
Perfluoropentanoic acid (PFPeA)	1.72	J	**12**		**3.21**		**20**		**18.5**		**6.1**	
Perfluorotetradecanoic acid (PFTeDA)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.95	U	1.4	U	1.75	U	1.4	U	1.83	U	1.4	U
1633 TPFAS	**119.6**		**412.75**		**146.83**		**690**		**317.771**		**239.53**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Current Firehouse MW

Analyte	103-33 Depth : 95.00 08/14/2023 ng/L		103-34 Depth : 125.00 01/30/2023 ng/L		103-34 Depth : 125.00 08/14/2023 ng/L							
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.47	U	6.4	U	6.74	U						
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.57	U	6.4	U	6.85	U						
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	34.2	U	40	U	35.7	U						
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	34.2	U	40	U	35.7	U						
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6.84	U	8	U	7.13	U						
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.47	U	6.4	U	6.74	U						
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.4	U	6.4	U	6.67	U						
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.42	U	6.4	U	6.69	U						
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.5	U	**12**		6.78	U						
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.84	U	6.4	U	7.13	U						
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.71	U	1.6	U	1.78	U						
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.71	U	1.6	U	1.78	U						
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	17.1	U	16	U	17.8	U						
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.71	U	1.6	U	1.78	U						
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.71	U	1.6	U	1.78	U						
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	17.1	U	16	U	17.8	U						
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.42	U	3.2	U	3.57	U						
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.05	U	3.2	U	3.17	U						
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.42	U	3.2	U	3.57	U						
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.42	U	3.2	U	3.57	U						
Perfluorobutanesulfonate (PFBS)	**8.61**		**4**		**4.74**							
Perfluorobutyric acid (PFBA)	4.2	J	2.5	J	3.7	J						
Perfluorodecanesulfonate (PFDS)	1.65	U	1.6	U	1.72	U						
Perfluorodecanoic acid (PFDA)	1.71	U	1.6	U	1.78	U						
Perfluorododecane sulfonic acid (PFDoS)	1.66	U	1.6	U	1.73	U						
Perfluorododecanoic acid (PFDoA)	1.71	U	1.6	U	1.78	U						
Perfluoroheptanesulfonate (PFHpS)	**2.71**		1.6	U	**1.76**							
Perfluoroheptanoic acid (PFHpA)	**2.8**		0.85	J	**2.66**							
Perfluorohexanesulfonate (PFHxS)	**83.7**		**28**		**62.3**							
Perfluorohexanoic acid (PFHxA)	**11.4**		**3.9**		**8.19**							
Perfluorononanesulfonate (PFNS)	1.65	U	1.6	U	1.72	U						
Perfluorononanoic acid (PFNA)	1.47	J	0.53	J	0.709	J						
Perfluorooctane sulfonamide (PFOSAm)	1.71	U	0.12	J	1.78	U						
Perfluorooctanesulfonate (PFOS)	**132**		**32**		**102**							
Perfluorooctanoic acid (PFOA)	**6.18**		**3**		**6.25**							
Perfluoropentanesulfonate (PFPeS)	**13.6**		**4.5**		**9.84**							
Perfluoropentanoic acid (PFPeA)	**9.05**		1.1	J	**5.5**							
Perfluorotetradecanoic acid (PFTeDA)	1.71	U	1.6	U	1.78	U						
Perfluorotridecanoic acid (PFTrDA)	1.71	U	1.6	U	1.78	U						
Perfluoroundecanoic acid (PFUdA)	1.71	U	1.6	U	1.78	U						
1633 TPFAS	**275.72**		**92.5**		**207.649**							

OU10 Current Firehouse

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	075-809 Depth : 37.50 02/13/2023 ng/L		075-809 Depth : 37.50 06/05/2023 ng/L		075-809 Depth : 37.50 07/10/2023 ng/L		075-809 Depth : 37.50 10/13/2023 ng/L		075-810 Depth : 37.50 02/13/2023 ng/L		075-810 Depth : 37.50 06/05/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.8	U	6.52	U	5.8	U	64	U	64	U	6.54	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.8	U	6.62	U	5.8	U	64	U	64	U	6.64	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	34.5	U	36	U	400	U	400	U	34.6	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	34.5	U	36	U	400	U	400	U	34.6	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.2	U	6.9	U	7.3	U	80	U	80	U	6.92	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.8	U	6.52	U	5.8	U	64	U	64	U	6.54	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.8	U	6.45	U	5.8	U	64	U	64	U	6.47	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.8	U	6.47	U	5.8	U	64	U	64	U	6.48	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.8	U	6.56	U	5.8	U	64	U	64	U	6.57	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.8	U	6.9	U	5.8	U	64	U	64	U	6.92	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	17.3	U	1.6	J	160	U	160	U	17.3	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	17.3	U	1.2	J	160	U	160	U	17.3	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	3.45	U	2.9	U	32	U	32	U	3.46	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	3.07	U	2.9	U	32	U	32	U	3.08	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	3.45	U	2.9	U	32	U	32	U	3.46	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	3.45	U	2.9	U	32	U	32	U	3.46	U
Perfluorobutanesulfonate (PFBS)	**8.5**		**3.71**		**8.4**		8.4	J	**33**		**20.6**	D
Perfluorobutyric acid (PFBA)	**22**		**11.6**		**14**		18	J	33	J	**19.7**	
Perfluorodecanesulfonate (PFDS)	1.4	U	1.66	U	1.5	U	16	U	16	U	1.67	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.67	U	1.5	U	16	U	16	U	1.68	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
Perfluoroheptanesulfonate (PFHpS)	**13**		**22.4**		**48**		**22**		**66**		**86.7**	
Perfluoroheptanoic acid (PFHpA)	**7.6**		**11.9**		**20**		7.4	J	**27**		**15.1**	
Perfluorohexanesulfonate (PFHxS)	**220**		**393**	D	**1100**	D	**280**		**1900**		**1120**	D
Perfluorohexanoic acid (PFHxA)	**25**		**37.3**		**69**		**55**		**220**		**122**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.66	U	1.5	U	16	U	16	U	1.66	U
Perfluorononanoic acid (PFNA)	**1.8**		**1.97**		**2.6**		1.9	J	5.6	J	**6.03**	
Perfluorooctane sulfonamide (PFOSAm)	**2.9**		**3.42**		**3.9**		3	J	3.2	J	**6.45**	
Perfluorooctanesulfonate (PFOS)	**1100**	D	**923**	D	**1300**	D	**740**		**1700**		**1790**	D
Perfluorooctanoic acid (PFOA)	**63**		**68.8**		**150**		**69**		**160**		**129**	
Perfluoropentanesulfonate (PFPeS)	**14**		**13.5**		**23**		11	J	**57**		**37.7**	
Perfluoropentanoic acid (PFPeA)	**15**		**11.3**		**16**		19	J	**48**		**26.5**	
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.73	U	1.5	U	16	U	16	U	1.73	U
1633 TPFAS	**1492.8**		**1501.9**		**2757.7**		**1234.7**		**4252.8**		**3379.78**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	075-810 Depth : 37.50 07/10/2023 ng/L		075-810 Depth : 37.50 10/13/2023 ng/L		075-811 Depth : 37.50 02/13/2023 ng/L		075-811 Depth : 37.50 06/05/2023 ng/L		075-811 Depth : 37.50 07/10/2023 ng/L		075-811 Depth : 37.50 10/13/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.6	U	63	U	64	U	6.73	U	63	U	310	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.6	U	63	U	64	U	6.84	U	63	U	310	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35	U	400	U	400	U	35.6	U	390	U	1900	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35	U	400	U	400	U	35.6	U	390	U	1900	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7	U	79	U	80	U	7.13	U	79	U	380	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.6	U	63	U	64	U	6.73	U	63	U	310	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.6	U	63	U	64	U	6.66	U	63	U	310	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.6	U	63	U	64	U	6.68	U	63	U	310	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.6	U	63	U	64	U	6.77	U	63	U	310	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.6	U	63	U	64	U	7.13	U	63	U	310	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	16	U	16	U	1.78	U	16	U	77	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	16	U	16	U	1.78	U	16	U	77	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	160	U	160	U	17.8	U	160	U	770	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	16	U	16	U	0.899	J	16	U	77	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	16	U	16	U	1.78	U	16	U	77	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	160	U	160	U	17.8	U	160	U	770	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	32	U	32	U	3.56	U	32	U	150	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	32	U	32	U	3.17	U	32	U	150	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	32	U	32	U	3.56	U	32	U	150	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	32	U	32	U	3.56	U	32	U	150	U
Perfluorobutanesulfonate (PFBS)	**21**		**19**		7.3	J	**54.3**		**85**		17	J
Perfluorobutyric acid (PFBA)	**19**		21	J	14	J	**49.6**		**71**		310	U
Perfluorodecanesulfonate (PFDS)	1.4	U	16	U	16	U	1.72	U	16	U	77	U
Perfluorodecanoic acid (PFDA)	0.61	J	16	U	16	U	1.78	U	16	U	77	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	16	U	16	U	1.73	U	16	U	77	U
Perfluorododecanoic acid (PFDoA)	1.4	U	16	U	16	U	1.78	U	16	U	77	U
Perfluoroheptanesulfonate (PFHpS)	**76**		14	J	**20**		**70.6**		**54**		77	U
Perfluoroheptanoic acid (PFHpA)	**15**		14	J	11	J	**84.9**		**190**		42	J
Perfluorohexanesulfonate (PFHxS)	**860**	D	**510**		**360**		**6210**	D	**6500**	D	**1500**	
Perfluorohexanoic acid (PFHxA)	**100**		**110**		**40**		**2080**		**2300**		**500**	
Perfluorononanesulfonate (PFNS)	1.4	U	16	U	16	U	1.71	U	16	U	77	U
Perfluorononanoic acid (PFNA)	**6.6**		5.9	J	5.2	J	**12.9**		13	J	77	U
Perfluorooctane sulfonamide (PFOSAm)	**3.3**		8.1	J	**130**		**1290**		**890**		**350**	
Perfluorooctanesulfonate (PFOS)	**2200**	D	**1300**		**2200**		**1950**		**1900**		**620**	
Perfluorooctanoic acid (PFOA)	**78**		**56**		**58**		**582**		**1500**		**180**	
Perfluoropentanesulfonate (PFPeS)	**29**		**25**		4.7	J	**109**		**70**		77	U
Perfluoropentanoic acid (PFPeA)	**23**		30	J	8	J	**214**		**260**		63	J
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	16	U	16	U	1.78	U	16	U	77	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	16	U	16	U	1.78	U	16	U	77	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	16	U	16	U	1.78	U	16	U	77	U
1633 TPFAS	**3431.51**		**2113**		**2858.2**		**12708.199**		**13833**		**3272**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	075-87 Depth : 107.50 02/15/2023 ng/L		075-87 Depth : 107.50 07/21/2023 ng/L		085-350 Depth : 34.50 02/16/2023 ng/L		085-350 Depth : 34.50 07/17/2023 ng/L		085-384 Depth : 37.50 02/15/2023 ng/L		085-384 Depth : 37.50 07/21/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.1	U	5.7	U	5.6	U	5.3	U	13	U	5.6	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.1	U	5.7	U	5.6	U	5.3	U	13	U	5.6	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38	U	36	U	35	U	33	U	80	U	35	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38	U	36	U	35	U	33	U	80	U	35	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.6	U	7.1	U	7	U	6.7	U	16	U	6.9	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.1	U	5.7	U	5.6	U	5.3	U	13	U	5.6	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.1	U	5.7	U	5.6	U	5.3	U	13	U	5.6	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.1	U	5.7	U	5.6	U	5.3	U	13	U	5.6	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.1	U	5.7	U	5.6	U	5.3	U	13	U	5.6	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.1	U	5.7	U	5.6	U	5.3	U	13	U	5.6	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	14	U	14	U	13	U	32	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	14	U	14	U	13	U	32	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3	U	2.9	U	2.8	U	2.7	U	6.4	U	2.8	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3	U	2.9	U	2.8	U	2.7	U	6.4	U	2.8	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3	U	2.9	U	2.8	U	2.7	U	6.4	U	2.8	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3	U	2.9	U	2.8	U	2.7	U	6.4	U	2.8	U
Perfluorobutanesulfonate (PFBS)	**1.6**		1.2	J	**3.4**		**1.7**		**6.5**		**2.9**	
Perfluorobutyric acid (PFBA)	3.6	J	4	J	**10**		3.5	J	7.5	J	**7.7**	
Perfluorodecanesulfonate (PFDS)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
Perfluorodecanoic acid (PFDA)	0.87	J	0.42	J	1.4	U	1.3	U	0.95	J	0.66	J
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.5	U	1.4	U	1.4	UJ	1.3	U	3.2	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
Perfluoroheptanoic acid (PFHpA)	0.63	J	1.2	J	**1.5**		0.77	J	**3.7**		**1.5**	
Perfluorohexanesulfonate (PFHxS)	**2.5**		**4.9**		**1.9**		1.3	U	**15**		**4.1**	
Perfluorohexanoic acid (PFHxA)	1.4	J	**3.5**		**2.3**	H	0.87	J	**3.9**		**2**	
Perfluorononanesulfonate (PFNS)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
Perfluorononanoic acid (PFNA)	**3.4**		**1.6**		1.4	U	1.3	U	2.3	J	1.4	
Perfluorooctane sulfonamide (PFOSAm)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	0.45	J
Perfluorooctanesulfonate (PFOS)	**9**		**9**		**11**		**4.4**		**56**		**26**	
Perfluorooctanoic acid (PFOA)	**1.8**		**6.5**		**4.4**		**3.4**		**10**		**5.4**	
Perfluoropentanesulfonate (PFPeS)	0.27	J	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
Perfluoropentanoic acid (PFPeA)	1.2	J	2.1	J	2.1	J	0.84	J	5.3	J	2.4	J
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.4	U	1.4	U	1.3	U	3.2	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.4	U	1.4	UJ	1.3	U	3.2	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	**2**		**1.6**		1.4	U	1.3	U	3.2	U	0.59	J
1633 TPFAS	**28.27**		**36.02**		**34.3**		**15.48**		**111.15**		**55.1**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	085-404 Depth : 37.50 02/13/2023 ng/L		085-404 Depth : 0.00 06/05/2023 ng/L		085-404 Depth : 37.50 06/05/2023 ng/L		085-404 Depth : 37.50 07/12/2023 ng/L		085-404 Depth : 37.50 10/12/2023 ng/L		085-405 Depth : 55.00 02/13/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.2	U	6.74	U	6.61	U	5.9	U	5.7	U	5.6	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.2	U	6.85	U	6.72	U	5.9	U	5.7	U	5.6	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	39	U	35.7	U	35	U	37	U	36	U	35	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	39	U	35.7	U	35	U	37	U	36	U	35	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.7	U	7.14	U	7	U	7.4	U	7.2	U	7.1	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.2	U	6.74	U	6.61	U	5.9	U	5.7	U	5.6	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.2	U	6.67	U	6.54	U	5.9	U	5.7	U	5.6	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.2	U	6.69	U	6.56	U	5.9	U	5.7	U	5.6	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.2	U	6.78	U	6.65	U	5.9	U	5.7	U	5.6	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.2	U	7.14	U	7	U	5.9	U	5.7	U	5.6	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.78	U	1.75	U	1.5	U	1.4	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.78	U	1.75	U	1.5	U	1.4	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	17.8	U	17.5	U	15	U	14	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.78	U	1.75	U	1.5	U	1.4	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.78	U	1.75	U	1.5	U	1.4	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	17.8	U	17.5	U	15	U	14	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.1	U	3.57	U	3.5	U	3	U	2.9	U	2.8	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.1	U	3.18	U	3.11	U	3	U	2.9	U	2.8	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.1	U	3.57	U	3.5	U	3	U	2.9	U	2.8	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.1	U	3.57	U	3.5	U	3	U	2.9	U	2.8	U
Perfluorobutanesulfonate (PFBS)	**4.1**		1.58	U	**1.72**		**2.5**		**2.1**		**4.6**	
Perfluorobutyric acid (PFBA)	**10**		7.14	U	6.33	J	**6.6**		**6**		**11**	
Perfluorodecanesulfonate (PFDS)	1.5	U	1.72	U	1.69	U	1.5	U	1.4	U	1.4	U
Perfluorodecanoic acid (PFDA)	0.21	J	1.78	U	1.75	U	1.5	U	0.34	J	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.73	U	1.7	U	1.5	U	1.4	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.5	U	1.78	U	1.75	U	1.5	U	1.4	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	**2.2**		1.7	U	1.42	J	1.5	U	1.1	J	1.4	U
Perfluoroheptanoic acid (PFHpA)	**3.6**		1.78	U	**2.98**		**3.3**		**3.8**		**3.2**	
Perfluorohexanesulfonate (PFHxS)	**41**		1.63	U	**21.8**		**27**		**15**		**12**	
Perfluorohexanoic acid (PFHxA)	**5.9**		1.78	U	**6.38**		**6.2**		**6.1**		**3.5**	
Perfluorononanesulfonate (PFNS)	1.5	U	1.72	U	1.68	U	1.5	U	1.4	U	1.4	U
Perfluorononanoic acid (PFNA)	**2.2**		1.78	U	**1.79**		**1.8**		**2.7**		1.1	J
Perfluorooctane sulfonamide (PFOSAm)	1.5	U	1.78	U	1.75	U	0.33	J	1.4	U	1.4	U
Perfluorooctanesulfonate (PFOS)	**33**		1.66	U	**26**		**31**		**33**		**20**	
Perfluorooctanoic acid (PFOA)	**13**		1.78	U	**12.8**		**13**		**14**		**8.9**	
Perfluoropentanesulfonate (PFPeS)	**2**		1.68	U	0.974	J	1.1	J	0.63	J	**1.7**	
Perfluoropentanoic acid (PFPeA)	**7.1**		1.78	U	**5.87**		**5.8**		**6.8**		**4**	
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.78	U	1.75	U	1.5	U	1.4	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.78	U	1.75	U	1.5	U	1.4	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	1.78	U	1.75	U	1.5	U	1.4	U	1.4	U
1633 TPFAS	**124.31**		0		**88.064**		**98.63**		**91.57**		**70**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	085-405 Depth : 55.00 06/05/2023 ng/L		085-405 Depth : 55.00 07/10/2023 ng/L		085-405 Depth : 55.00 10/12/2023 ng/L		085-406 Depth : 37.50 02/13/2023 ng/L		085-406 Depth : 35.00 05/26/2023 ng/L		085-406 Depth : 37.50 07/11/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.69	U	6	U	5.6	U	5.9	U	6.71	U	5.7	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.8	U	6	U	5.6	U	5.9	U	6.81	U	5.7	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35.4	U	37	U	35	U	37	U	35.5	U	36	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35.4	U	37	U	35	U	37	U	35.5	U	36	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.08	U	7.5	U	7.1	U	7.4	U	7.1	U	7.1	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.69	U	6	U	5.6	U	5.9	U	6.71	U	5.7	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.62	U	6	U	5.6	U	5.9	U	6.63	U	5.7	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.64	U	6	U	5.6	U	5.9	U	6.65	U	5.7	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.73	U	6	U	5.6	U	5.9	U	6.02	J	5.7	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.08	U	6	U	5.6	U	5.9	U	7.1	U	5.7	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.77	U	1.5	U	1.4	U	1.5	U	1.77	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.77	U	1.5	U	1.4	U	1.5	U	1.77	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	17.7	U	15	U	14	U	15	U	17.7	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.77	U	1.5	U	1.4	U	1.5	U	1.77	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.77	U	1.5	U	1.4	U	1.5	U	1.77	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	17.7	U	15	U	14	U	15	U	17.7	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.54	U	3	U	2.8	U	2.9	U	3.55	U	2.8	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.15	U	3	U	2.8	U	2.9	U	3.16	U	2.8	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.54	U	3	U	2.8	U	2.9	U	3.55	U	2.8	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.54	U	3	U	2.8	U	2.9	U	3.55	U	2.8	U
Perfluorobutanesulfonate (PFBS)	**2.64**		**3.2**		**1.9**		**2.2**		**6.74**		**6.1**	
Perfluorobutyric acid (PFBA)	**9.33**		**11**		**14**		**8.3**		**16.5**		**13**	
Perfluorodecanesulfonate (PFDS)	1.71	U	1.5	U	1.4	U	1.5	U	1.71	U	1.4	U
Perfluorodecanoic acid (PFDA)	1.77	U	0.16	J	0.21	J	1.5	U	1.77	U	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.72	U	1.5	U	1.4	U	1.5	U	1.72	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.77	U	1.5	U	1.4	U	1.5	U	1.77	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	1.69	U	1.4	J	0.44	J	**11**		**18.8**		**20**	
Perfluoroheptanoic acid (PFHpA)	**2.24**		**2.8**		**3.6**		**3.6**		**10.8**		**8.9**	
Perfluorohexanesulfonate (PFHxS)	**9.96**		**26**		**12**		**200**		**357**	D	**360**	
Perfluorohexanoic acid (PFHxA)	**4.64**		**4.3**		**3.2**		**13**		**63.7**		**54**	
Perfluorononanesulfonate (PFNS)	1.7	U	1.5	U	1.4	U	1.5	U	1.71	U	1.4	U
Perfluorononanoic acid (PFNA)	0.852	J	**1.8**		**24**		0.75	J	**2.52**		**3.9**	
Perfluorooctane sulfonamide (PFOSAm)	1.77	U	1.5	U	1.4	U	1	J	**4.93**		**5.8**	
Perfluorooctanesulfonate (PFOS)	**14.5**		1.5	U	**22**		**420**		**735**	D	**1000**	D
Perfluorooctanoic acid (PFOA)	**7.2**		**11**		**12**		**23**		**64.9**		**53**	
Perfluoropentanesulfonate (PFPeS)	0.903	J	1.2	J	0.56	J	**2.4**		**10.2**		**6.7**	
Perfluoropentanoic acid (PFPeA)	**3.07**		**3.4**		**3.6**		**3.3**		**21.5**		**16**	
Perfluorotetradecanoic acid (PFTeDA)	1.77	U	1.5	U	1.4	U	1.5	U	1.77	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.77	U	1.5	U	1.4	U	1.5	U	1.77	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.77	U	1.5	U	1.4	U	1.5	U	1.77	U	1.4	U
1633 TPFAS	**55.335**		**66.26**		**97.51**		**688.55**		**1318.61**		**1547.4**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	085-406 Depth : 37.50 10/12/2023 ng/L		085-407 Depth : 55.00 02/13/2023 ng/L		085-407 Depth : 55.00 05/26/2023 ng/L		085-407 Depth : 55.00 07/11/2023 ng/L		085-407 Depth : 55.00 10/12/2023 ng/L		085-408 Depth : 65.00 02/13/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	63	U	65	U	6.95	U	6.4	U	5.7	U	6.5	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	63	U	65	U	7.06	U	6.4	U	5.7	U	6.5	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	390	U	410	U	36.8	U	40	U	36	U	41	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	390	U	410	U	36.8	U	40	U	36	U	41	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	79	U	81	U	7.35	U	8	U	7.2	U	8.1	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	63	U	65	U	6.95	U	6.4	U	5.7	U	6.5	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	63	U	65	U	6.88	U	6.4	U	5.7	U	6.5	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	63	U	65	U	6.89	U	6.4	U	5.7	U	6.5	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	63	U	65	U	6.99	U	6.4	U	5.7	U	6.5	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	63	U	65	U	7.35	U	6.4	U	5.7	U	6.5	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	16	U	16	U	1.84	U	1.6	U	1.4	U	1.6	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	16	U	16	U	1.84	U	1.6	U	1.4	U	1.6	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	160	U	160	U	18.4	U	16	U	14	U	16	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	16	U	16	U	1.84	U	1.6	U	1.4	U	1.6	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	16	U	16	U	1.84	U	1.6	U	1.4	U	1.6	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	160	U	160	U	18.4	U	16	U	14	U	16	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	31	U	33	U	3.68	U	3.2	U	2.9	U	3.2	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	31	U	33	U	3.27	U	3.2	U	2.9	U	3.2	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	31	U	33	U	3.68	U	3.2	U	2.9	U	3.2	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	31	U	33	U	3.68	U	3.2	U	2.9	U	3.2	U
Perfluorobutanesulfonate (PFBS)	4.3	J	6.5	J	**3.91**		**5.9**		**2.1**		1.1	J
Perfluorobutyric acid (PFBA)	11	J	15	J	**10.2**		**10**		**6.1**		4.9	J
Perfluorodecanesulfonate (PFDS)	16	U	16	U	1.77	U	1.6	U	1.4	U	1.6	U
Perfluorodecanoic acid (PFDA)	16	U	16	U	1.84	U	0.13	J	1.4	U	1.6	U
Perfluorododecane sulfonic acid (PFDoS)	16	U	16	U	1.78	U	1.6	U	1.4	U	1.6	U
Perfluorododecanoic acid (PFDoA)	16	U	16	U	1.84	U	1.6	U	1.4	U	1.6	U
Perfluoroheptanesulfonate (PFHpS)	8.4	J	7.6	J	**4.77**		**6.6**		1.4		1.6	U
Perfluoroheptanoic acid (PFHpA)	9.3	J	10	J	**18.2**		**12**		**3.3**		**2.5**	
Perfluorohexanesulfonate (PFHxS)	**530**		**540**		**306**	D	**290**		**58**		**52**	
Perfluorohexanoic acid (PFHxA)	**78**		**69**		**162**		**110**		**18**		**11**	
Perfluorononanesulfonate (PFNS)	16	U	16	U	1.77	U	1.6	U	1.4	U	1.6	U
Perfluorononanoic acid (PFNA)	2.7	J	4.1	J	1.76	J	**2.1**		1.2	J	1.1	J
Perfluorooctane sulfonamide (PFOSAm)	**27**		4.5	J	**22.7**		**24**		**67**		**9.5**	
Perfluorooctanesulfonate (PFOS)	**720**		**650**		**201**		**200**		**45**		**36**	
Perfluorooctanoic acid (PFOA)	**53**		**25**		**101**		**100**		**20**		**15**	
Perfluoropentanesulfonate (PFPeS)	3.4	J	6.3	J	**5.08**		**5.4**		**1.5**		0.49	J
Perfluoropentanoic acid (PFPeA)	13	J	20	J	**20.5**		**14**		**3.7**		2.2	J
Perfluorotetradecanoic acid (PFTeDA)	16	U	16	U	1.84	U	1.6	U	1.4	U	1.6	U
Perfluorotridecanoic acid (PFTrDA)	16	U	16	U	1.84	U	1.6	U	1.4	U	1.6	U
Perfluoroundecanoic acid (PFUdA)	16	U	16	U	1.84	U	1.6	U	1.4	U	1.6	U
1633 TPFAS	**1460.1**		**1358**		**857.12**		**780.13**		**227.3**		**135.79**	

2023 Groundwater Data : PFAS
Brookhaven National Laboratory
Project: OU X Fomer Firehouse MW

Analyte	085-408 Depth : 65.00 05/30/2023 ng/L		085-408 Depth : 65.00 07/10/2023 ng/L		085-408 Depth : 65.00 10/12/2023 ng/L		085-409 Depth : 37.50 02/13/2023 ng/L		085-409 Depth : 37.50 05/30/2023 ng/L		085-409 Depth : 37.50 07/11/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.72	U	6.2	U	5.7	U	5.7	U	6.78	U	6	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.83	U	6.2	U	5.7	U	5.7	U	6.89	U	6	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35.6	U	39	U	35	U	36	U	35.9	U	38	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35.6	U	39	U	35	U	36	U	35.9	U	38	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.12	U	7.8	U	7.1	U	7.2	U	7.17	U	7.5	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.72	U	6.2	U	5.7	U	5.7	U	6.78	U	6	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.65	U	6.2	U	5.7	U	5.7	U	6.71	U	6	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.67	U	6.2	U	5.7	U	5.7	U	6.73	U	6	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.6	J	6.2	U	5.7	U	5.7	U	6.82	U	6	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	7.12	U	6.2	U	5.7	U	5.7	U	7.17	U	6	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	17.8	U	16	U	14	U	14	U	17.9	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	17.8	U	16	U	14	U	14	U	17.9	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.56	U	3.1	U	2.8	U	2.9	U	3.59	U	3	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.17	U	3.1	U	2.8	U	2.9	U	3.19	U	3	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.56	U	3.1	U	2.8	U	2.9	U	3.59	U	3	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.56	U	3.1	U	2.8	U	2.9	U	3.59	U	3	U
Perfluorobutanesulfonate (PFBS)	**2.56**		**2.3**		1.3	J	**2.9**		1.45	J	**3**	
Perfluorobutyric acid (PFBA)	**7.16**		6.2		4.4	J	**7.8**		3.9	J	5	J
Perfluorodecanesulfonate (PFDS)	1.72	U	1.6	U	1.4	U	1.4	U	1.73	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
Perfluorododecane sulfonic acid (PFDoS)	1.73	U	1.6	U	1.4	U	1.4	U	1.74	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
Perfluoroheptanesulfonate (PFHpS)	**2.19**		0.77	J	0.48	J	1.4	U	1.71	U	1.5	U
Perfluoroheptanoic acid (PFHpA)	**6.79**		**3.1**		**2**		**3.3**		1.66	J	**1.7**	
Perfluorohexanesulfonate (PFHxS)	**98.8**		**34**		**27**		**60**		**10.2**		**15**	
Perfluorohexanoic acid (PFHxA)	**54**		**13**		**7.6**		**7.1**		**2.33**		**2.4**	
Perfluorononanesulfonate (PFNS)	1.71	U	1.6	U	1.4	U	1.4	U	1.73	U	1.5	U
Perfluorononanoic acid (PFNA)	1.31	J	1.2	J	0.89	J	0.66	J	1.79	U	0.31	J
Perfluorooctane sulfonamide (PFOSAm)	**73.8**		**33**		**14**		1.4	U	1.79	U	0.14	J
Perfluorooctanesulfonate (PFOS)	**88.8**		**24**		**14**		**6.7**		**4.04**		**5.8**	
Perfluorooctanoic acid (PFOA)	**56.6**		**15**		**7.6**		**8.2**		**6.69**		**5.9**	
Perfluoropentanesulfonate (PFPeS)	**2.53**		1.2	J	0.55	J	**2**		1.69	U	0.55	J
Perfluoropentanoic acid (PFPeA)	**8.79**		**3.3**		2.8		2.1	J	0.62	J	0.8	J
Perfluorotetradecanoic acid (PFTeDA)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.78	U	1.6	U	1.4	U	1.4	U	1.79	U	1.5	U
1633 TPFAS	**409.93**		**137.07**		**82.62**		**100.76**		**30.89**		**40.6**	

2023 Groundwater Data : PFAS
Brookhaven National Laboratory
Project: OU X Fomer Firehouse MW

Analyte	085-409 Depth : 37.50 10/12/2023 ng/L		085-410 Depth : 55.00 02/13/2023 ng/L		085-410 Depth : 55.00 06/06/2023 ng/L		085-410 Depth : 55.00 07/11/2023 ng/L		085-410 Depth : 55.00 10/12/2023 ng/L		085-411 Depth : 55.00 02/15/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	2	J	6.91	U	5.5	U	63	U	64	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	5.6	U	7.01	U	5.5	U	63	U	64	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35	U	35	U	36.5	U	35	U	390	U	400	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35	U	35	U	36.5	U	35	U	390	U	400	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	7	U	7.31	U	6.9	U	79	U	80	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	5.6	U	6.91	U	5.5	U	63	U	64	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	5.6	U	6.83	U	5.5	U	63	U	64	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	5.6	U	6.85	U	5.5	U	63	U	64	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.7	U	5.6	U	6.94	U	5.5	U	63	U	64	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	5.6	U	7.31	U	5.5	U	63	U	64	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.4	U	1.83	U	1.4	U	16	U	16	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.4	U	1.83	U	1.4	U	16	U	16	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	3.2	J	18.3	U	14	U	160	U	160	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.4	U	1.83	U	1.4	U	16	U	16	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.4	U	1.83	U	1.4	U	16	U	16	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	14	U	18.3	U	14	U	160	U	160	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	2.8	U	3.65	U	2.8	U	31	U	32	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	2.8	U	3.25	U	2.8	U	31	U	32	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	2.8	U	3.65	U	2.8	U	31	U	32	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	2.8	U	3.65	U	2.8	U	31	U	32	U
Perfluorobutanesulfonate (PFBS)	**4.2**		**2.3**		**4.7**		**8.7**		5.3	J	**23**	
Perfluorobutyric acid (PFBA)	5.2	J	4.8	J	4.69	J	**5.8**		8.5	J	35	J
Perfluorodecanesulfonate (PFDS)	1.4	U	1.4	U	1.76	U	1.4	U	16	U	16	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.4	U	1.83	U	1.4	U	16	U	16	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.4	U	1.77	U	1.4	U	16	U	16	U
Perfluorododecanoic acid (PFDoA)	1.4	U	0.48	J	1.83	U	1.4	U	16	U	16	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	1.4	U	**10.6**		**21**		**32**		**34**	
Perfluoroheptanoic acid (PFHpA)	1.4		**2.1**		1.57	J	**2.6**		3.8	J	**140**	
Perfluorohexanesulfonate (PFHxS)	**4.8**		**19**		**38.3**		**85**		**210**		**3400**	
Perfluorohexanoic acid (PFHxA)	**2**		**4.8**		**4.41**		**7**		**20**		**720**	E
Perfluorononanesulfonate (PFNS)	1.4	U	1.4	U	1.76	U	1.4	U	16	U	16	U
Perfluorononanoic acid (PFNA)	0.35	J	0.81	J	0.681	J	**1.6**		16	U	16	U
Perfluorooctane sulfonamide (PFOSAm)	0.094	J	0.34	J	0.743	J	0.29	J	5.5	J	**180**	
Perfluorooctanesulfonate (PFOS)	**5.8**		**8.9**		**403**	D	**650**	D	**450**		**1300**	
Perfluorooctanoic acid (PFOA)	**5.9**		**5.9**		**9.02**		**18**		**36**		**1500**	
Perfluoropentanesulfonate (PFPeS)	1.4	U	0.58	J	1.5	J	**2.8**		5.6	J	**29**	
Perfluoropentanoic acid (PFPeA)	0.63	J	1.6	J	**2.16**		2.8		3.8	J	**90**	
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	0.68	J	1.83	U	1.4	U	16	U	16	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	0.71	J	1.83	U	1.4	U	16	U	16	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.4	U	1.83	U	1.4	U	16	U	16	U
1633 TPFAS	**30.374**		**58.2**		**481.374**		**805.59**		**780.5**		**7461**	

2023 Groundwater Data : PFAS
Brookhaven National Laboratory
Project: OU X Fomer Firehouse MW

Analyte	085-411 Depth : 55.00 07/13/2023 ng/L		085-412 Depth : 95.00 02/15/2023 ng/L		085-43 Depth : 26.00 02/15/2023 ng/L		085-43 Depth : 26.00 07/21/2023 ng/L		086-123 Depth : 34.50 02/16/2023 ng/L		086-123 Depth : 34.50 07/21/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	5.7	U	5.9	U	5.7	U	5.9	U	6.1	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	5.7	U	5.9	U	5.7	U	5.9	U	6.1	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35	U	36	U	37	U	36	U	37	U	38	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35	U	36	U	37	U	36	U	37	U	38	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	7.2	U	7.3	U	7.1	U	7.4	U	7.6	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	5.7	U	5.9	U	5.7	U	5.9	U	6.1	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	5.7	U	5.9	U	5.7	U	5.9	U	6.1	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	5.7	U	5.9	U	5.7	U	5.9	U	6.1	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.7	U	5.7	U	5.9	U	5.7	U	5.9	U	6.1	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	5.7	U	5.9	U	5.7	U	5.9	U	6.1	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	14	U	15	U	14	U	15	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	14	U	15	U	14	U	15	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	2.9	U	2.9	U	2.9	U	3	U	3	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	2.9	U	2.9	U	2.9	U	3	U	3	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	2.9	U	2.9	U	2.9	U	3	U	3	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	2.9	U	2.9	U	2.9	U	3	U	3	U
Perfluorobutanesulfonate (PFBS)	**2.7**		**3.6**		**3.8**		0.47	J	**1.8**		1.1	J
Perfluorobutyric acid (PFBA)	**6.1**		5.3	J	**15**		4.3	J	**6.9**		6.1	
Perfluorodecanesulfonate (PFDS)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.4	U	0.64	J	0.7	J	1.5	U	1.5	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	UJ	1.5	U
Perfluoroheptanesulfonate (PFHpS)	**3.5**		1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
Perfluoroheptanoic acid (PFHpA)	**5.3**		**2.6**		**3.4**		**1.6**		**3.4**		1.5	
Perfluorohexanesulfonate (PFHxS)	**140**		**87**		**2.9**		**2.3**		**2.8**		1.4	J
Perfluorohexanoic acid (PFHxA)	**27**		**8.7**		**5.2**		**2.4**		**2.7**	H	**1.7**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
Perfluorononanoic acid (PFNA)	1.4		0.7	J	1.2	J	**1.5**		1.5	U	1.5	U
Perfluorooctane sulfonamide (PFOSAm)	**14**		0.11	J	1.5	U	0.46	J	1.5	U	1.5	U
Perfluorooctanesulfonate (PFOS)	**87**		**18**		**22**		**36**		1.5	U	1.5	U
Perfluorooctanoic acid (PFOA)	**65**		**13**		**5.9**		**6.7**		**4.8**		**3.1**	
Perfluoropentanesulfonate (PFPeS)	**3**		**3.1**		1.5	U	1.4	U	1.5	U	1.5	U
Perfluoropentanoic acid (PFPeA)	**4.2**		**3.2**		**4.4**		2.2	J	2.4	J	1.2	J
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.4	U	1.5	U	1.4	U	1.5	UJ	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.4	U	1.5	U	0.28	J	1.5	U	1.5	U
1633 TPFAS	**359.2**		**145.31**		**64.44**		**58.91**		**22.1**		**16.1**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	095-170 Depth : 50.00 02/16/2023 ng/L		095-170 Depth : 50.00 07/25/2023 ng/L		095-171 Depth : 50.00 02/16/2023 ng/L		095-171 Depth : 50.00 07/21/2023 ng/L		096-115 Depth : 90.00 02/10/2023 ng/L		096-115 Depth : 90.00 07/21/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	5.7	U	5.9	U	6	U	6	U	5.9	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	5.7	U	5.9	U	6	U	6	U	5.9	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35	U	36	U	37	U	38	U	37	U	37	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35	U	36	U	37	U	38	U	37	U	37	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	7.1	U	7.4	U	7.6	U	7.5	U	7.4	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	5.7	U	5.9	U	6	U	6	U	5.9	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	5.7	U	5.9	U	6	U	6	U	5.9	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	5.7	U	5.9	U	6	U	6	U	5.9	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.7	U	5.7	U	5.9	U	6	U	6	U	5.9	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	5.7	U	5.9	U	6	U	6	U	5.9	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	14	U	15	U	15	U	15	U	15	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	14	U	15	U	15	U	15	U	15	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	2.8	U	2.9	U	3	U	3	U	3	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	2.8	U	2.9	U	3	U	3	U	3	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	2.8	U	2.9	U	3	U	3	U	3	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	2.8	U	2.9	U	3	U	3	U	3	U
Perfluorobutanesulfonate (PFBS)	0.9	J	0.43	J	**1.7**		1	J	**2.7**		**4.1**	
Perfluorobutyric acid (PFBA)	**9.3**		**14**		**12**		**9.3**		**11**		**11**	
Perfluorodecanesulfonate (PFDS)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
Perfluorodecanoic acid (PFDA)	1.4	U	0.32	J	0.5	J	0.34	J	0.6	J	0.52	J
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
Perfluorododecanoic acid (PFDoA)	1.4	UJ	1.4	U	1.5	UJ	1.5	U	1.5	U	1.5	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
Perfluoroheptanoic acid (PFHpA)	**2.5**		1	J	**1.9**		**2.3**		**3.3**		**3.7**	
Perfluorohexanesulfonate (PFHxS)	**2.5**		0.75	J	**3.9**		**2.8**		**10**		**18**	
Perfluorohexanoic acid (PFHxA)	**3.3**	H	**2.2**		**2.4**	H	**1.9**		**7.2**		**11**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
Perfluorononanoic acid (PFNA)	0.79	J	0.47	J	1.2	J	0.71	J	**2.3**		**1.7**	
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
Perfluorooctanesulfonate (PFOS)	**6.7**		**2.4**		**9.1**		**6.7**		**11**		**11**	
Perfluorooctanoic acid (PFOA)	**3.5**		1.4		**4.3**		**3.3**		**5**		**6.8**	
Perfluoropentanesulfonate (PFPeS)	1.4	U	1.4	U	1.5	U	1.5	U	0.99	J	0.92	J
Perfluoropentanoic acid (PFPeA)	2.7	J	1.8	J	2.8	J	1.8	J	**6.2**		**11**	
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
Perfluorotridecanoic acid (PFTrDA)	1.4	UJ	1.4	U	1.5	UJ	1.5	U	1.5	U	1.5	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.4	U	1.5	U	1.5	U	1.5	U	1.5	U
1633 TPFAS	**28.89**		**24.77**		**37.4**		**30.15**		**60.29**		**79.74**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	096-117 Depth : 90.00 02/10/2023 ng/L		096-117 Depth : 90.00 07/21/2023 ng/L		096-118 Depth : 89.00 02/08/2023 ng/L		096-118 Depth : 89.00 07/20/2023 ng/L		096-122 Depth : 65.00 02/14/2023 ng/L		096-122 Depth : 65.00 07/13/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.3	U	5.7	U	5.6	U	5.8	U	5.5	U	5.7	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.3	U	5.7	U	5.6	U	5.8	U	5.5	U	5.7	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	40	U	36	U	35	U	37	U	34	U	36	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	40	U	36	U	35	U	37	U	34	U	36	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.9	U	7.2	U	7	U	7.3	U	6.9	U	7.1	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.3	U	5.7	U	5.6	U	5.8	U	5.5	U	5.7	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.3	U	5.7	U	5.6	U	5.8	U	5.5	U	5.7	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.3	U	5.7	U	5.6	U	5.8	U	5.5	U	5.7	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.3	U	5.7	U	5.6	U	5.8	U	5.5	U	5.7	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.3	U	5.7	U	5.6	U	5.8	U	5.5	U	5.7	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	16	U	14	U	14	U	15	U	14	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	16	U	14	U	14	U	15	U	14	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.2	U	2.9	U	2.8	U	2.9	U	2.8	U	2.8	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.2	U	2.9	U	2.8	U	2.9	U	2.8	U	2.8	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3.2	U	2.9	U	0.51	J	1	J	2.8	U	2.8	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.2	U	2.9	U	2.8	U	2.9	U	2.8	U	2.8	U
Perfluorobutanesulfonate (PFBS)	**1.7**		**1.5**		**4.8**		**4.8**		**2.9**		**5.6**	
Perfluorobutyric acid (PFBA)	**6.8**		5.5	J	**11**		**9.6**		5.2	J	**8.8**	
Perfluorodecanesulfonate (PFDS)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
Perfluorodecanoic acid (PFDA)	0.82	J	**2**		0.22	J	0.36	J	1.4	U	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	1.6	U	0.61	J	**15**		**5.2**		0.82	J	**4.1**	
Perfluoroheptanoic acid (PFHpA)	**1.8**		**2.5**		**6.9**		**7.5**		**2.5**		**9.6**	
Perfluorohexanesulfonate (PFHxS)	**13**		**16**		**230**		**190**		**67**		**310**	
Perfluorohexanoic acid (PFHxA)	**2.8**		**3.6**		**30**		**52**		**12**		**71**	
Perfluorononanesulfonate (PFNS)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
Perfluorononanoic acid (PFNA)	**6.1**		**8**		**2.6**		**2**		0.63	J	1.4	
Perfluorooctane sulfonamide (PFOSAm)	0.12	J	0.25	J	**2**		**3.7**		**6.8**		**13**	
Perfluorooctanesulfonate (PFOS)	**36**		**51**		**270**		**140**		**34**		**140**	
Perfluorooctanoic acid (PFOA)	**4.6**		**7**		**35**		**63**		**14**		**87**	
Perfluoropentanesulfonate (PFPeS)	0.93	J	1.3	J	**6.8**		**4.8**		**1.5**		**5**	
Perfluoropentanoic acid (PFPeA)	3.2		**3**		**14**		**12**		**3.5**		**10**	
Perfluorotetradecanoic acid (PFTeDA)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.6	U	1.4	U	1.4	U	1.5	U	1.4	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.6	U	0.76	J	1.4	U	1.5	U	1.4	U	1.4	U
1633 TPFAS	**77.87**		**103.02**		**628.83**		**495.96**		**150.85**		**665.5**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	096-123 Depth : 125.00 02/14/2023 ng/L		096-123 Depth : 125.00 07/13/2023 ng/L		096-124 Depth : 75.00 02/14/2023 ng/L		096-124 Depth : 75.00 07/13/2023 ng/L		096-125 Depth : 125.00 02/14/2023 ng/L		096-125 Depth : 95.00 07/13/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.6	U	6	U	5.9	U	5.6	U	5.6	U	5.7	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.6	U	6	U	5.9	U	5.6	U	5.6	U	5.7	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35	U	38	U	37	U	35	U	35	U	36	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35	U	38	U	37	U	35	U	35	U	36	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	7.5	U	7.4	U	7	U	7	U	7.1	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.6	U	6	U	5.9	U	5.6	U	5.6	U	5.7	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.6	U	6	U	5.9	U	5.6	U	5.6	U	5.7	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.6	U	6	U	5.9	U	5.6	U	5.6	U	5.7	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.6	U	6	U	5.9	U	5.6	U	5.6	U	5.7	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.6	U	6	U	5.9	U	5.6	U	5.6	U	5.7	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	15	U	15	U	14	U	14	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	15	U	15	U	14	U	14	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	3	U	3	U	2.8	U	2.8	U	2.9	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	3	U	3	U	2.8	U	2.8	U	2.9	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	3	U	3	U	2.8	U	2.8	U	2.9	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	3	U	3	U	2.8	U	2.8	U	2.9	U
Perfluorobutanesulfonate (PFBS)	**4.8**		**4.5**		**1.8**		1.3	J	**1.7**		**3.6**	
Perfluorobutyric acid (PFBA)	**6.4**		**6.1**		5.1	J	**5.9**		4.6	J	5.2	J
Perfluorodecanesulfonate (PFDS)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	**2.7**		**2.2**		1.2	J	1.4	U	1.2	J	1.4	U
Perfluoroheptanoic acid (PFHpA)	**2.6**		**1.9**		**1.8**		**2**		**1.5**		**1.9**	
Perfluorohexanesulfonate (PFHxS)	**49**		**39**		**15**		**3.5**		**23**		**50**	
Perfluorohexanoic acid (PFHxA)	**4.5**		**4.9**		**3.3**		**2.9**		**2.1**		**6.5**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
Perfluorononanoic acid (PFNA)	**1.9**		0.96	J	0.79	J	**56**		0.73	J	0.71	J
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	0.4	J	1.5	U	0.22	J	0.15	J	0.12	J
Perfluorooctanesulfonate (PFOS)	**70**		**69**		**27**		**5.6**		**16**		**14**	
Perfluorooctanoic acid (PFOA)	**10**		**9.1**		**7.4**		**6.8**		**7**		**9.9**	
Perfluoropentanesulfonate (PFPeS)	**2.6**		**2.4**		0.86	J	1.4	U	1.2	J	**2.9**	
Perfluoropentanoic acid (PFPeA)	2.3	J	2.3	J	2.1	J	2.7	J	1.4	J	2.9	
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.5	U	1.5	U	1.4	U	1.4	U	1.4	U
1633 TPFAS	**156.8**		**142.76**		**66.35**		**86.92**		**60.58**		**97.73**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	096-125 Depth : 125.00 07/13/2023 ng/L		096-126 Depth : 60.00 02/09/2023 ng/L		096-126 Depth : 60.00 07/21/2023 ng/L		096-127 Depth : 115.00 02/09/2023 ng/L		096-127 Depth : 115.00 07/21/2023 ng/L		096-128 Depth : 60.00 02/09/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.8	U	6.3	U	5.9	U	5.9	U	5.9	U	6.3	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.8	U	6.3	U	5.9	U	5.9	U	5.9	U	6.3	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	39	U	37	U	37	U	37	U	39	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	39	U	37	U	37	U	37	U	39	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.2	U	7.8	U	7.4	U	7.3	U	7.4	U	7.9	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.8	U	6.3	U	5.9	U	5.9	U	5.9	U	6.3	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.8	U	6.3	U	5.9	U	5.9	U	5.9	U	6.3	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.8	U	6.3	U	5.9	U	5.9	U	5.9	U	6.3	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.8	U	6.3	U	5.9	U	5.9	U	5.9	U	6.3	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.8	U	6.3	U	5.9	U	5.9	U	5.9	U	6.3	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	16	U	15	U	15	U	15	U	16	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	16	U	15	U	15	U	15	U	16	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	3.1	U	3	U	2.9	U	2.9	U	3.2	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	3.1	U	3	U	2.9	U	2.9	U	3.2	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	3.1	U	3	U	2.9	U	2.9	U	3.2	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	3.1	U	3	U	2.9	U	2.9	U	3.2	U
Perfluorobutanesulfonate (PFBS)	**2**		**4.3**		**4.4**		**4.3**		**3.6**		**5.5**	
Perfluorobutyric acid (PFBA)	**6.4**		**7.5**		**6.5**		5.6	J	5.2	J	**9.5**	
Perfluorodecanesulfonate (PFDS)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	**4.3**		**1.8**		**3.1**		**2.8**		**6.8**	
Perfluoroheptanoic acid (PFHpA)	**1.7**		**3.4**		**2.8**		**9.4**		**8.1**		**7.7**	
Perfluorohexanesulfonate (PFHxS)	**5.8**		**83**		**38**		**230**		**170**		**340**	
Perfluorohexanoic acid (PFHxA)	**3.2**		**13**		**9.7**		**63**		**48**		**50**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
Perfluorononanoic acid (PFNA)	1.4		**1.8**		1.3	J	1.2	J	1.2	J	1.6	
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	**5.8**		**3.8**		**8.7**		**9.7**		**15**	
Perfluorooctanesulfonate (PFOS)	**8.3**		**100**		**44**		**130**		**99**		**200**	
Perfluorooctanoic acid (PFOA)	**6.9**		**15**		**12**		**81**		**69**		**41**	
Perfluoropentanesulfonate (PFPeS)	0.51	J	**3.3**		**2.1**		**3.5**		**4.1**		**5**	
Perfluoropentanoic acid (PFPeA)	2.8	J	**5.3**		**3.8**		**9.2**		**7.6**		**12**	
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.6	U	1.5	U	1.5	U	1.5	U	1.6	U
1633 TPFAS	**39.01**		**246.7**		**130.2**		**549**		**428.3**		**694.1**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	096-128 Depth : 60.00 07/17/2023 ng/L		096-129 Depth : 115.00 02/09/2023 ng/L		096-129 Depth : 115.00 07/17/2023 ng/L		096-130 Depth : 60.00 02/09/2023 ng/L		096-130 Depth : 60.00 07/17/2023 ng/L		096-131 Depth : 115.00 02/09/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	6.5	U	5.8	U	5.7	U	6	U	6.4	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	6.5	U	5.8	U	5.7	U	6	U	6.4	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	41	U	36	U	36	U	38	U	40	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	41	U	36	U	36	U	38	U	40	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.2	U	8.1	U	7.3	U	7.1	U	7.5	U	8	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	6.5	U	5.8	U	5.7	U	6	U	6.4	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	6.5	U	5.8	U	5.7	U	6	U	6.4	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	6.5	U	5.8	U	5.7	U	6	U	6.4	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.7	U	6.5	U	5.8	U	5.7	U	6	U	6.4	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	6.5	U	5.8	U	5.7	U	6	U	6.4	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	16	U	15	U	14	U	15	U	16	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	16	U	15	U	14	U	15	U	16	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	3.3	U	2.9	U	2.8	U	3	U	3.2	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	3.3	U	2.9	U	2.8	U	3	U	3.2	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	3.3	U	2.9	U	2.8	U	3	U	3.2	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	3.3	U	2.9	U	2.8	U	3	U	3.2	U
Perfluorobutanesulfonate (PFBS)	**2.3**		**3.9**		**4.5**		0.93	J	0.99	J	**2.1**	
Perfluorobutyric acid (PFBA)	**11**		5.3	J	4.8	J	3.3	J	4.5	J	**7.1**	
Perfluorodecanesulfonate (PFDS)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
Perfluorodecanoic acid (PFDA)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
Perfluoroheptanesulfonate (PFHpS)	1.4		**3**		**2.6**		1.4	U	1.5	U	1.6	U
Perfluoroheptanoic acid (PFHpA)	**5.7**		**2.1**		**1.9**		1.3	J	**1.6**		**1.8**	
Perfluorohexanesulfonate (PFHxS)	**55**		**61**		**31**		**3.8**		**3.3**		**5.8**	
Perfluorohexanoic acid (PFHxA)	**21**		**6**		**5.1**		1.2	J	**2.1**		**3.1**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
Perfluorononanoic acid (PFNA)	**1.5**		1.1	J	0.44	J	**13**		**4.5**		1.6	
Perfluorooctane sulfonamide (PFOSAm)	**4.7**		1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
Perfluorooctanesulfonate (PFOS)	**39**		**79**		**78**		**6.3**		**6.9**		**7.3**	
Perfluorooctanoic acid (PFOA)	**20**		**9.5**		**9.8**		**7.7**		**3.9**		**5.8**	
Perfluoropentanesulfonate (PFPeS)	1.3	J	**2.7**		**2.5**		0.32	J	0.2	J	0.67	J
Perfluoropentanoic acid (PFPeA)	**6.7**		2.3	J	2.2	J	0.91	J	2	J	3.2	
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.6	U	1.5	U	1.4	U	1.5	U	1.6	U
1633 TPFAS	**169.6**		**175.9**		**142.84**		**38.76**		**29.99**		**38.47**	

2023 Groundwater Data : PFAS
Brookhaven National Laboratory
Project: OU X Fomer Firehouse MW

Analyte	096-131 Depth : 115.00 07/17/2023 ng/L		096-84 Depth : 133.50 02/15/2023 ng/L		096-84 Depth : 128.50 07/25/2023 ng/L		105-43 Depth : 147.50 02/08/2023 ng/L		105-43 Depth : 147.50 07/20/2023 ng/L		105-44 Depth : 152.50 02/14/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.7	U	6.2	U	5.8	U	5.8	U	5.9	U	5.7	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.7	U	6.2	U	5.8	U	5.8	U	5.9	U	5.7	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	39	U	36	U	36	U	37	U	36	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	39	U	36	U	36	U	37	U	36	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.1	U	7.8	U	7.2	U	7.3	U	7.3	U	7.1	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.7	U	6.2	U	5.8	U	5.8	U	5.9	U	5.7	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.7	U	6.2	U	5.8	U	5.8	U	5.9	U	5.7	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.7	U	6.2	U	5.8	U	5.8	U	5.9	U	5.7	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.7	U	6.2	U	5.8	U	5.8	U	5.9	U	5.7	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.7	U	6.2	U	5.8	U	5.8	U	5.9	U	5.7	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	16	U	14	U	15	U	15	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	16	U	14	U	15	U	15	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	3.1	U	2.9	U	2.9	U	2.9	U	2.9	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	3.1	U	2.9	U	2.9	U	2.9	U	2.9	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	3.1	U	2.9	U	2.9	U	2.9	U	2.9	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	3.1	U	2.9	U	2.9	U	2.9	U	2.9	U
Perfluorobutanesulfonate (PFBS)	0.84	J	**3**		**1.6**		**1.6**		**1.6**		**2.9**	
Perfluorobutyric acid (PFBA)	4.1	J	**15**		**12**		5.8		5.6	J	**14**	
Perfluorodecanesulfonate (PFDS)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
Perfluorodecanoic acid (PFDA)	1.4	U	0.42	J	1.4	U	0.74	J	0.65	J	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
Perfluoroheptanoic acid (PFHpA)	**1.5**		**14**		**7.2**		**5.1**		**1.9**		**6.6**	
Perfluorohexanesulfonate (PFHxS)	**3**		**10**		**8**		**26**		**15**		**20**	
Perfluorohexanoic acid (PFHxA)	**1.7**		**23**		**13**		**3.6**		**4.1**		**18**	
Perfluorononanesulfonate (PFNS)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
Perfluorononanoic acid (PFNA)	**25**		**3.2**		**1.7**		**16**		**9.1**		1.4	U
Perfluorooctane sulfonamide (PFOSAm)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
Perfluorooctanesulfonate (PFOS)	**3.4**		**15**		**8.9**		**14**		**7.7**		**10**	
Perfluorooctanoic acid (PFOA)	**6.3**		**16**		**10**		**10**		**5.9**		**9.2**	
Perfluoropentanesulfonate (PFPeS)	0.32	J	1.1	J	1.1	J	1.2	J	1.1	J	**2.1**	
Perfluoropentanoic acid (PFPeA)	1.5	J	**19**		**10**		2.8	J	2.2	J	**24**	
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.6	U	1.4	U	1.5	U	1.5	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.6	U	1.4	U	1	J	0.59	J	1.4	U
1633 TPFAS	**47.66**		**119.72**		**73.5**		**87.84**		**55.44**		**106.8**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	105-44 Depth : 152.50 07/21/2023 ng/L		105-72 Depth : 105.00 02/08/2023 ng/L		105-72 Depth : 105.00 07/18/2023 ng/L		105-73 Depth : 125.00 02/08/2023 ng/L		105-73 Depth : 125.00 07/18/2023 ng/L		105-74 Depth : 95.00 02/14/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.8	U	5.8	U	5.7	U	5.5	U	5.9	U	6.3	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.8	U	5.8	U	5.7	U	5.5	U	5.9	U	6.3	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	36	U	36	U	35	U	35	U	37	U	39	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	36	U	36	U	35	U	35	U	37	U	39	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.3	U	7.3	U	7.1	U	6.9	U	7.4	U	7.9	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.8	U	5.8	U	5.7	U	5.5	U	5.9	U	6.3	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.8	U	5.8	U	5.7	U	5.5	U	5.9	U	6.3	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.8	U	5.8	U	5.7	U	5.5	U	5.9	U	6.3	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.8	U	5.8	U	5.7	U	5.5	U	5.9	U	6.3	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.8	U	5.8	U	5.7	U	5.5	U	5.9	U	6.3	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	15	U	14	U	14	U	15	U	16	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	15	U	14	U	14	U	15	U	16	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.9	U	2.9	U	2.8	U	2.8	U	2.9	U	3.1	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.9	U	2.9	U	2.8	U	2.8	U	2.9	U	3.1	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.9	U	2.9	U	2.8	U	2.8	U	2.9	U	3.1	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.9	U	2.9	U	2.8	U	2.8	U	2.9	U	3.1	U
Perfluorobutanesulfonate (PFBS)	0.94	J	1.5		**1.6**		**2.8**		**2.5**		**1.7**	
Perfluorobutyric acid (PFBA)	**6.5**		**6.7**		4.4	J	**7.2**		4.9	J	4.4	J
Perfluorodecanesulfonate (PFDS)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
Perfluorodecanoic acid (PFDA)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
Perfluorododecanoic acid (PFDoA)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
Perfluoroheptanesulfonate (PFHpS)	1.5	U	1.5	U	1.4	U	**5.4**		**2.9**		1.6	U
Perfluoroheptanoic acid (PFHpA)	**1.7**		**2.4**		**1.7**		**4.3**		**3**		**2.3**	
Perfluorohexanesulfonate (PFHxS)	**10**		**16**		**9.9**		**140**		**120**		**23**	
Perfluorohexanoic acid (PFHxA)	**3.6**		**4.7**		**2.9**		**14**		**17**		**4.1**	
Perfluorononanesulfonate (PFNS)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
Perfluorononanoic acid (PFNA)	0.29	J	**2.1**		**2**		**3.9**		**5.5**		**1.9**	
Perfluorooctane sulfonamide (PFOSAm)	1.5	U	1.4	J	0.59	J	**2.1**		0.47	J	1.3	J
Perfluorooctanesulfonate (PFOS)	**7**		**12**		**9.5**		**110**		**49**		**24**	
Perfluorooctanoic acid (PFOA)	**4.2**		**6.4**		**6.6**		**25**		**23**		**9.7**	
Perfluoropentanesulfonate (PFPeS)	0.93	J	1.1	J	1	J	**3.2**		**2.8**		1.2	J
Perfluoropentanoic acid (PFPeA)	**4.4**		**4.2**		2.7	J	**4.6**		**4.2**		**3.4**	
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	1.5	U	1.4	U	1.4	U	1.5	U	1.6	U
1633 TPFAS	**39.56**		**58.5**		**42.89**		**322.5**		**235.27**		**77**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	105-74 Depth : 95.00 07/20/2023 ng/L		105-75 Depth : 115.00 02/14/2023 ng/L		105-75 Depth : 115.00 07/20/2023 ng/L		105-76 Depth : 135.00 02/10/2023 ng/L		105-76 Depth : 135.00 07/20/2023 ng/L		105-77 Depth : 105.00 02/08/2023 ng/L	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6	U	5.8	U	6	U	5.7	U	6.1	U	5.6	U
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6	U	5.8	U	6	U	5.7	U	6.1	U	5.6	U
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	37	U	37	U	37	U	36	U	38	U	35	U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	37	U	37	U	37	U	36	U	38	U	35	U
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.4	U	7.3	U	7.5	U	7.2	U	7.6	U	7	U
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6	U	5.8	U	6	U	5.7	U	6.1	U	5.6	U
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6	U	5.8	U	6	U	5.7	U	6.1	U	5.6	U
Fluorotelomer sulfonate 4:2 (4:2 FTS)	6	U	5.8	U	6	U	5.7	U	6.1	U	5.6	U
Fluorotelomer sulfonate 6:2 (6:2 FTS)	6	U	5.8	U	6	U	5.7	U	6.1	U	5.6	U
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6	U	5.8	U	6	U	5.7	U	6.1	U	5.6	U
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	U	15	U	15	U	14	U	15	U	14	U
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	U	15	U	15	U	14	U	15	U	14	U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3	U	2.9	U	3	U	2.9	U	3	U	2.8	U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3	U	2.9	U	3	U	2.9	U	3	U	2.8	U
Perfluoro-3-methoxypropanoic acid (PFMPA)	3	U	2.9	U	3	U	2.9	U	3	U	2.8	U
Perfluoro-4-methoxybutanoic acid (PFMBA)	3	U	2.9	U	3	U	2.9	U	3	U	2.8	U
Perfluorobutanesulfonate (PFBS)	**2.7**		**3**		1.4	J	**2.4**		**2.3**		**2.4**	
Perfluorobutyric acid (PFBA)	**7**		**6.8**		3.3	J	5.5	J	4.6	J	**6.6**	
Perfluorodecanesulfonate (PFDS)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
Perfluorodecanoic acid (PFDA)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
Perfluorododecane sulfonic acid (PFDoS)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
Perfluorododecanoic acid (PFDoA)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
Perfluoroheptanesulfonate (PFHpS)	**7.4**		**5.9**		**1.8**		**3.6**		**3.5**		**2.1**	
Perfluoroheptanoic acid (PFHpA)	**3.4**		**4.9**		**1.8**		**3.1**		**3.2**		**2.3**	
Perfluorohexanesulfonate (PFHxS)	**97**		**150**		**57**		**100**		**82**		**38**	
Perfluorohexanoic acid (PFHxA)	**10**		**16**		**7.6**		**8.1**		**9**		**7.8**	
Perfluorononanesulfonate (PFNS)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
Perfluorononanoic acid (PFNA)	1.4	J	**2**		0.9	J	**2.6**		**2.1**		**5.5**	
Perfluorooctane sulfonamide (PFOSAm)	1.3	J	**2.1**		1.4	J	1.4	U	1.5	U	**2**	
Perfluorooctanesulfonate (PFOS)	**100**		**98**		**41**		**50**		**40**		**51**	
Perfluorooctanoic acid (PFOA)	**18**		**39**		**14**		**13**		**15**		**8.7**	
Perfluoropentanesulfonate (PFPeS)	**3.6**		**3.4**		1.4	J	**4**		**3.1**		**1.6**	
Perfluoropentanoic acid (PFPeA)	**6.9**		**4.2**		1.9	J	2.5	J	2.2	J	**4**	
Perfluorotetradecanoic acid (PFTeDA)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
Perfluorotridecanoic acid (PFTrDA)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
Perfluoroundecanoic acid (PFUdA)	1.5	U	1.5	U	1.5	U	1.4	U	1.5	U	1.4	U
1633 TPFAS	**258.7**		**335.3**		**133.5**		**194.8**		**167**		**132**	

2023 Groundwater Data : PFAS

Brookhaven National Laboratory

Project: OU X Fomer Firehouse MW

Analyte	105-77 Depth : 105.00 07/18/2023 ng/L		105-78 Depth : 125.00 02/08/2023 ng/L		105-78 Depth : 125.00 07/18/2023 ng/L							
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	5.5	U	5.7	U	6	U						
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	5.5	U	5.7	U	6	U						
2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	35	U	36	U	37	U						
2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	35	U	36	U	37	U						
4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	6.9	U	7.1	U	7.5	U						
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	5.5	U	5.7	U	6	U						
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	5.5	U	5.7	U	6	U						
Fluorotelomer sulfonate 4:2 (4:2 FTS)	5.5	U	5.7	U	6	U						
Fluorotelomer sulfonate 6:2 (6:2 FTS)	5.5	U	5.7	U	6	U						
Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	5.5	U	5.7	U	6	U						
N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.4	U	1.4	U	1.5	U						
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.4	U	1.4	U	1.5	U						
N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	14	U	14	U	15	U						
N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.4	U	1.4	U	1.5	U						
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.4	U	1.4	U	1.5	U						
N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	14	U	14	U	15	U						
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.8	U	2.8	U	3	U						
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	2.8	U	2.8	U	3	U						
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.8	U	2.8	U	3	U						
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.8	U	2.8	U	3	U						
Perfluorobutanesulfonate (PFBS)	**3.8**		**5**		**2.8**							
Perfluorobutyric acid (PFBA)	**6.8**		**7.9**		5.1	J						
Perfluorodecanesulfonate (PFDS)	1.4	U	1.4	U	1.5	U						
Perfluorodecanoic acid (PFDA)	1.4	U	1.4	U	1.5	U						
Perfluorododecane sulfonic acid (PFDoS)	1.4	U	1.4	U	1.5	U						
Perfluorododecanoic acid (PFDoA)	1.4	U	1.4	U	1.5	U						
Perfluoroheptanesulfonate (PFHpS)	**13**		**9.8**		**2.3**							
Perfluoroheptanoic acid (PFHpA)	**5.3**		**8.6**		**1.9**							
Perfluorohexanesulfonate (PFHxS)	**240**		**370**		**37**							
Perfluorohexanoic acid (PFHxA)	**32**		**57**		**5**							
Perfluorononanesulfonate (PFNS)	1.4	U	1.4	U	1.5	U						
Perfluorononanoic acid (PFNA)	**3.5**		**3.5**		**2.2**							
Perfluorooctane sulfonamide (PFOSAm)	**5.3**		0.87	J	0.3	J						
Perfluorooctanesulfonate (PFOS)	**170**		**160**		**31**							
Perfluorooctanoic acid (PFOA)	**52**		**60**		**8.6**							
Perfluoropentanesulfonate (PFPeS)	**5.2**		**9**		**3.1**							
Perfluoropentanoic acid (PFPeA)	**7.4**		**7.7**		**3.7**							
Perfluorotetradecanoic acid (PFTeDA)	1.4	U	1.4	U	1.5	U						
Perfluorotridecanoic acid (PFTrDA)	1.4	U	1.4	U	1.5	U						
Perfluoroundecanoic acid (PFUdA)	1.4	U	1.4	U	1.5	U						
1633 TPFAS	**544.3**		**699.37**		**103**							

Qualifier definitions

A - Indicates that a TIC is a suspected aldol-condensation product.

B - Used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for TICs as well as for positively identified target compounds.

C - Applies to pesticide results where the identification has been confirmed by gas chromatography/mass spectrometry (GC/MS). If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a aboratory-defined flag is used instead.

D - Identifies all compounds identified in an analysis at a secondary dilution factor. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

DL - Detection limit requirements not met. Data quality objectives may not be met.

E - Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

J - The associated numerical value is an estimated quantity.

JN - Presumptive evidence of the presence of the material at an estimated quantity.

N - Indicates presumptive evidence of a compound. This flag is used only for TICs, where the identification is based on a mass spectral library search.

N2 - The reported activity value is less than or equal to the sum of the MDA and the uncertainty. Possible false positive.

P - Used for pesticide/Aroclor target analytes when there is greater than 25% difference for detected concentrations between the two gas chromatograph (GC) columns.

R - The data are unusable (radionuclide may or may not be present).

U - Indicates that the compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution. For a soil/sediment sample, the value must also be corrected for percent moisture.

UI - (Uncertain identification for gamma spectroscopy) - Radionuclide peaks that are detected but fail to meet the positive identification criteria.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description must be attached to the Sample Data Summary Package and the sample delivery group (SDG) narrative.

Appendix D
2023 Facility Monitoring
Groundwater Results

AGS Research Areas
Analytical Results

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-07 Depth : 35.00 04/17/2023 pCi/l				054-07 Depth : 35.00 10/17/2023 pCi/l				054-08 Depth : 47.50 12/05/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	**11900**		342	1310	**4620**		334	607	-154	U	418	201

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-124 Depth : 32.50 04/17/2023 pCi/l				054-124 Depth : 32.50 10/17/2023 pCi/l				054-125 Depth : 32.50 11/30/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	115	U	353	206	4.5	U	327	187	-42.8	U	418	218

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-126 Depth : 35.00 04/17/2023 pCi/l				054-126 Depth : 35.00 10/17/2023 pCi/l				054-127 Depth : 29.50 12/15/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	192	U	354	217	-136	U	360	187	-25.2	U	411	218

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-128 Depth : 29.50 11/30/2023 pCi/l				054-129 Depth : 28.50 11/20/2023 pCi/l				054-130 Depth : 29.50 11/20/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-43.2	U	424	220	259	U	415	259	358	U	422	275

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-168 Depth : 25.00 11/30/2023 pCi/l				054-169 Depth : 25.00 11/30/2023 pCi/l				054-184 Depth : 32.50 04/17/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-30.6	U	413	218	87.8	U	426	240	73.4	U	351	200

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-184 Depth : 32.50 10/17/2023 pCi/l				054-185 Depth : 32.50 04/17/2023 pCi/l				054-185 Depth : 32.50 10/17/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	49.5	U	349	201	106	U	354	206	131	U	344	206

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-191 Depth : 28.00 12/01/2023 pCi/l				054-62 Depth : 25.70 12/01/2023 pCi/l				054-63 Depth : 49.80 12/01/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	5.41	U	424	227	-205	U	408	204	-141	U	460	232

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-64 Depth : 49.50 12/01/2023 pCi/l				054-65 Depth : 25.20 04/17/2023 pCi/l				054-65 Depth : 25.20 10/17/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-22.5	U	418	228	21.2	U	351	193	-85.6	U	337	182

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-66 Depth : 25.50 12/07/2023 pCi/l				054-67 Depth : 25.10 12/15/2023 pCi/l				054-68 Depth : 24.80 11/30/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-21.6	U	416	221	-49.1	U	420	218	-166	U	413	197

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	054-69 Depth : 24.80 11/30/2023 pCi/l				055-14 Depth : 24.70 12/15/2023 pCi/l				055-15 Depth : 25.50 12/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	31.1	U	422	230	49.1	U	420	232	-261	U	406	197

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	055-16 Depth : 25.20 12/02/2023 pCi/l				055-29 Depth : 52.00 12/02/2023 pCi/l				055-30 Depth : 27.50 12/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-178	U	413	209	-132	U	390	205	-143	U	401	208

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	055-31 Depth : 50.00 10/26/2023 pCi/l				055-32 Depth : 47.50 12/02/2023 pCi/l				064-03 Depth : 48.00 12/01/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	4.5	U	337	188	-172	U	418	212	-105	U	421	221

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	064-53 Depth : 39.80 12/01/2023 pCi/l				064-54 Depth : 40.50 12/01/2023 pCi/l				064-55 Depth : 33.00 12/15/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	117	U	371	201	-76.6	U	421	224	**717**		324	268

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	064-56 Depth : 29.50 12/15/2023 pCi/l				064-80 Depth : 29.50 12/15/2023 pCi/l				064-95 Depth : 32.50 04/17/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	82	U	320	182	109	U	321	187	228	U	353	221

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	064-95 Depth : 32.50 10/18/2023 pCi/l				065-120 Depth : 29.90 12/02/2023 pCi/l				065-121 Depth : 26.50 10/24/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	140	U	344	207	101	U	431	244	49.5	U	333	190

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	065-122 Depth : 28.80 10/27/2023 pCi/l				065-123 Depth : 25.70 10/25/2023 pCi/l				065-124 Depth : 25.80 10/25/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	4.5	U	342	190	-9.01	U	333	185	**1370**		326	311

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	065-125 Depth : 26.50 10/25/2023 pCi/l				065-126 Depth : 26.00 10/26/2023 pCi/l				065-192 Depth : 52.50 12/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	**1050**		331	285	-106	U	338	177	191	U	416	250

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	065-193 Depth : 55.00 10/24/2023 pCi/l				065-194 Depth : 50.00 10/25/2023 pCi/l				065-195 Depth : 50.00 10/25/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	31.5	U	356	198	-77.5	U	348	184	63.1	U	340	195

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	065-321 Depth : 32.00 10/24/2023 pCi/l				065-322 Depth : 32.00 10/24/2023 pCi/l				065-323 Depth : 30.00 10/25/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	122	U	345	203	171	U	331	202	180	U	338	206

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: AGS Research Areas (AGS)

	065-324 Depth : 28.00 10/25/2023 pCi/l											
Analyte	Result	Qual	MDA	Error								
Tritium	31.5	U	333	189								

Motor Pool Area
Analytical Results

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: Motor Pool Area (MP)

Analyte	102-05 Depth : 56.74 10/26/2023 ug/L		102-06 Depth : 56.20 10/26/2023 ug/L									
1,1,1,2-Tetrachloroethane	1	U	1	U								
1,1,1-Trichloroethane	1	U	1	U								
1,1,2,2-Tetrachloroethane	1	U	1	U								
1,1,2-Trichloroethane	1	U	1	U								
1,1-Dichloroethane	1	U	1	U								
1,1-Dichloroethylene	1	U	1	U								
1,1-Dichloropropene	1	U	1	U								
1,2,3-Trichlorobenzene	2	U	2	U								
1,2,3-Trichloropropane	2.5	U	2.5	U								
1,2,4-Trichlorobenzene	1	U	1	U								
1,2-Dichloroethane	1	U	1	U								
1,2-Dichloropropane	1	U	1	U								
1,3-Dichloropropane	1	U	1	U								
2,2-Dichloropropane	1	U	1	U								
Benzene	1	U	1	U								
Benzene, 1,2,4-trimethyl	1	U	1	U								
Benzene, 1,3,5-trimethyl-	1	U	1	U								
Benzene, 1-methylethyl-	1	U	1	U								
Bromobenzene	1	U	1	U								
Bromodichloromethane	1	U	1	U								
Bromoform	2	U	2	U								
Carbon tetrachloride	1	U	1	U								
Chlorobenzene	1	U	1	U								
Chlorobromomethane	1	U	1	U								
Chloroethane	4	U	4	U								
Chloroform	1	U	1	U								
cis-1,2-Dichloroethylene	1	U	1	U								
cis-1,3-Dichloropropene	2	U	2	U								
Cymene	1	U	1	U								
DBCP	5	U	5	U								
Dibromochloromethane	2	U	2	U								
Dibromomethane	1	U	1	U								
Dichlorodifluoromethane	3	U	3	U								
EDB	1	U	1	U								
Ethene, 1,2-dichloro-, (E)-	1	U	1	U								
Ethylbenzene	1	U	1	U								
Hexachlorobutadiene	2	U	2	U								
m-Dichlorobenzene	1	U	1	U								
m/p xylene	2	U	2	U								
Methyl bromide	5	U	5	U								
Methyl chloride	2	U	2	U								
Methyl tert-butyl ether	5	U	5	U								
Methylene chloride	2	U	2	U								
n-Butylbenzene	1	U	1	U								
n-Propylbenzene	1	U	1	U								
Naphthalene	2	U	2	U								
o-Chlorotoluene	1	U	1	U								
o-Dichlorobenzene	1	U	1	U								
o-Xylene	1	U	1	U								
p-Chlorotoluene	1	U	1	U								
p-Dichlorobenzene	1	U	1	U								
sec-Butylbenzene	1	U	1	U								
Styrene	1	U	1	U								
tert-Butylbenzene	1	U	1	U								
Tetrachloroethylene	1	U	1	U								
Toluene	1	U	1	U								
trans-1,3-Dichloropropene	2	U	2	U								
Trichloroethylene	1	U	1	U								
Trichlorofluoromethane	2	U	2	U								
Vinyl chloride	2	U	2	U								
Xylene (total)	1	U	1	U								

8260 TVOC	0		0									

Major Petroleum Facility

Analytical Results

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Major Petroleum Facility (MPF)

Analyte	076-16 Depth : 35.00 04/19/2023 ug/L		076-16 Depth : 35.00 10/12/2023 ug/L		076-17 Depth : 35.00 04/19/2023 ug/L		076-17 Depth : 35.00 10/12/2023 ug/L		076-18 Depth : 30.00 04/19/2023 ug/L		076-18 Depth : 30.00 10/11/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	**0.79**		**0.54**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		0		0		0.79		0.54	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Major Petroleum Facility (MPF)

Analyte	076-19 Depth : 30.00 04/19/2023 ug/L		076-19 Depth : 30.00 10/12/2023 ug/L		076-25 Depth : 41.60 04/19/2023 ug/L		076-25 Depth : 42.00 10/11/2023 ug/L		076-378 Depth : 34.50 04/19/2023 ug/L		076-378 Depth : 34.50 10/12/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.26	J	0.39	J	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	**3.7**		**1.9**		0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

8260 TVOC	0		0		3.96		2.29		0		0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: Major Petroleum Facility (MPF)

Analyte	076-379 Depth : 35.50 04/19/2023 ug/L		076-379 Depth : 35.50 10/12/2023 ug/L		076-380 Depth : 34.50 04/19/2023 ug/L		076-380 Depth : 34.50 10/11/2023 ug/L					
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene	0.5	U	0.5	U	0.5	U	**0.94**					
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U				
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U				
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U				
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U				
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
Chloroform	0.5	U	0.34	J	0.5	U	0.5	U				
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
Cymene	0.5	U	0.5	U	0.5	U	0.5	U				
DBCP	0.5	U	0.5	U	0.5	U	0.5	U				
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U				
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U				
EDB	0.5	U	0.5	U	0.5	U	0.5	U				
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U				
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U				
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
m/p xylene	1	U	1	U	1	U	1	U				
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U				
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U				
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U				
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U				
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U				
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U				
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Styrene	0.5	U	0.5	U	0.5	U	0.5	U				
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Tetrachloroethylene	0.5	U	0.5	U	**3.7**		**7.1**					
Toluene	0.5	U	0.5	U	0.5	U	**1.3**					
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U				
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U				

8260 TVOC	0		0.34		3.7		9.34					

RHIC Facility
Analytical Results

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	025-03 Depth : 45.70 02/27/2023 pCi/l				025-03 Depth : 45.70 08/23/2023 pCi/l				025-04 Depth : 45.80 02/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	293	U	384	235	-79.7	U	378	194	102	U	364	210

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	025-04 Depth : 45.80 08/23/2023 pCi/l				025-05 Depth : 11.80 02/22/2023 pCi/l				025-05 Depth : 11.80 08/21/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-85.1	U	380	193	67.9	U	386	220	191	U	380	228

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	025-06 Depth : 12.40 02/22/2023 pCi/l				025-06 Depth : 12.40 08/21/2023 pCi/l				025-07 Depth : 13.30 02/22/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	173	U	380	224	37.8	U	366	203	253	U	366	222

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	025-07 Depth : 13.30 08/21/2023 pCi/l				025-08 Depth : 12.30 02/22/2023 pCi/l				025-08 Depth : 12.30 08/21/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-86.5	U	370	189	149	U	384	225	-24.3	U	370	198

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	034-05 Depth : 42.50 02/27/2023 pCi/l				034-05 Depth : 42.50 08/22/2023 pCi/l				034-06 Depth : 41.80 02/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	243	U	384	232	45	U	370	206	100	U	385	222

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	034-06 Depth : 41.80 08/22/2023 pCi/l				043-01 Depth : 41.30 02/22/2023 pCi/l				043-01 Depth : 41.30 08/22/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-100	U	380	191	-17.5	U	366	203	-59	U	375	195

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	043-02 Depth : 63.80 02/22/2023 pCi/l				043-02 Depth : 63.80 08/22/2023 pCi/l				044-13 Depth : 38.30 02/22/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	218	U	372	223	-33.3	U	375	198	98.6	U	381	219

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	044-13 Depth : 38.30 08/22/2023 pCi/l				044-14 Depth : 59.00 02/22/2023 pCi/l				044-14 Depth : 59.00 08/22/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	-6.31	U	374	201	75.1	U	380	217	-51.4	U	375	196

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: RHIC Facility (RHIC)

	044-29 Depth : 35.00 02/27/2023 pCi/l				044-29 Depth : 35.00 08/23/2023 pCi/l							
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error				
Tritium	206	U	381	227	-77	U	375	193				

Service Station Analytical Results

No Samples Collected During 2023

Sewage Treatment Plant and Peconic River
Analytical Results

2023 Groundwater Data : Metals
Brookhaven National Laboratory
Project: STP and Peconic River (STP)

Analyte	039-115 Depth : 17.50 11/13/2023 ug/L		039-87 Depth : 17.50 11/16/2023 ug/L		039-88 Depth : 24.50 11/16/2023 ug/L		039-89 Depth : 22.50 11/16/2023 ug/L		048-08 Depth : 17.50 11/13/2023 ug/L		048-09 Depth : 17.50 11/13/2023 ug/L	
Aluminum	**70.8**	B	**111**	B	**92.8**	B	**371**		**150**	B	**162**	B
Antimony	3.5	U	**5.23**	B	**7.69**	B	3.5	U	**3.84**	B	**4.68**	B
Arsenic	2	U	2	U	2	U	2	U	2	U	2	U
Barium	**20**	B	**10.3**	B	**50.1**	B	**70.4**	B	**24.2**	B	**29.9**	B
Beryllium	1	U	1	U	1	U	1	U	1	U	1	U
Cadmium	1	U	1	U	1	U	1	U	1	U	1	U
Calcium	**37700**		**8070**		**20900**		**20000**		**8380**		**3760**	B
Chromium	1	U	1	U	1	U	1	U	1	U	1	U
Cobalt	**1.79**	B	**1.5**	B	1	U	**3.28**	B	1	U	1	U
Copper	**5.7**	B	3	U	**4.56**	B	**5.61**	B	3	U	3	U
Iron	30	U	**46.3**	B	**72.4**	B	**620**		**186**		30	U
Lead	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	**9920**		**1570**	B	**8750**		**9280**		**3340**	B	**1520**	B
Manganese	2	U	**13.6**	B	**22.6**		**13.3**	B	**72**		**28.5**	
Mercury	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U	0.067	U
Nickel	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Potassium	**4500**	B	**548**	B	**4480**	B	**4590**	B	**831**	B	**542**	B
Selenium	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Silver	**1.68**	B	1	U	1	U	**1.84**	B	1	U	**1.11**	B
Sodium	**92500**		**2260**	B	**85800**		**86000**		**38700**		**10800**	
Thallium	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6	U
Vanadium	1	U	1	U	5	U	5	U	1	U	1	U
Zinc	**7.72**	B	**7.53**	B	**5.22**	B	**6.32**	B	**5.6**	B	**4.93**	B

2023 Groundwater Data : Metals
Brookhaven National Laboratory
Project: STP and Peconic River (STP)

Analyte	048-10 Depth : 17.50 11/16/2023 ug/L											
Aluminum	**318**											
Antimony	**7.28**	B										
Arsenic	2	U										
Barium	**34.3**	B										
Beryllium	1	U										
Cadmium	1	U										
Calcium	**5550**											
Chromium	1	U										
Cobalt	**1.31**	B										
Copper	3	U										
Iron	**717**											
Lead	0.5	U										
Magnesium	**2680**	B										
Manganese	**15.8**											
Mercury	0.067	U										
Nickel	1.5	U										
Potassium	**2020**	B										
Selenium	1.5	U										
Silver	**1.46**	B										
Sodium	**47000**											
Thallium	0.6	U										
Vanadium	1	U										
Zinc	**3.99**	B										

Waste Management Facility
Analytical Results

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: New Waste Mgt Facility (WMF)

Analyte	055-03 Depth : 50.00 02/01/2023 ug/L		055-03 Depth : 50.00 08/02/2023 ug/L		055-10 Depth : 94.00 02/01/2023 ug/L		055-10 Depth : 94.00 08/02/2023 ug/L		056-21 Depth : 51.00 02/01/2023 ug/L		056-21 Depth : 51.00 08/03/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	**0.66**		**0.58**		0.26	J	0.21	J
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

524.2 TVOC	0				0.66				0.26			
8260 TVOC			0				0.58				0.21	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: New Waste Mgt Facility (WMF)

Analyte	056-22 Depth : 51.00 02/02/2023 ug/L		056-22 Depth : 51.00 08/04/2023 ug/L		056-23 Depth : 0.00 02/01/2023 ug/L		056-23 Depth : 51.00 02/02/2023 ug/L		066-220 Depth : 46.00 02/01/2023 ug/L		066-220 Depth : 46.00 08/02/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

524.2 TVOC	0				0		0		0			
8260 TVOC			0								0	

2023 Groundwater Data : Volatile Organic Compounds

Brookhaven National Laboratory

Project: New Waste Mgt Facility (WMF)

Analyte	066-221 Depth : 47.00 02/02/2023 ug/L		066-221 Depth : 47.00 08/03/2023 ug/L		066-222 Depth : 48.00 02/02/2023 ug/L		066-222 Depth : 48.00 08/03/2023 ug/L		066-223 Depth : 48.00 02/02/2023 ug/L		066-223 Depth : 48.00 08/04/2023 ug/L	
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	0.5	U	0.5	U	0.5	U	**1.2**		0.5	U	**1.5**	
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cymene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DBCP	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
EDB	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m/p xylene	1	U	1	U	1	U	1	U	1	U	1	U
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U

524.2 TVOC	0				0				0			
8260 TVOC			0				1.2				1.5	

2023 Groundwater Data : Metals
Brookhaven National Laboratory
Project: New Waste Mgt Facility (WMF)

Analyte	055-03 Depth : 50.00 08/02/2023 ug/L		055-10 Depth : 94.00 08/02/2023 ug/L		056-21 Depth : 51.00 08/03/2023 ug/L		056-22 Depth : 51.00 08/04/2023 ug/L		066-220 Depth : 46.00 08/02/2023 ug/L		066-221 Depth : 47.00 08/03/2023 ug/L	
Aluminum	**29**		25	U	25	U	20	B	11	B	19	B
Antimony	1	U	1	U	1	U	1	U	1	U	1	U
Arsenic	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Barium	**16**		**46**		**31**		**34**		**12**		**34**	
Beryllium	1	U	1	U	1	U	1	U	1	U	1	U
Cadmium	1	U	1	U	1	U	1	U	1	U	0.33	B
Calcium	**3100**		**14000**		**9800**		**15000**		**5900**		**18000**	
Chromium	0.73	B	1.1	B	0.59	B	0.84	B	**5**		0.93	B
Cobalt	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Copper	1.7	B	5	U	5	U	5	U	5	U	5	U
Iron	55	B	17	B	20	B	34	B	**120**		30	B
Lead	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Magnesium	**790**		**4200**		**2800**		**2900**		**1300**		**2100**	
Manganese	**3.1**		0.53	B	0.93	B	**5.1**		**4.2**		**22**	
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	5	U	5	U	5	U	5	U	3	B	5	U
Potassium	330	B	**1800**		940	B	**1300**		590	B	**1200**	
Selenium	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Silver	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	**68000**		**52000**		**33000**		**31000**		**3000**		**51000**	
Thallium	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Vanadium	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Zinc	5	U	5	U	5	U	5	U	5	U	**10**	

2023 Groundwater Data : Metals
Brookhaven National Laboratory
Project: New Waste Mgt Facility (WMF)

Analyte	066-222 Depth : 48.00 08/03/2023 ug/L		066-223 Depth : 48.00 08/04/2023 ug/L									
Aluminum	25	U	9.8	B								
Antimony	1	U	1	U								
Arsenic	2.5	U	2.5	U								
Barium	**11**		**13**									
Beryllium	1	U	1	U								
Cadmium	1	U	1	U								
Calcium	**8700**		**9400**									
Chromium	0.7	B	0.81	B								
Cobalt	2.5	U	2.5	U								
Copper	5	U	5	U								
Iron	31	B	18	B								
Lead	0.5	U	0.5	U								
Magnesium	**1400**		**1600**									
Manganese	0.57	B	0.8	B								
Mercury	0.2	U	0.2	U								
Nickel	5	U	5	U								
Potassium	610	B	820	B								
Selenium	2.5	U	2.5	U								
Silver	0.5	U	0.5	U								
Sodium	**9400**		**7600**									
Thallium	2.5	U	2.5	U								
Vanadium	2.5	U	2.5	U								
Zinc	5	U	5	U								

2023 Groundwater Data : General Chemistry

Brookhaven National Laboratory

Project: New Waste Mgt Facility (WMF)

Analyte	055-03 Depth : 50.00 08/02/2023 ug/L		055-10 Depth : 94.00 08/02/2023 ug/L		056-21 Depth : 51.00 08/03/2023 ug/L		056-22 Depth : 51.00 08/04/2023 ug/L		066-220 Depth : 46.00 08/02/2023 ug/L		066-221 Depth : 47.00 08/03/2023 ug/L	
Chloride	**110**		**120**		**72**		**52**		**4.5**		**110**	
Nitrite + Nitrate-N	0.1		**0.66**		**0.89**		**2.3**		**2.6**		**3.3**	
Sulfate	**4.8**		**12**		**13**		**19**		**5.3**		**26**	

2023 Groundwater Data : General Chemistry

Brookhaven National Laboratory

Project: New Waste Mgt Facility (WMF)

Analyte	066-222 Depth : 48.00 08/03/2023 ug/L		066-223 Depth : 48.00 08/04/2023 ug/L									
Chloride	**11**		**12**									
Nitrite + Nitrate-N	**1.1**		**1.2**									
Sulfate	**12**		**9.8**									

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: New Waste Mgt Facility (WMF)

	055-03 Depth : 50.00 02/01/2023 pCi/l				055-03 Depth : 50.00 08/02/2023 pCi/l				055-10 Depth : 94.00 02/01/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	2.88	U	24.2	14.4	-0.158	U DL	26.8	15.9	-6.67	U DL	26.7	16
Beryllium-7	-5.48	U DL	63.9	50	16.4	U DL	61.4	48.7	-19.9	U DL	66.8	55.8
Cesium-134	8.9	U DL	12.5	11.7	3.81	U DL	25.2	5.21	5.91	U DL	9.63	9.48
Cesium-137	-0.572	U	9.51	9.69	-1.22	U	9.44	7.69	2.96	U	6.44	5.53
Co-60	0.297	U	8.66	2.34	1.81	U	8.48	5.31	1.42	U	7.14	6.31
Cobalt-57	1.89	U DL	6.11	3.66	-2.6	U DL	8.67	5.21	-0.666	U DL	6.98	4.12
Europium-152	9.68	U DL	101	18.8	-56.7	U DL	189	113	12.3	U DL	113	13.1
Europium-154	5.75	U DL	87.9	11.5	21.4	U DL	91.7	33.6	8.15	U DL	70.5	14.6
Europium-155	4.5	U	31.1	15.4	3.68	U	28.6	4.69	8.29	U	29	17.4
Gross Alpha	0.383	U	1.29	0.739	1.72	U	1.85	1.28	-0.0396	U DL	2.1	1.09
Gross Beta	0.103	U	0.847	0.485	1.42	N2	0.914	0.67	**1.61**	UJ(+)-B	0.731	0.597
Manganese-54	-2.85	U DL	13.8	8.1	1.9	U DL	10.9	6.33	3.04	U DL	8.24	4.92
Sodium-22	4.47	U DL	8.78	5.43	1.96	U DL	10.4	5.88	1.97	U DL	7.75	4.41
Strontium-90	0.0503	U	0.298	0.17					0.0406	U	0.262	0.149
Tritium	20.7	U	297	162	21.6	U	318	175	118	U	302	178
Zinc-65	6.1	U DL	17.7	10.5	-12.7	U DL	39.9	23.9	0	U DL	27.9	1.75

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: New Waste Mgt Facility (WMF)

	055-10 Depth : 94.00 08/02/2023 pCi/l				056-21 Depth : 51.00 02/01/2023 pCi/l				056-21 Depth : 51.00 08/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	-6.03	U	23.6	14.2	2.1	U DL	30.2	17.9	-2.36	U DL	25.5	15.2
Beryllium-7	-1.66	U DL	60.2	48.9	-19.2	U DL	88.1	69.4	44.2	U	47.1	41.4
Cesium-134	-3.54	U DL	14.8	6.87	-1.71	U DL	20.1	2.67	-2.02	U DL	19	3.5
Cesium-137	0.851	U	7.49	6.26	-4.4	U DL	16	13.3	-1.02	U	8.4	7.1
Co-60	2.87	U	7.14	3.79	2.29	U	13.9	11.4	-4.01	U	10.7	10
Cobalt-57	0.974	U DL	7.04	4.17	0.979	U DL	6.4	3.76	-0.33	U DL	7.18	4.22
Europium-152	24.8	U	80.5	33.2	-71.6	U DL	219	131	-38.6	U DL	132	78.8
Europium-154	5.54	U DL	82.1	48.5	39.8	U DL	78	63.4	20.2	U DL	63.9	32.3
Europium-155	-8.92	U	30.9	18.5	-7.25	U	37.1	27.8	6.26	U	28	12.4
Gross Alpha	0.233	U DL	2.62	1.38	0.306	U	1.91	1.05	0.243	U DL	2.22	1.21
Gross Beta	**2.26**		1.24	0.892	0.778	U	0.937	0.604	**1.53**		0.836	0.636
Manganese-54	3.86	U DL	10.6	6.35	3.32	U DL	10.9	6.51	-4.38	U DL	10.8	6.53
Sodium-22	2.81	U DL	7.75	4.57	5.24	U DL	13.1	7.8	1.68	U DL	9.23	5.2
Strontium-90					0.309	U	0.322	0.207	0.231	U	0.282	0.181
Tritium	-37.8	U	336	174	65.8	U	294	168	88.7	U	320	186
Zinc-65	5.05	U DL	21.2	12.4	9.42	U DL	27.2	16.1	-5.51	U DL	28.6	16.8

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: New Waste Mgt Facility (WMF)

	056-22 Depth : 51.00 02/02/2023 pCi/l				056-22 Depth : 51.00 08/04/2023 pCi/l				056-23 Depth : 51.00 02/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	5.83	U	23.6	14.2	3.05	U DL	29.5	17.6	-6.18	U DL	26.3	15.8
Beryllium-7	-35.8	U DL	79.2	64.6	50	U	57	51.5	11.6	U DL	60.2	49.6
Cesium-134	4.05	U DL	16.2	13.8	1.93	U DL	19.8	2.24	-4.08	U DL	16.3	9.72
Cesium-137	-1.8	U	9.93	10	-3.11	U	10.7	10.3	1.28	U	8.4	7.11
Co-60	-3.45	U	11.2	8.24	-5.82	U	12	12.1	-4.53	U	9.66	9.08
Cobalt-57	1.92	U DL	6.49	3.89	0	U DL	7.24	2.24	1.8	U DL	6.01	3.6
Europium-152	22.5	U DL	124	38.7	6.96	U DL	141	10.5	11.1	U DL	98.7	19.1
Europium-154	2.21	U DL	87.9	24.5	11.6	U DL	89	16.1	-54.5	U DL	105	95.7
Europium-155	8.31	U	33.9	20.5	9.08	U	34.6	20.9	1.39	U	29.9	17.6
Gross Alpha	0.0228	U DL	2.97	1.6	-1.64	U DL	2.87	1.26	0.188	U	1.64	0.865
Gross Beta	**1.89**	UJ(+)-B	0.86	0.68	0.484	U	1.15	0.69	1.1	UJ(+)-B	0.865	0.598
Manganese-54	2.56	U DL	9.37	5.5	-1.24	U DL	11.3	7.03	2.53	U DL	6.43	3.85
Sodium-22	3.1	U DL	8.78	5.16	3.15	U DL	9.08	5.36	-2.11	U DL	9.23	5.27
Strontium-90	0.236	U	0.253	0.165	-0.0407	U	0.308	0.163	0.162	U	0.266	0.164
Tritium	8.11	U	299	161	-32.9	U	327	171	-14.4	U	297	157
Zinc-65	0	U DL	28.8	1.95	0	U DL	30.3	2.25	0	U DL	23.5	7.23

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: New Waste Mgt Facility (WMF)

	066-220 Depth : 46.00 02/01/2023 pCi/l				066-220 Depth : 46.00 08/02/2023 pCi/l				066-221 Depth : 47.00 02/02/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	-4.92	U DL	25.1	15	-6.1	U	24.5	14.7	4.18	U DL	28.4	16.9
Beryllium-7	1.83	U DL	63.9	49.7	24.6	U	56	45.1	2.74	U DL	92.1	71.3
Cesium-134	5.78	U DL	12	9.67	5.79	U DL	13.3	8.95	1.37	U DL	18.6	2.54
Cesium-137	-0.289	U	9.51	10.6	-3.3	U	9.86	8.21	4.23	U	9.73	7.98
Co-60	4.94	U	6.95	6	3.72	U	7.99	6.01	4.2	U	6.81	4.88
Cobalt-57	1.05	U DL	6.13	3.63	0.511	U DL	7.15	4.38	0	U DL	7.62	3.33
Europium-152	2.35	U DL	112	3.4	-42.3	U DL	143	85.2	145	N2	83.9	69.7
Europium-154	14.9	U DL	81.4	23.2	10.2	U DL	97.4	16	16	U DL	116	58.5
Europium-155	-0.122	U	30.6	18.2	5.69	U	32.2	14.7	2.11	U	26.3	19.4
Gross Alpha	0.788	U	0.957	0.647	0.175	U	1.58	0.867	0.652	U DL	2.12	1.22
Gross Beta	1.16	UJ(+)-B	0.779	0.572	0.886	U	0.89	0.589	**2.27**	UJ(+)-B	0.878	0.731
Manganese-54	-3.85	U DL	11.6	6.91	-4.93	U DL	12.4	7.49	1.81	U DL	13.1	7.51
Sodium-22	1.47	U DL	10.4	5.79	-0.653	U DL	11.9	6.49	-6.74	U DL	17.6	10.5
Strontium-90	0.551	N2	0.351	0.25	0.277	N2	0.267	0.178	**0.784**		0.286	0.236
Tritium	-43.7	U	302	155	94.1	U	333	192	-2.25	U	290	156
Zinc-65	7.33	U DL	22.3	13.2	-7.81	U DL	29.6	17.5	0	U DL	37.6	3.23

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: New Waste Mgt Facility (WMF)

	066-221 Depth : 47.00 08/03/2023 pCi/l				066-222 Depth : 48.00 02/02/2023 pCi/l				066-222 Depth : 48.00 08/03/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Americium-241	7	U DL	28.9	17.3	-6.32	U DL	25.5	15.3	-0.552	U	23.6	14
Beryllium-7	-41.1	U DL	106	85.9	-32.1	U DL	74.6	63.2	16.4	U DL	66.3	52.8
Cesium-134	7.57	U DL	15.2	11.4	7.84	U DL	13.8	9.64	1.12	U DL	18.6	1.85
Cesium-137	5.19	U	11.7	9.67	-0.17	U	7.49	6.21	1.88	U	8.02	6.52
Co-60	0.57	U	15.3	2.86	3.14	U	10.7	2.8	1.23	U	9.48	8.26
Cobalt-57	0	U DL	8.17	2.42	0	U DL	6.66	2.36	0	U DL	7.61	2.05
Europium-152	-66.3	U DL	183	110	-38.6	U DL	134	79.8	9.56	U	73.8	13.4
Europium-154	-2.93	U DL	123	4.72	65.1	N2	47.3	46.8	-52.2	U DL	103	89.8
Europium-155	-3.69	U	32.1	18.9	-8.92	U	30.9	18.5	0.801	U	32.5	19.3
Gross Alpha	0.558	U DL	4.06	2.26	0.239	U	1.7	0.932	0.0836	U	1.6	0.861
Gross Beta	1.28	N2	0.929	0.656	1.03	UJ(+)-B	0.965	0.642	1.41	N2	0.952	0.668
Manganese-54	3.49	U DL	13.7	7.97	-4.15	U DL	11.5	6.91	2.21	U DL	6.46	3.81
Sodium-22	0	U DL	13.1	1.5	0.281	U DL	7.75	4.07	0.734	U DL	10.6	5.75
Strontium-90	0.105	U	0.36	0.211	0.551	N2	0.325	0.232	0.33	N2	0.262	0.18
Tritium	-79.7	U	333	166	-58.1	U	302	153	-41.4	U	333	172
Zinc-65	-4	U DL	49.8	24	-8.97	U DL	29	17.3	5.99	U DL	18.2	10.7

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: New Waste Mgt Facility (WMF)

	066-223 Depth : 48.00 02/02/2023 pCi/l				066-223 Depth : 48.00 08/04/2023 pCi/l							
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error				
Americium-241	-6.58	U DL	26.8	16.1	5.1	U	21.9	13.1				
Beryllium-7	-29.2	U DL	70.9	57.4	10.5	U	57.8	47.5				
Cesium-134	4.13	U DL	14.2	6.98	3.73	U DL	11.6	6.77				
Cesium-137	1.6	U	8.6	7.03	-1.45	U	8.82	7.5				
Co-60	1.8	U	6.95	4.3	0.636	U	8.51	2.92				
Cobalt-57	0.975	U DL	6.59	3.9	1.17	U DL	5.7	3.38				
Europium-152	16.5	U DL	95.9	19	26.1	U DL	105	16				
Europium-154	-29.5	U DL	93.9	73.9	18	U DL	76.6	34.8				
Europium-155	-10.8	U	33.8	37.3	0.73	U	29.4	17.3				
Gross Alpha	0.527	U	1.85	1.06	-0.07	U	1.47	0.754				
Gross Beta	0.723	U	0.992	0.63	**2.07**		0.889	0.706				
Manganese-54	-2.71	U DL	8.45	7.22	-1.67	U DL	12.9	7.53				
Sodium-22	-4.41	U DL	14.2	8.38	-0.842	U DL	9.23	5.05				
Strontium-90	0.253	N2	0.235	0.157	0.224	U	0.339	0.211				
Tritium	-64.4	U	295	149	77.5	U	330	188				
Zinc-65	4.23	U DL	23	13.3	6.2	U DL	23.3	13.7				

NSLS II

Analytical Results

2023 Groundwater Data : Volatile Organic Compounds
Brookhaven National Laboratory
Project: NSLS II (NSLS)

Analyte	076-18 Depth : 30.00 04/19/2023 ug/L		076-18 Depth : 30.00 10/11/2023 ug/L		076-19 Depth : 30.00 04/19/2023 ug/L		076-19 Depth : 30.00 10/12/2023 ug/L					
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,1-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1,2-Trichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
1,1-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,3-Trichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
1,2,3-Trichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
1,2-Dichloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
1,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
1,3-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
2,2-Dichloropropane	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1,2,4-trimethyl	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1,3,5-trimethyl-	0.5	U	0.5	U	0.5	U	0.5	U				
Benzene, 1-methylethyl-	0.5	U	0.5	U	0.5	U	0.5	U				
Bromobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Bromodichloromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Bromoform	0.5	U	0.5	U	0.5	U	0.5	U				
Carbon tetrachloride	0.5	U	0.5	U	0.5	U	0.5	U				
Chlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Chlorobromomethane	0.5	U	0.5	U	0.5	U	0.5	U				
Chloroethane	0.5	U	0.5	U	0.5	U	0.5	U				
Chloroform	**0.79**		**0.54**		0.5	U	0.5	U				
cis-1,2-Dichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
cis-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
Cymene	0.5	U	0.5	U	0.5	U	0.5	U				
DBCP	0.5	U	0.5	U	0.5	U	0.5	U				
Dibromochloromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Dibromomethane	0.5	U	0.5	U	0.5	U	0.5	U				
Dichlorodifluoromethane	0.5	U	0.5	U	0.5	U	0.5	U				
EDB	0.5	U	0.5	U	0.5	U	0.5	U				
Ethene, 1,2-dichloro-, (E)-	0.5	U	0.5	U	0.5	U	0.5	U				
Ethylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
m-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
m/p xylene	1	U	1	U	1	U	1	U				
Methyl bromide	0.5	U	0.5	U	0.5	U	0.5	U				
Methyl chloride	0.5	U	0.5	U	0.5	U	0.5	U				
Methyl tert-butyl ether	0.5	U	0.5	U	0.5	U	0.5	U				
Methylene chloride	0.5	U	0.5	U	0.5	U	0.5	U				
n-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
n-Propylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
o-Xylene	0.5	U	0.5	U	0.5	U	0.5	U				
p-Chlorotoluene	0.5	U	0.5	U	0.5	U	0.5	U				
p-Dichlorobenzene	0.5	U	0.5	U	0.5	U	0.5	U				
sec-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Styrene	0.5	U	0.5	U	0.5	U	0.5	U				
tert-Butylbenzene	0.5	U	0.5	U	0.5	U	0.5	U				
Tetrachloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
Toluene	0.5	U	0.5	U	0.5	U	0.5	U				
trans-1,3-Dichloropropene	0.5	U	0.5	U	0.5	U	0.5	U				
Trichloroethylene	0.5	U	0.5	U	0.5	U	0.5	U				
Trichlorofluoromethane	0.5	U	0.5	U	0.5	U	0.5	U				
Vinyl chloride	0.5	U	0.5	U	0.5	U	0.5	U				
Xylene (total)	1.5	U	1.5	U	1.5	U	1.5	U				
8260 TVOC	0.79		0.54		0		0					

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: NSLS II (NSLS)

	076-18 Depth : 30.00 10/11/2023 pCi/l				076-19 Depth : 30.00 10/12/2023 pCi/l				086-123 Depth : 34.50 12/22/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	50.5	U	328	185	23.9	U	345	188	117	U	241	143

2023 Groundwater Data : Radionuclides
Brookhaven National Laboratory
Project: NSLS II (NSLS)

	086-124 Depth : 47.00 12/22/2023 pCi/l				086-125 Depth : 37.00 12/22/2023 pCi/l				086-126 Depth : 36.50 12/27/2023 pCi/l			
Analyte	Result	Qual	MDA	Error	Result	Qual	MDA	Error	Result	Qual	MDA	Error
Tritium	26.4	U	233	123	-89.1	U	256	118	-61.7	U	242	113

Qualifier definitions

A - Indicates that a TIC is a suspected aldol-condensation product.

B - Used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for TICs as well as for positively identified target compounds.

C - Applies to pesticide results where the identification has been confirmed by gas chromatography/mass spectrometry (GC/MS). If GC/MS confirmation was attempted but was unsuccessful, this flag is not applied; a aboratory-defined flag is used instead.

D - Identifies all compounds identified in an analysis at a secondary dilution factor. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

DL - Detection limit requirements not met. Data quality objectives may not be met.

E - Identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

J - The associated numerical value is an estimated quantity.

JN - Presumptive evidence of the presence of the material at an estimated quantity.

N - Indicates presumptive evidence of a compound. This flag is used only for TICs, where the identification is based on a mass spectral library search.

N2 - The reported activity value is less than or equal to the sum of the MDA and the uncertainty. Possible false positive.

P - Used for pesticide/Aroclor target analytes when there is greater than 25% difference for detected concentrations between the two gas chromatograph (GC) columns.

R - The data are unusable (radionuclide may or may not be present).

U - Indicates that the compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution. For a soil/sediment sample, the value must also be corrected for percent moisture.

UI - (Uncertain identification for gamma spectroscopy) - Radionuclide peaks that are detected but fail to meet the positive identification criteria.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description must be attached to the Sample Data Summary Package and the sample delivery group (SDG) narrative.

APPENDIX E
SAMPLE COLLECTION, TRACKING, AND QA/QC RESULTS

APPENDIX E SAMPLE COLLECTION, TRACKING, AND QA/QC RESULTS

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1.0 GROUNDWATER SAMPLING

This section describes the tracking system, quality assurance, and quality control (QA/QC) for samples collected for the CERCLA and Facility Monitoring (FM) Groundwater Monitoring Programs, and contains the procedures used to collect groundwater samples from monitoring wells. QA/QC issues and the procedures for collecting groundwater samples were formalized during 1999 into BNL Standard Operating Procedures (SOPs). The SOPs are thoroughly reviewed on a 5-year schedule, and revisions are made as necessary. These SOPs will be discussed in the appropriate sections below.

1.1 Sample Collection

Groundwater samples were collected during CY 2023 by the BNL Field Sampling Team for the Facility Monitoring (FM) program and treatment system samples and by a combination of J.R. Holzmacher P.E., LLC and the BNL Field Sampling Team for the CERCLA program.

Groundwater samples are collected using dedicated bladder pumps that have been installed in all routinely monitored wells. To collect the samples, BNL uses a low flow purge technique that is defined in BNL EM-SOP-302, "*Low Flow Purging and Sampling Using Dedicated Bladder Pumps"*. A minimum of two times the volume of the sample pump and tubing are purged from the wells, and samples are collected once water quality parameters (pH, specific conductance, and dissolved oxygen) stabilize or when an amount of groundwater equal to 25 percent of a casing volume has been purged. Depending on the parameter, purge flow rates are adjusted to approximately 100 milliliters per minute for sample collection. Groundwater samples are collected from the pump's discharge tubing into laboratory-supplied bottles and preserved according to analysis requirements. A typical low flow sampling produces 1.5 to 5 gallons of purge water waste per sampling event.

The collection of groundwater samples from temporary wells is dependent on the drilling method used. When using an auger rig, hollow stem augers are advanced to the deepest sampling interval. A stainless-steel well screen is connected to two-inch diameter steel well pipe and lowered through the center of the augers to the required sampling depth. The augers are then withdrawn above the well screen. A submersible pump is lowered to the well screen and three well volumes of groundwater are purged prior to sampling. Groundwater samples are collected from the operating

pump discharge tubing into laboratory-supplied bottles and preserved according to analysis requirements. This procedure is repeated at each depth interval required by the work plan.

When collecting groundwater samples via a Geoprobe, a screen is placed inside a sampler sheath and an expendable drive point is attached to the bottom of the sheath and then threaded onto a steel rod. The probe is advanced to the deepest sample collection level and the screen is released using a trip rod. A length of low-density polyethylene tubing (or high-density polyethylene tubing required for PFAS sampling) sized to fit inside the probe rods is attached to a check valve. The check valve and tubing are sent down the probe rod until they reach the bottom of the screen, and then withdrawn 12 inches. An inertial pump (e.g., Waterra) is used to purge the Geoprobe well. Three casing volumes of groundwater are typically removed prior to sampling. Samples are collected with the inertial pump running continuously.

Purge water from groundwater samples is disposed of by one of three methods as described in BNL EM-SOP-802, "*Well Development, Purge and Decontamination Water Handling Procedures"*. If the groundwater does not contain any contaminants above action levels, NYSDEC and Federal drinking water standards and DOE groundwater screening levels, the purge water is discharged to the ground surface approximately 20 feet downgradient from the wellhead. If the groundwater contains chemical contaminants above action levels, the purge water is run through granular activated carbon (GAC). If this takes place in the field using a portable GAC filter, the treated water is discharged at least 20 feet downgradient of the wellhead. Purge water which contains radiological contaminants above action levels is containerized and normally processed by an on-site treatment system.

1.1.1 Decontamination

All groundwater sampling equipment is dedicated to each well and was decontaminated by the manufacturer. No additional decontamination is required.

1.2 Sample Tracking System

Samples are tracked using the Environmental Information Management System (EIMS) as outlined in BNL EI-SOP-002 "Analytical Data Ingest". Tracking is started when a sample is recorded on a chain-of-custody form. Sampling personnel submit these forms to the sampling coordinator, and the information is entered into the EIMS.

1.2.1 Sample Identification

Samples are identified using a code consisting of the chain-of-custody (COC) number and the unique ID (UID) number. This ID is written on the sampling logs along with the BNL well ID. BNL well IDs are placed on the COC forms in the Site ID column. QA/QC samples are identified in the same manner as environmental samples. The blind duplicate samples are recorded as BD in the sample ID column of the COC. The location ID of the BD sample is documented on an internal copy of the COC form and subsequently entered into EIMS. BNL EM-SOP-109 details *BNL's Chain of Custody, "Storage, Packaging, and Shipment of Samples"*. COC records are maintained by BNL and are available for review.

1.2.2 Sample Tracking

The COC forms are provided to the BNL Field Sampling Team supervisor and EIMS personnel for entry into EIMS. The status of each sample is updated when:

1. The sample is assigned to a Sample Delivery Group (SDG) and the analytical laboratory communicates this information to the Sampling Coordinator.

2. The Project Manager receives the electronic PDF version of the analytical report.

3. The Electronic Data Deliverable (EDD) analytical results are received and entered into the EIMS.

4. The Project Manager will receive an electronic copy of the data validation package (when applicable).

5. The results of the EDD data-validation results are received and entered (when applicable) into the EIMS.

1.2.3 Sample Packaging and Shipping

Samples are placed inside a plastic bag, sealed inside a cooler, then shipped to external contractor analytical laboratories. The bottles with VOC samples are placed in protective foam inserts. Glass bottles are wrapped with protective packaging to protect against breakage during shipment. Plastic bags are filled with ice (no blue-ice) and sealed, then placed inside each cooler with the samples to ensure that they arrive at the analytical laboratory at four degrees Celsius (plus or minus two

degrees). A BNL chain-of-custody form completed by the sampling team accompanies the samples to the laboratory. The form is placed in a plastic bag, sealed, and put inside the cooler with the samples. The samples are shipped to the analytical laboratory via an overnight mail carrier.

1.2.4 Sample Documentation

The sample teams maintain electronic tablets and field notebooks (bound weatherproof logbooks) that are filled out at the location where the sample is collected. They contain the sample's designation, collection time, description, collection method, and the weather conditions, field measurements, and other site-specific observations.

The sample teams also complete collection logs for every sample that is collected. The completed Groundwater Sample Logs are submitted to the BNL Field Sampling Team supervisor weekly.

1.3 Analytical Methods

The following sections describe the analytical methods used for the BNL Groundwater Monitoring Program.

1.3.1 Chemical Analytical Methods

The CERCLA and FM samples collected during CY 2023 were analyzed for organic, inorganic, and various wet-chemistry analytes. FM and CERCLA chemical analyses were performed by GEL Laboratories, and Eurofins-Test America. Table 1-5 summarizes the analytes and/or methods used for specific CERCLA monitoring programs and samples as well as the date of sampling. Table 1-6 summarizes this information for the FM program.

The following inorganic, organic, and wet-chemistry methods were used: United States Environmental Protection Agency (USEPA) methods including 200 and 500 Series methods (40 Code of Federal Regulations (CFR) 141); 600 Series methods (40 CFR 136); and SW-846 methods (40 CFR 261). Other standard methods include those listed in *Standard Methods for the Analysis of Wastewater* (latest edition) and those in the American Society for Testing and Materials (ASTM) publications (latest revision).

1.3.2 Radiological Analytical Methods

Unlike organic and inorganic chemical analytical methods, few standard methods are available for the radiological analysis of environmental samples. There are no standard established QA/QC requirements and acceptance criteria for environmental radiological methods; therefore, the USEPA, U.S. Department of Energy (DOE), and commercial laboratories may have different methods of preparing samples preparing and analytical techniques for specific radiological analytes. Hence, laboratory-reported detection limits may vary. Nonetheless, multi-laboratory validation studies and inter-laboratory comparisons have demonstrated that accurate, comparable, radiological data are obtainable even when different procedures are used. Radiological analyses were performed by GEL Laboratories, Eberline Analytical, and Eurofins-Test America.

Tables 1-5 and 1-6 provide the analytical parameters and/or methods used for specific monitoring programs and samples. Radiological analyses were undertaken for onsite and offsite locations. The radiological analyses enable BNL to monitor radiological water-quality status throughout the site.

1.4 Quality Assurance and Quality Control

This section describes the QA/QC requirements for field work conducted under the CERCLA and FM Groundwater Monitoring Programs. In general, the quality of the analytical results from groundwater samples collected during CY 2023 met data quality objectives.

1.4.1 Calibration and Preventive Maintenance of Field Instruments

Sampling team personnel are responsible for assuring that the Daily Water Quality and the Monthly Calibration Logs are maintained for each water quality meter (i.e., pH, conductivity, turbidity meters, etc.).

1.4.2 QA/QC Sample Collection

Guidance on collecting the QA/QC samples is given in *BNL EM-SOP-200 "Collection and Frequency of Field Quality Control Samples."* Sample-specific requirements are listed separately, below.

The collection of QA/QC samples is dependent on the data quality objectives of each project. The following is a general breakdown of the QA/QC samples collected by project type:

CERCLA Groundwater Monitoring: trip blanks, field blanks, equipment blanks, matrix spike/matrix spike duplicates (MS/MSDs), and blind field duplicates.

Remediation Treatment System Sampling: trip blanks.

FM Groundwater Monitoring: trip blanks, field blanks, equipment blanks, and blind field duplicates.

1.4.2.1 Equipment Blanks

Equipment blanks are collected to evaluate any potential cross-contamination of samples due to the sampling equipment. They are collected by pouring laboratory grade water over the sampling equipment which comes in contact to the groundwater sample. Equipment blanks are only collected for projects that require the use of non-dedicated sampling equipment. The frequency of collecting equipment blanks is one for every 20 groundwater samples shipped to the analytical laboratory. Equipment blanks are typically not collected during routine monitoring efforts when dedicated sampling equipment is used. Equipment blanks are collected when non-dedicated sampling equipment is used (e.g., sampling of temporary Geoprobe wells) or at the request of the project manager.

1.4.2.2 Field Blanks

Field blanks are obtained by pouring laboratory grade water into clean sample bottles containing preservatives. The field blanks are collected in the field and accompany field personnel to the sampling location. They are analyzed for the same parameters that the groundwater is being analyzed for on that day. The frequency of collecting field blanks is one for every 20 groundwater samples shipped to the analytical laboratory. For projects with less than 20 monitoring wells, a minimum of one field blank is collected per project for each sampling event. Field blank results are summarized on Table E-1. The major constituent found in field blanks collected for VOCs in 2023 was chloroform (detected in 11 of 66 samples.) The highest concentration of any organic compound in a field blank was nitrobenzene, a semi-volatile analyte, detected at 12 µg/L

1.4.2.3 Trip Blanks

A trip blank is an aliquot of deionized water that is sealed in a sample bottle (glass vials (40 ml) with Teflon septa). It is used to determine if there is any cross-contamination between aqueous samples during shipment. Trip blanks are analyzed for aqueous VOCs only. For 2023 trip blanks were provided by the contract analytical laboratory suppling the VOA vials. Upon arrival at BNL, the sealed trip blank bottles are placed in a cooler and brought to the field by the sampling team. If several coolers are required, each cooler must contain an individual trip blank. Trip blank detections are summarized on Table E-2. The total number of trip blanks collected in 2023 was 73. The constituent detected most frequently in the Trip blanks was methylene chloride which was detected 4 times. These detections are most likely due to trace laboratory contamination. The highest concentration of any organic compound in the Trip blanks was Methylene chloride detected at 1.56 µg/L.

1.4.2.4 Duplicate Samples

Field duplicate samples are analyzed to check the reproducibility of the laboratory's analytical results. Duplicates are either blind (the laboratory doesn't know the identity of the sample location) or field (the laboratory is told the identity of the sampling location). The specific type of duplicate used on a project is dependent on the project data quality objectives. At least 5 percent (one out of every 20 samples) of the total number of collected groundwater samples are duplicated to evaluate the precision of the methods. For projects with less than 20 monitoring wells, a minimum of one blind duplicate sample is collected per project for each sampling event. USEPA Region II USEPA Region II data validation criteria were used for field duplicate interpretation. For detections above 5 times the contract required detection limit (CRDL), a relative percent difference (RPD) was calculated. An acceptable RPD was 50% or below. For detections below 5 times the CRDL, the QC requirement is that the difference between the duplicate results must be less than or equal to the CRDL. A total of 126 duplicate samples were collected for non-radiological analyses and 79 duplicates were collected for radiologic analyses. Not all parameters were analyzed in every duplicate. The parameters in each duplicate were consistent with those required for the specific program the duplicate was monitoring. Of the 7073 non-radiologic parameters analyzed; 65 parameters (less than one percent) did not meet QA criteria. For the radiologic parameters 295 of the 320 parameters (92%) meet QA criteria. The results are indicative of consistency with the laboratory and sampling team that is resulting in valid, reproducible data.

1.4.2.5 Requirements for Matrix Spike/Matrix Spike Duplicate Volumes

MS/MSDs for organic analysis are performed at a frequency of one MS/MSD for every 20 groundwater samples in an SDG.

Matrix spikes (MS) are actual field samples to which known spiked concentrations of target analytes have been added prior to sample preparation and analytical testing. The MS is analyzed as a method performance assessment by measuring the effects of interferences caused by the specific sample matrix. Poor spike recoveries for MS-MSD samples could mean your sample matrix is causing matrix interference issues.

A matrix spike duplicate (MSD) is an additional replicate of the matrix spike sample following the same sample preparation and analytical testing as the original sample. MSDs are used to document the precision and bias of a method for a specific sample matrix. Following MS and MSD recovery results, the Relative Percent Difference (RPD) is reported for each analyte as a means of measuring reproducibility. To ensure that the laboratory has sufficient volume for MS/MSD analysis, triple the sample volume must be collected. For 2023, A total of 225 MS/MSD samples were collected for non-radiological analyses and 193 MS/MSD samples were collected for radiological analyses. Not all parameters were analyzed for every MS/MSD pair. Of the 16214 non-radiological parameters analyzed, 1538 parameters (91%) were above 20% RPD. For the radiological parameters 274 of the 434 parameters (63%) meet QA criteria. These overall non-radiological results are indicative of consistent measuring reproducibility with the laboratories and field sampling teams. Radiological results indicate some matrix interference and require more attention to the reported sample results.

1.4.3 Data Verification

Data verification is the process by which contract laboratory results are checked to ensure that the proper quality control steps were performed. These steps checked in data verification include, but are not limited to, data package deliverable completeness, review of the chain-of-custody, review of analytical holding times, blank contaminants, duplicate results, and matrix spike results. All groundwater data collected at BNL undergoes data verification. The procedures for data verification are given in BNL EM-SOP-203, *Chemical Data Verification* and BNL EM-SOP-204, *Radiochemical Data Verification*. This is BNL's internal process to verify the accuracy and/or completeness of analytical data. For the 2023 calendar year, 1112 data verifications were completed.

1.4.4 Data Usability

Data usability is the process by which data that does not meet the expected results, but which has been deemed acceptable by a data validation or verification, is reviewed.

Determining the usability of chemical data is relatively straightforward. The data is assessed according to BNL's *Chemical Data Usability* (BNL EM-SOP-211). Laboratory analytical data are validated or verified, and validation qualifiers are assigned to them. Table E-3 defines the qualifiers placed on the data by the analytical laboratory and Table E-4 defines the data validation, verification, and usability qualifiers.

The usability of radiological data for the 2023 data was determined through a two-step process. The project manager initially reviewed all groundwater monitoring data. Data were considered acceptable for use if they were not significantly different than expected for a particular well, based on historical trends and were not qualified as unusable during the validation and/or verification procedures. Results for a particular well that were not expected, based on historical trends, were referred to the EPD chemist. The data then were assessed according to BNL's *Radiochemical Data Usability* (BNL EM-SOP-210). The data subsequently were assigned (if applicable) a revised qualifier and a data-usability code. A usability code of "N3" was assigned if the data were not usable based on the lack of expected daughter products. A
usability code of "N2" was assigned if the data were not usable because the results and the propagated error are indistinguishable from background (i.e., the result minus the 2 sigma error is less than the detection limit). Data identified as being "not usable" were not considered in characterizing the presence or extent of contamination. Data validation, verification, and usability report summaries are included as Appendix G.

1.4.5 Data Qualification

During the data validation, verification and/or usability processes, the data may be qualified to alert the user to limitations in the use of the data based on QA/QC violations. Table E-3 defines the qualifiers placed on the data by the analytical laboratory and Table E-4 defines the data validation, verification, and usability qualifiers. For organic and inorganic analytes, three primary qualifiers may be applied to laboratory data: "U," "J," and "R." In addition, there may be no qualifier if

QA/QC issues are not identified. For radiological data, in addition to the "U," "J," and "R" qualifiers, qualifiers such as "DL," "N2,", and "N3" were also applied to the results.

A "U" qualifier, which is a laboratory qualifier, indicates that the analyte was a target of the method but was not detected above the minimum detection levels (MDL). The "U" qualifier also may be used in conjunction with the "J" qualifier, which indicates that the reported concentration is an estimated value because the reported value is lower than the required reporting limit, or because one or more analytical deficiencies were noted during the data validation review. Thus, the designation "UJ" indicates that the analyte was not detected above the (MDL), and the reported quantitation or detection limit is an estimate due to QA/QC deficiencies. The "R" qualifier indicates that the datum is rejected. An "R" qualifier can be reported for analytes that either were, or were not, detected. In other words, an "R" qualifier may be assessed upon a reported concentration, or a result reported with a "U" qualifier.

Data reported as either unqualified, or with "U" or "J" qualifiers are typically usable, in assessments of the extent of contamination or effectiveness of remedial actions. Data qualified by "R" are considered unusable.

Appendix F
2023 Remediation System Data Tables

Table F-1
Extraction Wells Radiological and VOC Data
OU I South Boundary System

2023 BNL Groundwater Status Report

The extraction wells did not operate in 2023.

Table F-2
Air Stripper Influent Radiological and VOC Data
OU I South Boundary System

2023 BNL Groundwater Status Report

OU I South Boundary Treatment System was in standby mode during 2023.

Table F-3
Air Stripper Effluent Radiological and VOC Data
OU I South Boundary System

2023 BNL Groundwater Status Report

OU I South Boundary Treatment System was in standby mode during 2023.

Table F-4
Cumulative Mass Removal
OU I South Boundary System

2023 BNL Groundwater Status Report

Date Sampled		Cumulative VOC's (lbs)
06/03/13	Final mass removal	368.97

Table F-5
Influent VOC Data
OU III Building 96 System

2023 BNL Groundwater Status Report

Site ID : 095-151 (RTW-1 Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	02/03/23	2.89	0	UG/L	0	
Chloroform	02/03/23	0.59	0.5	UG/L	0	
Tetrachloroethylene	02/03/23	2.3	0.5	UG/L	0	
1633 TPFAS	02/03/23	34.71	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/03/23	1.3	1.6	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/03/23	9.2	6.2	NG/L	0	
Perfluorodecanoic acid (PFDA)	02/03/23	0.48	1.6	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	02/03/23	1.6	1.6	NG/L	0	
Perfluorohexanesulfonate	02/03/23	3.7	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/03/23	3.1	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	02/03/23	0.81	1.6	NG/L	0	J
Perfluorooctane sulfonamide	02/03/23	0.22	1.6	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/03/23	8.3	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/03/23	3.6	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/03/23	2.4	3.1	NG/L	0	J
1633 TPFAS	04/08/23	34.02	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/08/23	1	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/08/23	8.2	5.8	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/08/23	1.6	1.5	NG/L	0	
Perfluorohexanesulfonate	04/08/23	2.8	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/08/23	2.3	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	04/08/23	0.72	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	04/08/23	8.3	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/08/23	7.1	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/08/23	2	2.9	NG/L	0	J
8260 TVOC	04/08/23	2.9	0	UG/L	0	
Chloroform	04/08/23	0.5	0.5	UG/L	0	
Tetrachloroethylene	04/08/23	2.4	0.5	UG/L	0	
8260 TVOC	06/09/23	3.62	0	UG/L	0	
Chloroform	06/09/23	0.62	0.5	UG/L	0	
Tetrachloroethylene	06/09/23	3	0.5	UG/L	0	
1633 TPFAS	08/14/23	31.1	0	NG/L	0	
8260 TVOC	08/14/23	2.47	0	UG/L	0	
Chloroform	08/14/23	0.67	0.5	UG/L	0	
Perfluorobutanesulfonate (PFBS)	08/14/23	1.2	1.7	NG/L	0	J
Perfluorobutyric acid (PFBA)	08/14/23	9.3	6.6	NG/L	0	
Perfluorodecanoic acid (PFDA)	08/14/23	0.25	1.7	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	08/14/23	1.2	1.7	NG/L	0	J
Perfluorohexanesulfonate	08/14/23	2.3	1.7	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/14/23	2.4	1.7	NG/L	0	
Perfluorononanoic acid (PFNA)	08/14/23	0.69	1.7	NG/L	0	J
Perfluorooctane sulfonamide	08/14/23	0.16	1.7	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/14/23	8.3	1.7	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/14/23	3.3	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/14/23	2	3.3	NG/L	0	J
Tetrachloroethylene	08/14/23	1.8	0.5	UG/L	0	
1633 TPFAS	10/11/23	28.88	0	NG/L	0	
8260 TVOC	10/11/23	3.36	0	UG/L	0	
Chloroform	10/11/23	0.7	0.5	UG/L	0	
Perfluorobutanesulfonate (PFBS)	10/11/23	1	1.6	NG/L	0	J
Perfluorobutyric acid (PFBA)	10/11/23	8.5	6.4	NG/L	0	
Perfluorodecanoic acid (PFDA)	10/11/23	0.31	1.6	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/11/23	1.1	1.6	NG/L	0	J
Perfluorohexanesulfonate	10/11/23	2.8	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/11/23	1.8	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	10/11/23	0.6	1.6	NG/L	0	J
Perfluorooctane sulfonamide	10/11/23	0.11	1.6	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/11/23	7.5	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/11/23	3.1	1.6	NG/L	0	
Perfluoropentanesulfonate	10/11/23	0.36	1.6	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	10/11/23	1.7	3.2	NG/L	0	J
Tetrachloroethylene	10/11/23	2.5	0.5	UG/L	0	
Trichlorofluoromethane	10/11/23	0.16	0.5	UG/L	0	J
8260 TVOC	12/05/23	0	0	UG/L	0	

Table F-5
Influent VOC Data
OU III Building 96 System

2023 BNL Groundwater Status Report

Site ID : 095-153 (RTW-2 Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
1,2,3-Trichlorobenzene	01/10/23	0.38	0.5	UG/L	0	J
8260 TVOC	01/10/23	2.79	0	UG/L	0	
Chloroform	01/10/23	0.94	0.5	UG/L	0	
Hexachlorobutadiene	01/10/23	0.16	0.5	UG/L	0	J
m/p xylene	01/10/23	0.22	1	UG/L	0	J
Tetrachloroethylene	01/10/23	0.48	0.5	UG/L	0	J
Toluene	01/10/23	0.39	0.5	UG/L	0	J
Xylene (total)	01/10/23	0.22	1.5	UG/L	0	J
8260 TVOC	04/08/23	0.85	0	UG/L	0	
Chloroform	04/08/23	0.51	0.5	UG/L	0	
Tetrachloroethylene	04/08/23	0.34	0.5	UG/L	0	J
8260 TVOC	07/12/23	0.86	0	UG/L	0	
Chloroform	07/12/23	0.61	0.5	UG/L	0	
Tetrachloroethylene	07/12/23	0.25	0.5	UG/L	0	J
8260 TVOC	10/13/23	1.13	0	UG/L	0	
Chloroform	10/13/23	0.71	0.5	UG/L	0	
Tetrachloroethylene	10/13/23	0.42	0.5	UG/L	0	J

Site ID : 095-155 (RTW-3 Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/10/23	1.24	0	UG/L	0	
Chloroform	01/10/23	0.96	0.5	UG/L	0	
Tetrachloroethylene	01/10/23	0.28	0.5	UG/L	0	J
8260 TVOC	04/08/23	1.47	0	UG/L	0	
Chloroform	04/08/23	1.3	0.5	UG/L	0	
Tetrachloroethylene	04/08/23	0.17	0.5	UG/L	0	J
8260 TVOC	07/12/23	1.2	0	UG/L	0	
Chloroform	07/12/23	1.2	0.5	UG/L	0	
8260 TVOC	10/12/23	1.24	0	UG/L	0	
Chloroform	10/12/23	1	0.5	UG/L	0	
Tetrachloroethylene	10/12/23	0.24	0.5	UG/L	0	J

Site ID : 095-157 (RTW-4 Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/10/23	1.15	0	UG/L	0	
Chloroform	01/10/23	0.66	0.5	UG/L	0	
Ethylbenzene	01/10/23	0.27	0.5	UG/L	0	J
Tetrachloroethylene	01/10/23	0.22	0.5	UG/L	0	J
8260 TVOC	04/08/23	0.89	0	UG/L	0	
Chloroform	04/08/23	0.72	0.5	UG/L	0	
Tetrachloroethylene	04/08/23	0.17	0.5	UG/L	0	J
8260 TVOC	07/12/23	1.4	0	UG/L	0	
Chloroform	07/12/23	1.4	0.5	UG/L	0	
8260 TVOC	10/12/23	0.23	0	UG/L	0	
Chloroform	10/12/23	0.23	0.5	UG/L	0	J

J = Estimated Value below the method detection limit of 0.50 UG/L
B = Compound was found in both the sample and associated laboratory blank.

Table F-6
System Effluent VOC Data
OU III Building 96 System

2023 BNL Groundwater Status Report

Site ID: 095-152 (Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	02/03/23	0	0	UG/L	0	
1633 TPFAS	02/03/23	36.59	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/03/23	1.6	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	02/03/23	9.7	5.9	NG/L	0	
Perfluorodecanoic acid (PFDA)	02/03/23	0.37	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	02/03/23	1.7	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/03/23	3.6	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/03/23	3.4	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	02/03/23	1.1	1.5	NG/L	0	J
Perfluorooctane sulfonamide	02/03/23	0.45	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/03/23	7.9	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/03/23	3.9	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/03/23	0.37	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	02/03/23	2.5	2.9	NG/L	0	J
solids-tot	02/03/23	20	4	MG/L	0	
1633 TPFAS	04/08/23	37.15	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	04/08/23	3	5.5	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	04/08/23	1.1	1.4	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/08/23	8.2	5.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/08/23	1.6	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/08/23	2.5	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/08/23	2	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	04/08/23	0.75	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	04/08/23	9.5	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/08/23	6.6	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/08/23	1.9	2.8	NG/L	0	J
8260 TVOC	04/08/23	0	0	UG/L	0	
8260 TVOC	06/09/23	0	0	UG/L	0	
1633 TPFAS	08/14/23	32.86	0	NG/L	0	
8260 TVOC	08/14/23	0	0	UG/L	0	
Perfluorobutanesulfonate (PFBS)	08/14/23	1.3	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	08/14/23	9.3	6	NG/L	0	
Perfluorodecanoic acid (PFDA)	08/14/23	0.3	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	08/14/23	1.2	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	08/14/23	2.3	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/14/23	2.2	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	08/14/23	0.64	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	08/14/23	0.42	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/14/23	9.7	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/14/23	3.5	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/14/23	2	3	NG/L	0	J
1633 TPFAS	10/11/23	27.47	0	NG/L	0	
8260 TVOC	10/11/23	0	0	UG/L	0	
Perfluorobutanesulfonate (PFBS)	10/11/23	1	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	10/11/23	8.3	5.9	NG/L	0	
Perfluorodecanoic acid (PFDA)	10/11/23	0.28	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/11/23	1.2	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/11/23	3	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/11/23	1.8	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	10/11/23	0.62	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/11/23	6.2	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/11/23	3.1	1.5	NG/L	0	

Table F-6
System Effluent VOC Data
OU III Building 96 System

2023 BNL Groundwater Status Report

Site ID: 095-152 (Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluoropentanesulfonate (PFPeS)	10/11/23	0.37	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	10/11/23	1.6	2.9	NG/L	0	J
8260 TVOC	12/05/23	0	0	UG/L	0	

J = Estimated Value below the method detection limit of 0.50 UG/L

B = Compound was found in both the sample and associated laboratory blank.

Table F-7
Pumpage and Mass Removal
OU III Building 96 System

2023 BNL Groundwater Status Report

	RTW-1		RTW-2		RTW-3		RTW-4	
Date	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*
01/18/01	0	0.00	0	0.00	0	0.00	1,320	0.00
02/06/01	39,960	0.05	22,680	0.00	25,920	0.21	25,080	0.00
02/07/01	91,020	0.09	50,400	0.00	59,040	0.29	54,120	0.00
02/08/01	142,080	0.26	80,640	0.00	92,160	0.22	85,800	0.01
02/09/01	199,800	0.34	113,400	0.00	129,600	0.26	120,120	0.01
02/10/01	304,140	0.66	172,620	0.01	197,280	0.37	180,840	0.02
02/12/01	357,420	0.32	176,400	0.00	231,840	0.18	213,840	0.01
03/09/01	768,120	2.65	322,560	0.01	498,240	1.33	458,040	0.10
03/28/01	1,582,860	5.20	728,280	0.03	1,026,720	2.71	941,160	0.07
04/04/01	1,762,680	0.61	830,340	0.08	1,143,360	0.20	1,048,080	0.09
05/07/01	1,973,580	0.68	956,340	0.08	1,280,160	0.21	1,176,120	0.08
06/12/01	3,053,580	1.86	1,676,340	0.26	2,000,160	1.07	1,896,120	0.54
07/16/01	3,698,700	0.91	2,482,740	0.39	2,806,560	0.79	2,702,520	1.18
08/13/01	4,343,820	0.98	3,208,500	0.53	3,612,960	0.57	3,468,600	0.88
09/05/01	4,873,740	0.52	3,804,660	0.45	4,275,360	0.50	4,097,880	0.62
10/02/01	5,397,345	0.67	4,405,393	0.51	4,945,772	0.36	4,749,934	0.38
11/01/01	6,033,079	1.05	5,133,686	0.68	5,759,659	0.40	5,547,867	0.24
12/07/01	6,281,676	0.39	5,605,726	0.37	6,283,103	0.20	6,067,911	0.09
01/02/02	6,953,724	1.00	6,337,777	0.23	7,088,353	0.14	6,873,161	0.04
02/01/02	8,138,324	1.36	7,097,468	0.17	7,852,723	0.00	7,630,802	0.03
03/01/02	9,438,485	1.07	7,933,881	0.18	8,682,452	0.08	8,464,356	0.04
04/01/02	10,738,646	0.96	8,770,294	0.08	9,512,181	0.06	9,297,910	0.03
05/01/02	11,994,906	0.70	9,590,008	0.07	10,321,344	0.06	10,114,663	0.02
06/03/02	13,418,012	0.85	10,544,112	0.07	11,253,969	0.06	11,081,608	0.03
07/01/02	14,637,525	0.53	11,361,779	0.05	12,049,136	0.05	11,908,916	0.03
08/01/02	15,838,038	0.58	12,145,419	0.04	12,835,173	0.05	12,713,560	0.03
09/03/02	17,244,306	0.67	13,101,051	0.04	13,752,178	0.06	13,664,127	0.03
10/01/02	18,421,996	0.43	13,907,894	0.03	14,519,888	0.03	14,430,693	0.02
11/01/02	19,824,678	0.54	14,802,436	0.03	15,437,805	0.03	15,287,459	0.03
12/02/02	21,150,755	0.45	15,685,023	0.02	16,209,167	0.02	16,137,219	0.02
01/03/03	22,296,027	0.41	16,448,088	0.02	16,964,154	0.04	16,880,317	0.01
02/04/03	23,723,049	0.52	17,399,860	0.03	17,920,702	0.07	17,825,363	0.01
03/03/03	24,881,283	0.51	18,171,948	0.02	18,696,672	0.06	18,588,383	0.02
04/01/03	25,982,363	0.37	18,895,607	0.01	19,427,732	0.03	19,278,997	0.02
05/01/03	27,252,775	0.53	19,719,678	0.06	20,264,804	0.03	20,056,403	0.02
05/18/03	27,905,079	NA	20,135,774	NA	20,681,555	NA	20,446,633	NA
07/01/03	27,905,079	0.31	20,135,774	0.00	20,681,555	0.002	20,446,633	0.01
07/15/03	28,284,425	NA	20,534,396	NA	21,080,269	NA	20,762,535	NA
09/15/03	28,284,425	2.15	20,534,396	0.01	21,080,269	0.02	20,762,535	0.005
10/01/03	28,853,917	1.60	20,890,592	0.01	21,498,423	0.02	21,091,161	0.004
11/03/03	30,118,477	0.68	21,733,662	0.02	22,425,833	0.03	21,805,409	0.005
12/01/03	31,256,257	1.57	21,949,542	0.00	23,260,139	0.02	22,430,473	0.004
01/06/04	32,446,597	1.53	21,949,542	0.00	24,132,989	0.03	23,086,025	0.003

Table F-7
Pumpage and Mass Removal
OU III Building 96 System

2023 BNL Groundwater Status Report

	RTW-1		RTW-2		RTW-3		RTW-4	
Date	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*
02/02/04	33,267,247	1.01	21,949,542	0.00	24,734,997	0.06	23,220,645	0.000
03/01/04	34,384,807	1.30	21,949,542	0.00	25,553,353	0.09	23,220,645	0.000
04/02/04	35,460,667	0.85	21,949,542	0.00	26,342,251	0.36	23,220,645	0.000
05/04/04	36,837,217	0.91	22,161,956	0.02	27,351,809	0.36	23,436,889	0.007
06/02/04	38,082,937	0.72	23,056,442	0.08	28,265,337	0.27	24,348,877	0.024
07/01/04	39,276,293	0.80	23,953,258	0.12	29,088,351	0.15	25,261,235	0.016
7/13/04*	39,740,085	NA	24,151,174	NA	29,419,431	NA	25,625,291	NA
08/03/04	40,583,081	0.83	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
09/01/04	41,748,693	0.70	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
10/04/04	43,144,141	0.70	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
11/03/04	44,528,109	0.60	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
12/02/04	45,556,469	0.52	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
01/04/05	47,065,453	0.91	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
02/02/05	48,275,053	0.55	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
03/04/05	49,614,253	0.37	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
04/21/05	51,687,853	0.48	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
05/19/05	52,897,853	0.24	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
06/01/05	53,373,053	0.13	24,151,174	0.00	29,419,431	0.00	25,625,291	0.000
07/01/05	53,373,053	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
08/30/05	53,373,053	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
09/30/05	53,373,053	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
10/31/05	53,621,149	0.11	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
11/30/05	54,435,113	0.16	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
12/30/05	55,249,077	0.03	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
01/31/06	55,766,745	0.15	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
02/28/06	55,766,745	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
03/31/06	55,947,421	0.05	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
04/30/06	55,956,057	0.23	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
05/31/06	58,190,277	0.20	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
06/30/06	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
07/31/06	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
08/31/06	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
09/30/06	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
10/31/06	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
11/30/06	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
12/31/06	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
01/31/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
02/28/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
03/31/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
04/30/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
05/31/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
06/30/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
07/31/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00

Table F-7
Pumpage and Mass Removal
OU III Building 96 System

2023 BNL Groundwater Status Report

	RTW-1		RTW-2		RTW-3		RTW-4	
Date	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*
08/31/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
09/30/07	58,190,277	0.00	24,151,174	0.00	29,419,431	0.00	25,625,291	0.00
10/31/07	58,190,277	0.00	24,419,826	0.01	29,419,431	0.00	25,625,291	0.00
11/30/07	58,190,277	0.00	25,888,822	0.06	29,419,431	0.00	25,625,291	0.00
12/31/07	58,190,277	0.00	26,967,734	0.07	29,419,431	0.00	25,625,291	0.00
01/31/08	58,190,277	0.00	27,948,548	0.03	29,419,431	0.00	25,625,291	0.00
02/28/08	58,190,277	0.00	28,572,246	0.02	29,419,431	0.00	25,642,079	0.00
03/31/08	58,190,277	0.00	29,682,602	0.04	30,480,807	0.22	26,742,201	1.11
04/30/08	58,190,277	0.00	30,187,210	0.01	31,062,687	0.35	27,095,357	0.05
05/31/08	59,195,217	1.42	31,279,392	0.05	32,315,577	0.58	27,771,579	0.14
06/30/08	60,003,465	0.74	31,863,560	0.04	32,989,197	0.61	28,131,035	0.05
07/31/08	61,598,386	1.29	32,013,086	0.00	34,462,977	0.73	28,761,501	0.11
08/31/08	62,356,297	0.52	32,846,646	0.04	35,424,747	0.61	28,761,501	0.00
09/30/08	62,994,481	0.47	33,771,648	0.06	36,492,117	0.70	28,761,501	0.00
10/31/08	64,281,093	0.90	34,865,260	0.03	37,750,335	0.45	29,216,663	0.00
11/30/08	65,599,609	0.66	35,486,892	0.01	38,953,743	0.23	30,204,617	0.00
12/31/08	66,795,541	0.62	36,353,662	0.02	40,058,415	0.18	31,110,945	0.00
01/31/09	67,805,949	0.66	37,113,184	0.01	41,068,903	0.19	32,029,877	0.03
02/28/09	68,903,125	0.68	38,016,552	0.02	42,072,383	0.11	32,946,601	0.01
03/31/09	70,176,037	0.66	39,066,128	0.02	43,233,715	0.08	34,026,172	0.03
04/30/09	71,058,925	0.42	39,914,876	0.01	44,173,991	0.04	34,884,771	0.00
05/31/09	72,379,037	0.70	41,022,336	0.01	45,415,887	0.03	35,939,465	0.00
06/30/09	73,380,029	0.53	41,859,828	0.01	46,408,673	0.02	36,753,597	0.00
07/31/09	74,696,413	0.78	43,011,636	0.01	47,363,555	0.03	37,901,937	0.01
08/31/09	76,098,205	0.82	44,238,176	0.01	48,545,471	0.03	39,128,397	0.00
09/30/09	77,253,341	0.73	45,248,920	0.00	49,590,855	0.01	40,136,693	0.00
10/31/09	78,357,981	0.66	46,297,236	0.01	50,658,495	0.02	41,118,557	0.03
11/30/09	79,590,733	0.78	47,500,172	0.00	51,861,291	0.01	42,306,641	0.00
12/31/09	80,512,829	0.61	48,305,216	0.00	52,666,347	0.01	43,111,557	0.00
01/31/10	81,417,989	0.74	49,047,020	0.00	53,363,759	0.01	43,808,529	0.00
02/28/10	82,405,421	0.59	49,911,184	0.01	53,506,123	0.00	44,549,253	0.00
03/31/10	83,045,517	0.56	50,233,268	0.00	53,589,955	0.00	45,058,681	0.00
04/30/10	83,269,101	0.12	50,233,268	0.00	53,740,191	0.00	46,653,141	0.00
05/31/10	84,914,765	0.62	50,234,192	0.00	54,072,647	0.01	47,316,405	0.00
06/30/10	85,987,149	0.57	51,299,164	0.02	54,229,587	0.01	48,077,501	0.00
07/31/10	87,269,625	1.10	51,299,164	0.00	54,229,587	0.00	48,838,597	0.00
08/31/10	87,269,625	0.00	51,299,164	0.00	54,229,587	0.00	48,838,597	0.00
09/30/10	87,269,625	0.00	51,299,164	0.00	54,398,735	0.00	48,838,597	0.00
10/31/10	87,638,109	0.09	51,646,060	0.01	55,537,327	0.02	48,975,037	0.00
11/30/10	89,074,525	1.27	52,985,744	0.01	56,565,347	0.01	49,978,593	0.01
12/31/10	90,249,629	0.83	54,060,748	0.01	57,149,287	0.02	51,006,753	0.00
01/31/11	90,917,021	0.46	54,602,976	0.01	58,152,191	0.02	51,590,665	0.00
02/28/11	92,063,129	0.80	55,610,572	0.01	59,388,979	0.02	52,593,513	0.01

Table F-7
Pumpage and Mass Removal
OU III Building 96 System

2023 BNL Groundwater Status Report

	RTW-1		RTW-2		RTW-3		RTW-4	
Date	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*
03/31/11	93,476,701	0.73	56,853,412	0.01	60,338,347	0.01	53,826,065	0.01
04/30/11	94,561,725	0.56	57,806,852	0.01	61,303,423	0.01	54,779,401	0.00
05/31/11	95,664,701	0.60	58,778,244	0.01	62,168,651	0.01	55,665,453	0.00
06/30/11	96,614,429	0.56	59,643,639	0.01	63,289,153	0.01	56,394,713	0.00
07/31/11	97,048,997	0.23	60,769,676	0.01	64,182,579	0.02	57,328,665	0.00
08/31/11	98,084,613	0.67	61,676,660	0.01	64,974,447	0.03	58,011,349	0.00
09/30/11	99,163,061	0.82	62,468,808	0.02	66,234,337	0.03	58,609,481	0.00
10/31/11	100,647,805	1.20	63,728,448	0.04	67,330,395	0.02	59,528,921	0.00
11/30/11	101,898,173	0.96	64,778,552	0.01	68,516,783	0.03	60,016,017	0.00
12/30/11	102,962,109	0.34	65,520,040	0.01	69,543,007	0.02	61,371,953	0.00
01/31/12	103,570,227	0.21	66,295,796	0.02	70,507,639	0.03	62,316,145	0.00
02/28/12	104,901,373	0.51	67,244,756	0.03	71,575,283	0.03	63,645,481	0.00
03/31/12	106,004,285	0.51	68,210,312	0.03	72,888,403	0.00	64,739,109	0.00
04/30/12	107,306,941	0.59	69,342,556	0.03	73,748,275	0.02	65,951,313	0.00
05/31/12	108,180,093	0.49	70,031,860	0.00	74,946,995	0.02	66,748,825	0.00
06/30/12	108,528,605	0.27	71,178,836	0.02	75,961,715	0.02	67,802,341	0.00
07/31/12	109,543,325	1.08	72,192,436	0.01	77,038,803	0.02	68,690,221	0.00
08/31/12	110,620,381	1.41	73,269,492	0.01	78,008,467	0.01	69,632,589	0.00
09/30/12	111,590,077	0.95	74,233,300	0.02	78,731,827	0.02	70,478,833	0.00
10/31/12	112,405,597	0.65	74,742,292	0.01	79,738,323	0.02	70,478,889	0.00
11/30/12	113,411,773	0.85	75,446,644	0.02	81,060,307	0.02	70,479,029	0.00
12/31/12	114,313,405	1.35	76,810,292	0.08	82,399,955	0.02	70,479,113	0.00
01/31/13	114,794,781	0.18	77,501,492	0.00	83,117,463	0.02	70,479,113	0.00
02/28/13	114,882,205	0.08	77,718,676	0.00	84,489,875	0.02	70,479,113	0.00
03/31/13	115,973,437	0.24	78,834,836	0.17	85,808,883	0.03	70,479,113	0.00
04/30/13	117,052,821	0.44	79,748,404	0.08	87,230,003	0.05	70,479,113	0.00
05/31/13	118,223,661	0.33	80,341,972	0.04	88,631,347	0.10	70,479,113	0.00
06/30/13	119,657,389	1.12	81,603,860	0.04	89,971,763	0.32	70,479,113	0.00
07/31/13	120,997,773	1.25	82,944,276	0.07	91,406,291	0.26	70,479,113	0.00
08/31/13	122,440,557	1.22	84,499,476	0.07	92,704,147	0.17	70,479,113	0.00
09/30/13	123,595,981	0.95	85,857,332	0.07	94,126,131	0.19	70,479,113	0.00
10/31/13	125,017,965	0.85	87,219,316	0.07	95,609,779	0.21	70,479,113	0.00
11/30/13	126,330,797	0.75	88,661,876	0.05	96,795,539	0.18	70,479,113	0.00
12/31/13	127,090,829	0.27	89,342,420	0.02	96,895,539	0.10	70,479,113	0.00
01/31/14	127,870,797	0.50	89,342,612	0.00	98,184,723	0.08	70,725,709	0.00
02/28/14	128,415,533	0.39	90,303,356	0.01	99,380,723	0.06	70,725,793	0.00
03/31/14	129,580,653	0.49	91,362,500	0.00	100,792,819	0.07	70,725,793	0.00
04/30/14	130,475,725	0.32	92,376,780	0.00	102,131,827	0.08	70,726,521	0.00
05/31/14	130,932,941	0.36	93,395,924	0.00	103,504,019	0.05	70,726,717	0.00
06/30/14	131,913,357	0.91	94,503,428	0.00	104,980,627	0.04	70,727,053	0.00
07/31/14	133,025,325	0.65	95,450,404	0.00	106,243,187	0.02	70,727,053	0.00
08/31/14	134,083,213	0.62	96,563,876	0.00	107,751,603	0.02	70,727,249	0.00
09/30/14	135,308,589	0.70	97,590,212	0.00	109,095,955	0.02	70,727,445	0.00

Table F-7
Pumpage and Mass Removal
OU III Building 96 System

2023 BNL Groundwater Status Report

	RTW-1		RTW-2		RTW-3		RTW-4	
Date	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*
10/31/14	136,232,237	0.53	98,625,844	0.00	110,476,659	0.01	70,727,725	0.00
11/30/14	137,631,117	0.41	99,735,076	0.00	111,955,507	0.01	70,727,809	0.00
12/31/14	138,436,557	0.23	100,762,732	0.00	113,325,683	0.00	70,728,005	0.00
01/31/15	139,342,221	0.22	101,656,324	0.00	114,517,139	0.00	70,728,201	0.00
02/28/15	140,318,565	0.31	102,554,508	0.00	115,632,371	0.01	70,728,313	0.00
03/31/15	140,574,253	0.08	103,374,428	0.00	116,725,587	0.00	70,728,705	0.00
04/30/15	140,689,069	0.09	104,167,500	0.00	117,782,803	0.01	70,728,817	0.00
05/31/15	141,216,365	0.32	105,028,804	0.00	118,524,467	0.01	70,728,873	0.00
06/30/15	142,150,925	0.67	105,849,612	0.00	119,718,259	0.02	70,728,985	0.00
07/31/15	142,694,861	0.78	106,670,954	0.00	121,036,531	0.01	70,729,377	0.00
08/31/15	143,608,397	0.88	107,595,484	0.00	122,556,083	0.02	70,729,573	0.00
09/30/15	144,518,029	0.19	108,287,572	0.00	123,670,867	0.01	70,729,825	0.00
10/31/15	145,671,885	0.24	109,216,044	0.00	124,977,715	0.01	70,730,133	0.00
11/30/15	146,367,629	0.33	109,870,612	0.00	126,132,659	0.01	70,730,189	0.00
12/31/15	146,958,797	0.27	110,419,852	0.00	127,512,819	0.01	70,730,357	0.00
01/31/16	148,087,757	0.29	110,419,852	0.00	127,512,819	0.00	70,730,357	0.00
02/29/16	149,153,261	0.26	110,419,852	0.00	127,512,851	0.00	70,730,357	0.00
03/31/16	150,581,901	0.28	110,419,852	0.00	127,513,011	0.00	70,730,357	0.00
04/30/16	151,831,501	0.26	110,419,852	0.00	127,513,043	0.00	70,730,357	0.00
05/31/16	153,388,461	0.34	110,419,852	0.00	127,513,331	0.00	70,730,357	0.00
06/30/16	154,686,381	0.27	110,419,852	0.00	127,513,491	0.00	70,730,357	0.00
07/31/16	156,121,421	0.04	110,419,852	0.00	127,513,523	0.00	70,730,357	0.00
08/31/16	157,087,277	0.06	110,419,852	0.00	127,513,587	0.00	70,730,357	0.00
09/30/16	158,151,421	0.06	110,419,852	0.00	127,513,651	0.00	70,730,357	0.00
10/31/16	158,615,677	0.02	110,419,852	0.00	127,513,683	0.00	70,730,357	0.00
11/30/16	158,615,677	0.00	110,419,852	0.00	127,513,683	0.00	70,730,357	0.00
12/31/16	159,731,677	0.17	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
01/31/17	160,613,405	0.23	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
02/28/17	161,391,005	0.04	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
03/31/17	161,784,541	0.01	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
04/30/17	163,203,037	0.06	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
05/31/17	164,586,013	0.05	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
06/30/17	165,913,501	0.05	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
07/31/17	167,351,549	0.08	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
08/31/17	168,820,957	0.07	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
09/30/17	170,252,765	0.12	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
10/31/17	171,582,301	0.06	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
11/30/17	172,558,029	0.05	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
12/31/17	173,805,917	0.05	110,419,948	0.00	127,513,683	0.00	70,730,501	0.00
01/31/18	175,129,533	0.06	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00
02/28/18	176,459,133	0.06	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00
03/31/18	177,873,005	0.07	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00
04/30/18	179,819,757	0.10	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00

Table F-7
Pumpage and Mass Removal
OU III Building 96 System

2023 BNL Groundwater Status Report

	RTW-1		RTW-2		RTW-3		RTW-4	
Date	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*
05/31/18	181,512,109	0.14	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00
06/30/18	182,855,949	0.04	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00
07/31/18	184,237,757	0.04	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00
08/31/18	185,619,645	0.03	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00
09/30/18	187,090,045	0.06	110,420,028	0.00	127,513,683	0.00	70,730,501	0.00
10/31/18	188,471,805	0.03	110,420,076	0.00	127,513,683	0.00	70,730,501	0.00
11/30/18	189,854,333	0.03	110,923,940	0.00	127,513,683	0.00	70,730,501	0.00
12/31/18	191,288,573	0.03	112,331,444	0.01	127,513,683	0.00	70,730,501	0.00
01/31/19	192,762,653	0.03	113,703,804	0.03	127,513,683	0.00	70,730,501	0.00
02/28/19	194,011,005	0.02	114,939,900	0.03	127,513,683	0.00	70,730,501	0.00
03/31/19	195,336,413	0.02	116,261,380	0.02	127,513,683	0.00	70,730,501	0.00
04/30/19	196,714,301	0.03	117,580,684	0.02	127,513,683	0.00	70,730,501	0.00
05/31/19	197,767,005	0.10	117,650,428	0.00	127,513,683	0.00	70,730,501	0.00
06/30/19	198,285,813	0.02	118,666,428	0.02	127,513,683	0.00	70,730,501	0.00
07/31/19	200,955,783	0.32	119,388,220	0.02	127,513,683	0.00	70,730,501	0.00
08/31/19	203,496,000	0.25	119,843,164	0.01	127,513,683	0.00	70,730,501	0.00
09/30/19	206,273,619	0.23	120,592,564	0.02	127,513,683	0.00	70,730,501	0.00
10/31/19	207,125,487	0.06	121,062,652	0.01	127,513,683	0.00	70,730,501	0.00
11/30/19	209,203,372	0.15	121,620,452	0.01	127,513,683	0.00	70,730,501	0.00
12/31/19	211,854,146	0.17	123,046,316	0.02	127,513,683	0.00	70,730,501	0.00
01/31/20	214,155,342	0.14	124,372,444	0.01	127,513,683	0.00	70,730,501	0.00
02/29/20	216,584,932	0.14	125,797,804	0.00	127,513,683	0.00	70,730,501	0.00
03/31/20	219,103,105	0.11	127,183,652	0.00	127,513,683	0.00	70,730,501	0.00
04/30/20	221,273,701	0.12	128,463,636	0.00	127,513,683	0.00	70,730,501	0.00
05/31/20	224,052,848	0.17	129,987,788	0.02	127,513,683	0.00	70,730,501	0.00
06/30/20	226,477,212	0.12	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
07/31/20	226,656,046	0.01	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
08/31/20	228,421,948	0.03	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
09/30/20	230,594,699	0.09	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
10/31/20	233,008,716	0.11	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
11/30/20	234,035,240	0.04	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
12/31/20	236,429,017	0.10	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
01/31/21	238,982,898	0.10	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
02/28/21	241,168,489	0.08	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
03/31/21	243,620,901	0.09	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
04/30/21	246,069,267	0.07	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
05/31/21	248,604,713	0.09	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
06/30/21	251,029,249	0.08	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
07/31/21	253,563,268	0.08	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
08/31/21	256,068,169	0.07	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
09/30/21	258,444,137	0.07	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
10/31/21	261,077,319	0.09	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
11/30/21	263,458,961	0.07	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00

Table F-7
Pumpage and Mass Removal
OU III Building 96 System

2023 BNL Groundwater Status Report

	RTW-1		RTW-2		RTW-3		RTW-4	
Date	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*	**Total Pumped*** *(Gallons)*	**Mass Recovered** *(lbs)*
12/31/21	265,949,067	0.07	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
01/31/22	268,439,173	0.06	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
02/28/22	270,929,279	0.06	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
03/31/22	273,419,385	0.06	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
04/30/22	275,909,491	0.06	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
05/31/22	275,909,491	0.00	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
06/30/22	278,399,597	0.06	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
07/31/22	278,399,597	0.00	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
08/31/22	280,889,703	0.07	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
09/30/22	280,889,703	0.00	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
10/31/22	283,379,809	0.06	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
11/30/22	283,379,809	0.00	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
12/31/22	285,869,915	0.03	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
02/03/23	288,329,170	0.06	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
04/08/23	290,426,638	0.05	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
06/09/23	292,756,779	0.07	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
08/14/23	294,645,056	0.04	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
10/11/23	296,969,174	0.07	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
12/05/23	298,290,888	0.00	129,987,788	0.00	127,513,683	0.00	70,730,501	0.00
Total		113.12		6.88		20.13		6.45

Total lbs. Removed = 146.59

NOTES:
Mass Removed: Total VOC concentration in µg/liter (ppb) x 3.785 liter/gallon x gallons pumped x 1 lb./454,000,000 µg = lbs.
* = Wells RTW-2, 3 and 4 placed off-line
lb = pounds
µg/liter - micrograms per liter
ppb - parts per billion
NA - not available

Table F-8
Extraction Well VOC Data
OUIII Middle Road System

2023 BNL Groundwater Status Report

Site ID : 106-66 (RW-6)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.89	0.5	UG/L	
1,1-Dichloroethylene	01/09/23	0.27	0.5	UG/L	J
8260 TVOC	01/09/23	2.46	0	UG/L	
Chloroform	01/09/23	0.3	0.5	UG/L	J
Tetrachloroethylene	01/09/23	0.67	0.5	UG/L	
Trichloroethylene	01/09/23	0.33	0.5	UG/L	J
1,1,1-Trichloroethane	04/17/23	0.84	0.5	UG/L	
1,1-Dichloroethylene	04/17/23	0.64	0.5	UG/L	
8260 TVOC	04/17/23	9.19	0	UG/L	
Carbon tetrachloride	04/17/23	0.66	0.5	UG/L	
Chloroform	04/17/23	0.38	0.5	UG/L	J
Tetrachloroethylene	04/17/23	6.1	0.5	UG/L	
Trichloroethylene	04/17/23	0.57	0.5	UG/L	
1633 TPFAS	06/26/23	36.746	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/26/23	1.06	1.52	NG/L	J
Perfluorobutyric acid (PFBA)	06/26/23	19.9	6.84	NG/L	
Perfluoroheptanoic acid (PFHpA)	06/26/23	0.74	1.71	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/26/23	5.87	1.56	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	1.41	1.71	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/26/23	4.51	1.59	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	2.29	1.71	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	0.966	1.61	NG/L	J
1,4-Dioxane	06/26/23	3.3	0.2	UG/L	J+
8260 TVOC	07/13/23	0.34	0	UG/L	
Tetrachloroethylene	07/13/23	0.34	0.5	UG/L	J
8260 TVOC	10/23/23	0.86	0	UG/L	
Chloroform	10/23/23	0.19	0.5	UG/L	J
Tetrachloroethylene	10/23/23	0.67	0.5	UG/L	

Site ID : 113-23 (RW-1)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	0.63	0	UG/L	
Chloroform	01/09/23	0.44	0.5	UG/L	J
Tetrachloroethylene	01/09/23	0.19	0.5	UG/L	J
8260 TVOC	04/17/23	0.4	0	UG/L	
Chloroform	04/17/23	0.4	0.5	UG/L	J
1633 TPFAS	06/26/23	38.69	0	NG/L	

Table F-8
Extraction Well VOC Data
OUIII Middle Road System

2023 BNL Groundwater Status Report

Site ID : 113-23 (RW-1)

Perfluorobutanesulfonate (PFBS)	06/26/23	1.26	1.62	NG/L	J
Perfluorobutyric acid (PFBA)	06/26/23	5.76	7.28	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/26/23	3.08	1.82	NG/L	
Perfluorohexanesulfonate (PFHxS)	06/26/23	3.14	1.66	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	5.01	1.82	NG/L	
Perfluorononanoic acid (PFNA)	06/26/23	1.41	1.82	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/26/23	10.2	1.69	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	4.47	1.82	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	0.68	1.71	NG/L	J
Perfluoropentanoic acid (PFPeA)	06/26/23	3.68	1.82	NG/L	
8260 TVOC	07/13/23	0.44	0	UG/L	
Chloroform	07/13/23	0.44	0.5	UG/L	J
8260 TVOC	10/23/23	0.35	0	UG/L	
Chloroform	10/23/23	0.35	0.5	UG/L	J

Site ID : 113-24 (RW-2)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.18	0.5	UG/L	J
8260 TVOC	01/09/23	9.15	0	UG/L	
Carbon tetrachloride	01/09/23	0.59	0.5	UG/L	
Chloroform	01/09/23	0.44	0.5	UG/L	J
Tetrachloroethylene	01/09/23	7.5	0.5	UG/L	
Trichloroethylene	01/09/23	0.44	0.5	UG/L	J
8260 TVOC	04/17/23	5.63	0	UG/L	
Carbon tetrachloride	04/17/23	0.42	0.5	UG/L	J
Chloroform	04/17/23	0.42	0.5	UG/L	J
Tetrachloroethylene	04/17/23	4.5	0.5	UG/L	
Trichloroethylene	04/17/23	0.29	0.5	UG/L	J
1633 TPFAS	06/26/23	67.207	0	NG/L	
(PFBS)	06/26/23	1.96	1.64	NG/L	
Perfluorobutyric acid (PFBA)	06/26/23	7.03	7.41	NG/L	J
Perfluoroheptanesulfonate (PFHpS)	06/26/23	1.02	1.77	NG/L	J
(PFHpA)	06/26/23	2.12	1.85	NG/L	
(PFHxS)	06/26/23	22.9	1.69	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	5.47	1.85	NG/L	
Perfluorononanoic acid (PFNA)	06/26/23	1.97	1.85	NG/L	
Perfluorooctane sulfonamide	06/26/23	0.857	1.85	NG/L	J
Perfluorooctanesulfonate	06/26/23	11.6	1.72	NG/L	

Table F-8
Extraction Well VOC Data
OUIII Middle Road System

2023 BNL Groundwater Status Report

Perfluorooctanoic acid (PFOA)	06/26/23	6.68	1.85	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	2.13	1.74	NG/L	
Perfluoropentanoic acid (PFPeA)	06/26/23	3.47	1.85	NG/L	
1,4-Dioxane	06/26/23	0.6	0.2	UG/L	J+
8260 TVOC	07/13/23	6.35	0	UG/L	
Carbon tetrachloride	07/13/23	0.43	0.5	UG/L	J
Chloroform	07/13/23	0.35	0.5	UG/L	J
Tetrachloroethylene	07/13/23	5.2	0.5	UG/L	
Trichloroethylene	07/13/23	0.37	0.5	UG/L	J

Site ID : 113-25 (RW-3)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	1.7	0.5	UG/L	
1,1-Dichloroethane	01/09/23	0.38	0.5	UG/L	J
1,1-Dichloroethylene	01/09/23	0.65	0.5	UG/L	
8260 TVOC	01/09/23	3.68	0	UG/L	
Chloroform	01/09/23	0.18	0.5	UG/L	J
Trichloroethylene	01/09/23	0.77	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	1.5	0.5	UG/L	
1,1-Dichloroethane	04/17/23	0.37	0.5	UG/L	J
1,1-Dichloroethylene	04/17/23	0.61	0.5	UG/L	
8260 TVOC	04/17/23	3.18	0	UG/L	
Trichloroethylene	04/17/23	0.7	0.5	UG/L	
1633 TPFAS	06/26/23	28.78	0	NG/L	
(PFBS)	06/26/23	1.08	1.58	NG/L	J
Perfluorobutyric acid (PFBA)	06/26/23	5.31	7.14	NG/L	J
(PFHpA)	06/26/23	0.79	1.78	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/26/23	11.2	1.63	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	2.58	1.78	NG/L	
(PFOS)	06/26/23	2.18	1.66	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	2.67	1.78	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	1.34	1.68	NG/L	J
Perfluoropentanoic acid (PFPeA)	06/26/23	1.63	1.78	NG/L	J
1,4-Dioxane	06/26/23	1.4	0.2	UG/L	J+
1,1,1-Trichloroethane	07/13/23	1.4	0.5	UG/L	
1,1-Dichloroethane	07/13/23	0.32	0.5	UG/L	J
1,1-Dichloroethylene	07/13/23	0.55	0.5	UG/L	
8260 TVOC	07/13/23	3.05	0	UG/L	
Trichloroethylene	07/13/23	0.78	0.5	UG/L	
1,1,1-Trichloroethane	10/23/23	1.4	0.5	UG/L	
1,1-Dichloroethane	10/23/23	0.29	0.5	UG/L	J
1,1-Dichloroethylene	10/23/23	0.59	0.5	UG/L	

Table F-8
Extraction Well VOC Data
OUIII Middle Road System

2023 BNL Groundwater Status Report

8260 TVOC	10/23/23	3.05	0	UG/L	
Trichloroethylene	10/23/23	0.77	0.5	UG/L	

Site ID : 113-26 (RW-4)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	2.19	0	UG/L	
Carbon tetrachloride	01/09/23	0.42	0.5	UG/L	J
Chloroform	01/09/23	0.69	0.5	UG/L	
Tetrachloroethylene	01/09/23	0.44	0.5	UG/L	J
Trichloroethylene	01/09/23	0.64	0.5	UG/L	
8260 TVOC	04/17/23	1.73	0	UG/L	
Carbon tetrachloride	04/17/23	0.28	0.5	UG/L	J
Chloroform	04/17/23	0.56	0.5	UG/L	
Tetrachloroethylene	04/17/23	0.32	0.5	UG/L	J
Trichloroethylene	04/17/23	0.57	0.5	UG/L	
1633 TPFAS	06/26/23	49.04	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/26/23	1.57	1.57	NG/L	
Perfluorobutyric acid (PFBA)	06/26/23	6.61	7.07	NG/L	J
(PFHpA)	06/26/23	1.13	1.77	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/26/23	19.8	1.61	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	3.78	1.77	NG/L	
Perfluorononanoic acid (PFNA)	06/26/23	1.73	1.77	NG/L	J
Perfluorooctane sulfonamide (PFOSAm)	06/26/23	0.8	1.77	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/26/23	4.89	1.64	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	4.49	1.77	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	1.99	1.66	NG/L	
Perfluoropentanoic acid (PFPeA)	06/26/23	2.25	1.77	NG/L	
1,4-Dioxane	06/26/23	2.2	0.2	UG/L	J+
1,1-Dichloroethylene	07/13/23	0.18	0.5	UG/L	J
8260 TVOC	07/13/23	2.21	0	UG/L	
Carbon tetrachloride	07/13/23	0.5	0.5	UG/L	
Chloroform	07/13/23	0.63	0.5	UG/L	
Tetrachloroethylene	07/13/23	0.3	0.5	UG/L	J
Trichloroethylene	07/13/23	0.6	0.5	UG/L	
8260 TVOC	10/23/23	1.26	0	UG/L	
Chloroform	10/23/23	0.44	0.5	UG/L	J
Tetrachloroethylene	10/23/23	0.31	0.5	UG/L	J
Trichloroethylene	10/23/23	0.51	0.5	UG/L	

Table F-8
Extraction Well VOC Data
OUIII Middle Road System

2023 BNL Groundwater Status Report

Site ID : 113-27 (RW-5)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	0.67	0	UG/L	
Chloroform	01/09/23	0.67	0.5	UG/L	
8260 TVOC	04/17/23	0.78	0	UG/L	
Chloroform	04/17/23	0.78	0.5	UG/L	
1633 TPFAS	06/26/23	34.6	0	NG/L	
(PFBS)	06/26/23	1.62	3.55	NG/L	J
Perfluorobutyric acid (PFBA)	06/26/23	8.21	16	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/26/23	1.77	4	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/26/23	4.94	3.66	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	3.47	4	NG/L	J
Perfluorononanoic acid (PFNA)	06/26/23	1.63	4	NG/L	J
(PFOS)	06/26/23	4.43	3.71	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	3.14	4	NG/L	J
Perfluoropentanesulfonate (PFPeS)	06/26/23	1.53	3.76	NG/L	J
Perfluoropentanoic acid (PFPeA)	06/26/23	3.86	4	NG/L	J
1,4-Dioxane	06/26/23	1.4	1.4	UG/L	J+
8260 TVOC	07/13/23	0.63	0	UG/L	
Chloroform	07/13/23	0.63	0.5	UG/L	
8260 TVOC	10/23/23	0	0	UG/L	

Site ID : 113-33 (RW-7)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.76	0.5	UG/L	
1,1-Dichloroethylene	01/09/23	0.24	0.5	UG/L	J
8260 TVOC	01/09/23	40.37	0	UG/L	
Carbon tetrachloride	01/09/23	6.1	0.5	UG/L	
Chloroform	01/09/23	0.62	0.5	UG/L	
Tetrachloroethylene	01/09/23	32	0.5	UG/L	
Trichloroethylene	01/09/23	0.65	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	0.68	0.5	UG/L	
1,1,2,2-Tetrachloroethane	04/17/23	0.22	0.5	UG/L	J
1,1-Dichloroethylene	04/17/23	0.45	0.5	UG/L	J
8260 TVOC	04/17/23	42.74	0	UG/L	
Carbon tetrachloride	04/17/23	2.9	0.5	UG/L	
Chloroform	04/17/23	0.58	0.5	UG/L	
Tetrachloroethylene	04/17/23	37	0.5	UG/L	
Trichloroethylene	04/17/23	0.91	0.5	UG/L	
1633 TPFAS	06/26/23	36.89	0	NG/L	
(PFBS)	06/26/23	2.14	1.6	NG/L	
Perfluorobutyric acid (PFBA)	06/26/23	10.5	7.2	NG/L	

Table F-8
Extraction Well VOC Data
OUIII Middle Road System

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Perfluoroheptanoic acid (PFHpA)	06/26/23	1.03	1.8	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/26/23	9.69	1.65	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	2.32	1.8	NG/L	
(PFOS)	06/26/23	3.27	1.67	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	4.36	1.8	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	1.81	1.69	NG/L	
Perfluoropentanoic acid (PFPeA)	06/26/23	1.77	1.8	NG/L	J
1,4-Dioxane	06/26/23	2	0.2	UG/L	J+
1,1,1-Trichloroethane	07/13/23	0.67	0.5	UG/L	
1,1-Dichloroethylene	07/13/23	0.38	0.5	UG/L	J
8260 TVOC	07/13/23	42.84	0	UG/L	
Carbon tetrachloride	07/13/23	3.1	0.5	UG/L	
Chloroform	07/13/23	0.51	0.5	UG/L	
Dichlorodifluoromethane	07/13/23	0.33	0.5	UG/L	J
Tetrachloroethylene	07/13/23	37	0.5	UG/L	
Trichloroethylene	07/13/23	0.85	0.5	UG/L	
1,1,2,2-Tetrachloroethane	10/23/23	0.19	0.5	UG/L	J
1,1-Dichloroethylene	10/23/23	0.19	0.5	UG/L	J
8260 TVOC	10/23/23	41.44	0	UG/L	
Carbon tetrachloride	10/23/23	2.7	0.5	UG/L	
Chloroform	10/23/23	0.51	0.5	UG/L	
Tetrachloroethylene	10/23/23	37	0.5	UG/L	
Trichloroethylene	10/23/23	0.85	0.5	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.

J+: An unusually uncertain, detected result with suspected significant high bias. The associated numerical value is an estimated quantity.

Table F-9
Air Stripper Influent VOC Data
OU III Middle Road System

2023 BNL Groundwater Status Report

Site ID : 113-34 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.72	0.5	UG/L	
1,1-Dichloroethylene	01/09/23	0.34	0.5	UG/L	J
8260 TVOC	01/09/23	6.98	0	UG/L	
Carbon tetrachloride	01/09/23	0.36	0.5	UG/L	J
Chloroform	01/09/23	0.36	0.5	UG/L	J
Tetrachloroethylene	01/09/23	5.2	0.5	UG/L	
1,1,1-Trichloroethane	02/11/23	0.68	0.5	UG/L	
1,1-Dichloroethylene	02/11/23	0.32	0.5	UG/L	J
8260 TVOC	02/11/23	22.07	0	UG/L	
Carbon tetrachloride	02/11/23	2	0.5	UG/L	
Chloroform	02/11/23	0.41	0.5	UG/L	J
Tetrachloroethylene	02/11/23	18	0.5	UG/L	
Trichloroethylene	02/11/23	0.66	0.5	UG/L	
1,1,1-Trichloroethane	03/13/23	0.67	0.5	UG/L	
1,1-Dichloroethylene	03/13/23	0.33	0.5	UG/L	J
8260 TVOC	03/13/23	21.86	0	UG/L	
Carbon tetrachloride	03/13/23	1.7	0.5	UG/L	
Chloroform	03/13/23	0.42	0.5	UG/L	J
Tetrachloroethylene	03/13/23	18	0.5	UG/L	
Trichloroethylene	03/13/23	0.74	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	0.6	0.5	UG/L	
1,1-Dichloroethylene	04/17/23	0.35	0.5	UG/L	J
8260 TVOC	04/17/23	18.07	0	UG/L	
Carbon tetrachloride	04/17/23	1.1	0.5	UG/L	
Chloroform	04/17/23	0.38	0.5	UG/L	J
Tetrachloroethylene	04/17/23	15	0.5	UG/L	
Trichloroethylene	04/17/23	0.64	0.5	UG/L	
1,1,1-Trichloroethane	05/12/23	0.84	0.5	UG/L	
1,1-Dichloroethylene	05/12/23	0.35	0.5	UG/L	J
8260 TVOC	05/12/23	18.18	0	UG/L	
Carbon tetrachloride	05/12/23	0.87	0.5	UG/L	
Chloroform	05/12/23	0.43	0.5	UG/L	J
Tetrachloroethylene	05/12/23	15	0.5	UG/L	
Trichloroethylene	05/12/23	0.69	0.5	UG/L	
1,1,1-Trichloroethane	06/15/23	0.68	0.5	UG/L	
1,1-Dichloroethylene	06/15/23	0.3	0.5	UG/L	J
8260 TVOC	06/15/23	15.3	0	UG/L	
Carbon tetrachloride	06/15/23	0.39	0.5	UG/L	J
Chloroform	06/15/23	0.35	0.5	UG/L	J
Tetrachloroethylene	06/15/23	13	0.5	UG/L	
Trichloroethylene	06/15/23	0.58	0.5	UG/L	
1633 TPFAS	06/26/23	49.721	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/26/23	1.58	1.67	NG/L	J
Perfluorobutyric acid (PFBA)	06/26/23	7.74	7.52	NG/L	
Perfluoroheptanesulfonate (PFHpS)	06/26/23	0.751	1.79	NG/L	J

Table F-9
Air Stripper Influent VOC Data
OU III Middle Road System

2023 BNL Groundwater Status Report

Site ID : 113-34 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
Perfluoroheptanoic acid (PFHpA)	06/26/23	1.29	1.88	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/26/23	15.3	1.72	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	3.46	1.88	NG/L	
Perfluorononanoic acid (PFNA)	06/26/23	1.03	1.88	NG/L	J
Perfluorooctane sulfonamide (PFOSAm)	06/26/23	3.97	8.75	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/26/23	5.82	1.74	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	4.54	1.88	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	1.96	1.77	NG/L	
Perfluoropentanoic acid (PFPeA)	06/26/23	2.28	1.88	NG/L	
1,4-Dioxane	06/26/23	1.2	0.2	UG/L	J+
1,1,1-Trichloroethane	07/13/23	0.74	0.5	UG/L	
1,1-Dichloroethylene	07/13/23	0.33	0.5	UG/L	J
8260 TVOC	07/13/23	15.34	0	UG/L	
Carbon tetrachloride	07/13/23	0.25	0.5	UG/L	J
Chloroform	07/13/23	0.34	0.5	UG/L	J
Tetrachloroethylene	07/13/23	13	0.5	UG/L	
Trichloroethylene	07/13/23	0.68	0.5	UG/L	
1,1,1-Trichloroethane	08/11/23	0.76	0.5	UG/L	
1,1-Dichloroethylene	08/11/23	0.4	0.5	UG/L	J
8260 TVOC	08/11/23	16.57	0	UG/L	
Carbon tetrachloride	08/11/23	0.37	0.5	UG/L	J
Chloroform	08/11/23	0.38	0.5	UG/L	J
Tetrachloroethylene	08/11/23	14	0.5	UG/L	
Trichloroethylene	08/11/23	0.66	0.5	UG/L	
1,1,1-Trichloroethane	09/08/23	0.61	0.5	UG/L	
8260 TVOC	09/08/23	15.04	0	UG/L	
Carbon tetrachloride	09/08/23	0.57	0.5	UG/L	
Chloroform	09/08/23	0.33	0.5	UG/L	J
Tetrachloroethylene	09/08/23	13	0.5	UG/L	
Trichloroethylene	09/08/23	0.53	0.5	UG/L	
1633 TPFAS	10/18/23	31.02	0	NG/L	
Perfluorobutanesulfonate (PFBS)	10/18/23	1.59	1.7	NG/L	J
Perfluorobutyric acid (PFBA)	10/18/23	7.37	7.69	NG/L	J
Perfluoroheptanoic acid (PFHpA)	10/18/23	0.674	1.92	NG/L	J
Perfluorohexanesulfonate (PFHxS)	10/18/23	10.5	1.76	NG/L	

Table F-9
Air Stripper Influent VOC Data
OU III Middle Road System

2023 BNL Groundwater Status Report

Site ID : 113-34 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
Perfluorohexanoic acid (PFHxA)	10/18/23	2.01	1.92	NG/L	
Perfluorooctanesulfonate (PFOS)	10/18/23	2.55	1.78	NG/L	
Perfluorooctanoic acid (PFOA)	10/18/23	4.35	1.92	NG/L	
Perfluoropentanesulfonate (PFPeS)	10/18/23	1.19	1.81	NG/L	J
Perfluoropentanoic acid (PFPeA)	10/18/23	0.786	1.92	NG/L	J
1,4-Dioxane	10/18/23	1.7	0.22	UG/L	
1,1,1-Trichloroethane	10/18/23	0.95	0.5	UG/L	
1,1-Dichloroethylene	10/18/23	0.42	0.5	UG/L	J
8260 TVOC	10/18/23	20.62	0	UG/L	
Carbon tetrachloride	10/18/23	1.2	0.5	UG/L	
Chloroform	10/18/23	0.28	0.5	UG/L	J
Tetrachloroethylene	10/18/23	17	0.5	UG/L	
Trichloroethylene	10/18/23	0.77	0.5	UG/L	
1,1,1-Trichloroethane	11/06/23	0.95	0.5	UG/L	
1,1-Dichloroethylene	11/06/23	0.48	0.5	UG/L	J
8260 TVOC	11/06/23	19.07	0	UG/L	
Carbon tetrachloride	11/06/23	0.54	0.5	UG/L	
Chloroform	11/06/23	0.33	0.5	UG/L	J
Tetrachloroethylene	11/06/23	16	0.5	UG/L	
Trichloroethylene	11/06/23	0.77	0.5	UG/L	
1,1,1-Trichloroethane	12/07/23	0.73	0.5	UG/L	
1,1-Dichloroethane	12/07/23	0.22	0.5	UG/L	J
1,1-Dichloroethylene	12/07/23	0.42	0.5	UG/L	J
8260 TVOC	12/07/23	6.1	0	UG/L	
Carbon tetrachloride	12/07/23	0.3	0.5	UG/L	J
Chloroform	12/07/23	0.28	0.5	UG/L	J
Tetrachloroethylene	12/07/23	3.5	0.5	UG/L	
Trichloroethylene	12/07/23	0.65	0.5	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.
J+: An unusually uncertain, detected result with suspected significant high bias. The associated numerical value is an estimated quantity.

Table F-10
Air Stripper Effluent VOC Data
OU III Middle Road System

2023 BNL Groundwater Status Report

Site ID : 095-270 (MR/SB/WSB Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	06/15/23	0	0	UG/L	
1633 TPFAS	06/26/23	41.512	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/26/23	1.67	1.61	NG/L	
Perfluorobutyric acid (PFBA)	06/26/23	7.09	7.28	NG/L	J
Perfluoroheptanesulfonate (PFHpS)	06/26/23	0.672	1.73	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/26/23	1.17	1.82	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/26/23	14	1.66	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	2.93	1.82	NG/L	
Perfluorononanoic acid (PFNA)	06/26/23	0.81	1.82	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/26/23	5.24	1.69	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	4.11	1.82	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	1.72	1.71	NG/L	
Perfluoropentanoic acid (PFPeA)	06/26/23	2.1	1.82	NG/L	
1,4-Dioxane	06/26/23	2.1	0.2	UG/L	J+
8260 TVOC	07/13/23	0	0	UG/L	
8260 TVOC	08/11/23	0	0	UG/L	
8260 TVOC	09/08/23	0	0	UG/L	
1633 TPFAS	10/18/23	23.44	0	NG/L	
Perfluorobutanesulfonate (PFBS)	10/18/23	1.35	1.67	NG/L	J
Perfluorobutyric acid (PFBA)	10/18/23	5.84	7.53	NG/L	J
Perfluorohexanesulfonate (PFHxS)	10/18/23	8.79	1.72	NG/L	
Perfluorohexanoic acid (PFHxA)	10/18/23	1.56	1.88	NG/L	J
Perfluorooctanesulfonate (PFOS)	10/18/23	2.76	1.75	NG/L	
Perfluorooctanoic acid (PFOA)	10/18/23	2.13	1.88	NG/L	
Perfluoropentanesulfonate (PFPeS)	10/18/23	1.01	1.77	NG/L	J
1,4-Dioxane	10/18/23	2.8	0.22	UG/L	
8260 TVOC	10/18/23	0	0	UG/L	
8260 TVOC	11/06/23	0	0	UG/L	
8260 TVOC	12/07/23	0	0	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.

J+: An unusually uncertain, detected result with suspected significant high bias. The associated numerical value is an estimated quantity.

Table F-11
Cumulative Mass Removal
OU III Middle Road System

2023 BNL Groundwater Status Report

Date Sampled	Total VOC's (µg/L)	Flow Rates (gpm)	Cumulative VOC's (lbs)
01/09/23	6.98	318	1353.04
02/11/23	22.07	278	1355.47
03/13/23	21.86	424	1358.80
04/17/23	18.07	401	1361.85
05/12/23	18.18	382	1363.93
06/15/23	15.3	486	1366.97
07/13/23	15.34	311	1368.57
08/11/23	16.57	441	1371.11
09/08/23	15.04	318	1372.72
10/18/23	20.62	310	1375.78
11/06/23	19.07	295	1377.07
12/07/23	6.01	370	1377.90

µg/L Micrograms per liter
gpm Gallons per minute
lbs Pounds

Table F-12
Extraction Well VOC Data
OU III South Boundary System

2023 BNL Groundwater Status Report

Site ID : 121-15 (EW-5)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	1.3	0	UG/L	
Chloroform	01/09/23	0.37	0.5	UG/L	J
Tetrachloroethylene	01/09/23	0.93	0.5	UG/L	
8260 TVOC	04/17/23	0.26	0	UG/L	
Tetrachloroethylene	04/17/23	0.26	0.5	UG/L	J
1,4-Dioxane	06/28/23	1.1	0.2	UG/L	
8260 TVOC	07/13/23	0.83	0	UG/L	
Chloroform	07/13/23	0.34	0.5	UG/L	J
Tetrachloroethylene	07/13/23	0.49	0.5	UG/L	J
1633 TPFAS	08/08/23	49.48	0	NG/L	
Perfluorobutanesulfonate (PFBS)	08/08/23	1.1	1.5	NG/L	J
Perfluorobutyric acid (PFBA)	08/08/23	12	6.1	NG/L	
Perfluorodecanoic acid (PFDA)	08/08/23	0.28	1.5	NG/L	J
Perfluoroheptanoic acid (PFHpA)	08/08/23	1.5	1.5	NG/L	
Perfluorohexanesulfonate (PFHxS)	08/08/23	13	1.5	NG/L	
Perfluorohexanoic acid (PFHxA)	08/08/23	3.6	1.5	NG/L	
Perfluorononanoic acid (PFNA)	08/08/23	0.39	1.5	NG/L	J
Perfluorooctane sulfonamide (PFOSAm)	08/08/23	0.91	1.5	NG/L	J
Perfluorooctanesulfonate (PFOS)	08/08/23	8.1	1.5	NG/L	
Perfluorooctanoic acid (PFOA)	08/08/23	4.9	1.5	NG/L	
Perfluoropentanesulfonate (PFPeS)	08/08/23	1.3	1.5	NG/L	J
Perfluoropentanoic acid (PFPeA)	08/08/23	2.4	3	NG/L	J
8260 TVOC	10/23/23	0.74	0	UG/L	
Chloroform	10/23/23	0.34	0.5	UG/L	J
Tetrachloroethylene	10/23/23	0.4	0.5	UG/L	J

Site ID : 121-16 (EW-4)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	0.64	0	UG/L	
Chloroform	01/09/23	0.27	0.5	UG/L	J
Tetrachloroethylene	01/09/23	0.37	0.5	UG/L	J
8260 TVOC	04/17/23	5.03	0	UG/L	
Carbon tetrachloride	04/17/23	0.54	0.5	UG/L	
Chloroform	04/17/23	0.36	0.5	UG/L	J
Tetrachloroethylene	04/17/23	3.9	0.5	UG/L	
Trichloroethylene	04/17/23	0.23	0.5	UG/L	J
1,4-Dioxane	06/28/23	0.35	0.2	UG/L	
8260 TVOC	07/13/23	0.8	0	UG/L	
Chloroform	07/13/23	0.28	0.5	UG/L	J
Tetrachloroethylene	07/13/23	0.52	0.5	UG/L	
1633 TPFAS	08/08/23	79.81	0	NG/L	
4,8-Dioxa-3H-perfluorononanoic acid (DONA)	08/08/23	0.4	5.5	NG/L	J
Fluorotelomer sulfonate 6:2 (6:2 FTS)	08/08/23	0.55	5.5	NG/L	J

Table F-12
Extraction Well VOC Data
OU III South Boundary System

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Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	08/08/23	0.52	5.5	NG/L	J
Perfluorobutanesulfonate (PFBS)	08/08/23	1.8	1.4	NG/L	
Perfluorobutyric acid (PFBA)	08/08/23	5.6	5.5	NG/L	
Perfluorodecanoic acid (PFDA)	08/08/23	0.29	1.4	NG/L	J
Perfluoroheptanesulfonate (PFHpS)	08/08/23	1	1.4	NG/L	J
Perfluoroheptanoic acid (PFHpA)	08/08/23	1.7	1.4	NG/L	
Perfluorohexanesulfonate (PFHxS)	08/08/23	35	1.4	NG/L	
Perfluorohexanoic acid (PFHxA)	08/08/23	6.3	1.4	NG/L	
Perfluorononanoic acid (PFNA)	08/08/23	0.85	1.4	NG/L	J
Perfluorooctane sulfonamide (PFOSAm)	08/08/23	1.8	1.4	NG/L	
Perfluorooctanesulfonate (PFOS)	08/08/23	13	1.4	NG/L	
Perfluorooctanoic acid (PFOA)	08/08/23	6.5	1.4	NG/L	
Perfluoropentanesulfonate (PFPeS)	08/08/23	2.1	1.4	NG/L	
Perfluoropentanoic acid (PFPeA)	08/08/23	2.4	2.8	NG/L	J
8260 TVOC	10/23/23	0.79	0	UG/L	
Chloroform	10/23/23	0.27	0.5	UG/L	J
Tetrachloroethylene	10/23/23	0.52	0.5	UG/L	

Site ID : 121-17 (EW-3)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	1.82	0	UG/L	
Chloroform	01/09/23	0.44	0.5	UG/L	J
Methyl tert-butyl ether	01/09/23	0.71	0.5	UG/L	
Tetrachloroethylene	01/09/23	0.67	0.5	UG/L	
8260 TVOC	04/17/23	2.83	0	UG/L	
Chloroform	04/17/23	0.31	0.5	UG/L	J
Methyl tert-butyl ether	04/17/23	0.42	0.5	UG/L	J
Tetrachloroethylene	04/17/23	2.1	0.5	UG/L	
1,4-Dioxane	06/28/23	0.59	0.2	UG/L	
1633 TPFAS	06/28/23	26.07	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/28/23	1.02	1.66	NG/L	J
Perfluorobutyric acid (PFBA)	06/28/23	9.3	7.48	NG/L	
Perfluoroheptanoic acid (PFHpA)	06/28/23	1.02	1.87	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/28/23	4.12	1.71	NG/L	
Perfluorohexanoic acid (PFHxA)	06/28/23	1.98	1.87	NG/L	
Perfluorooctanesulfonate (PFOS)	06/28/23	2.99	1.74	NG/L	
Perfluorooctanoic acid (PFOA)	06/28/23	2.82	1.87	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/28/23	1.1	1.76	NG/L	J
Perfluoropentanoic acid (PFPeA)	06/28/23	1.72	1.87	NG/L	J
8260 TVOC	07/13/23	1.47	0	UG/L	
Chloroform	07/13/23	0.31	0.5	UG/L	J
Methyl tert-butyl ether	07/13/23	0.48	0.5	UG/L	J
Tetrachloroethylene	07/13/23	0.68	0.5	UG/L	
1633 TPFAS	08/08/23	23.82	0	NG/L	
Perfluorobutanesulfonate (PFBS)	08/08/23	0.91	1.6	NG/L	J
Perfluorobutyric acid (PFBA)	08/08/23	9.6	6.3	NG/L	

Table F-12
Extraction Well VOC Data
OU III South Boundary System

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Perfluoroheptanoic acid (PFHpA)	08/08/23	0.65	1.6	NG/L	J
Perfluorohexanesulfonate (PFHxS)	08/08/23	4.9	1.6	NG/L	
Perfluorohexanoic acid (PFHxA)	08/08/23	1.1	1.6	NG/L	J
Perfluorooctanesulfonate (PFOS)	08/08/23	2.8	1.6	NG/L	
Perfluorooctanoic acid (PFOA)	08/08/23	2.6	1.6	NG/L	
Perfluoropentanesulfonate (PFPeS)	08/08/23	0.72	1.6	NG/L	J
Perfluoropentanoic acid (PFPeA)	08/08/23	0.54	3.1	NG/L	J
8260 TVOC	10/23/23	1.28	0	UG/L	
Chloroform	10/23/23	0.27	0.5	UG/L	J
Methyl tert-butyl ether	10/23/23	0.35	0.5	UG/L	J
Tetrachloroethylene	10/23/23	0.66	0.5	UG/L	

Site ID : 121-46 (EW-17)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.39	0.5	UG/L	J
8260 TVOC	01/09/23	13.44	0	UG/L	
Carbon tetrachloride	01/09/23	2.2	0.5	UG/L	
Chloroform	01/09/23	0.58	0.5	UG/L	
Tetrachloroethylene	01/09/23	9.8	0.5	UG/L	
Trichloroethylene	01/09/23	0.47	0.5	UG/L	J
1,1,1-Trichloroethane	04/17/23	0.31	0.5	UG/L	J
1,1-Dichloroethylene	04/17/23	0.32	0.5	UG/L	J
8260 TVOC	04/17/23	12.32	0	UG/L	
Carbon tetrachloride	04/17/23	1.5	0.5	UG/L	
Chloroform	04/17/23	0.48	0.5	UG/L	J
Tetrachloroethylene	04/17/23	9.3	0.5	UG/L	
Trichloroethylene	04/17/23	0.41	0.5	UG/L	J
1,4-Dioxane	06/28/23	1.2	0.2	UG/L	
1633 TPFAS	06/28/23	56.174	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/28/23	1.9	1.59	NG/L	
Perfluorobutyric acid (PFBA)	06/28/23	8.11	7.15	NG/L	
Perfluoroheptanesulfonate (PFHpS)	06/28/23	0.784	1.7	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/28/23	1.64	1.79	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/28/23	21.7	1.63	NG/L	
Perfluorohexanoic acid (PFHxA)	06/28/23	3.82	1.79	NG/L	
Perfluorononanoic acid (PFNA)	06/28/23	0.885	1.79	NG/L	J
Perfluorooctane sulfonamide (PFOSAm)	06/28/23	0.935	1.79	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/28/23	6.71	1.66	NG/L	
Perfluorooctanoic acid (PFOA)	06/28/23	5.22	1.79	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/28/23	1.71	1.68	NG/L	
Perfluoropentanoic acid (PFPeA)	06/28/23	2.76	1.79	NG/L	
1,1,1-Trichloroethane	07/13/23	0.32	0.5	UG/L	J
1,1-Dichloroethylene	07/13/23	0.4	0.5	UG/L	J
8260 TVOC	07/13/23	14.61	0	UG/L	
Carbon tetrachloride	07/13/23	1.9	0.5	UG/L	
Chloroform	07/13/23	0.5	0.5	UG/L	
Tetrachloroethylene	07/13/23	11	0.5	UG/L	

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Trichloroethylene	07/13/23	0.49	0.5	UG/L	J
1633 TPFAS	08/08/23	67.43	0	NG/L	
Perfluorobutanesulfonate (PFBS)	08/08/23	1.6	1.5	NG/L	
Perfluorobutyric acid (PFBA)	08/08/23	8.3	5.9	NG/L	
Perfluorodecanoic acid (PFDA)	08/08/23	0.14	1.5	NG/L	J
Perfluoroheptanoic acid (PFHpA)	08/08/23	1.5	1.5	NG/L	
Perfluorohexanesulfonate (PFHxS)	08/08/23	30	1.5	NG/L	
Perfluorohexanoic acid (PFHxA)	08/08/23	4.9	1.5	NG/L	
Perfluorononanoic acid (PFNA)	08/08/23	0.59	1.5	NG/L	J
Perfluorooctane sulfonamide (PFOSAm)	08/08/23	1.5	1.5	NG/L	
Perfluorooctanesulfonate (PFOS)	08/08/23	8.2	1.5	NG/L	
Perfluorooctanoic acid (PFOA)	08/08/23	6.9	1.5	NG/L	
Perfluoropentanesulfonate (PFPeS)	08/08/23	1.7	1.5	NG/L	
Perfluoropentanoic acid (PFPeA)	08/08/23	2.1	3	NG/L	J
1,1,1-Trichloroethane	10/23/23	0.29	0.5	UG/L	J
1,1-Dichloroethylene	10/23/23	0.41	0.5	UG/L	J
8260 TVOC	10/23/23	25.31	0	UG/L	
Carbon tetrachloride	10/23/23	3.3	0.5	UG/L	
Chloroform	10/23/23	0.44	0.5	UG/L	J
Methylene chloride	10/23/23	0.16	0.5	UG/L	J
Tetrachloroethylene	10/23/23	20	0.5	UG/L	
Trichloroethylene	10/23/23	0.71	0.5	UG/L	

Site ID : 122-12 (EW-8)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	6.12	0	UG/L	
Methylene chloride	01/09/23	1.1	0.5	UG/L	B
Tetrachloroethylene	01/09/23	4.2	0.5	UG/L	
Toluene	01/09/23	0.36	0.5	UG/L	J
Trichloroethylene	01/09/23	0.46	0.5	UG/L	J
8260 TVOC	04/17/23	8.38	0	UG/L	
cis-1,2-Dichloroethylene	04/17/23	2.8	0.5	UG/L	
Tetrachloroethylene	04/17/23	5	0.5	UG/L	
Trichloroethylene	04/17/23	0.58	0.5	UG/L	
1,4-Dioxane	06/28/23	0.19	0.2	UG/L	J
8260 TVOC	07/13/23	9.45	0	UG/L	
cis-1,2-Dichloroethylene	07/13/23	3.2	0.5	UG/L	
Tetrachloroethylene	07/13/23	5.7	0.5	UG/L	
Trichloroethylene	07/13/23	0.55	0.5	UG/L	
1633 TPFAS	08/08/23	58.71	0	NG/L	
Perfluorobutanesulfonate (PFBS)	08/08/23	0.73	1.5	NG/L	J
Perfluorobutyric acid (PFBA)	08/08/23	2.1	6	NG/L	J
Perfluoroheptanesulfonate (PFHpS)	08/08/23	0.58	1.5	NG/L	J
Perfluoroheptanoic acid (PFHpA)	08/08/23	1.1	1.5	NG/L	J
Perfluorohexanesulfonate (PFHxS)	08/08/23	22	1.5	NG/L	
Perfluorohexanoic acid (PFHxA)	08/08/23	3	1.5	NG/L	
Perfluorooctane sulfonamide (PFOSAm)	08/08/23	0.19	1.5	NG/L	J
Perfluorooctanesulfonate (PFOS)	08/08/23	21	1.5	NG/L	

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Perfluorooctanoic acid (PFOA)	08/08/23	6.1	1.5	NG/L	
Perfluoropentanesulfonate (PFPeS)	08/08/23	0.91	1.5	NG/L	J
Perfluoropentanoic acid (PFPeA)	08/08/23	1	3	NG/L	J
8260 TVOC	10/23/23	8.12	0	UG/L	
cis-1,2-Dichloroethylene	10/23/23	1.9	0.5	UG/L	
Tetrachloroethylene	10/23/23	5.7	0.5	UG/L	
Trichloroethylene	10/23/23	0.52	0.5	UG/L	

Site ID : 122-13 (EW-7)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	2.05	0	UG/L	
Chloroform	01/09/23	0.25	0.5	UG/L	J
Tetrachloroethylene	01/09/23	1.8	0.5	UG/L	
8260 TVOC	04/17/23	7.2	0	UG/L	
Carbon tetrachloride	04/17/23	0.8	0.5	UG/L	
Chloroform	04/17/23	0.43	0.5	UG/L	J
Tetrachloroethylene	04/17/23	5.7	0.5	UG/L	
Trichloroethylene	04/17/23	0.27	0.5	UG/L	J
1,4-Dioxane	06/28/23	1.1	0.2	UG/L	
1633 TPFAS	08/28/23	52.47	0	NG/L	
Perfluorobutanesulfonate (PFBS)	08/28/23	1.7	1.5	NG/L	
Perfluorobutyric acid (PFBA)	08/28/23	7.4	6.1	NG/L	
Perfluorodecanoic acid (PFDA)	08/28/23	0.27	1.5	NG/L	J
Perfluoroheptanoic acid (PFHpA)	08/28/23	1.5	1.5	NG/L	
Perfluorohexanesulfonate (PFHxS)	08/28/23	12	1.5	NG/L	
Perfluorohexanoic acid (PFHxA)	08/28/23	3.1	1.5	NG/L	
Perfluorononanoic acid (PFNA)	08/28/23	1.7	1.5	NG/L	
Perfluorooctanesulfonate (PFOS)	08/28/23	16	1.5	NG/L	
Perfluorooctanoic acid (PFOA)	08/28/23	4.5	1.5	NG/L	
Perfluoropentanesulfonate (PFPeS)	08/28/23	1.4	1.5	NG/L	J
Perfluoropentanoic acid (PFPeA)	08/28/23	2.9	3	NG/L	J
1,4-Dioxane	08/28/23	0.5	0.2	UG/L	
8260 TVOC	10/23/23	2.07	0	UG/L	
Carbon tetrachloride	10/23/23	0.19	0.5	UG/L	J
Chloroform	10/23/23	0.18	0.5	UG/L	J
Tetrachloroethylene	10/23/23	1.7	0.5	UG/L	

Site ID : 122-14 (EW-6)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	2.39	0	UG/L	
Carbon tetrachloride	01/09/23	0.18	0.5	UG/L	J
Chloroform	01/09/23	0.21	0.5	UG/L	J
Tetrachloroethylene	01/09/23	2	0.5	UG/L	
8260 TVOC	04/17/23	1.1	0	UG/L	
Tetrachloroethylene	04/17/23	1.1	0.5	UG/L	
1,4-Dioxane	06/28/23	0.6	0.2	UG/L	
8260 TVOC	07/13/23	0.48	0	UG/L	

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Tetrachloroethylene	07/13/23	0.48	0.5	UG/L	J
1633 TPFAS	08/08/23	86.14	0	NG/L	
Perfluorobutanesulfonate (PFBS)	08/08/23	2.1	1.6	NG/L	
Perfluorobutyric acid (PFBA)	08/08/23	12	6.4	NG/L	
Perfluorodecanoic acid (PFDA)	08/08/23	0.43	1.6	NG/L	J
Perfluoroheptanoic acid (PFHpA)	08/08/23	4.2	1.6	NG/L	
Perfluorohexanesulfonate (PFHxS)	08/08/23	23	1.6	NG/L	
Perfluorohexanoic acid (PFHxA)	08/08/23	10	1.6	NG/L	
Perfluorononanoic acid (PFNA)	08/08/23	2.2	1.6	NG/L	
Perfluorooctane sulfonamide (PFOSAm)	08/08/23	0.43	1.6	NG/L	J
Perfluorooctanesulfonate (PFOS)	08/08/23	14	1.6	NG/L	
Perfluorooctanoic acid (PFOA)	08/08/23	5.6	1.6	NG/L	
Perfluoropentanesulfonate (PFPeS)	08/08/23	2.5	1.6	NG/L	
Perfluoropentanoic acid (PFPeA)	08/08/23	9.3	3.2	NG/L	
Perfluoroundecanoic acid (PFUdA)	08/08/23	0.38	1.6	NG/L	J
8260 TVOC	10/23/23	0.67	0	UG/L	
Tetrachloroethylene	10/23/23	0.67	0.5	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.

Table F-13
Air Stripper Influent VOC Data
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Site ID : 121-41 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.17	0.5	UG/L	J
8260 TVOC	01/09/23	9.45	0	UG/L	
Carbon tetrachloride	01/09/23	1.2	0.5	UG/L	
Chloroform	01/09/23	0.42	0.5	UG/L	J
Tetrachloroethylene	01/09/23	7.2	0.5	UG/L	
Trichloroethylene	01/09/23	0.46	0.5	UG/L	J
1,1-Dichloroethylene	02/11/23	0.26	0.5	UG/L	J
8260 TVOC	02/11/23	12.07	0	UG/L	
Carbon tetrachloride	02/11/23	1.8	0.5	UG/L	
Chloroform	02/11/23	0.46	0.5	UG/L	J
Tetrachloroethylene	02/11/23	9.2	0.5	UG/L	
Trichloroethylene	02/11/23	0.35	0.5	UG/L	J
1,1,1-Trichloroethane	03/13/23	0.26	0.5	UG/L	J
1,1-Dichloroethylene	03/13/23	0.32	0.5	UG/L	J
8260 TVOC	03/13/23	12.7	0	UG/L	
Carbon tetrachloride	03/13/23	1.9	0.5	UG/L	
Chloroform	03/13/23	0.52	0.5	UG/L	
Tetrachloroethylene	03/13/23	9.7	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	0.2	0.5	UG/L	J
1,1-Dichloroethylene	04/17/23	0.24	0.5	UG/L	J
8260 TVOC	04/17/23	11.09	0	UG/L	
Carbon tetrachloride	04/17/23	0.98	0.5	UG/L	
Chloroform	04/17/23	0.33	0.5	UG/L	J
cis-1,2-Dichloroethylene	04/17/23	0.98	0.5	UG/L	
Tetrachloroethylene	04/17/23	7.9	0.5	UG/L	
Trichloroethylene	04/17/23	0.46	0.5	UG/L	J
1,1,1-Trichloroethane	05/12/23	0.42	0.5	UG/L	J
1,1-Dichloroethylene	05/12/23	0.44	0.5	UG/L	J
8260 TVOC	05/12/23	15.33	0	UG/L	
Carbon tetrachloride	05/12/23	2.5	0.5	UG/L	
Chloroform	05/12/23	0.55	0.5	UG/L	
Tetrachloroethylene	05/12/23	11	0.5	UG/L	
Trichloroethylene	05/12/23	0.42	0.5	UG/L	J
1,1,1-Trichloroethane	06/15/23	0.33	0.5	UG/L	J
1,1-Dichloroethylene	06/15/23	0.31	0.5	UG/L	J
8260 TVOC	06/15/23	13.29	0	UG/L	
Carbon tetrachloride	06/15/23	1.8	0.5	UG/L	
Chloroform	06/15/23	0.47	0.5	UG/L	J
Tetrachloroethylene	06/15/23	10	0.5	UG/L	
Trichloroethylene	06/15/23	0.38	0.5	UG/L	J
1,4-Dioxane	06/28/23	0.82	0.2	UG/L	
1,1,1-Trichloroethane	07/13/23	0.32	0.5	UG/L	J
1,1-Dichloroethylene	07/13/23	0.34	0.5	UG/L	J
8260 TVOC	07/13/23	13.64	0	UG/L	

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Site ID : 121-41 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
Carbon tetrachloride	07/13/23	2.1	0.5	UG/L	
Chloroform	07/13/23	0.49	0.5	UG/L	J
Tetrachloroethylene	07/13/23	10	0.5	UG/L	
Trichloroethylene	07/13/23	0.39	0.5	UG/L	J
1633 TPFAS	08/08/23	66.64	0	NG/L	
Perfluorobutanesulfonate (PFBS)	08/08/23	1.5	1.5	NG/L	
Perfluorobutyric acid (PFBA)	08/08/23	8.1	6	NG/L	
Perfluoroheptanoic acid (PFHpA)	08/08/23	1.4	1.5	NG/L	J
Perfluorohexanesulfonate (PFHxS)	08/08/23	32	1.5	NG/L	
Perfluorohexanoic acid (PFHxA)	08/08/23	4.7	1.5	NG/L	
Perfluorononanoic acid (PFNA)	08/08/23	0.62	1.5	NG/L	J
Perfluorooctane sulfonamide (PFOSAm)	08/08/23	0.22	1.5	NG/L	J
Perfluorooctanesulfonate (PFOS)	08/08/23	8.4	1.5	NG/L	
Perfluorooctanoic acid (PFOA)	08/08/23	5.7	1.5	NG/L	
Perfluoropentanesulfonate (PFPeS)	08/08/23	2	1.5	NG/L	
Perfluoropentanoic acid (PFPeA)	08/08/23	2	3	NG/L	J
1,1,1-Trichloroethane	08/11/23	0.37	0.5	UG/L	J
1,1-Dichloroethylene	08/11/23	0.36	0.5	UG/L	J
8260 TVOC	08/11/23	13.87	0	UG/L	
Carbon tetrachloride	08/11/23	2.2	0.5	UG/L	
Chloroform	08/11/23	0.55	0.5	UG/L	
Tetrachloroethylene	08/11/23	10	0.5	UG/L	
Trichloroethylene	08/11/23	0.39	0.5	UG/L	J
1,1,1-Trichloroethane	09/08/23	0.27	0.5	UG/L	J
1,1-Dichloroethylene	09/08/23	0.27	0.5	UG/L	J
8260 TVOC	09/08/23	11.53	0	UG/L	
Carbon tetrachloride	09/08/23	1.5	0.5	UG/L	
Chloroform	09/08/23	0.42	0.5	UG/L	J
Tetrachloroethylene	09/08/23	8.7	0.5	UG/L	
Trichloroethylene	09/08/23	0.37	0.5	UG/L	J
1633 TPFAS	10/18/23	76.027	0	NG/L	
Perfluorobutanesulfonate (PFBS)	10/18/23	1.66	1.67	NG/L	J
Perfluorobutyric acid (PFBA)	10/18/23	7.54	7.52	NG/L	
Perfluoroheptanesulfonate (PFHpS)	10/18/23	0.865	1.79	NG/L	J
Perfluoroheptanoic acid (PFHpA)	10/18/23	1.88	1.88	NG/L	J
Perfluorohexanesulfonate (PFHxS)	10/18/23	37.5	1.72	NG/L	
Perfluorohexanoic acid (PFHxA)	10/18/23	6.11	1.88	NG/L	
Perfluorononanoic acid (PFNA)	10/18/23	0.692	1.88	NG/L	J
Perfluorooctanesulfonate (PFOS)	10/18/23	8.29	1.75	NG/L	
Perfluorooctanoic acid (PFOA)	10/18/23	7.15	1.88	NG/L	
Perfluoropentanesulfonate (PFPeS)	10/18/23	2.29	1.77	NG/L	
Perfluoropentanoic acid (PFPeA)	10/18/23	2.05	1.88	NG/L	
1,4-Dioxane	10/18/23	1.7	0.22	UG/L	
1,1,1-Trichloroethane	10/18/23	0.4	0.5	UG/L	J

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Site ID : 121-41 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1-Dichloroethylene	10/18/23	0.33	0.5	UG/L	J
8260 TVOC	10/18/23	20.09	0	UG/L	
Carbon tetrachloride	10/18/23	3	0.5	UG/L	
Chloroform	10/18/23	0.49	0.5	UG/L	J
Dichlorodifluoromethane	10/18/23	0.25	0.5	UG/L	J
Tetrachloroethylene	10/18/23	15	0.5	UG/L	
Trichloroethylene	10/18/23	0.62	0.5	UG/L	
1,1,1-Trichloroethane	11/06/23	0.28	0.5	UG/L	J
1,1-Dichloroethylene	11/06/23	0.33	0.5	UG/L	J
8260 TVOC	11/06/23	12.44	0	UG/L	
Carbon tetrachloride	11/06/23	1.8	0.5	UG/L	
Chloroform	11/06/23	0.47	0.5	UG/L	J
Tetrachloroethylene	11/06/23	9.2	0.5	UG/L	
Trichloroethylene	11/06/23	0.36	0.5	UG/L	J
1,1,1-Trichloroethane	12/07/23	0.38	0.5	UG/L	J
1,1-Dichloroethylene	12/07/23	0.41	0.5	UG/L	J
8260 TVOC	12/07/23	15.76	0	UG/L	
Carbon tetrachloride	12/07/23	2	0.5	UG/L	
Chloroform	12/07/23	0.47	0.5	UG/L	J
Tetrachloroethylene	12/07/23	12	0.5	UG/L	
Trichloroethylene	12/07/23	0.5	0.5	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.

Table F-14
Air Stripper Effluent VOC Data
OU III South Boundary System

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Site ID : 095-126 (MR/SB/WSB Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	0	0	UG/L	
8260 TVOC	02/11/23	0	0	UG/L	
8260 TVOC	03/13/23	0	0	UG/L	
8260 TVOC	04/17/23	0	0	UG/L	
8260 TVOC	05/12/23	0	0	UG/L	

Table F-15
Cumulative Mass Removal
OU III South Boundary System

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Date Sampled	Total VOC's (µg/L)	Flow Rates (gpm)	Cumulative VOC's (lbs)
01/09/23	9.45	125	3076.70
02/11/23	12.07	86	3077.11
03/13/23	12.7	49	3077.33
04/17/23	11.09	102	3077.81
05/12/23	15.33	146	3078.48
06/15/23	13.29	185	3079.48
07/13/23	13.64	133	3080.09
08/11/23	13.87	186	3080.99
09/08/23	11.53	161	3081.62
10/18/23	20.09	130	3082.87
11/06/23	12.44	152	3083.30
12/07/23	15.76	148	3084.17

µg/L Micrograms per liter
gpm Gallons per minute
lbs Pounds

Table F-16
Extraction Wells VOC Data
OU III Western South Boundary System

2023 BNL Groundwater Status Report

Site ID : 111-17 (WSB-3)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.58	0.5	UG/L	
1,1-Dichloroethane	01/09/23	0.64	0.5	UG/L	
1,1-Dichloroethylene	01/09/23	3	0.5	UG/L	
8260 TVOC	01/09/23	5.81	0	UG/L	
Chloroform	01/09/23	1.1	0.5	UG/L	
Trichloroethylene	01/09/23	0.49	0.5	UG/L	J
1,1,1-Trichloroethane	04/17/23	0.39	0.5	UG/L	J
1,1-Dichloroethane	04/17/23	0.55	0.5	UG/L	
1,1-Dichloroethylene	04/17/23	2.2	0.5	UG/L	
8260 TVOC	04/17/23	4.63	0	UG/L	
Chloroform	04/17/23	1.1	0.5	UG/L	
Trichloroethylene	04/17/23	0.39	0.5	UG/L	J
1633 TPFAS	06/29/23	38.484	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/29/23	2.31	1.77	NG/L	
Perfluorobutyric acid (PFBA)	06/29/23	5.33	7.99	NG/L	J
Perfluoroheptanesulfonate (PFHpS)	06/29/23	0.834	1.9	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/29/23	1.2	2	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/29/23	10.6	1.82	NG/L	
Perfluorohexanoic acid (PFHxA)	06/29/23	2.16	2	NG/L	
Perfluorooctanesulfonate (PFOS)	06/29/23	8.7	1.85	NG/L	
Perfluorooctanoic acid (PFOA)	06/29/23	3.57	2	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/29/23	2.1	1.88	NG/L	
Perfluoropentanoic acid (PFPeA)	06/29/23	1.68	2	NG/L	J
1,4-Dioxane	06/29/23	2	0.2	UG/L	
1,1,1-Trichloroethane	07/13/23	0.45	0.5	UG/L	J
1,1-Dichloroethane	07/13/23	0.7	0.5	UG/L	
1,1-Dichloroethylene	07/13/23	3.1	0.5	UG/L	
8260 TVOC	07/13/23	6.16	0	UG/L	
Chloroform	07/13/23	1.1	0.5	UG/L	
Dichlorodifluoromethane	07/13/23	0.35	0.5	UG/L	J
Trichloroethylene	07/13/23	0.46	0.5	UG/L	J
1,1,1-Trichloroethane	10/23/23	1.4	0.5	UG/L	
1,1-Dichloroethane	10/23/23	0.61	0.5	UG/L	
1,1-Dichloroethylene	10/23/23	3.4	0.5	UG/L	
8260 TVOC	10/23/23	6.87	0	UG/L	
Chloroform	10/23/23	0.82	0.5	UG/L	
Dichlorodifluoromethane	10/23/23	0.64	0.5	UG/L	

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Site ID : 119-13 (WSB-4)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	2	0.5	UG/L	
1,1-Dichloroethane	01/09/23	0.53	0.5	UG/L	
1,1-Dichloroethylene	01/09/23	4.7	0.5	UG/L	
8260 TVOC	01/09/23	8.42	0	UG/L	
Chloroform	01/09/23	0.27	0.5	UG/L	J
Dichlorodifluoromethane	01/09/23	0.36	0.5	UG/L	J
Trichloroethylene	01/09/23	0.56	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	1.6	0.5	UG/L	
1,1-Dichloroethane	04/17/23	0.52	0.5	UG/L	
1,1-Dichloroethylene	04/17/23	4.8	0.5	UG/L	
8260 TVOC	04/17/23	8.03	0	UG/L	
Chloroform	04/17/23	0.25	0.5	UG/L	J
Dichlorodifluoromethane	04/17/23	0.35	0.5	UG/L	J
Trichloroethylene	04/17/23	0.51	0.5	UG/L	
1633 TPFAS	06/29/23	30.746	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/29/23	1.88	1.64	NG/L	
Perfluorobutyric acid (PFBA)	06/29/23	6.76	7.4	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/29/23	0.806	1.85	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/29/23	9.67	1.69	NG/L	
Perfluorohexanoic acid (PFHxA)	06/29/23	1.99	1.85	NG/L	
Perfluorooctanesulfonate (PFOS)	06/29/23	3.9	1.72	NG/L	
Perfluorooctanoic acid (PFOA)	06/29/23	2.7	1.85	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/29/23	1.51	1.74	NG/L	J
Perfluoropentanoic acid (PFPeA)	06/29/23	1.53	1.85	NG/L	J
1,4-Dioxane	06/29/23	3.9	0.2	UG/L	
1,1,1-Trichloroethane	07/13/23	0.47	0.5	UG/L	J
1,1-Dichloroethane	07/13/23	0.73	0.5	UG/L	
1,1-Dichloroethylene	07/13/23	3	0.5	UG/L	
8260 TVOC	07/13/23	5.88	0	UG/L	
Chloroform	07/13/23	1.2	0.5	UG/L	
Trichloroethylene	07/13/23	0.48	0.5	UG/L	J
1,1-Dichloroethylene	10/23/23	2.4	0.5	UG/L	
8260 TVOC	10/23/23	3.04	0	UG/L	
Chloroform	10/23/23	0.4	0.5	UG/L	J
Trichloroethylene	10/23/23	0.24	0.5	UG/L	J

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Site ID : 126-12 (WSB-1)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	3	0.5	UG/L	
1,1-Dichloroethylene	01/09/23	4.9	0.5	UG/L	
8260 TVOC	01/09/23	9.42	0	UG/L	
Chloroform	01/09/23	0.87	0.5	UG/L	
Trichloroethylene	01/09/23	0.65	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	3.2	0.5	UG/L	
1,1-Dichloroethylene	04/17/23	4.1	0.5	UG/L	
8260 TVOC	04/17/23	8.68	0	UG/L	
Chloroform	04/17/23	0.72	0.5	UG/L	
Trichloroethylene	04/17/23	0.66	0.5	UG/L	
1633 TPFAS	06/29/23	25.714	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/29/23	1.29	1.59	NG/L	J
Perfluorobutyric acid (PFBA)	06/29/23	6.44	7.16	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/29/23	0.734	1.79	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/29/23	7.94	1.64	NG/L	
Perfluorohexanoic acid (PFHxA)	06/29/23	1.79	1.79	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/29/23	3.58	1.66	NG/L	
Perfluorooctanoic acid (PFOA)	06/29/23	2.64	1.79	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/29/23	1.3	1.69	NG/L	J
1,4-Dioxane	06/29/23	3.9	0.2	UG/L	
1,1,1-Trichloroethane	07/13/23	3.8	0.5	UG/L	
1,1-Dichloroethylene	07/13/23	6	0.5	UG/L	
8260 TVOC	07/13/23	11.27	0	UG/L	
Chloroform	07/13/23	0.74	0.5	UG/L	
Trichloroethylene	07/13/23	0.73	0.5	UG/L	
1,1-Dichloroethylene	10/23/23	0.68	0.5	UG/L	
8260 TVOC	10/23/23	0.68	0	UG/L	

Site ID : 127-05 (WSB-2)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.55	0.5	UG/L	
1,1-Dichloroethylene	01/09/23	0.51	0.5	UG/L	
8260 TVOC	01/09/23	2.94	0	UG/L	
Chloroform	01/09/23	0.48	0.5	UG/L	J
Trichloroethylene	01/09/23	1.4	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	0.75	0.5	UG/L	
1,1-Dichloroethane	04/17/23	0.33	0.5	UG/L	J
1,1-Dichloroethylene	04/17/23	2.2	0.5	UG/L	
8260 TVOC	04/17/23	4.97	0	UG/L	
Chloroform	04/17/23	0.42	0.5	UG/L	J
Dichlorodifluoromethane	04/17/23	0.49	0.5	UG/L	J
Trichloroethylene	04/17/23	0.78	0.5	UG/L	

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1633 TPFAS	06/29/23	23.386	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/29/23	1.22	1.74	NG/L	J
Perfluorobutyric acid (PFBA)	06/29/23	7.16	7.84	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/29/23	0.91	1.96	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/29/23	5.96	1.79	NG/L	
Perfluorohexanoic acid (PFHxA)	06/29/23	1.4	1.96	NG/L	J
Perfluorooctane sulfonamide (PFOSAm)	06/29/23	0.826	1.96	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/29/23	2.37	1.82	NG/L	
Perfluorooctanoic acid (PFOA)	06/29/23	2.07	1.96	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/29/23	1.47	1.84	NG/L	J
1,4-Dioxane	06/29/23	3.9	0.2	UG/L	
1,1,1-Trichloroethane	07/13/23	0.53	0.5	UG/L	
1,1-Dichloroethylene	07/13/23	0.42	0.5	UG/L	J
8260 TVOC	07/13/23	3.09	0	UG/L	
Chloroform	07/13/23	0.35	0.5	UG/L	J
Dichlorodifluoromethane	07/13/23	0.29	0.5	UG/L	J
Trichloroethylene	07/13/23	1.5	0.5	UG/L	
1,1,1-Trichloroethane	10/23/23	0.51	0.5	UG/L	
1,1-Dichloroethylene	10/23/23	0.34	0.5	UG/L	J
8260 TVOC	10/23/23	2.4	0	UG/L	
Chloroform	10/23/23	0.25	0.5	UG/L	J
Trichloroethylene	10/23/23	1.3	0.5	UG/L	

Site ID : 130-12 (WSB-5)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	3.6	0.5	UG/L	
1,1-Dichloroethane	01/09/23	0.27	0.5	UG/L	J
1,1-Dichloroethylene	01/09/23	4.5	0.5	UG/L	
8260 TVOC	01/09/23	11.05	0	UG/L	
Chloroform	01/09/23	1.3	0.5	UG/L	
Dichlorodifluoromethane	01/09/23	0.51	0.5	UG/L	
Trichloroethylene	01/09/23	0.87	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	2.8	0.5	UG/L	
1,1-Dichloroethane	04/17/23	0.27	0.5	UG/L	J
1,1-Dichloroethylene	04/17/23	4.2	0.5	UG/L	
8260 TVOC	04/17/23	9.64	0	UG/L	
Chloroform	04/17/23	1.1	0.5	UG/L	
Dichlorodifluoromethane	04/17/23	0.44	0.5	UG/L	J
Trichloroethylene	04/17/23	0.83	0.5	UG/L	
1633 TPFAS	06/29/23	26.86	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/29/23	1.48	1.65	NG/L	J
Perfluorobutyric acid (PFBA)	06/29/23	6.78	7.45	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/29/23	9.63	1.7	NG/L	
Perfluorohexanoic acid (PFHxA)	06/29/23	1.51	1.86	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/29/23	3.38	1.73	NG/L	
Perfluorooctanoic acid (PFOA)	06/29/23	2.53	1.86	NG/L	

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Perfluoropentanesulfonate (PFPeS)	06/29/23	1.55	1.75	NG/L	J
1,4-Dioxane	06/29/23	3.4	0.2	UG/L	
1,1,1-Trichloroethane	07/13/23	3	0.5	UG/L	
1,1-Dichloroethylene	07/13/23	3.6	0.5	UG/L	
8260 TVOC	07/13/23	9.12	0	UG/L	
Chloroform	07/13/23	1.1	0.5	UG/L	
Dichlorodifluoromethane	07/13/23	0.59	0.5	UG/L	
Trichloroethylene	07/13/23	0.83	0.5	UG/L	
1,1,1-Trichloroethane	10/23/23	9.7	0.5	UG/L	
1,1-Dichloroethane	10/23/23	0.37	0.5	UG/L	J
1,1-Dichloroethylene	10/23/23	15	0.5	UG/L	
8260 TVOC	10/23/23	28.01	0	UG/L	
Chloroform	10/23/23	1.3	0.5	UG/L	
Dichlorodifluoromethane	10/23/23	0.66	0.5	UG/L	
Trichloroethylene	10/23/23	0.98	0.5	UG/L	

Site ID : 130-13 (WSB-6)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	0.49	0.5	UG/L	J
1,1-Dichloroethane	01/09/23	0.63	0.5	UG/L	
1,1-Dichloroethylene	01/09/23	1.1	0.5	UG/L	
8260 TVOC	01/09/23	5.93	0	UG/L	
Dichlorodifluoromethane	01/09/23	3.5	0.5	UG/L	
Trichloroethylene	01/09/23	0.21	0.5	UG/L	J
1,1,1-Trichloroethane	04/17/23	0.38	0.5	UG/L	J
1,1-Dichloroethane	04/17/23	0.62	0.5	UG/L	
1,1-Dichloroethylene	04/17/23	0.99	0.5	UG/L	
8260 TVOC	04/17/23	4.89	0	UG/L	
Dichlorodifluoromethane	04/17/23	2.9	0.5	UG/L	
1633 TPFAS	06/29/23	5.949	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/29/23	0.621	1.71	NG/L	J
Perfluorobutyric acid (PFBA)	06/29/23	4.47	7.71	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/29/23	0.858	1.76	NG/L	J
1,4-Dioxane	06/29/23	5.9	0.21	UG/L	
1,1,1-Trichloroethane	07/13/23	0.43	0.5	UG/L	J
1,1-Dichloroethane	07/13/23	0.61	0.5	UG/L	
1,1-Dichloroethylene	07/13/23	0.99	0.5	UG/L	
8260 TVOC	07/13/23	5.06	0	UG/L	
Dichlorodifluoromethane	07/13/23	2.8	0.5	UG/L	
Trichloroethylene	07/13/23	0.23	0.5	UG/L	J
1,1,1-Trichloroethane	10/23/23	0.2	0.5	UG/L	J
1,1-Dichloroethane	10/23/23	0.36	0.5	UG/L	J
1,1-Dichloroethylene	10/23/23	1	0.5	UG/L	
8260 TVOC	10/23/23	4.76	0	UG/L	
Dichlorodifluoromethane	10/23/23	3	0.5	UG/L	
Trichloroethylene	10/23/23	0.2	0.5	UG/L	J

J: The analyte was positively identified; the quantitation is an estimation.

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Site ID : 121-55 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/09/23	1.6	0.5	UG/L	
1,1-Dichloroethane	01/09/23	0.36	0.5	UG/L	J
1,1-Dichloroethylene	01/09/23	3	0.5	UG/L	
8260 TVOC	01/09/23	7.08	0	UG/L	
Chloroform	01/09/23	0.79	0.5	UG/L	
Dichlorodifluoromethane	01/09/23	0.57	0.5	UG/L	
Trichloroethylene	01/09/23	0.76	0.5	UG/L	
1,1,1-Trichloroethane	02/11/23	1.9	0.5	UG/L	
1,1-Dichloroethane	02/11/23	0.45	0.5	UG/L	J
1,1-Dichloroethylene	02/11/23	3.9	0.5	UG/L	
8260 TVOC	02/11/23	8.29	0	UG/L	
Chloroform	02/11/23	0.72	0.5	UG/L	
Dichlorodifluoromethane	02/11/23	0.95	0.5	UG/L	
Trichloroethylene	02/11/23	0.37	0.5	UG/L	J
1,1,1-Trichloroethane	03/13/23	1.9	0.5	UG/L	
1,1-Dichloroethane	03/13/23	0.44	0.5	UG/L	J
1,1-Dichloroethylene	03/13/23	4.2	0.5	UG/L	
8260 TVOC	03/13/23	8.65	0	UG/L	
Chloroform	03/13/23	0.75	0.5	UG/L	
Dichlorodifluoromethane	03/13/23	0.78	0.5	UG/L	
Trichloroethylene	03/13/23	0.58	0.5	UG/L	
1,1,1-Trichloroethane	04/17/23	1.9	0.5	UG/L	
1,1-Dichloroethane	04/17/23	0.34	0.5	UG/L	J
1,1-Dichloroethylene	04/17/23	3.8	0.5	UG/L	
8260 TVOC	04/17/23	7.87	0	UG/L	
Chloroform	04/17/23	0.55	0.5	UG/L	
Dichlorodifluoromethane	04/17/23	0.78	0.5	UG/L	
Trichloroethylene	04/17/23	0.5	0.5	UG/L	
1,1,1-Trichloroethane	05/12/23	2.5	0.5	UG/L	
1,1-Dichloroethane	05/12/23	0.39	0.5	UG/L	J
1,1-Dichloroethylene	05/12/23	5.2	0.5	UG/L	
8260 TVOC	05/12/23	10.47	0	UG/L	
Chloroform	05/12/23	0.69	0.5	UG/L	
Dichlorodifluoromethane	05/12/23	1.1	0.5	UG/L	
Trichloroethylene	05/12/23	0.59	0.5	UG/L	
1,1,1-Trichloroethane	06/15/23	1.9	0.5	UG/L	
1,1-Dichloroethane	06/15/23	0.44	0.5	UG/L	J
1,1-Dichloroethylene	06/15/23	3.8	0.5	UG/L	
8260 TVOC	06/15/23	8.41	0	UG/L	
Chloroform	06/15/23	0.73	0.5	UG/L	
Dichlorodifluoromethane	06/15/23	0.99	0.5	UG/L	
Trichloroethylene	06/15/23	0.55	0.5	UG/L	
1633 TPFAS	06/29/23	18.884	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/29/23	1.12	1.58	NG/L	J
Perfluorobutyric acid (PFBA)	06/29/23	5.62	7.11	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/29/23	6.08	1.62	NG/L	
Perfluorohexanoic acid (PFHxA)	06/29/23	1.23	1.78	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/29/23	2.27	1.65	NG/L	
Perfluorooctanoic acid (PFOA)	06/29/23	1.63	1.78	NG/L	J
Perfluoropentanesulfonate (PFPeS)	06/29/23	0.934	1.67	NG/L	J
1,4-Dioxane	06/29/23	4.4	0.2	UG/L	
1,1,1-Trichloroethane	07/13/23	1.1	0.5	UG/L	
1,1-Dichloroethane	07/13/23	0.35	0.5	UG/L	J
1,1-Dichloroethylene	07/13/23	2.1	0.5	UG/L	
8260 TVOC	07/13/23	5.73	0	UG/L	

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Site ID : 121-55 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
Chloroform	07/13/23	0.57	0.5	UG/L	
Dichlorodifluoromethane	07/13/23	0.69	0.5	UG/L	
Trichloroethylene	07/13/23	0.92	0.5	UG/L	
1,1,1-Trichloroethane	08/11/23	1.9	0.5	UG/L	
1,1-Dichloroethane	08/11/23	0.46	0.5	UG/L	J
1,1-Dichloroethylene	08/11/23	3.9	0.5	UG/L	
8260 TVOC	08/11/23	8.34	0	UG/L	
Chloroform	08/11/23	0.79	0.5	UG/L	
Dichlorodifluoromethane	08/11/23	0.75	0.5	UG/L	
Trichloroethylene	08/11/23	0.54	0.5	UG/L	
1,1,1-Trichloroethane	09/08/23	2.6	0.5	UG/L	
1,1-Dichloroethylene	09/08/23	3.7	0.5	UG/L	
8260 TVOC	09/08/23	7.73	0	UG/L	
Chloroform	09/08/23	0.75	0.5	UG/L	
Trichloroethylene	09/08/23	0.68	0.5	UG/L	
1633 TPFAS	10/18/23	20.108	0	NG/L	
Perfluorobutanesulfonate (PFBS)	10/18/23	1.32	1.64	NG/L	J
Perfluorobutyric acid (PFBA)	10/18/23	3.3	7.39	NG/L	J
Perfluorohexanesulfonate (PFHxS)	10/18/23	7.54	1.69	NG/L	
Perfluorohexanoic acid (PFHxA)	10/18/23	0.808	1.85	NG/L	J
Perfluorooctanesulfonate (PFOS)	10/18/23	4.38	1.72	NG/L	
Perfluorooctanoic acid (PFOA)	10/18/23	1.74	1.85	NG/L	J
Perfluoropentanesulfonate (PFPeS)	10/18/23	1.02	1.74	NG/L	J
1,4-Dioxane	10/18/23	4.4	0.24	UG/L	
1,1,1-Trichloroethane	10/18/23	0.69	0.5	UG/L	
1,1-Dichloroethane	10/18/23	0.6	0.5	UG/L	
1,1-Dichloroethylene	10/18/23	2.3	0.5	UG/L	
8260 TVOC	10/18/23	6.16	0	UG/L	
Chloroform	10/18/23	0.69	0.5	UG/L	
Dichlorodifluoromethane	10/18/23	1.5	0.5	UG/L	
Trichloroethylene	10/18/23	0.38	0.5	UG/L	J
1,1,1-Trichloroethane	11/06/23	2.3	0.5	UG/L	
1,1-Dichloroethane	11/06/23	0.31	0.5	UG/L	J
1,1-Dichloroethylene	11/06/23	4.6	0.5	UG/L	
8260 TVOC	11/06/23	8.27	0	UG/L	
Chloroform	11/06/23	0.82	0.5	UG/L	
Dichlorodifluoromethane	11/06/23	0.24	0.5	UG/L	J
1,1,1-Trichloroethane	12/07/23	1.3	0.5	UG/L	
1,1-Dichloroethane	12/07/23	0.67	0.5	UG/L	
1,1-Dichloroethylene	12/07/23	3.8	0.5	UG/L	
8260 TVOC	12/07/23	8.36	0	UG/L	
Chloroform	12/07/23	0.28	0.5	UG/L	J
Dichlorodifluoromethane	12/07/23	1.3	0.5	UG/L	
Methyl bromide	12/07/23	0.34	0.5	UG/L	J
Trichloroethylene	12/07/23	0.67	0.5	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.

Table F-18
Air Stripper Effluent Data
OU III Western South Boundary System

2023 BNL Groundwater Status Report

Site ID : 095-126 (MR/SB/WSB Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/09/23	0	0	UG/L	
8260 TVOC	02/11/23	0	0	UG/L	
8260 TVOC	03/13/23	0	0	UG/L	
8260 TVOC	04/17/23	0	0	UG/L	
8260 TVOC	05/12/23	0	0	UG/L	

Site ID : 095-270 (MR/SB/WSB Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	06/15/23	0	0	UG/L	
1633 TPFAS	06/26/23	41.512	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/26/23	1.67	1.61	NG/L	
Perfluorobutyric acid (PFBA)	06/26/23	7.09	7.28	NG/L	J
Perfluoroheptanesulfonate (PFHpS)	06/26/23	0.672	1.73	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/26/23	1.17	1.82	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/26/23	14	1.66	NG/L	
Perfluorohexanoic acid (PFHxA)	06/26/23	2.93	1.82	NG/L	
Perfluorononanoic acid (PFNA)	06/26/23	0.81	1.82	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/26/23	5.24	1.69	NG/L	
Perfluorooctanoic acid (PFOA)	06/26/23	4.11	1.82	NG/L	
Perfluoropentanesulfonate (PFPeS)	06/26/23	1.72	1.71	NG/L	
Perfluoropentanoic acid (PFPeA)	06/26/23	2.1	1.82	NG/L	
1,4-Dioxane	06/26/23	2.1	0.2	UG/L	J+
8260 TVOC	07/13/23	0	0	UG/L	
8260 TVOC	08/11/23	0	0	UG/L	
8260 TVOC	09/08/23	0	0	UG/L	
1633 TPFAS	10/18/23	23.44	0	NG/L	
Perfluorobutanesulfonate (PFBS)	10/18/23	1.35	1.67	NG/L	J
Perfluorobutyric acid (PFBA)	10/18/23	5.84	7.53	NG/L	J
Perfluorohexanesulfonate (PFHxS)	10/18/23	8.79	1.72	NG/L	
Perfluorohexanoic acid (PFHxA)	10/18/23	1.56	1.88	NG/L	J
Perfluorooctanesulfonate (PFOS)	10/18/23	2.76	1.75	NG/L	
Perfluorooctanoic acid (PFOA)	10/18/23	2.13	1.88	NG/L	
Perfluoropentanesulfonate (PFPeS)	10/18/23	1.01	1.77	NG/L	J
1,4-Dioxane	10/18/23	2.8	0.22	UG/L	
8260 TVOC	10/18/23	0	0	UG/L	
8260 TVOC	11/06/23	0	0	UG/L	
8260 TVOC	12/07/23	0	0	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.

J+: An unusually uncertain, detected result with suspected significant high bias. The associated numerical value is an estimated quantity.

Table F-19
OU III Western South Boundary System
Cumulative Mass Removal

2023 BNL Groundwater Status Report

Date Sampled	Total VOCs (µg/L)	Flow Rates (gpm)	Cumulative VOCs (lbs)
01/09/23	7.08	365	200.79
02/11/23	8.29	345	201.85
03/13/23	8.65	444	203.27
04/17/23	7.87	387	204.40
05/12/23	10.47	398	205.95
06/15/23	8.41	469	207.42
07/13/23	5.73	315	208.09
08/11/23	8.34	440	209.46
09/08/23	7.73	198	210.03
10/18/23	6.16	77	210.20
11/06/23	8.27	360	211.31
12/07/23	8.36	175	211.86

NOTES:
µg/L - Micrograms per liter
gpm - Gallons per minute
lbs - Pounds

TABLE F-20
TVOC Influent, Effluent and Efficiency Performance
OU III Idustrial Park System

2023 BNL Groundwater Status Report

Date	UVB1			UVB2			UVB3			UVB4			UVB5			UVB6			UVB7		
	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency
Units	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*
09/29/99	1900.00	184.42	90.29	70.02	3.03	95.67	49.45	3.08	93.77	158.10	10.70	93.23	284.50	29.19	89.74	90.69	1.97	97.83	NS	NS	0.00
10/07/99	1352.98	97.69	92.78	71.48	3.08	95.69	25.38	3.44	86.45	110.38	8.38	92.41	315.10	33.77	89.28	89.13	9.73	89.08	NS	NS	0.00
10/12/99	1485.00	59.78	95.97	94.75	2.12	97.76	20.11	2.23	88.91	92.28	6.75	92.69	359.44	31.23	91.31	96.88	1.70	98.25	NS	NS	0.00
10/19/99	820.50	52.42	93.61	875.60	39.47	95.49	19.59	1.91	90.25	84.58	5.96	92.95	230.58	29.94	87.02	98.78	1.50	98.48	NS	NS	0.00
10/26/99	730.22	47.73	93.46	571.49	25.18	95.59	18.56	1.15	93.80	77.02	4.10	94.68	192.19	25.99	86.48	90.21	1.39	98.46	NS	NS	0.00
11/2/1999^	608.70	23.48	96.14	461.20	11.25	97.56	16.26	1.63	89.98	72.14	4.73	93.44	181.98	22.39	87.70	95.15	1.78	98.13	43.62	4.79	89.02
11/9/1999#	574.00	26.60	95.37	420.50	8.95	97.87	15.62	1.09	93.02	69.44	3.92	94.35	170.97	21.01	87.71	NS	NS	-	32.12	2.58	91.97
11/16/1999~	602.30	36.06	94.01	383.30	14.05	96.33	23.37	0.92	96.06	77.12	3.49	95.47	181.90	23.91	86.86	NS	NS	-	38.06	6.43	83.11
11/23/1999%	461.18	15.28	96.69	245.86	7.25	97.05	19.58	2.13	89.12	63.16	4.43	92.99	143.04	16.23	88.65	NS	NS	-	32.92	6.92	78.98
12/7/1999$	410.00	27.07	93.40	265.80	11.10	95.82	14.41	0.00	100.00	62.33	4.42	92.91	152.74	16.90	88.94	133.08	12.53	90.58	35.90	4.82	86.57
12/14/99	394.00	23.80	93.96	212.40	6.80	96.80	18.36	0.00	100.00	62.40	3.48	94.42	157.11	20.64	86.86	89.82	5.83	93.51	33.41	3.49	89.55
12/21/99	459.00	27.36	94.04	193.20	6.10	96.84	18.01	0.00	100.00	62.09	3.55	94.28	154.30	16.30	89.44	**	4.85	-	84.61	2.37	97.20
01/27/00	85.26	33.14	61.13	125.69	6.48	94.84	18.23	1.26	93.09	70.91	5.67	92.00	161.47	22.44	86.10	84.33	9.92	88.24	34.94	4.18	88.04
02/24/00	106.56	25.44	76.13	126.18	7.90	93.74	23.82	4.65	80.48	80.78	10.78	86.66	69.66	25.73	63.06	75.02	10.17	86.44	37.31	3.10	91.69
03/20/00	439.47	27.69	93.70	138.15	9.69	92.99	21.41	1.78	91.69	94.02	8.62	90.83	219.34	16.19	92.62	71.94	4.11	94.29	34.30	2.44	92.89
04/18/00	238.38	23.18	90.28	126.68	7.84	93.81	26.01	1.78	93.16	92.87	8.16	91.21	195.77	19.70	89.94	65.93	5.48	91.69	33.06	2.26	93.16
05/16/00	375.40	16.50	95.60	92.10	7.80	91.53	24.90	1.60	93.57	117.60	5.30	95.49	195.10	19.70	89.90	67.60	3.10	95.41	29.90	1.10	96.32
06/14/00	349.00	18.30	94.76	158.90	6.40	95.97	27.30	1.30	95.24	103.10	8.20	92.05	236.50	15.80	93.32	63.60	1.60	97.48	27.30	0.90	96.70
07/24/00	319.10	25.70	91.95	157.30	7.30	95.36	28.10	1.80	93.59	106.10	9.60	90.95	234.00	19.60	91.62	69.30	1.60	97.69	30.00	0.80	97.33
08/15/00	282.00	27.80	90.14	175.60	8.80	94.99	28.80	1.90	93.40	143.80	10.90	92.42	196.10	18.40	90.62	59.80	1.80	96.99	27.10	0.80	97.05
09/19/00	272.60	20.70	92.41	203.70	8.90	95.63	28.20	1.70	93.97	101.60	6.80	93.31	NS	NS		56.50	2.50	95.58	49.10	1.20	97.56
10/24/00	41.10	15.00	63.50	156.90	10.40	93.37	27.70	0.00	100.00	101.10	6.80	93.27	431.10	30.60	92.90	65.20	2.20	96.63	58.80	0.00	100.00
11/13/00	185.20	15.10	91.85	153.70	11.20	92.71	33.30	0.00	100.00	85.50	10.50	87.72	274.80	23.70	91.38	70.50	0.00	100.00	73.90	0.00	100.00
12/19/00	259.50	14.60	94.37	206.60	8.50	95.89	NS	NS		NS	NS		299.40	24.40	91.85	52.50	2.40	95.43	39.10	0.00	100.00
01/24/01	200.00	12.50	93.75	242.90	12.60	94.81	45.60	1.70	96.27	124.80	4.00	96.79	326.60	22.20	93.20	96.40	4.30	95.54	44.40	3.30	92.57
02/26/01	149.20	10.10	93.23	232.10	12.00	94.83	54.60	3.30	93.96	129.80	7.10	94.53	299.20	23.00	92.31	91.20	4.50	95.07	44.20	2.80	93.67
03/20/01	157.10	8.10	94.84	230.80	12.30	94.67	53.00	3.40	93.58	120.80	4.00	96.69	NS	NS		102.90	4.40	95.72	41.00	3.20	92.20
04/19/01	124.90	5.30	95.76	230.50	12.00	94.79	59.80	5.20	91.30	154.70	7.40	95.22	306.40	23.20	92.43	122.20	4.80	96.07	46.40	3.30	92.89
05/29/01	72.81	5.99	91.77	173.20	13.31	92.32	64.49	5.55	91.39	162.34	9.29	94.28	291.82	21.19	92.74	105.34	5.20	95.06	43.86	3.53	91.95
06/26/01	73.25	6.82	90.69	232.85	17.21	92.61	58.15	5.70	90.20	145.44	5.40	96.29	228.30	18.99	91.68	111.77	6.74	93.97	48.51	4.87	89.96
07/31/01	73.25	6.82	90.69	232.85	17.21	92.61	58.15	5.70	90.20	145.44	5.40	96.29	228.30	18.99	91.68	111.77	6.74	93.97	48.51	4.87	89.96
08/31/01	73.25	6.82	90.69	232.85	17.21	92.61	58.15	5.70	90.20	145.44	5.40	96.29	228.30	18.99	91.68	111.77	6.74	93.97	48.51	4.87	89.96
09/30/01	73.25	6.82	90.69	232.85	17.21	92.61	58.15	5.70	90.20	145.44	5.40	96.29	228.30	18.99	91.68	111.77	6.74	93.97	48.51	4.87	89.96
10/02/01	67.76	5.93	91.25	254.28	15.84	93.77	74.34	8.21	88.96	155.95	18.55	88.11	312.77	14.69	95.30	117.30	5.94	94.94	41.93	2.98	92.89
11/02/01	58.61	6.19	89.44	238.11	19.32	91.89	96.97	10.16	89.52	205.18	13.59	93.38	420.87	19.73	95.31	160.04	7.14	95.54	73.21	3.40	95.36
12/19/01	56.33	3.19	94.34	172.19	17.36	89.92	63.98	4.22	93.40	151.04	14.66	90.29	303.89	15.26	94.98	141.04	5.15	96.35	82.96	4.31	94.80
01/14/02	42.71	3.07	92.81	181.37	14.56	91.97	70.28	4.47	93.64	145.98	19.39	86.72	321.73	20.69	93.57	132.80	5.46	95.89	62.07	3.32	94.65
02/25/02	25.64	2.62	89.78	208.09	15.21	92.69	66.69	5.34	91.99	134.41	17.81	86.75	278.49	14.41	94.83	152.11	6.51	95.72	63.16	4.22	93.32
03/25/02	12.32	1.59	87.09	191.99	15.17	92.10	60.15	4.64	92.29	117.92	15.04	87.25	243.94	8.88	96.36	136.04	6.43	95.27	55.36	4.49	91.89
04/30/02	0.00	0.00	0.00	224.95	16.80	92.53	82.43	6.30	92.36	111.75	18.13	83.78	281.15	13.96	95.03	138.72	6.88	95.04	57.88	4.15	92.83
05/29/02	0.00	0.00	0.00	174.95	17.26	90.13	72.81	7.38	89.86	111.48	15.52	86.08	247.56	13.77	94.44	145.59	7.99	94.51	60.89	6.46	89.39
06/26/02	9.31	1.17	87.43	207.51	18.40	91.13	64.07	5.21	91.87	95.49	13.02	86.37	216.80	9.69	95.53	131.10	6.07	95.37	55.57	4.64	91.65
07/25/02	21.66	2.38	89.01	210.54	18.25	91.33	70.55	6.64	90.59	94.05	7.19	92.36	226.54	6.87	96.97	148.11	5.95	95.98	48.51	4.41	90.91

TABLE F-20
TVOC Influent, Effluent and Efficiency Performance
OU III Idustrial Park System

2023 BNL Groundwater Status Report

Date	UVB1			UVB2			UVB3			UVB4			UVB5			UVB6			UVB7		
	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency
Units	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*
08/27/02	27.80	2.52	90.94	218.79	19.17	91.24	64.52	7.63	88.17	95.05	11.87	87.51	212.32	7.72	96.36	145.48	5.58	96.16	65.36	3.96	93.94
09/23/02	22.42	1.66	92.60	239.94	20.13	91.61	73.34	6.22	91.52	100.22	9.40	90.62	207.98	15.28	92.65	158.22	4.10	97.41	65.36	3.96	93.94
10/29/02	18.55	1.82	90.19	197.88	15.79	92.02	127.93	11.72	90.84	88.12	11.27	87.21	338.48	3.57	98.95	146.42	4.57	96.88	65.36	0.30	99.54
11/19/02	14.40	0.00	100.00	154.00	13.20	91.43	66.30	5.30	92.01	100.90	5.30	94.75	168.10	11.40	93.22	146.42	4.57	96.88	61.60	0.00	100.00
12/19/02	15.30	0.00	100.00	155.00	10.20	93.42	52.70	4.40	91.65	87.40	4.40	94.97	146.50	10.50	92.83	146.42	4.57	96.88	56.90	0.80	98.59
01/29/03	9.8	0	100.00	188.2	14	92.56	51.8	3.7	92.86	103.2	9.5	90.79	168.7	8.9	94.72	185	6.8	96.32	61	2.1	96.56
02/25/03	7.3	0.7	90.41	157.2	10.4	93.38	57.2	4.8	91.61	92.7	11.2	87.92	188.4	11.3	94.00	144	8.4	94.17	54.4	1.8	96.69
03/20/03	6.1	0	100.00	129.5	10.5	91.89	58.2	4.8	91.75	93.6	13.1	86.00	154.4	9.5	93.85	148.7	10.1	93.21	58.7	2.7	95.40
04/30/03	7.1	0	100.00	133.7	10.2	92.37	41.7	2.9	93.05	79.2	11.1	85.98	127.6	12	90.60	101.7	7.3	92.82	34.1	0.9	97.36
05/31/03	7.1	0	100.00	123.6	10.5	91.50	51.7	5.1	90.14	87.3	12.9	85.22	144	14.9	89.65	183	8	95.63	50.4	2	96.03
06/30/03	4.6	1	78.26	176.5	10.2	94.22	46	4.9	89.35	79	11.3	85.70	134.9	13.6	89.92	146.8	10.3	92.98	50.6	2.1	95.85
07/31/03	5.4	1.2	77.78	153.1	14.6	90.46	2.2	0	100.00	73	13.3	81.78	147.3	13.9	90.56	153.1	13.5	91.18	51.7	1.8	96.52
08/31/03	5.7	0.9	84.21	158.8	16.6	89.55	49.8	5.6	88.76	68.2	13.2	80.65	121.8	13.2	89.16	132.1	14	89.40	46.9	1	97.87
09/30/03	5	0	100.00	158.8	16.6	89.55	49.3	5.2	89.45	61.9	12.5	79.81	121.7	12.5	89.73	124.7	12	90.38	54.1	0.8	98.52
10/31/03	2.16	0	100.00	132.79	14.53	89.06	42.87	4.01	90.65	49.7	9.82	80.24	99.74	10.8	89.17	110.23	10.66	90.33	35.98	0.98	97.28
11/30/03	3.79	0	100.00	226.15	20.3	91.02	33.86	2.88	91.49	46.57	9.35	79.92	97.64	10.75	88.99	103.49	10.59	89.77	40.4	1.5	96.29
12/31/03	1.99	0	100.00	361	74.4	79.39	36.7	3.03	91.74	48.42	8	83.48	92.79	10.56	88.62	105.01	7.39	92.96	45.21	0.76	98.32
01/26/04	1.99	0.00	100.00	151.26	23.04	84.77	36.7	3.03	91.74	46.33	8.08	82.56	86.35	10.27	88.11	100.20	14.96	85.07	NA	NA	NA
02/25/04	1.99	0.73	63.32	149.61	13.53	90.96	36.7	3.03	91.74	46.33	17.54	62.14	99.76	10.28	89.70	106.66	9.28	91.30	70.37	1.58	97.75
03/24/04	2.06	0.69	66.50	133.38	12.63	90.53	36.7	3.03	91.74	44.82	14.33	68.03	77.91	11.86	84.78	88.61	8.02	90.95	70.37	1.58	97.75
04/27/04	1.53	1.10	28.10	100.13	17.10	82.92	36.7	3.03	91.74	47.43	12.70	73.22	77.91	11.86	84.78	96.83	11.27	88.36	66.79	3.42	94.88
05/27/04	3.65	1.12	69.32	123.20	16.54	86.57	36.7	3.03	91.74	47.88	12.70	73.48	77.91	11.86	84.78	99.49	12.09	87.85	65.11	4.15	93.63
06/29/04	4.59	4.10	10.68	123.20	21.02	82.94	124.00	14.14	88.60	47.54	9.50	80.02	91.17	14.42	84.18	82.67	10.87	86.85	58.85	3.69	93.73
07/23/04	4.59	4.10	10.68	NA	NA	NA	56.04	5.32	90.51	47.54	9.50	80.02	91.17	14.42	84.18	82.67	10.87	86.85	58.85	3.69	93.73
08/26/04	2.96	0.22	92.53	190.88	0.00	100.00	56.04	5.32	90.51	43.70	9.43	78.42	91.17	12.78	85.98	36.75	13.28	63.86	55.34	2.29	95.86
09/21/04	3.06	0.25	91.83	190.88	0.00	100.00	56.04	5.32	90.51	46.90	12.38	73.60	89.51	9.95	88.88	91.49	9.91	89.17	54.95	2.43	95.58
10/26/04	2.82	0.13	95.39	190.88	0.00	100.00	52.13	5.50	89.45	37.35	9.00	75.90	97.02	12.62	86.99	67.00	8.21	87.75	51.39	3.08	94.01
11/23/04	1.89	0.00	100.00	NA	NA	NA	52.13	5.50	89.45	34.74	9.87	71.59	60.84	11.50	81.10	64.01	6.92	89.19	52.40	2.77	94.71
12/15/04	5.49	0.00	100.00	190.88	0.00	100.00	52.13	5.50	89.45	36.32	9.60	73.57	92.09	12.41	86.52	65.59	7.08	89.21	57.16	2.77	95.15
01/31/05	3.34	0.66	80.24	115.00	10.00	91.30	54.51	5.04	90.75	41.12	9.80	76.17	81.30	10.53	87.05	42.18	7.77	81.58	59.11	4.22	92.86
02/28/05	2.77	0.33	88.09	40.40	1.81	95.52	51.00	4.20	91.76	41.12	9.80	76.17	26.91	1.51	94.39	24.45	7.01	71.33	20.60	3.53	82.86
03/31/05	2.20	0.00	100.00	40.40	1.81	95.52	47.70	3.84	91.95	41.12	9.80	76.17	79.31	14.50	81.72	98.59	8.58	91.30	62.83	4.15	93.39
04/30/05	2.2	0.00	100.00	40.40	1.81	95.52	35.14	3.44	90.21	41.12	9.80	76.17	105.42	9.06	91.41	86.16	6.25	92.75	47.5	3.1	93.47
05/31/05	2.2	0.00	100.00	40.40	1.81	95.52	48.07	2.95	93.86	41.12	9.80	76.17	81.43	10.23	87.44	79.35	7.36	90.72	47.5	3.1	93.47
6/31/2005	2.2	0.00	100.00	40.40	1.81	95.52	48.64	3.15	93.52	41.12	9.80	76.17	75	11.19	85.08	139.7	7.54	94.60	47.5	3.1	93.47
07/31/05	1.49	0.07	95.30	160	10	93.75	50	3	94.00	51	3.5	93.14	100	17.5	82.5	78.6	8.4	89.31	95	3	96.84
08/31/05	1.49	0.07	95.30	160	10	93.75	50	3	94.00	51	3.5	93.14	100	17.5	82.5	74	5.52	92.54	95	3	96.84
09/30/05	1.49	0.07	95.30	160	10	93.75	50	3	94.00	51	3.5	93.14	100	17.5	82.5	80.71	6.55	91.88	95	3	96.84
10/31/05	1.49	0.07	95.30	182.00	10.00	94.51	56.53	8.06	85.74	1.67	0.87	47.90	124.34	17.49	85.93	70.06	6.55	90.65	143.91	6.38	95.57
11/30/05	1.00	0.00	100.00	204.71	10.57	94.84	72.90	7.71	89.42	0.65	0.42	35.38	116.55	12.04	89.67	72.11	6.49	91.00	101.44	5.08	94.99
12/31/05	1.49	0.07	95.30	204.71	10.57	94.84	56.67	8.41	85.16	0.27	0.16	40.74	104.44	10.36	90.08	71.47	4.58	93.59	81.23	3.22	96.04
01/31/06	1.57	0.19	87.90	295.58	17.48	94.09	52.82	7.78	85.27	5.67	0.32	94.36	86.11	9.57	88.89	64.60	5.19	91.97	53.82	2.33	95.67
02/28/06	1.65	0.2	87.88	270.80	19.18	92.92	55.59	7.80	85.97	3.50	0.30	91.43	90.83	9.90	89.10	68.19	5.35	92.15	55.49	2.38	95.71
03/31/06	1.85	0.33	82.16	246.02	20.89	91.51	58.36	7.92	86.43	0.33	0.29	12.12	95.56	10.23	89.29	71.77	5.51	92.32	57.16	2.42	95.77

TABLE F-20
TVOC Influent, Effluent and Efficiency Performance
OU III Idustrial Park System

2023 BNL Groundwater Status Report

Date	UVB1			UVB2			UVB3			UVB4			UVB5			UVB6			UVB7		
	Inf	**Eff**	**Efficiency**	**Inf**	**Eff**	**Efficiency**	**Inf**	**Eff**	**Efficiency**	**Inf**	**Eff**	**Efficiency**	**Inf**	**Eff**	**Efficiency**	**Inf**	**Eff**	**Efficiency**	**Inf**	**Eff**	**Efficiency**
Units	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*
04/30/06	2.13	0.43	79.81	549.90	47.15	91.43	65.47	10.55	83.89	6.47	0.64	90.11	83.28	12.03	85.55	67.18	7.17	89.33	54.68	2.14	96.09
05/31/06	2.10	0.62	70.48	343.56	25.48	92.58	59.23	10.57	82.15	0.77	0.31	59.74	83.17	11.12	86.63	62.12	5.55	91.07	49.15	3.00	93.90
06/30/06	1.53	0.70	54.25	269.81	129.00	52.19	62.59	9.66	84.57	1.30	0.35	73.08	76.55	8.65	88.70	57.48	4.54	92.10	43.53	2.81	93.54
07/31/06	2.19	0.79	63.93	244.73	34.89	85.74	73.36	12.79	82.57	6.20	0.40	93.55	84.98	10.62	87.50	55.36	5.11	90.77	44.72	3.38	92.44
08/31/06	1.87	0.35	81.28	244.73	34.89	85.74	102.84	13.00	87.36	0.60	0.30	50.00	71.05	11.31	84.08	55.29	3.33	93.98	42.00	1.80	95.71
09/30/06	2.07	0.22	89.37	244.73	34.89	85.74	132.32	14.12	89.33	2.24	0.00	100.00	65.90	8.98	86.37	53.35	4.31	91.92	46.83	1.59	96.60
10/31/06	2.18	0.34	84.40	120.00	19.00	84.17	65.20	8.07	87.62	2.00	0.71	64.50	61.65	7.32	88.13	44.49	2.80	93.71	46.83	1.59	96.60
11/30/06	1.19	0.40	66.39	60.00	8.00	86.67	64.78	8.65	86.65	1.53	0.37	75.82	61.65	7.32	88.13	44.49	2.80	93.71	100.96	0.35	99.65
12/31/06	1.99	0.16	91.96	5.17	2.90	43.91	63.36	8.34	86.84	1.65	0.48	70.91	61.65	7.32	88.13	44.49	2.80	93.71	43.68	1.08	97.53
01/31/07	1.75	0.25	85.71	8.40	2.18	74.05	52.83	7.99	84.88	2.76	0.50	81.88	127.06	12.95	89.81	199.58	0.56	99.72	0.58	0.46	20.69
02/28/07	1.43	0.40	72.17	9.66	0.91	90.58	46.28	6.33	86.32	3.88	0.52	86.60	1.95	0.56	71.23	59.02	4.19	92.90	0.60	0.02	96.67
03/31/07	1.60	0.53	66.79	0.45	0.36	20.00	52.97	5.36	89.88	1.07	0.39	63.55	2.32	0.94	59.70	191.48	4.65	97.57	0.74	0.07	90.54
04/30/07	1.48	0.271	81.69	148.61	45.28	69.53	57.22	8.22	85.63	3.88	0.29	92.53	2.32	0.94	99.35	192.80	7.47	96.13	1.96	0.50	74.49
05/30/07	1.48	0.271	81.69	6.02	1.70	71.76	45.11	7.51	83.35	44.79	7.95	82.25	142.76	0.94	88.24	142.76	3.30	97.69	23.83	2.12	91.10
06/30/07	1.48	0.271	81.69	2.60	1.90	26.92	45.33	7.70	83.01	2.81	0.84	70.11	7.95	0.94	88.24	7.95	2.02	74.59	4.26	1.22	71.36
07/31/07	1.48	0.271	81.69	2.60	1.90	26.92	45.33	7.70	83.01	20	5	75	7.95	0.94	88.24	113.95	3.42	97.00	2.13	0.75	64.79
08/31/07	1.48	0.271	81.69	2.42	0.56	76.86	45.33	7.70	83.01	41.68	10.77	74.16	7.95	0.94	88.24	113.95	3.42	97.00	0.79	0.4	49.37
09/30/07	1.48	0.271	81.69	2.42	0.56	76.86	45.33	7.70	83.01	41.68	10.77	74.16	7.95	0.94	88.24	113.95	3.42	97.00	0.79	0.4	49.37
10/31/07	2.00	0.50	75.00	4.38	0.47	89.27	56.88	9.66	83.02	41.60	9.57	77.00	105.00	80.47	23.36	53.51	3.05	94.30	2.57	0.56	78.21
11/30/07	2.00	0.50	75.00	234.51	16.99	92.76	56.88	9.66	83.02	27.94	7.81	72.05	83.32	68.27	18.06	43.02	1.72	96.00	40.79	2.08	94.90
12/31/07	2.63	1.20	54.37	2.00	1.20	40.00	68.44	11.63	83.01	18.91	7.70	59.28	71.52	55.00	23.10	31.09	1.52	95.11	17.92	1.42	92.08
01/31/08	2.42	0.82	66.12	1.3	0.7	46.15	58.13	10.63	81.71	27.2	7.81	71.29	2.93	1.02	65.19	32.29	1.16	96.41	15.43	1.07	93.07
02/28/08	1.66	0.13	92.17	41.27	4.39	89.36	53.8	7.65	85.78	19.6	5.19	73.52	28.59	2.8	90.21	29.17	1.11	96.19	11.16	1.48	86.74
03/31/08	0.88	0.19	78.41	8.65	6.52	24.62	44.46	7.22	83.76	32.51	8.49	73.88	28.59	2.8	90.21	28.89	1.08	96.26	12.81	1.6	87.51
04/30/08	1.70	0.21	87.65	82.30	5.13	93.77	26.03	6.06	76.72	22.01	8.40	61.84	23.73	2.40	89.89	5.37	0.00	100.00	1.01	0.30	70.30
05/31/08	1.22	0.47	61.48	82.30	5.13	93.77	28.84	5.00	82.66	17.20	5.90	65.70	3.83	1.44	62.40	30.59	5.40	82.35	1.01	0.30	70.30
06/30/08	1.22	0.47	61.48	82.30	5.13	93.77	28.84	5.00	82.66	17.20	5.90	65.70	3.83	1.44	62.40	30.59	5.40	82.35	1.01	0.30	70.30
07/31/08	2.14	0.40	81.31	42.62	2.60	93.90	85.00	12.00	85.88	9.10	2.00	78.02	72.00	6.50	90.97	30.00	3.00	90.00	2.00	0.40	80.00
08/31/08	2.14	0.40	81.31	42.62	2.60	93.90	85.00	12.00	85.88	9.10	2.00	78.02	72.00	6.50	90.97	30.00	3.00	90.00	2.00	0.40	80.00
09/30/08	3.06	0.40	86.93	2.91	0.45	84.54	141.90	19.19	86.48	1.06	0.28	73.58	139.85	9.72	93.05	29.74	1.13	96.20	3.06	0.25	91.83
10/31/08	2.34	0.84	64.10	42.29	4.24	89.97	30.30	4.42	85.41	12.40	2.90	76.61	71.00	5.00	92.96	22.24	1.13	94.92	2.34	0.11	95.30
11/30/08	3.06	0.27	91.18	39.10	3.43	91.23	24.16	3.54	85.35	12.50	3.90	68.80	71.00	5.00	92.96	20.71	1.13	94.54	3.06	0.78	74.51
12/31/08	19.31	5.48	71.62	31.00	2.14	93.10	18.24	2.78	84.76	12.50	3.90	68.80	71.00	5.00	92.96	20.71	1.13	94.54	3.06	0.78	74.51
01/31/09	9.90	2.40	75.76	15.00	1.20	92.00	19.00	2.10	88.95	5.46	1.20	78.02	3.10	0.30	90.32	36.86	5.35	85.49	0.70	0.11	84.29
02/28/09	0.63	0.24	62.09	0.44	0.28	36.36	20.80	1.42	93.17	6.27	1.03	83.57	25.24	2.40	90.49	51.33	8.36	83.71	0.49	0.38	23.27
03/31/09	0.90	0.25	72.35	0.21	0.18	14.29	30.01	3.00	90.00	4.74	1.16	75.53	1.63	0.17	89.57	51.33	8.36	83.71	0.39	0.17	56.41
04/30/09	0.83	0.41	50.30	1.01	0.23	77.23	15.69	2.60	83.43	6.44	1.13	82.45	33.43	5.00	85.04	55.00	7.89	85.65	0.62	0.12	80.65
05/31/09	6.21	4.10	33.98	1.96	0.23	88.27	15.25	2.10	86.23	6.07	1.53	74.79	19.61	2.53	87.10	61.38	7.49	87.80	0.77	0.11	85.71
06/30/09	3.81	2.60	31.76	3.53	0.59	83.29	14.44	1.97	86.36	6.04	1.78	70.53	25.70	3.21	87.51	26.62	4.41	83.43	0.88	0.47	46.59
07/31/09	3.14	2.36	24.84	1.36	1.36	0.00	11.75	1.88	84.00	5.40	2.20	59.26	6.22	6.22	0.00	21.08	2.24	89.37	0.74	0.61	17.57
08/31/09	3.56	3.33	6.46	1.45	1.28	11.72	10.52	1.57	85.08	5.64	1.00	82.27	14.90	3.55	76.17	14.18	2.03	85.68	7.58	1.28	83.11
09/30/09	4.82	2.90	39.83	1.45	1.28	11.72	10.56	2.31	78.13	5.49	1.79	67.40	3.89	0.95	75.58	14.43	2.49	82.74	1.16	0.22	81.03
10/31/09	3.73	2.46	34.05	1.62	0.60	62.96	10.56	2.31	78.13	0.93	0.58	37.63	1.79	0.55	69.27	12.78	1.52	88.11	0.35	0.27	22.86
11/30/09	3.86	2.65	31.35	2.06	0.65	68.45	10.56	2.31	78.13	0.60	0.30	50.00	1.99	0.46	76.88	13.64	1.82	86.66	0.66	0.66	0.00

TABLE F-20
TVOC Influent, Effluent and Efficiency Performance
OU III Idustrial Park System

2023 BNL Groundwater Status Report

Date	UVB1			UVB2			UVB3			UVB4			UVB5			UVB6			UVB7		
	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency
Units	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*
12/31/09	4.19	2.67	36.28	3.69	0.45	87.80	10.56	2.31	78.13	0.26	0.08	69.23	1.99	1.15	42.21	13.64	1.82	86.66	0.89	0.32	64.04
01/31/10	3.70	2.29	38.11	1.27	0.25	80.31	15.00	0.00	100.00	3.64	0.94	74.18	15.00	1.15	92.33	16.00	1.82	88.63	0.24	0.00	100.00
02/28/10	4.89	2.60	46.83	1.96	0.48	75.51	15.00	0.00	100.00	4.24	0.95	77.59	15.00	1.15	92.33	16.00	1.82	88.63	7.55	1.91	74.70
03/31/10	4.47	3.80	14.99	1.63	1.00	38.65	15.00	0.00	100.00	3.40	1.60	52.94	15.00	1.15	92.33	16.00	1.82	88.63	2.47	1.76	28.74
04/30/10	4.25	3.52	17.18	32.80	3.64	88.90	17.50	1.30	92.57	0.42	0.33	21.43	25.00	3.25	87.00	13.68	2.00	85.38	2.31	0.00	100.00
05/31/10	5.61	3.86	31.19	16.47	1.04	93.69	20.53	2.60	87.34	0.61	0.50	18.03	35.64	5.42	84.79	12.31	2.32	81.15	0.68	0.00	100.00
06/30/10	3.32	2.42	27.11	0.76	0.36	52.63	13.17	2.01	84.74	0.56	0.46	17.86	19.30	2.92	84.87	10.56	2.32	78.03	0.49	0.00	100.00
07/31/10	3.72	2.43	34.68	1.07	1.00	6.54	12.15	2.72	77.61	0.87	0.49	43.68	19.19	3.44	82.07	13.59	2.32	82.93	0.88	0.61	30.68
08/31/10	3.69	2.00	45.80	12.91	1.83	85.82	10.68	3.65	65.82	5.69	2.36	58.52	17.78	4.53	74.52	11.62	2.32	80.03	1.24	1.10	11.29
09/30/10	2.94	2.02	31.29	0.86	0.71	17.44	7.79	2.17	72.14	2.91	1.59	45.36	13.37	2.86	78.61	9.71	2.32	76.11	0.99	0.83	16.16
10/31/10	2.83	2.00	29.33	1.20	1.07	10.83	10.28	2.54	75.29	1.88	1.17	37.77	5.36	1.55	71.08	13.00	5.50	57.69	1.49	1.25	16.11
11/30/10	2.55	1.70	33.33	1.22	0.83	31.97	7.93	1.83	76.92	2.53	1.23	51.38	16.69	2.77	83.40	17.61	9.56	45.71	1.49	1.25	16.11
12/31/10	2.28	1.60	29.82	8.72	1.11	87.27	9.28	1.63	82.44	2.60	0.92	64.62	17.11	2.41	85.91	23.74	9.56	59.73	1.49	1.25	16.11
01/31/11	1.60	1.00	37.50	11.50	1.15	90.00	9.07	1.45	84.01	2.20	0.96	56.36	15.11	2.20	85.44	17.65	2.50	85.84	3.74	1.30	65.24
02/28/11	1.13	0.70	38.05	14.71	1.15	92.18	8.86	1.30	85.33	1.97	0.97	50.76	13.50	2.00	85.19	17.65	2.50	85.84	6.11	1.35	77.91
03/31/11	1.27	0.50	60.63	13.47	1.23	90.87	6.21	1.17	81.16	1.17	0.20	82.91	10.28	2.00	80.54	11.56	2.50	78.37	0.40	0.24	40.00
04/30/11	1.33	0.34	74.44	16.59	1.40	91.56	6.96	1.42	79.60	2.66	1.82	31.58	8.12	1.65	79.68	10.75	2.50	76.74	5.78	1.06	81.66
05/31/11	1.39	0.54	61.15	16.92	1.55	90.84	7.25	1.32	81.79	2.66	1.82	31.58	8.12	1.65	79.68	10.75	2.50	76.74	5.85	1.00	82.91
06/30/11	1.45	0.74	48.97	17.25	1.69	90.20	7.57	1.25	83.49	4.15	3.44	17.11	8.12	1.65	79.68	10.75	2.50	76.74	5.92	0.85	85.64
07/31/11	1.57	0.85	45.86	23.50	2.40	89.79	7.78	1.54	80.21	0.37	0.00	100.00	32.18	21.00	34.74	0.48	0.00	100.00	4.78	1.31	72.59
08/31/11	1.20	1.20	0.00	0.84	0.00	100.00	8.06	1.88	76.67	0.59	0.00	100.00	27.40	19.00	30.66	0.57	0.00	100.00	4.25	1.56	63.29
09/30/11	1.43	0.86	39.86	1.01	0.60	40.59	6.46	1.25	80.65	0.59	0.00	100.00	27.44	18.00	34.40	10.51	1.88	82.11	4.10	1.24	69.76
10/31/11	0.86	0.30	65.12	0.30	0.28	6.67	6.24	1.06	83.01	1.00	0.36	64.00	24.38	1.46	94.01	9.87	1.54	84.40	4.83	0.92	80.95
11/30/11	0.87	0.40	54.02	0.40	0.22	45.00	5.67	0.89	84.30	1.86	0.72	61.29	17.52	2.68	84.70	7.92	1.50	81.06	0.29	0.27	6.90
12/31/11	0.99	0.36	63.64	0.11	0.11	0.00	5.61	2.10	62.57	1.72	0.80	53.49	12.72	1.90	85.06	7.72	1.39	81.99	3.89	0.70	82.01
01/31/12	0.85	0.19	77.65	0.10	0.00	100.00	5.26	2.95	43.92	1.22	0.39	68.03	9.70	1.11	88.56	6.48	1.05	83.80	4.26	0.40	90.61
02/28/12	0.83	0.08	90.36	0.16	0.00	100.00	3.88	2.89	25.52	1.40	0.39	72.14	8.13	1.15	85.85	5.73	1.01	82.37	0.22	0.15	31.82
03/31/12	1.04	0.50	51.92	0.26	0.23	11.54	6.85	3.74	45.40	1.29	0.72	44.19	6.45	1.14	82.33	5.81	1.12	80.72	0.40	0.05	88.75
04/30/12	0.90	0.30	66.67	0.20	0.00	100.00	6.86	3.40	50.44	1.38	0.48	65.22	5.54	0.81	85.38	5.25	0.75	85.71	0.25	0.00	100.00
05/31/12	0.93	0.00	100.00	0.10	0.00	100.00	6.10	1.14	81.31	1.75	0.56	68.00	6.52	1.38	78.83	5.88	1.26	78.57	0.55	0.20	63.64
06/30/12	1.55	0.90	41.94	0.10	0.00	100.00	5.90	1.18	80.00	2.01	0.94	53.23	7.02	1.54	78.06	6.77	1.29	80.95	1.17	0.58	50.43
07/31/12	1.48	0.93	37.16	0.43	0.36	16.28	4.31	1.02	76.33	1.90	1.00	47.37	7.00	1.63	76.71	3.60	0.81	77.50	0.84	0.55	34.52
08/31/12	1.48	0.93	37.16	0.43	0.36	16.28	4.31	1.02	76.33	1.90	1.00	47.37	7.00	1.63	76.71	3.60	0.81	77.50	0.84	0.55	34.52
09/30/12	1.48	0.93	37.16	0.43	0.36	16.28	4.31	1.02	76.33	1.90	1.00	47.37	7.00	1.63	76.71	3.60	0.81	77.50	0.84	0.55	34.52
10/31/12	1.43	0.86	39.86	0.76	0.72	5.26	2.73	0.09	96.89	1.78	1.05	41.01	7.00	1.71	75.57	0.44	0.33	25.00	0.60	0.52	13.33
11/30/12	1.41	0.59	58.16	1.04	0.28	73.08	6.62	0.85	87.16	1.57	0.75	52.23	7.56	1.35	82.14	0.27	0.20	25.93	0.31	0.28	9.68
12/31/12	1.62	1.20	25.93	1.04	0.76	26.92	2.93	1.20	59.04	1.88	0.70	62.77	7.72	1.47	80.96	0.27	0.20	25.93	0.81	0.55	32.10
01/31/13	1.19	0.57	52.10	0.40	0.24	41.25	0.92	0.33	63.70	1.56	0.70	55.13	7.60	1.23	83.82	15.93	0.25	98.43	0.57	0.21	63.51
02/28/13	1.44	0.75	47.92	0.43	0.27	37.21	0.55	0.24	56.36	1.72	0.94	45.35	7.86	1.56	80.15	12.12	1.77	85.40	2.05	0.21	89.85
03/31/13	1.69	1.03	39.05	0.46	0.31	32.39	0.19	0.16	19.07	1.88	1.18	37.23	8.12	1.89	76.72	8.31	1.52	81.71	3.54	0.40	88.70
04/30/13	1.45	0.76	47.59	0.29	0.21	27.59	4.91	0.36	92.67	1.66	0.88	46.99	8.12	2.01	75.25	6.55	0.80	87.79	1.67	0.19	88.62
05/31/13																					
06/30/13																					
07/30/13	1.22			0.38			1.04			2.37			34.96			11.06			0.31		

TABLE F-20
TVOC Influent, Effluent and Efficiency Performance
OU III Idustrial Park System

2023 BNL Groundwater Status Report

Date	UVB1			UVB2			UVB3			UVB4			UVB5			UVB6			UVB7		
	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency
Units	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*
08/31/13																					
09/30/13																					
10/31/13	1.58			0.47			0.29			3.46			54.02			15.57			0.34		
11/30/13																					
12/31/13																					
01/31/14	1.11			1.08			2.98			3.71			51.14			14.57			0		
02/28/14																					
03/21/14	1.22						6.6	0.81	87.73	3.46	1.01	70.81	17.41	3.78	78.29	8.65	1.28	85.20	0.19	0.18	5.26
04/17/14	1.6			261.92			0.3		100.00	2.86	0.86	69.93	11.26	2.9	74.25	6.55	1.4	78.63	3.07		
05/15/14							1.62	0.86	46.91				8.65	2.37	72.60	4.88	1.01	79.30			
06/17/14							4.038	3.16	21.74				10.18	6.11	39.98	4.68	1.07	77.14			
07/29/14	2.2			10.81						2.58	1.19		14.58	2.33	84.02	4.93	0.72	85.40	2.81		
08/27/14								1.31		2.96	1.28		8.53	1.80	78.90	0.91	0.90	1.10			
09/30/14								0.94		2.44	0.96					0.37	0.30	18.92			
10/29/14				14.38						2.03						0.23	1.27		2.7		
11/30/14																					
12/31/14																					
01/31/15																					
02/28/15																					
03/31/15																					
06/25/15	0.48			3.19			1.87			2.09			33.58			0.66			3.34		
07/22/15	1.058			5.62			3.35			4.16			15.12			1.42			3		
08/28/15							3.33	0.62	81.38	1.77	0.74	58.19	8.18	2.33	71.52	1.08	0.24	77.78	3.32		
09/24/15							1.65	0.57	65.45	1.53	0.7	54.25	5.79	1.89	67.36						
10/29/15	1.09			2			3.66	0.79	78.42	1.64	0.7	57.32	5.42	1.62	70.11	0.43	0.31	27.91	2.65		
11/20/15							3.34	0.65	80.54	1.25	0.64	48.80	7.9	2.11	73.29	0.28	0.19	32.14			
12/23/15							3.28	0.68	79.27	0.91	0.52	42.86	6.3	1.44	77.14	0.29	0.19	34.48			
01/21/16	0.774			1.85			1.53	0.56	63.40	1.11	0.67	39.64	9.56	1.81	81.07	0.40	0.00	100.00	7.36		
02/15/16																					
03/24/16							4.18	0.79	81.10	1.64	0.77	53.05									
04/27/16	0.65			1.92			3.24	0.85	73.77	1.85	1.53	17.30	7.01	1.49	78.74	0.64	0.22	65.63	0.55		
05/25/16							3.90	0.74	81.03	2.05	1.51	26.34	5.60	0.80	85.71	0.35	0.11	68.57			
06/16/16							3.49	0.90	74.21	1.72	0.88	48.84				0.23	0.11	52.17			
07/27/16	0.47			1.61			2.45	0.68	72.24	0.71	0.38	46.48	4.51	0.65	85.59	0.92	0.14	84.78	0.40		
08/24/16							1.25	0.66	47.20	0.94	0.92	2.13	3.63	0.74	79.61	0.48	0.22	54.17			
09/15/16							1.69	0.77	54.44	1.10	0.97	11.82	3.59	0.77	78.55	0.49	0.29	40.82			
10/19/16	1.60			1.34			0.13	0.00	100.00	0.80	0.59	26.25	3.79	0.54	85.75	0.61	0.00	100.00	1.04		
11/22/16							0.52	0.50	3.85	1.16	0.61	47.41	3.25	0.20	93.85	2.06	0.44	78.64			
12/21/16										0.81	0.44	45.68	4.05	0.28	93.09	2.27	0.42	81.50			
01/25/17				1.57						0.75	0.59	21.33	3.55	0.14	96.06	2.06	0.28	86.41	0.00		
04/26/17				1.53			0			1.34			6.98			4.14			0.35		
07/26/17	9.51			1.4			0.12			1.95			16.15			4.27			0.39		
10/26/17	3.6			1.92			0.24			2.08			16.02			4.13			0.1		
01/25/18	0			1.94			0.54			1.65			18.27			2.69			0		

TABLE F-20
TVOC Influent, Effluent and Efficiency Performance
OU III Idustrial Park System

2023 BNL Groundwater Status Report

Date	UVB1			UVB2			UVB3			UVB4			UVB5			UVB6			UVB7		
	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency	Inf	Eff	Efficiency
Units	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*	*(ug/l)*	*(ug/l)*	*(%)*
04/05/18	0			1.9			0			1.74			22.76			2.08			0		
07/26/18	1.23			2.17			0.32			1.29			26.09			1.07			0.41		
10/26/18	0.41						0			1.31			26.61			0.46			0		
01/30/19	0						0			0.95			28.01			0			0		
04/17/19	0						0			1.1			24.2			0			0		
07/30/19	0			1.23			0.27			0.74			17.33			0.23			0		
10/30/19	0						0			0			16.24			0			0		
01/23/20	0			33.20			0			1.09			11.86			0.00			0		
07/30/20	0.88			2.68						2.31			17.27			0.30			1.1		
10/27/20	0			1.83			0.11			2.50			14.18			0.20			0.19		
01/27/21	0.32			2.08			0.00			0.94			12.18			0.18			0.00		
04/22/21	0.51			1.89			0.36			0.96			12.45			0.21			0.22		
07/26/21	0.22			1.46			0.16			0.51			13.40			0.48			0.46		
10/29/21	0			1.43			0.00			0.00			13.77			0.30			0.28		
01/27/22	0.00			0.28			0.00			0.00			10.28			0.00			0.00		
04/13/22	0.22						0.00			0.00			10.99			0.00			0.00		
07/18/22	0.44						0.27			0.00			12.11			0.59			0.35		
10/17/22	0.00						0.00			0.24			8.28			0.00			0.00		

NOTE: The system was placed in stand-by mode on May 1, 2013 and put back into full time operation in March 2014, and placed in stand-by mode again January 2017 and remained so in 2023.

Average Efficiency	**NA**		**NA**		**NA**		**NA**		**NA**		**NA**			**NA**
1st qtr. 2022 Average Efficiency	**NA**		**NA**		**NA**		**NA**		**NA**		**NA**			**NA**
2nd qtr. 2022 Average Efficiency	**NA**		**NA**		**NA**		**NA**		**NA**		**NA**			**NA**
3rd qtr. 2022 Average Efficiency	**NA**		**NA**		**NA**		**NA**		**NA**		**NA**			**NA**
4th qtr. 2022 Average Efficiency	**NA**		**NA**		**NA**		**NA**		**NA**		**NA**			**NA**

1st qtr. 2023 AVERAGE SYSTEM EFFICIENCY	**NA**
2nd qtr. 2023 AVERAGE SYSTEM EFFICIENCY	**NA**
3rd qtr. 2023 AVERAGE SYSTEM EFFICIENCY	**NA**
4th qtr. 2023 AVERAGE SYSTEM EFFICIENCY	**NA**
2023 AVERAGE SYSTEM EFFICIENCY	**NA**

Wells 1,2 and 7 were not counted in average efficency as they were on stand-by for the year.

Efficiency Percent = 100 - (effluent concentration/influent concentration) * 100
NS = Not Sampled
** Laboratory lost sample.

TABLE F-21
Cumulative Mass Recovery
OU III Industrial Park System

2023 BNL Groundwater Status Report

Date	UVB1	UVB1	UVB1	UVB2	UVB2	UVB2	UVB3	UVB3	UVB3	UVB4	UVB4	UVB4	UVB5	UVB5	UVB5	UVB6	UVB6	UVB6	UVB7	UVB7	UVB7	Total	Cumulative
	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Mass Recovered	Mass Recovered
		(Gallons)	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*	*(lbs)*	*(lbs)*
01/31/15	0	136,203,638	0	0	247,893,471	0	0	317,805,477	0.00	0	360,499,061	0.00	0	343,567,833	0.00	0	373,388,318	0.00	0	244,889,959	0.00	0.00	1063.85
02/28/15	0	136,203,638	0	0	247,893,471	0	0	317,805,477	0.00	0	360,499,061	0.00	0	343,567,833	0.00	0	373,388,318	0.00	0	244,889,959	0.00	0.00	1063.85
03/31/15	0	136,203,638	0	0	247,893,471	0	0	317,805,477	0.00	0	360,499,061	0.00	0	343,567,833	0.00	0	373,388,318	0.00	0	244,889,959	0.00	0.00	1063.85
04/30/15	0	136,203,638	0	0	247,893,471	0	0	317,805,477	0.00	0	360,499,061	0.00	0	343,567,833	0.00	0	373,388,318	0.00	0	244,889,959	0.00	0.00	1063.85
05/31/15	0	136,203,638	0	0	247,893,471	0	0	317,805,477	0.00	0	360,499,061	0.00	0	343,567,833	0.00	0	373,388,318	0.00	0	244,889,959	0.00	0.00	1063.85
06/30/15	0	136,203,638	0	0	247,893,471	0	0	317,805,477	0.00	0	360,499,061	0.00	0	343,567,833	0.00	0	373,388,318	0.00	0	244,889,959	0.00	0.00	1063.85
07/31/15	0	136,203,638	0	0	247,893,471	0	1,672,000	319,477,477	0.02	1,672,000	362,171,061	0.06	1,672,000	345,239,833	0.21	1,742,000	375,130,318	0.00	0	244,889,959	0.00	0.29	1064.14
08/31/15	0	136,203,638	0	0	247,893,471	0	3,353,000	322,830,477	0.08	3,127,000	365,298,061	0.03	381,000	345,620,833	0.02	3,313,000	378,443,318	0.00	0	244,889,959	0.00	0.13	1064.26
09/30/15	0	136,203,638	0	0	247,893,471	0	1,292,000	324,122,477	0.01	2,736,000	368,034,061	0.02	2,887,000	348,507,833	0.09	343,000	378,786,318	0.00	0	244,889,959	0.00	0.13	1064.39
10/31/15	0	136,203,638	0	0	247,893,471	0	1,967,000	326,089,477	0.05	2,185,000	370,219,061	0.02	2,240,000	350,747,833	0.07	2,103,000	380,889,318	0.00	0	244,889,959	0.00	0.14	1064.53
11/30/15	0	136,203,638	0	0	247,893,471	0	2,154,000	328,243,477	0.05	2,653,000	372,872,061	0.01	2,051,000	352,798,833	0.10	2,653,000	383,542,318	0.00	0	244,889,959	0.00	0.16	1064.69
12/31/15	0	136,203,638	0	0	247,893,471	0	1,840,000	330,083,477	0.04	2,785,000	375,657,061	0.01	2,131,000	354,929,833	0.09	2,795,000	386,337,318	0.00	0	244,889,959	0.00	0.14	1064.83
01/31/16	0	136,203,638	0	0	247,893,471	0	557,000	330,640,477	0.01	1,783,000	377,440,061	0.01	0	354,929,833	0.00	2,182,000	388,519,318	0.00	0	244,889,959	0.00	0.02	1064.85
02/29/16	0	136,203,638	0	0	247,893,471	0	0	330,640,477	0.00	0	377,440,061	0.00	0	354,929,833	0.00	0	388,519,318	0.00	0	244,889,959	0.00	0.00	1064.85
03/31/16	0	136,203,638	0	0	247,893,471	0	503,000	331,143,477	0.00	475,000	377,915,061	0.00	601,000	355,530,833	0.00	124,000	388,643,318	0.00	0	244,889,959	0.00	0.00	1064.85
04/30/16	0	136,203,638	0	0	247,893,471	0	2,652,000	333,795,477	0.08	2,584,000	380,499,061	0.02	2,093,000	357,623,833	0.00	2,247,000	390,890,318	0.00	0	244,889,959	0.00	0.09	1064.94
05/31/16	0	136,203,638	0	0	247,893,471	0	1,661,000	335,456,477	0.03	1,695,000	382,194,061	0.00	2,433,000	360,056,833	0.11	2,806,000	393,696,318	0.01	0	244,889,959	0.00	0.16	1065.11
06/30/16	0	136,203,638	0	0	247,893,471	0	1,796,000	337,252,477	0.05	1,695,000	383,889,061	0.01	1,543,000	361,599,833	0.06	2,564,000	396,260,318	0.01	0	244,889,959	0.00	0.12	1065.23
07/31/16	0	136,203,638	0	0	247,893,471	0	1,078,000	338,330,477	0.02	2,589,000	386,478,061	0.02	2,262,000	363,861,833	0.00	2,990,000	399,250,318	0.00	0	244,889,959	0.00	0.04	1065.27
08/31/16	0	136,203,638	0	0	247,893,471	0	1,914,000	340,244,477	0.03	535,000	387,013,061	0.00	840,000	364,701,833	0.03	2,695,000	401,945,318	0.02	0	244,889,959	0.00	0.07	1065.35
09/30/16	0	136,203,638	0	0	247,893,471	0	1,780,000	342,024,477	0.01	1,244,000	388,257,061	0.00	1,205,000	365,906,833	0.03	2,317,000	404,262,318	0.01	0	244,889,959	0.00	0.04	1065.39
10/31/16	0	136,203,638	0	0	247,893,471	0	2,065,000	344,089,477	0.02	1,811,000	390,068,061	0.00	1,947,000	367,853,833	0.05	2,500,000	406,762,318	0.00	0	244,889,959	0.00	0.07	1065.46
11/30/16	0	136,203,638	0	0	247,893,471	0	1,413,000	345,502,477	0.00	16,500	390,084,561	0.00	155,000	368,008,833	0.00	1,907,000	408,669,318	0.01	0	244,889,959	0.00	0.02	1065.48
12/31/16	0	136,203,638	0	0	247,893,471	0	362,000	345,864,477	0.00	2,373,000	392,457,561	0.01	2,199,000	370,207,833	0.06	2,846,000	411,515,318	0.04	0	244,889,959	0.00	0.11	1065.58
01/31/17	0	136,203,638	0	0	247,893,471	0	8,200	345,872,677	0.00	60,000	392,517,561	0.00	46,000	370,253,833	0.00	68,500	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.58
02/28/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
03/31/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
04/30/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
05/31/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
06/30/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
07/31/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
08/31/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
09/29/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
10/31/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
11/30/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
12/31/17	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
01/31/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
02/28/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
03/31/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
04/30/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
05/31/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
06/30/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
07/31/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
08/31/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
09/29/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62

TABLE F-21
Cumulative Mass Recovery
OU III Industrial Park System

2023 BNL Groundwater Status Report

Date	UVB1	UVB1	UVB1	UVB2	UVB2	UVB2	UVB3	UVB3	UVB3	UVB4	UVB4	UVB4	UVB5	UVB5	UVB5	UVB6	UVB6	UVB6	UVB7	UVB7	UVB7	Total	Cumulative
	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Mass Recovered	Mass Recovered
		(Gallons)	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*	*(lbs)*	*(lbs)*
10/31/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
11/30/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
12/31/18	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
01/31/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
02/28/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
03/31/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
04/30/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
05/31/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
06/30/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
07/31/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
08/31/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
09/29/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
10/31/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
11/30/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
12/31/19	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
01/31/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
02/28/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
03/31/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
04/30/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
05/31/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
06/30/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
07/31/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
08/31/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
09/29/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
10/31/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
11/30/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
12/31/20	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
01/31/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
02/28/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
03/31/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
04/30/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
05/31/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
06/30/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
07/31/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
08/31/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
09/29/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
10/31/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
11/30/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
12/31/21	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
01/31/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
02/28/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
03/31/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
04/30/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62

TABLE F-21
Cumulative Mass Recovery
OU III Industrial Park System

2023 BNL Groundwater Status Report

Date	UVB1	UVB1	UVB1	UVB2	UVB2	UVB2	UVB3	UVB3	UVB3	UVB4	UVB4	UVB4	UVB5	UVB5	UVB5	UVB6	UVB6	UVB6	UVB7	UVB7	UVB7	Total	Cumulative
	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Monthly Total	Total Pumped	Mass Recovered	Mass Recovered	Mass Recovered
		(Gallons)	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*		*(Gallons)*	*(lbs)*	*(lbs)*	*(lbs)*
05/31/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
06/30/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
07/31/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
08/31/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
09/29/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
10/31/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
11/30/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
12/31/22	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
01/31/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
02/28/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
03/31/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
04/30/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
05/31/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
06/30/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
07/31/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
08/31/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
09/29/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
10/31/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
11/30/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62
12/31/23	0	136,203,638	0	0	247,893,471	0	0	345,872,677	0.00	0	392,517,561	0.00	0	370,253,833	0.00	0	411,583,818	0.00	0	244,889,959	0.00	0.00	1065.62

NOTES: The system was placed in stand-by mode on May 1, 2013 and resumed full time operations in March 2014, and back into stand-by mode in January 2017 and remained in stand-by mode all of 2023.

Mass recovered = total gallons pumped * influent concentration (ug/L) * (percent efficiency/100) * 8.4 X 10-9 (conversion factor)

NO = Not operational

Total from all wells: 1075.06 lbs.

* = Unable to calculate mass due to missing influent and effluent well data

No Samples were taken in April 2001 and the pounds removed were estimated using the 2nd quarter's average values for influent concentrations and system efficiency

TABLE F-22
AIR FLOW RATES
OU III INDUSTRIAL PARK SYSTEM

2023 BNL Groundwater Status Report

Note: System in Stand-By Mode.

Table F-23
Extraction Well VOC Data
OU III Industrial Park System

2023 BNL Groundwater Status Report

Date	IP-EW-8, 9 Combined Effluent Effluent
01/04/17	0.11
01/17/17	0.11
02/01/17	0.094
02/13/17	0.12
03/06/17	0.12
03/20/17	0.15
04/05/17	0.54
04/19/17	0.16
05/02/17	0.16
05/16/17	0.14
06/07/17	0.28
06/20/17	0.19
07/06/17	0.16
07/25/17	0.16
08/01/17	0.17
08/15/17	0.2
09/07/17	0.2
09/19/17	0.21
10/05/17	0.38
10/18/17	0.4
11/01/17	0.21
11/15/17	0.41
12/05/17	0.39
12/19/17	0.59
01/10/18	0.38
01/23/18	0.46
03/06/18	0.0
03/20/18	0.0
05/03/18	0.0
05/15/18	0.0
07/03/18	0.0
07/17/18	0.0
09/05/18	0.0
09/18/18	0.0
11/01/18	0.0
11/15/18	0.0
01/10/19	0.0
01/22/19	0.0
03/12/19	0.0
03/28/19	0.0
05/02/19	0.0
05/14/19	0.0

Date	IP-EW-8 Influent	IP-EW-9 Influent
01/04/17	2.83	2.89
02/01/17	2.62	2.73
03/06/17	3.14	3
04/05/17	2.91	2.41
05/02/17	3.1	2.49
06/07/17	2.74	2.67
07/06/17	3.5	2.43
08/01/17	3.05	2.75
09/07/17	2.71	2.96
10/05/17	2.87	2.74
11/01/17	3.27	2.59
12/05/17	2.6	1.27
01/10/18	3.16	5.42
03/06/18	2.48	1.92
05/03/18	2.71	1.98
07/03/18	2.34	1.91
09/05/18	2.03	2.04
11/01/18	2.8	1.77
01/10/19	2.56	2.4
04/10/19	2.49	4.04
07/09/19	1.85	3.68
10/16/19	2.28	4.73
01/07/20	1.31	3.16
04/03/20	1.23	3.42
07/09/20	1.42	2.78
10/06/20	2.5	4.7
01/05/21	1.96	4.56
04/22/21	1.45	3.73
07/15/21	2.1	4.53
10/06/21	2.73	6.17
01/27/22	0.86	2.9
04/13/22	1.59	4.01
07/18/22	1.73	5.95
10/17/22	0.61	2.59
01/12/23	1.57	3.23
04/13/23	1.57	2.01
07/12/23	1.4	1.85
10/12/23	1.57	3.65

Table F-24
Cumulative Mass Removal
OU III North Street System

2023 BNL Groundwater Status Report

OU III North Street Treatment System was in standby mode during 2023.

Table F-25
Extraction Wells VOC Data and Tritium Data
OU III North Street System

2023 BNL Groundwater Status Report

OU III North Street Treatment System was in standby mode during 2023.

Table F-26
Carbon Influent VOC Data
OU III North Street System

2023 BNL Groundwater Status Report

OU III North Street Treatment System was in standby mode during 2023.

Table F-27
Carbon Effluent VOC and Tritium Data
OU III North Street System

2023 BNL Groundwater Status Report

OU III North Street Treatment System was in standby mode during 2023.

Table F-28
Extraction Wells VOC Data
OU III North Street East System

2023 BNL Groundwater Status Report

Site ID : 000-561 (NSE-EDB-EW-3)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/05/23	0.3	0.5	UG/L	J
8260 TVOC	01/05/23	1.73	0	UG/L	
Chloroform	01/05/23	1	0.5	UG/L	
EDB	01/05/23	0.013	0.011	UG/L	
Trichloroethylene	01/05/23	0.43	0.5	UG/L	J
1,1,1-Trichloroethane	02/09/23	0.28	0.5	UG/L	J
8260 TVOC	02/09/23	1.99	0	UG/L	
Chloroform	02/09/23	1	0.5	UG/L	
EDB	02/09/23	0.023	0.011	UG/L	
Trichloroethylene	02/09/23	0.71	0.5	UG/L	
1,1,1-Trichloroethane	03/10/23	0.3	0.5	UG/L	J
8260 TVOC	03/10/23	1.68	0	UG/L	
Chloroform	03/10/23	1.1	0.5	UG/L	
EDB	03/10/23	0.016	0.011	UG/L	
Trichloroethylene	03/10/23	0.28	0.5	UG/L	J
8260 TVOC	04/11/23	1.39	0	UG/L	
Chloroform	04/11/23	0.96	0.5	UG/L	
EDB	04/11/23	0.017	0.011	UG/L	
Trichloroethylene	04/11/23	0.43	0.5	UG/L	J
8260 TVOC	05/04/23	1.34	0	UG/L	
Chloroform	05/04/23	1	0.5	UG/L	
EDB	05/04/23	0.017	0.011	UG/L	
Trichloroethylene	05/04/23	0.34	0.5	UG/L	J
8260 TVOC	06/05/23	1.28	0	UG/L	
Chloroform	06/05/23	1.1	0.5	UG/L	
EDB	06/05/23	0.017	0.01	UG/L	
Tetrachloroethylene	06/05/23	0.18	0.5	UG/L	J
1633 TPFAS	06/22/23	49.125	0	NG/L	
Perfluorobutyric acid (PFBA)	06/22/23	45.6	7.71	NG/L	
Perfluorohexanesulfonate	06/22/23	1.03	1.76	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/22/23	0.615	1.79	NG/L	J
Perfluorooctanoic acid (PFOA)	06/22/23	1.88	1.93	NG/L	J
1,4-Dioxane	06/22/23	1.2	0.2	UG/L	
1,1,1-Trichloroethane	07/17/23	0.25	0.5	UG/L	J
8260 TVOC	07/17/23	1.7	0	UG/L	
Chloroform	07/17/23	1	0.5	UG/L	
EDB	07/17/23	0.014	0.01	UG/L	
Trichloroethylene	07/17/23	0.45	0.5	UG/L	J
1,1,1-Trichloroethane	08/07/23	0.32	0.5	UG/L	J
8260 TVOC	08/07/23	2.19	0	UG/L	
Chloroform	08/07/23	1.2	0.5	UG/L	
EDB	08/07/23	0.016	0.01	UG/L	
Tetrachloroethylene	08/07/23	0.22	0.5	UG/L	J
Trichloroethylene	08/07/23	0.45	0.5	UG/L	J
1,1,1-Trichloroethane	10/05/23	0.24	0.5	UG/L	J
8260 TVOC	10/05/23	1.81	0	UG/L	
Chloroform	10/05/23	1	0.5	UG/L	
EDB	10/05/23	0.0098	0.01	UG/L	J
Tetrachloroethylene	10/05/23	0.16	0.5	UG/L	J
Trichloroethylene	10/05/23	0.41	0.5	UG/L	J

Table F-28
Extraction Wells VOC Data
OU III North Street East System

2023 BNL Groundwater Status Report

Site ID : 000-562 (NSE-EDB-EW-4)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/05/23	1.85	0	UG/L	
Chloroform	01/05/23	0.91	0.5	UG/L	
EDB	01/05/23	0.0091	0.011	UG/L	J
Tetrachloroethylene	01/05/23	0.72	0.5	UG/L	
Trichloroethylene	01/05/23	0.22	0.5	UG/L	J
8260 TVOC	02/09/23	2.4	0	UG/L	
Chloroform	02/09/23	0.87	0.5	UG/L	
EDB	02/09/23	0.017	0.011	UG/L	
Methyl tert-butyl ether	02/09/23	0.18	0.5	UG/L	J
Tetrachloroethylene	02/09/23	0.8	0.5	UG/L	
Trichloroethylene	02/09/23	0.55	0.5	UG/L	
8260 TVOC	03/10/23	2.19	0	UG/L	
Chloroform	03/10/23	0.92	0.5	UG/L	
EDB	03/10/23	0.011	0.011	UG/L	
Methyl tert-butyl ether	03/10/23	0.19	0.5	UG/L	J
Tetrachloroethylene	03/10/23	0.79	0.5	UG/L	
Trichloroethylene	03/10/23	0.29	0.5	UG/L	J
8260 TVOC	04/11/23	2.28	0	UG/L	
Chloroform	04/11/23	0.77	0.5	UG/L	
EDB	04/11/23	0.011	0.01	UG/L	
Methyl tert-butyl ether	04/11/23	0.23	0.5	UG/L	J
Tetrachloroethylene	04/11/23	1	0.5	UG/L	
Trichloroethylene	04/11/23	0.28	0.5	UG/L	J
8260 TVOC	05/04/23	2.3	0	UG/L	
Chloroform	05/04/23	1	0.5	UG/L	
Methyl tert-butyl ether	05/04/23	0.16	0.5	UG/L	J
Tetrachloroethylene	05/04/23	0.85	0.5	UG/L	
Trichloroethylene	05/04/23	0.29	0.5	UG/L	J
8260 TVOC	06/05/23	2.02	0	UG/L	
Chloroform	06/05/23	0.92	0.5	UG/L	
Tetrachloroethylene	06/05/23	0.89	0.5	UG/L	
Trichloroethylene	06/05/23	0.21	0.5	UG/L	J
1633 TPFAS	06/22/23	25.678	0	NG/L	
Perfluorobutyric acid (PFBA)	06/22/23	18	7.6	NG/L	
(PFHxS)	06/22/23	3.56	1.74	NG/L	
Perfluorohexanoic acid (PFHxA)	06/22/23	0.648	1.9	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/22/23	1.34	1.76	NG/L	J
Perfluorooctanoic acid (PFOA)	06/22/23	2.13	1.9	NG/L	
1,4-Dioxane	06/22/23	0.52	0.2	UG/L	
8260 TVOC	07/17/23	1.8	0	UG/L	
Chloroform	07/17/23	0.8	0.5	UG/L	
EDB	07/17/23	0.0097	0.011	UG/L	J
Tetrachloroethylene	07/17/23	0.77	0.5	UG/L	
Trichloroethylene	07/17/23	0.23	0.5	UG/L	J
8260 TVOC	08/07/23	2.27	0	UG/L	
Chloroform	08/07/23	0.91	0.5	UG/L	
EDB	08/07/23	0.009	0.01	UG/L	J
Methyl tert-butyl ether	08/07/23	0.18	0.5	UG/L	J
Tetrachloroethylene	08/07/23	0.9	0.5	UG/L	
Trichloroethylene	08/07/23	0.28	0.5	UG/L	J

Table F-28
Extraction Wells VOC Data
OU III North Street East System

2023 BNL Groundwater Status Report

8260 TVOC	10/05/23	1.92	0	UG/L	
Chloroform	10/05/23	0.81	0.5	UG/L	
EDB	10/05/23	0.0092	0.011	UG/L	J
Methyl tert-butyl ether	10/05/23	0.17	0.5	UG/L	J
Tetrachloroethylene	10/05/23	0.72	0.5	UG/L	
Trichloroethylene	10/05/23	0.22	0.5	UG/L	J
8260 TVOC	08/10/22	2.16	0	UG/L	
Chloroform	08/10/22	0.98	0.5	UG/L	
EDB	08/10/22	0.015	0.01	UG/L	
Tetrachloroethylene	08/10/22	0.94	0.5	UG/L	
Trichloroethylene	08/10/22	0.24	0.5	UG/L	J
8260 TVOC	09/14/22	2.45	0	UG/L	
Chloroform	09/14/22	0.97	0.5	UG/L	
EDB	09/14/22	0.014	0.011	UG/L	
Methyl tert-butyl ether	09/14/22	0.26	0.5	UG/L	J
Tetrachloroethylene	09/14/22	0.87	0.5	UG/L	
Trichloroethylene	09/14/22	0.35	0.5	UG/L	J
8260 TVOC	10/03/22	1.78	0	UG/L	
Chloroform	10/03/22	0.66	0.5	UG/L	
EDB	10/03/22	0.018	0.011	UG/L	
Methyl tert-butyl ether	10/03/22	0.22	0.5	UG/L	J
Tetrachloroethylene	10/03/22	0.59	0.5	UG/L	
Trichloroethylene	10/03/22	0.31	0.5	UG/L	J
8260 TVOC	11/03/22	1.32	0	UG/L	
EDB	11/03/22	0.009	0.011	UG/L	J
Methyl tert-butyl ether	11/03/22	0.21	0.5	UG/L	J
Tetrachloroethylene	11/03/22	0.77	0.5	UG/L	
Trichloroethylene	11/03/22	0.34	0.5	UG/L	J
8260 TVOC	12/02/22	1.9	0	UG/L	
Chloroform	12/02/22	0.92	0.5	UG/L	
EDB	12/02/22	0.011	0.01	UG/L	
Tetrachloroethylene	12/02/22	0.64	0.5	UG/L	
Trichloroethylene	12/02/22	0.34	0.5	UG/L	J

J: The analyte was positively identified; the quantitation is an estimation.

Table F-29
Carbon Influent VOC Data
OU III North Street East System

2023 BNL Groundwater Status Report

Site ID : 000-441 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/05/23	0.2	0.5	UG/L	J
8260 TVOC	01/05/23	1.67	0	UG/L	
Chloroform	01/05/23	0.99	0.5	UG/L	
EDB	01/05/23	0.012	0.011	UG/L	
Tetrachloroethylene	01/05/23	0.25	0.5	UG/L	J
Trichloroethylene	01/05/23	0.23	0.5	UG/L	J
8260 TVOC	02/09/23	2.08	0	UG/L	
Chloroform	02/09/23	1	0.5	UG/L	
EDB	02/09/23	0.018	0.011	UG/L	
Tetrachloroethylene	02/09/23	0.49	0.5	UG/L	J
Trichloroethylene	02/09/23	0.59	0.5	UG/L	
8260 TVOC	03/10/23	1.42	0	UG/L	
Chloroform	03/10/23	0.95	0.5	UG/L	
Tetrachloroethylene	03/10/23	0.47	0.5	UG/L	J
1,1,1-Trichloroethane	04/11/23	0.17	0.5	UG/L	J
8260 TVOC	04/11/23	1.65	0	UG/L	
Chloroform	04/11/23	0.84	0.5	UG/L	
EDB	04/11/23	0.015	0.01	UG/L	
Tetrachloroethylene	04/11/23	0.36	0.5	UG/L	J
Trichloroethylene	04/11/23	0.28	0.5	UG/L	J
8260 TVOC	05/04/23	1.76	0	UG/L	
Chloroform	05/04/23	1.1	0.5	UG/L	
EDB	05/04/23	0.0086	0.01	UG/L	J
Tetrachloroethylene	05/04/23	0.34	0.5	UG/L	J
Trichloroethylene	05/04/23	0.32	0.5	UG/L	J
1,1,1-Trichloroethane	06/05/23	0.21	0.5	UG/L	J
8260 TVOC	06/05/23	1.9	0	UG/L	
Chloroform	06/05/23	1.1	0.5	UG/L	
EDB	06/05/23	0.012	0.01	UG/L	
Tetrachloroethylene	06/05/23	0.59	0.5	UG/L	
1633 TPFAS	06/22/23	35.437	0	NG/L	
Perfluorobutyric acid (PFBA)	06/22/23	30.9	7.47	NG/L	
Perfluorohexanesulfonate (PFHxS)	06/22/23	1.73	1.71	NG/L	
Perfluorooctanesulfonate (PFOS)	06/22/23	0.967	1.73	NG/L	J
Perfluorooctanoic acid (PFOA)	06/22/23	1.84	1.87	NG/L	J
1,4-Dioxane	06/22/23	0.81	0.2	UG/L	
1,1,1-Trichloroethane	07/17/23	0.18	0.5	UG/L	J
8260 TVOC	07/17/23	1.07	0	UG/L	
Chloroform	07/17/23	0.89	0.5	UG/L	
EDB	07/17/23	0.011	0.011	UG/L	
1,1,1-Trichloroethane	08/07/23	0.19	0.5	UG/L	J
8260 TVOC	08/07/23	2.1	0	UG/L	
Chloroform	08/07/23	1	0.5	UG/L	
EDB	08/07/23	0.012	0.01	UG/L	
Tetrachloroethylene	08/07/23	0.55	0.5	UG/L	
Trichloroethylene	08/07/23	0.36	0.5	UG/L	J

Table F-29
Carbon Influent VOC Data
OU III North Street East System

2023 BNL Groundwater Status Report

Site ID : 000-441 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	09/07/23	0.16	0.5	UG/L	J
8260 TVOC	09/07/23	1.85	0	UG/L	
Chloroform	09/07/23	0.89	0.5	UG/L	
EDB	09/07/23	0.0084	0.01	UG/L	J
Tetrachloroethylene	09/07/23	0.47	0.5	UG/L	J
Trichloroethylene	09/07/23	0.33	0.5	UG/L	J
8260 TVOC	10/05/23	1.32	0	UG/L	
Chloroform	10/05/23	0.87	0.5	UG/L	
EDB	10/05/23	0.01	0.01	UG/L	
Tetrachloroethylene	10/05/23	0.45	0.5	UG/L	J
1633 TPFAS	10/05/23	32.05	0	NG/L	
Perfluorobutyric acid (PFBA)	10/05/23	26.3	7.51	NG/L	
Perfluorohexanesulfonate (PFHxS)	10/05/23	2.87	1.72	NG/L	
Perfluorooctanesulfonate (PFOS)	10/05/23	1.04	1.74	NG/L	J
Perfluorooctanoic acid (PFOA)	10/05/23	1.84	1.88	NG/L	J
1,4-Dioxane	10/05/23	0.76	0.2	UG/L	HJ
8260 TVOC	11/01/23	1.66	0	UG/L	
Chloroform	11/01/23	0.85	0.5	UG/L	
EDB	11/01/23	0.012	0.01	UG/L	
Tetrachloroethylene	11/01/23	0.48	0.5	UG/L	J
Trichloroethylene	11/01/23	0.33	0.5	UG/L	J
8260 TVOC	12/04/23	1.67	0	UG/L	
Chloroform	12/04/23	0.88	0.5	UG/L	
EDB	12/04/23	0.0091	0.01	UG/L	J
Tetrachloroethylene	12/04/23	0.46	0.5	UG/L	J
Trichloroethylene	12/04/23	0.33	0.5	UG/L	J

HJ: Qualified due to holding time violation;the quantitation is an estimation.

J: The analyte was positively identified; the quantitation is an estimation.

Table F-30
Carbon Effluent VOC Data
OU III North Street East System

2023 BNL Groundwater Status Report

Site ID : 000-444 (Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/05/23	1.2	0	UG/L	
Chloroform	01/05/23	1.2	0.5	UG/L	
8260 TVOC	02/09/23	1.48	0	UG/L	
Chloroform	02/09/23	1.1	0.5	UG/L	
Methyl tert-butyl ether	02/09/23	0.17	0.5	UG/L	J
Trichloroethylene	02/09/23	0.21	0.5	UG/L	J
8260 TVOC	03/10/23	0	0	UG/L	
8260 TVOC	04/11/23	0	0	UG/L	
8260 TVOC	05/04/23	0	0	UG/L	
8260 TVOC	06/05/23	0	0	UG/L	
1633 TPFAS	06/22/23	0	0	NG/L	
1,4-Dioxane	06/22/23	0.92	0.2	UG/L	
8260 TVOC	07/17/23	0	0	UG/L	
8260 TVOC	08/07/23	0.37	0	UG/L	
Chloroform	08/07/23	0.2	0.5	UG/L	J
Methyl tert-butyl ether	08/07/23	0.17	0.5	UG/L	J
8260 TVOC	09/07/23	0.62	0	UG/L	
Chloroform	09/07/23	0.45	0.5	UG/L	J
Methyl tert-butyl ether	09/07/23	0.17	0.5	UG/L	J
8260 TVOC	10/05/23	0.87	0	UG/L	
Chloroform	10/05/23	0.7	0.5	UG/L	
Methyl tert-butyl ether	10/05/23	0.17	0.5	UG/L	J
1633 TPFAS	10/05/23	26.4	0	NG/L	
Perfluorobutyric acid (PFBA)	10/05/23	26.4	8.07	NG/L	
1,4-Dioxane	10/05/23	0.68	0.2	UG/L	HJ
8260 TVOC	11/01/23	0.82	0	UG/L	
Chloroform	11/01/23	0.82	0.5	UG/L	
8260 TVOC	12/04/23	1.26	0	UG/L	
Chloroform	12/04/23	1.1	0.5	UG/L	
Methyl tert-butyl ether	12/04/23	0.16	0.5	UG/L	J

HJ: Qualified due to holding time violation;the quantitation is an estimation.

J: The analyte was positively identified; the quantitation is an estimation.

Table F-31
Cumulative Mass Removal
OU III North Street East System

2023 BNL Groundwater Status Report

Date Sampled	Total VOCs (µg/L)	Flow Rates (gpm)	Cumulative VOCs (lbs)
01/05/23	1.67	201	48.34
02/09/23	2.08	198	48.51
03/10/23	1.42	204	48.61
04/11/23	1.65	183	48.73
05/04/23	1.76	222	48.84
06/05/23	1.9	265	49.03
07/17/23	1.07	185	49.13
08/07/23	2.1	265	49.27
09/07/23	1.85	170	49.39
10/05/23	1.32	241	49.49
11/01/23	1.66	225	49.61
12/04/23	1.67	228	49.76

NOTES:
µg/L - Micrograms per liter
gpm - Gallons per minute
lbs - Pounds

Table F-32
Cumulative Mass Removal
OU III LIPA/Airport System

2023 BNL Groundwater Status Report

Date Sampled	Total VOC's (μg/L)	Flow Rates (gpm)	Cumulative VOC's (lbs)
01/12/23	2.88	383	501.28
02/03/23	3.67	390	501.65
03/03/23	3.36	370	502.07
04/13/23	1.43	0	502.07
05/22/23	2.66	148	502.26
06/05/23	4.57	415	502.58
07/10/23	4.15	339	503.17
08/03/23	3.98	499	503.74
09/06/23	3.45	312	504.18
10/12/23	2.68	323	504.55
11/01/23	4.1	386	504.93
12/04/23	3.2	435	505.48

μg/L Micrograms per liter
gpm Gallons per minute
lbs Pounds

Table F-33
Extraction Well VOC Data
OU III LIPA/Airport System

2023 BNL Groundwater Status Report

Site ID : 000-453 (EW-1L)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1-Dichloroethane	01/12/23	0.38	0.5	UG/L	J
1,1-Dichloroethylene	01/12/23	1.7	0.5	UG/L	
1,2-Dichloroethane	01/12/23	0.34	0.5	UG/L	J
8260 TVOC	01/12/23	6.47	0	UG/L	
Chloroform	01/12/23	0.39	0.5	UG/L	J
Toluene	01/12/23	3	0.5	UG/L	
Trichloroethylene	01/12/23	0.66	0.5	UG/L	
1,1-Dichloroethane	04/13/23	0.29	0.5	UG/L	J
1,1-Dichloroethylene	04/13/23	1.1	0.5	UG/L	
1,2-Dichloroethane	04/13/23	0.26	0.5	UG/L	J
8260 TVOC	04/13/23	8.23	0	UG/L	
Chloroform	04/13/23	0.23	0.5	UG/L	J
Toluene	04/13/23	5.9	0.5	UG/L	
Trichloroethylene	04/13/23	0.45	0.5	UG/L	J
1633 TPFAS	06/30/23	13.355	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/30/23	0.654	1.6	NG/L	J
Perfluorobutyric acid (PFBA)	06/30/23	3.15	7.2	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/30/23	1.9	1.65	NG/L	
Perfluorohexanoic acid (PFHxA)	06/30/23	1.39	1.8	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/30/23	3.97	1.67	NG/L	
Perfluorooctanoic acid (PFOA)	06/30/23	1.64	1.8	NG/L	J
Perfluoropentanesulfonate (PFPeS)	06/30/23	0.651	1.69	NG/L	J
1,4-Dioxane	06/30/23	2.7	0.24	UG/L	
1,1,1-Trichloroethane	07/10/23	0.51	0.5	UG/L	
1,1-Dichloroethylene	07/10/23	0.49	0.5	UG/L	J
8260 TVOC	07/10/23	4.16	0	UG/L	
Chloroform	07/10/23	0.63	0.5	UG/L	
Toluene	07/10/23	1.9	0.5	UG/L	
Trichloroethylene	07/10/23	0.63	0.5	UG/L	
1,1,1-Trichloroethane	10/12/23	0.53	0.5	UG/L	
1,1-Dichloroethylene	10/12/23	0.44	0.5	UG/L	J
1,2-Dichloroethane	10/12/23	0.2	0.5	UG/L	J
8260 TVOC	10/12/23	3.48	0	UG/L	
Carbon tetrachloride	10/12/23	0.14	0.5	UG/L	J
Chloroform	10/12/23	0.54	0.5	UG/L	
Methyl chloride	10/12/23	0.73	0.5	UG/L	
Toluene	10/12/23	0.26	0.5	UG/L	J
Trichloroethylene	10/12/23	0.64	0.5	UG/L	

Site ID : 000-455 (EW-2L)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/12/23	0.21	0.5	UG/L	J
1,1-Dichloroethylene	01/12/23	0.22	0.5	UG/L	J
8260 TVOC	01/12/23	1.62	0	UG/L	
Chloroform	01/12/23	0.79	0.5	UG/L	

Table F-33
Extraction Well VOC Data
OU III LIPA/Airport System

2023 BNL Groundwater Status Report

Trichloroethylene	01/12/23	0.4	0.5	UG/L	J
8260 TVOC	04/13/23	0.99	0	UG/L	
Chloroform	04/13/23	0.43	0.5	UG/L	J
Toluene	04/13/23	0.22	0.5	UG/L	J
Trichloroethylene	04/13/23	0.34	0.5	UG/L	J
1633 TPFAS	06/30/23	5.978	0	NG/L	
Perfluorohexanesulfonate (PFHxS)	06/30/23	2.68	1.73	NG/L	
Perfluorooctanesulfonate (PFOS)	06/30/23	2.4	1.76	NG/L	
Perfluorooctanoic acid (PFOA)	06/30/23	0.898	1.9	NG/L	J
1,4-Dioxane	06/30/23	0.36	0.2	UG/L	
8260 TVOC	07/10/23	1.65	0	UG/L	
Chloroform	07/10/23	1.2	0.5	UG/L	
Trichloroethylene	07/10/23	0.45	0.5	UG/L	J
1,1,1-Trichloroethane	10/12/23	0.22	0.5	UG/L	J
8260 TVOC	10/12/23	1.6	0	UG/L	
Carbon tetrachloride	10/12/23	0.11	0.5	UG/L	J
Chloroform	10/12/23	0.89	0.5	UG/L	
Trichloroethylene	10/12/23	0.38	0.5	UG/L	J

Site ID : 000-457 (EW-3L)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/12/23	4.73	0	UG/L	
Chloroform	01/12/23	0.93	0.5	UG/L	
Toluene	01/12/23	3.6	0.5	UG/L	
Trichloroethylene	01/12/23	0.2	0.5	UG/L	J
8260 TVOC	04/13/23	1.79	0	UG/L	
Chloroform	04/13/23	1.6	0.5	UG/L	
Trichloroethylene	04/13/23	0.19	0.5	UG/L	J
1633 TPFAS	06/30/23	5.94	0	NG/L	
Perfluorohexanesulfonate (PFHxS)	06/30/23	1.43	1.78	NG/L	J
Perfluorooctanesulfonate (PFOS)	06/30/23	3.48	1.81	NG/L	
Perfluorooctanoic acid (PFOA)	06/30/23	1.03	1.95	NG/L	J
8260 TVOC	07/10/23	2.16	0	UG/L	
Chloroform	07/10/23	1.7	0.5	UG/L	
Toluene	07/10/23	0.26	0.5	UG/L	J
Trichloroethylene	07/10/23	0.2	0.5	UG/L	J
8260 TVOC	10/12/23	6.9	0	UG/L	
Chloroform	10/12/23	1.7	0.5	UG/L	
Toluene	10/12/23	5.2	0.5	UG/L	

Site ID : 000-461 (EW-4L)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/12/23	5.36	0	UG/L	
Carbon tetrachloride	01/12/23	0.54	0.5	UG/L	
Chloroform	01/12/23	0.62	0.5	UG/L	
Tetrachloroethylene	01/12/23	3.5	0.5	UG/L	

Table F-33
Extraction Well VOC Data
OU III LIPA/Airport System

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Trichloroethylene	01/12/23	0.7	0.5	UG/L	
8260 TVOC	04/13/23	4.63	0	UG/L	
Chloroform	04/13/23	0.55	0.5	UG/L	
Tetrachloroethylene	04/13/23	3.5	0.5	UG/L	
Trichloroethylene	04/13/23	0.58	0.5	UG/L	
1633 TPFAS	06/30/23	20.358	0	NG/L	
Perfluorobutanesulfonate (PFBS)	06/30/23	0.846	1.76	NG/L	J
Perfluorobutyric acid (PFBA)	06/30/23	3.71	7.92	NG/L	J
Perfluoroheptanoic acid (PFHpA)	06/30/23	1.65	1.98	NG/L	J
Perfluorohexanesulfonate (PFHxS)	06/30/23	1.24	1.81	NG/L	J
Perfluorohexanoic acid (PFHxA)	06/30/23	3.45	1.98	NG/L	
Perfluorooctanesulfonate (PFOS)	06/30/23	2.1	1.84	NG/L	
Perfluorooctanoic acid (PFOA)	06/30/23	1.81	1.98	NG/L	J
Perfluoropentanesulfonate (PFPeS)	06/30/23	0.842	1.86	NG/L	J
Perfluoropentanoic acid (PFPeA)	06/30/23	4.71	1.98	NG/L	
1,4-Dioxane	06/30/23	0.18	0.2	UG/L	J
1,1,1-Trichloroethane	07/10/23	0.21	0.5	UG/L	J
8260 TVOC	07/10/23	5.44	0	UG/L	
Carbon tetrachloride	07/10/23	0.81	0.5	UG/L	
Chloroform	07/10/23	0.69	0.5	UG/L	
Tetrachloroethylene	07/10/23	2.8	0.5	UG/L	
Trichloroethylene	07/10/23	0.93	0.5	UG/L	
8260 TVOC	10/12/23	6.16	0	UG/L	
Carbon tetrachloride	10/12/23	0.98	0.5	UG/L	
Chloroform	10/12/23	0.68	0.5	UG/L	
Tetrachloroethylene	10/12/23	3.4	0.5	UG/L	
Trichloroethylene	10/12/23	1.1	0.5	UG/L	

Site ID : 800-109 (RTW-1A)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/12/23	1.75	0	UG/L	
Carbon tetrachloride	01/12/23	0.74	0.5	UG/L	
Chloroform	01/12/23	0.64	0.5	UG/L	
Trichloroethylene	01/12/23	0.37	0.5	UG/L	J
8260 TVOC	04/13/23	0.88	0	UG/L	
Carbon tetrachloride	04/13/23	0.23	0.5	UG/L	J
Chloroform	04/13/23	0.65	0.5	UG/L	
8260 TVOC	07/10/23	1.49	0	UG/L	
Carbon tetrachloride	07/10/23	0.59	0.5	UG/L	
Chloroform	07/10/23	0.62	0.5	UG/L	
Trichloroethylene	07/10/23	0.28	0.5	UG/L	J
1633 TPFAS	07/10/23	15.95	0	NG/L	
Perfluorobutanesulfonate (PFBS)	07/10/23	2.15	1.55	NG/L	
Perfluoroheptanoic acid (PFHpA)	07/10/23	1.17	1.74	NG/L	J
Perfluorohexanesulfonate (PFHxS)	07/10/23	1.57	1.59	NG/L	J
Perfluorohexanoic acid (PFHxA)	07/10/23	3.82	1.74	NG/L	
Perfluorooctanesulfonate (PFOS)	07/10/23	1.3	1.62	NG/L	J
Perfluorooctanoic acid (PFOA)	07/10/23	2.8	1.74	NG/L	

Table F-33
Extraction Well VOC Data
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Perfluoropentanoic acid (PFPeA)	07/10/23	3.14	1.74	NG/L	
1,4-Dioxane	07/10/23	0.36	0.2	UG/L	
8260 TVOC	10/12/23	1.51	0	UG/L	
Carbon tetrachloride	10/12/23	0.59	0.5	UG/L	
Chloroform	10/12/23	0.61	0.5	UG/L	
Trichloroethylene	10/12/23	0.31	0.5	UG/L	J

Site ID : 800-110 (RTW-2A)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/12/23	1.15	0	UG/L	
Carbon tetrachloride	01/12/23	0.56	0.5	UG/L	
Chloroform	01/12/23	0.59	0.5	UG/L	
8260 TVOC	04/13/23	0.82	0	UG/L	
Carbon tetrachloride	04/13/23	0.29	0.5	UG/L	J
Chloroform	04/13/23	0.53	0.5	UG/L	
8260 TVOC	07/10/23	1.18	0	UG/L	
Carbon tetrachloride	07/10/23	0.62	0.5	UG/L	
Chloroform	07/10/23	0.56	0.5	UG/L	
1633 TPFAS	07/10/23	0	0	NG/L	
1,4-Dioxane	07/10/23	0.89	0.2	UG/L	
8260 TVOC	10/12/23	1.14	0	UG/L	
Carbon tetrachloride	10/12/23	0.61	0.5	UG/L	
Chloroform	10/12/23	0.53	0.5	UG/L	

Site ID : 800-111 (RTW-3A)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/12/23	0.34	0.5	UG/L	J
1,1-Dichloroethylene	01/12/23	0.21	0.5	UG/L	J
8260 TVOC	01/12/23	2.29	0	UG/L	
Carbon tetrachloride	01/12/23	0.55	0.5	UG/L	
Chloroform	01/12/23	0.59	0.5	UG/L	
Trichloroethylene	01/12/23	0.6	0.5	UG/L	
1,1,1-Trichloroethane	04/13/23	0.29	0.5	UG/L	J
1,1-Dichloroethylene	04/13/23	0.17	0.5	UG/L	J
8260 TVOC	04/13/23	2	0	UG/L	
Carbon tetrachloride	04/13/23	0.49	0.5	UG/L	J
Chloroform	04/13/23	0.45	0.5	UG/L	J
Trichloroethylene	04/13/23	0.6	0.5	UG/L	
8260 TVOC	07/10/23	0.23	0	UG/L	
Chloroform	07/10/23	0.23	0.5	UG/L	J
1633 TPFAS	07/10/23	16.652	0	NG/L	
Perfluorobutanesulfonate (PFBS)	07/10/23	5.19	1.64	NG/L	
Perfluoroheptanoic acid (PFHpA)	07/10/23	1.18	1.85	NG/L	J
Perfluorohexanesulfonate (PFHxS)	07/10/23	1.09	1.69	NG/L	J
Perfluorohexanoic acid (PFHxA)	07/10/23	2.86	1.85	NG/L	
Perfluorooctanesulfonate (PFOS)	07/10/23	0.872	1.71	NG/L	J
Perfluorooctanoic acid (PFOA)	07/10/23	2.43	1.85	NG/L	

Table F-33
Extraction Well VOC Data
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Perfluoropentanoic acid (PFPeA)	07/10/23	3.03	1.85	NG/L	
1,4-Dioxane	07/10/23	0.45	0.2	UG/L	
8260 TVOC	10/12/23	0.22	0	UG/L	
Chloroform	10/12/23	0.22	0.5	UG/L	J

Site ID : 800-112 (RTW-4A)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/12/23	0.19	0.5	UG/L	J
1,1,2,2-Tetrachloroethane	01/12/23	0.32	0.5	UG/L	J
8260 TVOC	01/12/23	2.73	0	UG/L	
Carbon tetrachloride	01/12/23	0.27	0.5	UG/L	J
Chloroform	01/12/23	0.85	0.5	UG/L	
Trichloroethylene	01/12/23	1.1	0.5	UG/L	
1,1,1-Trichloroethane	04/13/23	0.36	0.5	UG/L	J
1,1,2,2-Tetrachloroethane	04/13/23	0.54	0.5	UG/L	
1,1-Dichloroethylene	04/13/23	0.32	0.5	UG/L	J
8260 TVOC	04/13/23	5.44	0	UG/L	
Carbon tetrachloride	04/13/23	0.52	0.5	UG/L	
Chloroform	04/13/23	1.1	0.5	UG/L	
Trichloroethylene	04/13/23	2.6	0.5	UG/L	
1,1,2,2-Tetrachloroethane	07/12/23	0.4	0.5	UG/L	J
8260 TVOC	07/12/23	2.74	0	UG/L	
Carbon tetrachloride	07/12/23	0.26	0.5	UG/L	J
Chloroform	07/12/23	0.88	0.5	UG/L	
Trichloroethylene	07/12/23	1.2	0.5	UG/L	
1633 TPFAS	07/12/23	10.987	0	NG/L	
Perfluorobutanesulfonate (PFBS)	07/12/23	0.887	1.64	NG/L	J
Perfluorobutyric acid (PFBA)	07/12/23	7.75	7.4	NG/L	
Perfluorohexanoic acid (PFHxA)	07/12/23	0.866	1.85	NG/L	J
Perfluorooctanoic acid (PFOA)	07/12/23	0.641	1.85	NG/L	J
Perfluoropentanoic acid (PFPeA)	07/12/23	0.843	1.85	NG/L	J
1,4-Dioxane	07/12/23	2.4	0.2	UG/L	
1,1,1-Trichloroethane	10/12/23	0.18	0.5	UG/L	J
1,1,2,2-Tetrachloroethane	10/12/23	0.37	0.5	UG/L	J
8260 TVOC	10/12/23	2.79	0	UG/L	
Carbon tetrachloride	10/12/23	0.25	0.5	UG/L	J
Chloroform	10/12/23	0.89	0.5	UG/L	
Trichloroethylene	10/12/23	1.1	0.5	UG/L	

Site ID : 800-113 (RTW-5A)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/12/23	0.74	0	UG/L	
Chloroform	01/12/23	0.74	0.5	UG/L	
8260 TVOC	04/13/23	0.31	0	UG/L	
Chloroform	04/13/23	0.31	0.5	UG/L	J
8260 TVOC	07/10/23	0.81	0	UG/L	

Table F-33
Extraction Well VOC Data
OU III LIPA/Airport System

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Chloroform	07/10/23	0.81	0.5	UG/L	
1633 TPFAS	07/10/23	14.8	0	NG/L	
Perfluorobutyric acid (PFBA)	07/10/23	14.8	8.03	NG/L	
1,4-Dioxane	07/10/23	3	0.2	UG/L	
8260 TVOC	10/12/23	0.77	0	UG/L	
Chloroform	10/12/23	0.77	0.5	UG/L	

Site ID : 800-132 (RW-6A)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/12/23	0.17	0.5	UG/L	J
1,1-Dichloroethylene	01/12/23	0.2	0.5	UG/L	J
8260 TVOC	01/12/23	6.23	0	UG/L	
Carbon tetrachloride	01/12/23	1.6	0.5	UG/L	
Chloroform	01/12/23	0.76	0.5	UG/L	
Trichloroethylene	01/12/23	3.5	0.5	UG/L	
8260 TVOC	04/13/23	7.49	0	UG/L	
Carbon tetrachloride	04/13/23	1.7	0.5	UG/L	
Chloroform	04/13/23	0.69	0.5	UG/L	
Trichloroethylene	04/13/23	5.1	0.5	UG/L	
1,1-Dichloroethylene	07/10/23	0.2	0.5	UG/L	J
8260 TVOC	07/10/23	6.46	0	UG/L	
Carbon tetrachloride	07/10/23	1.6	0.5	UG/L	
Chloroform	07/10/23	0.66	0.5	UG/L	
Trichloroethylene	07/10/23	4	0.5	UG/L	
1633 TPFAS	07/10/23	40.42	0	NG/L	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	07/10/23	3	6.67	NG/L	J
Perfluorobutanesulfonate (PFBS)	07/10/23	2.79	1.56	NG/L	
Perfluorobutyric acid (PFBA)	07/10/23	3.85	7.02	NG/L	J
Perfluoroheptanoic acid (PFHpA)	07/10/23	2.72	1.75	NG/L	
Perfluorohexanesulfonate (PFHxS)	07/10/23	2.66	1.6	NG/L	
Perfluorohexanoic acid (PFHxA)	07/10/23	8.2	1.75	NG/L	
Perfluorooctanesulfonate (PFOS)	07/10/23	1.84	1.63	NG/L	
Perfluorooctanoic acid (PFOA)	07/10/23	3.36	1.75	NG/L	
Perfluoropentanoic acid (PFPeA)	07/10/23	12	1.75	NG/L	
1,4-Dioxane	07/10/23	0.85	0.2	UG/L	
8260 TVOC	10/12/23	5.26	0	UG/L	
Carbon tetrachloride	10/12/23	1.3	0.5	UG/L	
Chloroform	10/12/23	0.66	0.5	UG/L	
Trichloroethylene	10/12/23	3.3	0.5	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.

Table F-34
Carbon Influent VOC Data
OU III LIPA/Airport System

2023 BNL Groundwater Status Report

Site ID : 800-122 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
1,1,1-Trichloroethane	01/12/23	0.21	0.5	UG/L	J
1,1-Dichloroethylene	01/12/23	0.17	0.5	UG/L	J
8260 TVOC	01/12/23	2.88	0	UG/L	
Carbon tetrachloride	01/12/23	0.62	0.5	UG/L	
Chloroform	01/12/23	0.68	0.5	UG/L	
Trichloroethylene	01/12/23	1.2	0.5	UG/L	
8260 TVOC	02/03/23	3.67	0	UG/L	
Carbon tetrachloride	02/03/23	0.91	0.5	UG/L	
Chloroform	02/03/23	0.76	0.5	UG/L	
Trichloroethylene	02/03/23	2	0.5	UG/L	
Aluminum	02/03/23	65	19	UG/L	
Barium	02/03/23	42	0.95	UG/L	
Calcium	02/03/23	12000	100	UG/L	
Chromium	02/03/23	0.91	1.8	UG/L	B
Copper	02/03/23	12	1.8	UG/L	
Iron	02/03/23	2200	10	UG/L	
Lead	02/03/23	2.4	1	UG/L	
Magnesium	02/03/23	4300	25	UG/L	
Manganese	02/03/23	36	1.8	UG/L	
Nickel	02/03/23	0.87	2	UG/L	B
Potassium	02/03/23	1400	76	UG/L	
Sodium	02/03/23	19000	150	UG/L	
Strontium	02/03/23	69	10	UG/L	
Zinc	02/03/23	81	8	UG/L	
8260 TVOC	03/03/23	3.36	0	UG/L	
Carbon tetrachloride	03/03/23	0.94	0.5	UG/L	
Chloroform	03/03/23	0.72	0.5	UG/L	
Trichloroethylene	03/03/23	1.7	0.5	UG/L	
8260 TVOC	04/13/23	1.43	0	UG/L	
Chloroform	04/13/23	0.57	0.5	UG/L	
Trichloroethylene	04/13/23	0.86	0.5	UG/L	
1,1,2,2-Tetrachloroethane	05/22/23	0.22	0.5	UG/L	J
8260 TVOC	05/22/23	2.66	0	UG/L	
Carbon tetrachloride	05/22/23	0.52	0.5	UG/L	
Chloroform	05/22/23	0.94	0.5	UG/L	
Trichloroethylene	05/22/23	0.98	0.5	UG/L	
1,1-Dichloroethylene	06/05/23	0.18	0.5	UG/L	J
8260 TVOC	06/05/23	4.57	0	UG/L	
Carbon tetrachloride	06/05/23	1.1	0.5	UG/L	
Chloroform	06/05/23	0.79	0.5	UG/L	
Trichloroethylene	06/05/23	2.5	0.5	UG/L	
8260 TVOC	07/10/23	4.15	0	UG/L	
Carbon tetrachloride	07/10/23	0.81	0.5	UG/L	
Chloroform	07/10/23	0.64	0.5	UG/L	
Trichloroethylene	07/10/23	2.7	0.5	UG/L	
1633 TPFAS	07/10/23	33.09	0	NG/L	

Table F-34
Carbon Influent VOC Data
OU III LIPA/Airport System

2023 BNL Groundwater Status Report

Site ID : 800-122 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
Fluorotelomer sulfonate 6:2 (6:2 FTS)	07/10/23	2.5	7.18	NG/L	J
Perfluorobutanesulfonate (PFBS)	07/10/23	2.39	1.68	NG/L	
Perfluorobutyric acid (PFBA)	07/10/23	3.11	7.55	NG/L	J
Perfluoroheptanoic acid (PFHpA)	07/10/23	2.27	1.89	NG/L	
Perfluorohexanesulfonate (PFHxS)	07/10/23	2.27	1.73	NG/L	
Perfluorohexanoic acid (PFHxA)	07/10/23	6.49	1.89	NG/L	
Perfluorooctanesulfonate (PFOS)	07/10/23	1.61	1.75	NG/L	J
Perfluorooctanoic acid (PFOA)	07/10/23	3.3	1.89	NG/L	
Perfluoropentanoic acid (PFPeA)	07/10/23	9.15	1.89	NG/L	
1,4-Dioxane	07/10/23	0.62	0.2	UG/L	
8260 TVOC	08/03/23	3.98	0	UG/L	
Carbon tetrachloride	08/03/23	0.91	0.5	UG/L	
Chloroform	08/03/23	0.77	0.5	UG/L	
Trichloroethylene	08/03/23	2.3	0.5	UG/L	
8260 TVOC	09/06/23	3.45	0	UG/L	
Carbon tetrachloride	09/06/23	0.73	0.5	UG/L	
Chloroform	09/06/23	0.72	0.5	UG/L	
Trichloroethylene	09/06/23	2	0.5	UG/L	
8260 TVOC	10/12/23	2.68	0	UG/L	
Carbon tetrachloride	10/12/23	0.6	0.5	UG/L	
Chloroform	10/12/23	0.68	0.5	UG/L	
Trichloroethylene	10/12/23	1.4	0.5	UG/L	
1633 TPFAS	10/12/23	24.82	0	NG/L	
Perfluorobutanesulfonate (PFBS)	10/12/23	1.79	1.71	NG/L	
Perfluorobutyric acid (PFBA)	10/12/23	4.53	7.7	NG/L	J
Perfluoroheptanoic acid (PFHpA)	10/12/23	1.99	1.92	NG/L	
Perfluorohexanesulfonate (PFHxS)	10/12/23	1.82	1.76	NG/L	
Perfluorohexanoic acid (PFHxA)	10/12/23	4.21	1.92	NG/L	
Perfluorooctanesulfonate (PFOS)	10/12/23	1.28	1.79	NG/L	J
Perfluorooctanoic acid (PFOA)	10/12/23	2.47	1.92	NG/L	
Perfluoropentanoic acid (PFPeA)	10/12/23	6.73	1.92	NG/L	
1,4-Dioxane	10/12/23	1.2	0.2	UG/L	
8260 TVOC	11/01/23	4.1	0	UG/L	
Carbon tetrachloride	11/01/23	1.2	0.5	UG/L	
Chloroform	11/01/23	0.7	0.5	UG/L	
Trichloroethylene	11/01/23	2.2	0.5	UG/L	
8260 TVOC	12/04/23	3.2	0	UG/L	
Carbon tetrachloride	12/04/23	0.72	0.5	UG/L	
Chloroform	12/04/23	0.68	0.5	UG/L	
Trichloroethylene	12/04/23	1.8	0.5	UG/L	

B: The reported value is less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).

J: The analyte was positively identified; the quantitation is an estimation.

Table F-35
Carbon Effluent VOC Data
OU III LIPA/Airport System

2023 BNL Groundwater Status Report

Site ID : 800-124 (Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Qual
8260 TVOC	01/12/23	0.97	0	UG/L	
Chloroform	01/12/23	0.97	0.5	UG/L	
8260 TVOC	02/03/23	0.62	0	UG/L	
Chloroform	02/03/23	0.62	0.5	UG/L	
8260 TVOC	03/03/23	0	0	UG/L	
8260 TVOC	04/13/23	0	0	UG/L	
8260 TVOC	05/22/23	0	0	UG/L	
8260 TVOC	06/05/23	0	0	UG/L	
8260 TVOC	07/10/23	0.51	0	UG/L	
Chloroform	07/10/23	0.51	0.5	UG/L	
1633 TPFAS	07/10/23	4.67	0	NG/L	
Perfluorobutyric acid (PFBA)	07/10/23	4.67	7.24	NG/L	J
1,4-Dioxane	07/10/23	1.3	1	UG/L	D
8260 TVOC	08/03/23	0.74	0	UG/L	
Chloroform	08/03/23	0.74	0.5	UG/L	
8260 TVOC	09/06/23	0.86	0	UG/L	
Chloroform	09/06/23	0.86	0.5	UG/L	
8260 TVOC	10/12/23	0.92	0	UG/L	
Chloroform	10/12/23	0.92	0.5	UG/L	
1633 TPFAS	10/12/23	7.57	0	NG/L	
Perfluorobutyric acid (PFBA)	10/12/23	6.27	7.29	NG/L	J
Perfluoropentanoic acid (PFPeA)	10/12/23	1.3	1.82	NG/L	J
1,4-Dioxane	10/12/23	1.2	0.2	UG/L	
8260 TVOC	11/01/23	0.92	0	UG/L	
Chloroform	11/01/23	0.92	0.5	UG/L	
8260 TVOC	12/04/23	0	0	UG/L	

J: The analyte was positively identified; the quantitation is an estimation.
D: Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

Table F-36
Extraction Well Data
OU III BGRR/WCF Sr-90 System

2023 BNL Groundwater Status Report

Site ID : 065-368 (SR-1)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	01/11/23	11.1	0.727	1.09	PCI/L	0		W
Strontium-90	02/10/23	12.5	0.784	1.08	PCI/L	0		W
Strontium-90	04/12/23	15.1	0.716	1.28	PCI/L	0		W
Strontium-90	06/12/23	18.8	0.483	0.77	PCI/L	0		W
1633 TPFAS	06/23/23	33.806	0	0	NG/L	0		W
Perfluorobutanesulfonate (PFBS)	06/23/23	0.598	1.52	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	06/23/23	9.09	6.83	0	NG/L	0		W
Perfluoroheptanoic acid (PFHpA)	06/23/23	1.21	1.71	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	06/23/23	1.27	1.56	0	NG/L	0	J	W
Perfluorohexanoic acid (PFHxA)	06/23/23	1.89	1.71	0	NG/L	0		W
Perfluorononanoic acid (PFNA)	06/23/23	1.9	1.71	0	NG/L	0		W
Perfluorooctanesulfonate (PFOS)	06/23/23	11.9	1.59	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	06/23/23	4.98	1.71	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	06/23/23	0.968	1.71	0	NG/L	0	J	W
Strontium-90	07/14/23	14.9	0.329	0.592	PCI/L	0		W
Strontium-90	08/15/23	43.5	0.261	0.874	PCI/L	0		W
Strontium-90	09/20/23	25.6	0.458	0.75	PCI/L	0		W
Strontium-90	10/18/23	26.9	0.713	2	PCI/L	0		W
Strontium-90	11/06/23	28	0.76	1.55	PCI/L	0		W
Strontium-90	12/04/23	26.9	0.357	1.41	PCI/L	0		W

Site ID : 065-369 (SR-2)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	01/11/23	5.53	0.741	0.883	PCI/L	0		W
Strontium-90	02/10/23	6.22	0.788	0.793	PCI/L	0		W
Strontium-90	04/12/23	4.35	0.68	0.757	PCI/L	0		W
Strontium-90	06/12/23	6.25	1.09	0.773	PCI/L	0		W
1633 TPFAS	06/23/23	27.814	0	0	NG/L	0		W
Perfluorobutanesulfonate (PFBS)	06/23/23	0.663	1.64	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	06/23/23	5.17	7.39	0	NG/L	0	J	W
Perfluoroheptanoic acid (PFHpA)	06/23/23	0.934	1.85	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	06/23/23	2.7	1.69	0	NG/L	0		W

Table F-36
Extraction Well Data
OU III BGRR/WCF Sr-90 System

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Perfluorohexanoic acid (PFHxA)	06/23/23	1.63	1.85	0	NG/L	0	J	W
Perfluorononanoic acid (PFNA)	06/23/23	1.6	1.85	0	NG/L	0	J	W
Perfluorooctane sulfonamide (PFOSAm)	06/23/23	0.647	1.85	0	NG/L	0	J	W
Perfluorooctanesulfonate (PFOS)	06/23/23	10.1	1.71	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	06/23/23	3.12	1.85	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	06/23/23	1.25	1.85	0	NG/L	0	J	W
Strontium-90	07/14/23	4.77	0.747	0.875	PCI/L	0		W
Strontium-90	08/15/23	3.96	0.342	0.349	PCI/L	0		W
Strontium-90	09/20/23	5.75	0.538	0.484	PCI/L	0		W
Strontium-90	10/18/23	3.86	0.684	0.802	PCI/L	0		W
Strontium-90	11/06/23	4.01	0.788	0.682	PCI/L	0		W
Strontium-90	12/04/23	2.67	0.383	0.47	PCI/L	0		W

Site ID : 075-676 (SR-3)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	02/15/23	1.83	0.774	0.607	PCI/L	0		W
Strontium-90	04/12/23	2.13	0.52	0.562	PCI/L	0		W
1633 TPFAS	06/23/23	26.86	0	0	NG/L	0		W
Perfluorobutanesulfonate (PFBS)	06/23/23	1.05	1.65	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	06/23/23	9.51	7.46	0	NG/L	0		W
Perfluoroheptanoic acid (PFHpA)	06/23/23	1.31	1.86	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	06/23/23	1.18	1.7	0	NG/L	0	J	W
Perfluorohexanoic acid (PFHxA)	06/23/23	2.76	1.86	0	NG/L	0		W
Perfluorooctanesulfonate (PFOS)	06/23/23	5.51	1.73	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	06/23/23	3.65	1.86	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	06/23/23	1.89	1.86	0	NG/L	0		W
Strontium-90	07/14/23	1.35	0.78	0.597	PCI/L	0	N2	W
Strontium-90	10/23/23	2.73	1.29	0.86	PCI/L	0		W

Site ID : 075-677 (SR-4)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	02/15/23	1.99	0.765	0.604	PCI/L	0		W

Table F-36
Extraction Well Data
OU III BGRR/WCF Sr-90 System

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Strontium-90	04/12/23	3.24	0.583	0.669	PCI/L	0		W
1633 TPFAS	06/23/23	23.736	0	0	NG/L	0		W
Perfluorobutanesulfonate	06/23/23	0.906	1.56	0	NG/L	0	J	W
Perfluorobutyric acid	06/23/23	6.66	7.06	0	NG/L	0	J	W
Perfluoroheptanoic acid	06/23/23	0.686	1.76	0	NG/L	0	J	W
Perfluorohexanesulfonate	06/23/23	2.05	1.61	0	NG/L	0		W
Perfluorohexanoic acid	06/23/23	1.73	1.76	0	NG/L	0	J	W
Perfluorononanoic acid	06/23/23	0.624	1.76	0	NG/L	0	J	W
Perfluorooctanesulfonate	06/23/23	6.82	1.64	0	NG/L	0		W
Perfluorooctanoic acid	06/23/23	3.25	1.76	0	NG/L	0		W
Perfluoropentanoic acid	06/23/23	1.01	1.76	0	NG/L	0	J	W
Strontium-90	07/14/23	3.98	0.783	0.752	PCI/L	0		W
Strontium-90	10/23/23	5.17	0.758	0.949	PCI/L	0		W

Site ID : 075-678 (SR-5)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
1633 TPFAS	06/23/23	21.164	0	0	NG/L	0		W
Perfluorobutanesulfonate (PFBS)	06/23/23	0.854	1.55	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	06/23/23	5.44	7	0	NG/L	0	J	W
Perfluoroheptanoic acid (PFHpA)	06/23/23	1.07	1.75	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	06/23/23	1.32	1.6	0	NG/L	0	J	W
Perfluorohexanoic acid (PFHxA)	06/23/23	2.43	1.75	0	NG/L	0		W
Perfluorooctanesulfonate (PFOS)	06/23/23	5.45	1.62	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	06/23/23	3.17	1.75	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	06/23/23	1.43	1.75	0	NG/L	0	J	W
Strontium-90	07/14/23	1.11	0.766	0.529	PCI/L	0	N2	W

Site ID : 065-403 (SR-6)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
1633 TPFAS	09/20/23	23.042	0	0	NG/L	95		W
Perfluorobutanesulfonate (PFBS)	09/20/23	0.934	1.7	0	NG/L	95	J	W
Perfluorobutyric acid (PFBA)	09/20/23	4.8	7.65	0	NG/L	95	J	W
Perfluoroheptanoic acid (PFHpA)	09/20/23	1.31	1.91	0	NG/L	95	J	W
Perfluorohexanesulfonate (PFHxS)	09/20/23	1.88	1.75	0	NG/L	95		W

Table F-36
Extraction Well Data
OU III BGRR/WCF Sr-90 System

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Perfluorohexanoic acid (PFHxA)	09/20/23	1.42	1.91	0	NG/L	95	J	W
Perfluorononanoic acid (PFNA)	09/20/23	0.858	1.91	0	NG/L	95	J	W
Perfluorooctanesulfonate (PFOS)	09/20/23	6.28	1.78	0	NG/L	95		W
Perfluorooctanoic acid (PFOA)	09/20/23	3.84	1.91	0	NG/L	95		W
Perfluoropentanoic acid (PFPeA)	09/20/23	1.72	1.91	0	NG/L	95	J	W
Strontium-90	10/23/23	1.16	0.766	0.548	PCI/L	0	N2	W

Site ID : 075-702 (SR-7)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	02/15/23	1.29	0.782	0.55	PCI/L	0	N2	W
1633 TPFAS	09/20/23	29.937	0	0	NG/L	92		W
Perfluorobutanesulfonate (PFBS)	09/20/23	0.983	1.64	0	NG/L	92	J	W
Perfluorobutyric acid (PFBA)	09/20/23	6.42	7.41	0	NG/L	92	J	W
Perfluoroheptanoic acid (PFHpA)	09/20/23	1.35	1.85	0	NG/L	92	J	W
Perfluorohexanesulfonate (PFHxS)	09/20/23	3.17	1.69	0	NG/L	92		W
Perfluorohexanoic acid (PFHxA)	09/20/23	3.1	1.85	0	NG/L	92		W
Perfluorononanoic acid (PFNA)	09/20/23	0.915	1.85	0	NG/L	92	J	W
Perfluorooctanesulfonate (PFOS)	09/20/23	7.33	1.72	0	NG/L	92		W
Perfluorooctanoic acid (PFOA)	09/20/23	4.17	1.85	0	NG/L	92		W
Perfluoropentanesulfonate (PFPeS)	09/20/23	0.599	1.74	0	NG/L	92	J	W
Perfluoropentanoic acid (PFPeA)	09/20/23	1.9	1.85	0	NG/L	92		W
Strontium-90	10/23/23	2.2	0.78	0.608	PCI/L	0		W

Site ID : 075-703 (SR-8)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	02/15/23	2.32	0.786	0.631	PCI/L	0		W
Strontium-90	04/12/23	2.25	0.774	0.607	PCI/L	0		W
1633 TPFAS	06/23/23	23.927	0	0	NG/L	0		W
Perfluorobutanesulfonate (PFBS)	06/23/23	0.863	1.65	0	NG/L	0	J	W

Table F-36
Extraction Well Data
OU III BGRR/WCF Sr-90 System

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Perfluorobutyric acid (PFBA)	06/23/23	4.14	7.45	0	NG/L	0	J	W
Perfluoroheptanoic acid (PFHpA)	06/23/23	1.19	1.86	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	06/23/23	2.53	1.7	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	06/23/23	2.93	1.86	0	NG/L	0		W
Perfluorononanoic acid (PFNA)	06/23/23	0.764	1.86	0	NG/L	0	J	W
Perfluorooctanesulfonate (PFOS)	06/23/23	5.74	1.73	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	06/23/23	3.86	1.86	0	NG/L	0		W
Perfluoropentanoic acid (PFPeA)	06/23/23	1.91	1.86	0	NG/L	0		W
Strontium-90	07/14/23	1.92	0.748	0.645	PCI/L	0		W
Strontium-90	10/23/23	1.73	0.76	0.59	PCI/L	0		W

Site ID : 075-704 (SR-9)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual	Matrix
Strontium-90	02/10/23	4.85	0.774	0.783	PCI/L	0		W
Strontium-90	04/12/23	1.8	0.725	0.591	PCI/L	0		W
1633 TPFAS	06/23/23	16.805	0	0	NG/L	0		W
Perfluorobutanesulfonate (PFBS)	06/23/23	1.06	1.54	0	NG/L	0	J	W
Perfluorobutyric acid (PFBA)	06/23/23	4.67	6.94	0	NG/L	0	J	W
Perfluoroheptanoic acid (PFHpA)	06/23/23	0.927	1.73	0	NG/L	0	J	W
Perfluorohexanesulfonate (PFHxS)	06/23/23	2.48	1.59	0	NG/L	0		W
Perfluorohexanoic acid (PFHxA)	06/23/23	0.848	1.73	0	NG/L	0	J	W
Perfluorooctanesulfonate (PFOS)	06/23/23	4.79	1.61	0	NG/L	0		W
Perfluorooctanoic acid (PFOA)	06/23/23	2.03	1.73	0	NG/L	0		W
Strontium-90	07/14/23	1.05	0.765	0.541	PCI/L	0	N2	W
Strontium-90	10/23/23	1.94	0.753	0.628	PCI/L	0		W

J: The analyte was positively identified; the quantitation is an estimation

N2: Not usable based on the results that are not distinguishable from background. The reported concentration value is less than or equal to the sum of the MDC and the uncertainty

Table F-37
System Influent Data
OU III BGRR/WCF Sr-90 System

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Site ID: 066-216 (Influent)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual
1,1,1-Trichloroethane	01/11/23	0.45	0.5	0	UG/L	0	J
8260 TVOC	01/11/23	0.89	0	0	UG/L	0	
Chloroform	01/11/23	0.44	0.5	0	UG/L	0	J
Strontium-90	01/11/23	6.91	0.741	0.972	PCI/L	0	
1,1,1-Trichloroethane	02/10/23	0.44	0.5	0	UG/L	0	J
8260 TVOC	02/10/23	0.94	0	0	UG/L	0	
Chloroform	02/10/23	0.5	0.5	0	UG/L	0	J
Strontium-90	02/10/23	6.81	0.781	0.824	PCI/L	0	
1,1,1-Trichloroethane	03/13/23	0.35	0.5	0	UG/L	0	J
8260 TVOC	03/13/23	1.26	0	0	UG/L	0	
Chloroform	03/13/23	0.47	0.5	0	UG/L	0	J
Tetrachloroethylene	03/13/23	0.44	0.5	0	UG/L	0	J
8260 TVOC	04/12/23	6.96	0	0	UG/L	0	
Chloroform	04/12/23	0.36	0.5	0	UG/L	0	J
Ethene, 1,2-dichloro-, (E)-	04/12/23	6.6	0.5	0	UG/L	0	
Strontium-90	04/12/23	4.85	0.79	0.891	PCI/L	0	
1,1,1-Trichloroethane	06/12/23	0.41	0.5	0	UG/L	0	J
8260 TVOC	06/12/23	0.96	0	0	UG/L	0	
Chloroform	06/12/23	0.55	0.5	0	UG/L	0	J
Strontium-90	06/12/23	8.26	0.601	0.643	PCI/L	0	
1633 TPFAS	06/23/23	29.543	0	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/23/23	0.683	1.61	0	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/23/23	6.18	7.27	0	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	06/23/23	1.19	1.82	0	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	06/23/23	2.59	1.66	0	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/23/23	1.74	1.82	0	NG/L	0	J
Perfluorononanoic acid (PFNA)	06/23/23	1.73	1.82	0	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	06/23/23	10.4	1.69	0	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/23/23	3.73	1.82	0	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/23/23	1.3	1.82	0	NG/L	0	J
1,1,1-Trichloroethane	07/14/23	0.44	0.5	0	UG/L	0	J
8260 TVOC	07/14/23	1.06	0	0	UG/L	0	
Chloroform	07/14/23	0.62	0.5	0	UG/L	0	J
Strontium-90	07/14/23	8.88	1.02	0.783	PCI/L	0	
8260 TVOC	08/15/23	0	0	0	UG/L	0	
Strontium-90	08/15/23	9.82	1.03	0.826	PCI/L	0	
8260 TVOC	09/20/23	0	0	0	UG/L	0	
Strontium-90	09/20/23	5.59	0.583	0.536	PCI/L	0	
8260 TVOC	10/18/23	1.56	0	0	UG/L	0	
Bromoform	10/18/23	0.59	0.5	0	UG/L	0	J
Chloroform	10/18/23	0.56	0.5	0	UG/L	0	J
Dibromochloromethane	10/18/23	0.41	0.5	0	UG/L	0	J
Strontium-90	10/18/23	5.23	0.775	0.888	PCI/L	0	
1633 TPFAS	10/18/23	32.506	0	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/18/23	0.756	1.72	0	NG/L	0	J
Perfluorobutyric acid (PFBA)	10/18/23	7.8	7.77	0	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	10/18/23	1.15	1.94	0	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/18/23	2.03	1.78	0	NG/L	0	

Table F-37
System Influent Data
OU III BGRR/WCF Sr-90 System

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Site ID: 066-216 (Influent)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual
Perfluorohexanoic acid (PFHxA)	10/18/23	1.23	1.94	0	NG/L	0	J
Perfluorononanoic acid (PFNA)	10/18/23	1.88	1.94	0	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/18/23	11.9	1.8	0	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/18/23	4.12	1.94	0	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/18/23	1.64	1.94	0	NG/L	0	J
1,4-Dioxane	10/18/23	0.12	0.2	0	UG/L	0	J
1,1,1-Trichloroethane	11/06/23	0.41	0.5	0	UG/L	0	J
8260 TVOC	11/06/23	1.27	0	0	UG/L	0	
Bromoform	11/06/23	0.41	0.5	0	UG/L	0	J
Chloroform	11/06/23	0.45	0.5	0	UG/L	0	J
Strontium-90	11/06/23	5.11	0.771	0.798	PCI/L	0	
1,1,1-Trichloroethane	12/04/23	0.49	0.5	0	UG/L	0	J
8260 TVOC	12/04/23	1.84	0	0	UG/L	0	
Bromoform	12/04/23	0.54	0.5	0	UG/L	0	J
Chloroform	12/04/23	0.46	0.5	0	UG/L	0	J
Dibromochloromethane	12/04/23	0.35	0.5	0	UG/L	0	J
Strontium-90	12/04/23	3.62	0.355	0.527	PCI/L	0	

J: The analyte was positively identified; the quantitation is an estimation

Table F-38
System Effluent Data
OU III BGRR/WCF Sr-90 System

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Site ID: 066-219 (Effluent)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual
1,1,1-Trichloroethane	01/11/23	0.47	0.5	0	UG/L	0	J
8260 TVOC	01/11/23	0.85	0	0	UG/L	0	
Chloroform	01/11/23	0.38	0.5	0	UG/L	0	J
Strontium-90	01/11/23	1.79	0.693	0.543	PCI/L	0	
1,1,1-Trichloroethane	02/10/23	0.5	0.5	0	UG/L	0	J
8260 TVOC	02/10/23	1.03	0	0	UG/L	0	
Chloroform	02/10/23	0.53	0.5	0	UG/L	0	J
1,1,1-Trichloroethane	03/13/23	0.35	0.5	0	UG/L	0	J
8260 TVOC	03/13/23	0.82	0	0	UG/L	0	
Chloroform	03/13/23	0.47	0.5	0	UG/L	0	J
8260 TVOC	04/12/23	117.36	0	0	UG/L	0	
Chloroform	04/12/23	0.36	0.5	0	UG/L	0	J
cis-1,2-Dichloroethylene	04/12/23	5	0.5	0	UG/L	0	
Ethene, 1,2-dichloro-, (E)-	04/12/23	112	0.5	0	UG/L	0	D
1,1,1-Trichloroethane	06/12/23	0.56	0.5	0	UG/L	0	J
8260 TVOC	06/12/23	1.44	0	0	UG/L	0	
Chloroform	06/12/23	0.46	0.5	0	UG/L	0	J
Ethene, 1,2-dichloro-, (E)-	06/12/23	0.42	0.5	0	UG/L	0	J
1633 TPFAS	06/23/23	15.146	0	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/23/23	0.976	1.58	0	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/23/23	6.45	7.13	0	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	06/23/23	1	1.78	0	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	06/23/23	1.91	1.78	0	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/23/23	0.94	1.65	0	NG/L	0	J
Perfluorooctanoic acid (PFOA)	06/23/23	2.43	1.78	0	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/23/23	1.44	1.78	0	NG/L	0	J
1,1,1-Trichloroethane	07/14/23	0.52	0.5	0	UG/L	0	J
8260 TVOC	07/14/23	1.49	0	0	UG/L	0	
Chloroform	07/14/23	0.52	0.5	0	UG/L	0	J
Ethene, 1,2-dichloro-, (E)-	07/14/23	0.45	0.5	0	UG/L	0	J
1,1,1-Trichloroethane	08/15/23	0.63	0.5	0	UG/L	0	J
8260 TVOC	08/15/23	1.99	0	0	UG/L	0	
Chloroform	08/15/23	0.66	0.5	0	UG/L	0	J
Ethene, 1,2-dichloro-, (E)-	08/15/23	0.7	0.5	0	UG/L	0	J
1,1,1-Trichloroethane	09/20/23	0.66	0.5	0	UG/L	0	J
8260 TVOC	09/20/23	1.76	0	0	UG/L	0	
Chloroform	09/20/23	0.6	0.5	0	UG/L	0	J
Ethene, 1,2-dichloro-, (E)-	09/20/23	0.5	0.5	0	UG/L	0	J
1,1,1-Trichloroethane	10/18/23	0.5	0.5	0	UG/L	0	J
8260 TVOC	10/18/23	1.51	0	0	UG/L	0	
Chloroform	10/18/23	0.53	0.5	0	UG/L	0	J
Ethene, 1,2-dichloro-, (E)-	10/18/23	0.48	0.5	0	UG/L	0	J
1633 TPFAS	10/18/23	20.445	0	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/18/23	1.14	1.63	0	NG/L	0	J
Perfluorobutyric acid (PFBA)	10/18/23	8.31	7.35	0	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	10/18/23	1.19	1.84	0	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/18/23	0.681	1.68	0	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	10/18/23	2.17	1.84	0	NG/L	0	
Perfluorononanoic acid (PFNA)	10/18/23	0.749	1.84	0	NG/L	0	J

Table F-38
System Effluent Data
OU III BGRR/WCF Sr-90 System

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Site ID: 066-219 (Effluent)

	Sample						
Perfluorooctanesulfonate (PFOS)	10/18/23	0.815	1.7	0	NG/L	0	J
Perfluorooctanoic acid (PFOA)	10/18/23	3.24	1.84	0	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/18/23	2.15	1.84	0	NG/L	0	
1,4-Dioxane	10/18/23	0.13	0.22	0	UG/L	0	J
1,1,1-Trichloroethane	11/06/23	0.57	0.5	0	UG/L	0	J
8260 TVOC	11/06/23	1.82	0	0	UG/L	0	
Chloroform	11/06/23	0.57	0.5	0	UG/L	0	J
Ethene, 1,2-dichloro-, (E)-	11/06/23	0.68	0.5	0	UG/L	0	J
1,1,1-Trichloroethane	12/04/23	0.65	0.5	0	UG/L	0	J
8260 TVOC	12/04/23	1.77	0	0	UG/L	0	
Chloroform	12/04/23	0.51	0.5	0	UG/L	0	J
Ethene, 1,2-dichloro-, (E)-	12/04/23	0.61	0.5	0	UG/L	0	J

J = Estimated Value below the method detection limit of 0.50 UG/L

B = Compound was found in both the sample and associated laboratory blank.

Table F-39
Cumulative Mass Removal
OU III BGRR/WCF Sr-90 System

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Sample date	Influent Concentration (pCi/L)	Liters Pumped	picoCuries pumped	milliCuries pumped	Cumulative mCi
6/20/05	79.0	18927	1495238	0.00	0.16
7/13/05	349.0	769968	268718798	0.27	0.43
7/21/05	251	212755	53401576	0.05	0.48
7/27/05	223	322086	71825077	0.07	0.56
8/3/05	376	970829	365031863	0.37	0.92
8/11/05	436	1167095	508853618	0.51	1.43
8/17/05	401	325905	130687917	0.13	1.56
8/24/05	285	1029515	293411679	0.29	1.85
9/1/05	175	1342269	234897105	0.23	2.09
9/28/05	245	2176949	533352428	0.53	2.62
10/6/05	273	983420	268473579	0.27	2.89
10/13/05	373	1026013	382702907	0.38	3.27
10/19/05	315	537881	169432363	0.17	3.44
10/25/05	271	657772	178256234	0.18	3.62
11/8/05	278	565056	157085565	0.16	3.78
11/18/05	266	1057530	281303112	0.28	4.06
11/22/05	254	373794	94943745	0.09	4.15
1/13/06	386	639364	246794359	0.25	4.40
1/20/06	317	860992	272934437	0.27	4.67
1/25/06	304	585895	178111983	0.18	4.85
2/1/06	243	822120	199775043	0.20	5.05
2/10/06	184	1068451	196595059	0.20	5.25
2/15/06	191	559862	106933719	0.11	5.36
2/23/06	150	1016811	152521623	0.15	5.51
3/3/06	174	838669	145928465	0.15	5.65
3/8/06	71.6	339468	24305920	0.02	5.68
3/14/06	63.4	570091	36143743	0.04	5.72
3/21/06	52	806490	41937457	0.04	5.76
3/29/06	164	541480	88802793	0.09	5.85
4/18/06	130	973892	126605937	0.13	5.97
4/25/06	155	887433	137552117	0.14	6.11
5/3/06	187	1220932	228314206	0.23	6.34
5/9/06	140	629158	88082142	0.09	6.43
5/16/06	158	1046462	165340988	0.17	6.59
5/24/06	114	999894	113987895	0.11	6.71
6/7/06	104	1837568	191107030	0.19	6.90
6/14/06	96.4	778133	75012025	0.08	6.97
6/22/06	108	1062902	114793415	0.11	7.09
6/28/06	105	1023992	107519133	0.11	7.19
7/6/06	90.1	1200449	108160429	0.11	7.30
7/12/06	99.7	775256	77293035	0.08	7.38
7/19/06	91.9	936746	86086918	0.09	7.47
7/26/06	91.4	1036090	94698619	0.09	7.56
8/2/06	98.3	875721	86083370	0.09	7.65
8/8/06	90.8	690838	62728059	0.06	7.71
8/16/06	93.5	1097232	102591182	0.10	7.81
8/23/06	97.8	958409	93732448	0.09	7.91
8/30/06	84.8	938487	79583686	0.08	7.99
9/6/06	89.2	960401	85667735	0.09	8.07

Table F-39
Cumulative Mass Removal
OU III BGRR/WCF Sr-90 System

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Sample date	Influent Concentration (pCi/L)	Liters Pumped	picoCuries pumped	milliCuries pumped	Cumulative mCi
10/4/06	101	1152268	116379068	0.12	8.19
10/11/06	102	948477	96744610	0.10	8.28
10/18/06	96.1	951406	91430162	0.09	8.38
11/9/06	127	818546	103955354	0.10	8.48
11/15/06	97.2	817649	79475478	0.08	8.56
11/29/06	167	1090199	182063166	0.18	8.74
12/5/06	125	643384	80422966	0.08	8.82
12/14/06	150	1125176	168776371	0.17	8.99
12/20/06	139	939191	130547542	0.13	9.12
12/27/06	148	941129	139287104	0.14	9.26
1/10/07	112	1883114	210908731	0.21	9.47
1/17/07	122	941557	114869934	0.11	9.59
1/24/07	137	941557	128993286	0.13	9.71
1/31/07	121	941557	113928377	0.11	9.83
2/7/07	103	879162	90553675	0.09	9.92
2/14/07	122	879162	107257751	0.11	10.03
3/2/07	47.2	1758293	82991453	0.08	10.11
3/8/07	50.6	22712	1149251	0.00	10.11
4/11/07	40.7	2882970	117336864	0.12	10.23
4/19/07	40.7	678346	27608674	0.03	10.26
4/25/07	41.1	508759	20910009	0.02	10.28
5/3/07	44.5	678346	30186388	0.03	10.31
5/8/07	38.9	413197	16073349	0.02	10.32
5/16/07	264	661115	174534254	0.17	10.50
5/24/07	415	663204	275229721	0.28	10.77
6/1/07	504	578475	291551539	0.29	11.06
6/12/07	451	506587	228470520	0.23	11.29
6/21/07	426	414480	176568429	0.18	11.47
6/27/07	426	276320	117712286	0.12	11.59
7/3/07	445	145360	64685117	0.06	11.65
9/6/07	391	143770	56214047	0.06	11.71
9/26/07	401	479233	192172487	0.19	11.90
10/18/07	308	1703057	524541485	0.52	12.42
11/8/07	363	1939077	703885022	0.70	13.13
11/20/07	321	1399088	449107313	0.45	13.58
12/6/07	209	1877564	392410929	0.39	13.97
12/20/07	114	1792392	204332744	0.20	14.17
1/4/08	137	1051966	144119334	0.14	14.32
1/15/08	127	824463	104706762	0.10	14.42
2/21/08	41.1	2095282	86116099	0.09	14.51
3/12/08	65.2	1196966	78042192	0.08	14.59
3/25/08	74.4	946069	70387537	0.07	14.66
4/9/08	61.3	1012219	62049032	0.06	14.72
4/22/08	65.9	939918	61940580	0.06	14.78
5/8/08	85.7	1474796	126390055	0.13	14.91
5/19/08	95.4	1232530	117583370	0.12	15.03
6/4/08	60.1	1685265	101284447	0.10	15.13
6/19/08	44.9	1697757	76229298	0.08	15.20
7/2/08	61.2	1130173	69166560	0.07	15.27

Table F-39
Cumulative Mass Removal
OU III BGRR/WCF Sr-90 System

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Sample date	Influent Concentration (pCi/L)	Liters Pumped	picoCuries pumped	milliCuries pumped	Cumulative mCi
7/29/08	52.5	2502006	131355304	0.13	15.40
8/28/08	105	654119	68682512	0.07	15.47
9/12/08	59.7	1526278	91118799	0.09	15.56
9/23/08	55.9	1199218	67036312	0.07	15.63
10/10/08	73.4	2316672	170043726	0.17	15.80
10/22/08	53.2	1499023	79748027	0.08	15.88
11/5/08	43.4	1831534	79488560	0.08	15.96
11/19/08	44.6	1831534	81686401	0.08	16.04
12/2/08	35.1	1651045	57951687	0.06	16.10
12/17/08	25.6	1589873	40700748	0.04	16.14
1/13/09	33.1	3444725	114020389	0.11	16.25
1/27/09	36.6	1854852	67887575	0.07	16.32
2/10/09	32.6	1665581	54297947	0.05	16.38
3/25/09	53.9	3198673	172408473	0.17	16.55
4/1/09	50.9	715443	36416040	0.04	16.58
4/15/09	39.7	1788607	71007701	0.07	16.66
5/4/09	29.3	2265569	66381171	0.07	16.72
5/21/09	28.7	2104310	60393709	0.06	16.78
6/3/09	31.5	1485396	46789961	0.05	16.83
6/18/09	35.3	2225822	78571521	0.08	16.91
7/16/09	44.4	3040443	134995658	0.13	17.04
7/28/09	30.1	944839	28439647	0.03	17.07
8/10/09	20.8	792665	16487437	0.02	17.09
10/22/09	52.1	2639416	137513586	0.14	17.23
10/30/09	28.7	554184	15905089	0.02	17.24
11/10/09	51	921116	46976896	0.05	17.29
12/8/09	49.1	2540011	124714556	0.12	17.41
12/30/09	40.3	2109708	85021249	0.09	17.50
1/6/10	38.3	522387	20007416	0.02	17.52
1/27/10	37.6	1828354	68746107	0.07	17.59
2/4/10	32.5	696516	22636763	0.02	17.61
2/17/10	30	2066835	62005045	0.06	17.67
3/3/10	33.7	2066835	69652334	0.07	17.74
3/17/10	31.7	1960843	62158733	0.06	17.80
4/1/10	29.6	1820783	53895179	0.05	17.86
4/14/10	25.3	1640329	41500316	0.04	17.90
5/4/10	30.1	2398346	72190217	0.07	17.97
5/19/10	28.7	1423050	40841531	0.04	18.01
6/15/10	27.7	2122412	58790820	0.06	18.07
8/17/10	90.2	2176574	196326969	0.20	18.27
8/24/10	25.7	529958	13619912	0.01	18.28
9/1/10	51.7	529958	27398811	0.03	18.31
9/13/10	44.2	766137	33863258	0.03	18.34
10/6/10	24.3	2182184	53027069	0.05	18.39
10/19/10	35.3	1233408	43539313	0.04	18.44
11/4/10	28.5	1306739	37242070	0.04	18.48
11/15/10	53.6	723487	38778894	0.04	18.51
12/2/10	44.5	1127973	50194808	0.05	18.56
12/16/10	37	989802	36622671	0.04	18.60

Table F-39
Cumulative Mass Removal
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Sample date	Influent Concentration (pCi/L)	Liters Pumped	picoCuries pumped	milliCuries pumped	Cumulative mCi
1/7/11	30.5	1533470	46770845	0.05	18.65
1/19/11	31.8	808564	25712334	0.03	18.67
3/3/11	24.9	1667474	41520100	0.04	18.72
3/24/11	25.5	1486531	37906546	0.04	18.75
5/2/11	59.6	2949105	175766632	0.18	18.93
5/27/11	95.8	822759	78820337	0.08	19.01
6/13/11	61	3134272	191190577	0.19	19.20
7/6/11	51	5005514	255281233	0.26	19.45
7/19/11	48.7	2288872	111468064	0.11	19.57
8/9/11	49.7	3873203	192498193	0.19	19.76
8/26/11	38.7	3719546	143946416	0.14	19.90
9/2/11	40.7	1174485	47801522	0.05	19.95
9/29/11	88.1	1086758	95743350	0.10	20.05
10/5/11	39.4	1194449	47061284	0.05	20.09
10/25/11	136	3981496	541483474	0.54	20.63
11/10/11	63.9	2951561	188604766	0.19	20.82
11/15/11	68.8	978094	67292842	0.07	20.89
12/14/11	43.3	5010814	216968244	0.22	21.11
12/20/11	60.8	889943	54108519	0.05	21.16
1/4/12	33.9	2113657	71652959	0.07	21.23
1/25/12	48.5	2530998	122753415	0.12	21.36
2/13/12	21	3823395	80291287	0.08	21.44
2/22/12	43.4	2146328	93150656	0.09	21.53
3/2/12	27.6	2369539	65399279	0.07	21.59
3/14/12	24.1	4201035	101244940	0.10	21.70
4/6/12	22.1	7633245	168694715	0.17	21.86
4/16/12	23.3	2802454	65297176	0.07	21.93
5/2/12	16.8	4699566	78952709	0.08	22.01
5/15/12	16.2	5044849	81726547	0.08	22.09
6/6/12	22.9	7302968	167237964	0.17	22.26
6/19/12	24.5	3210976	78668901	0.08	22.34
6/25/12	24.5	1481989	36308724	0.04	22.37
7/24/12	20.3	1473097	29903865	0.03	22.40
7/30/12	14	304786	4267007	0.00	22.41
8/8/12	23.6	324031	7647138	0.01	22.41
8/20/12	29.3	486047	14241173	0.01	22.43
9/6/12	21.2	1331844	28235096	0.03	22.46
9/18/12	16.3	1853610	30213846	0.03	22.49
10/1/12	17.5	3394606	59405603	0.06	22.55
10/16/12	17.3	3602766	62327846	0.06	22.61
11/20/12	20.6	5711051	117647646	0.12	22.73
11/30/12	15.5	1174235	18200638	0.02	22.74
12/5/12	20.2	1494481	30188508	0.03	22.77
12/18/12	17.3	3885650	67221736	0.07	22.84
1/3/13	14.2	4338990	61613664	0.06	22.90
1/15/13	13.6	3008948	40921695	0.04	22.94
2/5/13	16	4497069	71953107	0.07	23.02
2/20/13	26	2207652	57398956	0.06	23.07
3/11/13	15.4	3819443	58819417	0.06	23.13

Table F-39
Cumulative Mass Removal
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Sample date	Influent Concentration (pCi/L)	Liters Pumped	picoCuries pumped	milliCuries pumped	Cumulative mCi
3/21/13	13.2	2642028	34874772	0.03	23.17
4/3/13	19	2542956	48316171	0.05	23.22
4/15/13	15.2	852444	12957156	0.01	23.23
5/7/13	14.7	2396980	35235599	0.04	23.26
5/28/13	13.6	3992568	54298931	0.05	23.32
6/4/13	13.7	1484570	20338614	0.02	23.34
6/17/13	22.2	3589059	79677103	0.08	23.42
7/2/13	13.4	3917542	52495057	0.05	23.47
7/19/13	14.6	2784575	40654801	0.04	23.51
8/6/13	17.5	3481167	60920421	0.06	23.57
8/20/13	18.1	3918560	70925934	0.07	23.64
9/4/13	15.7	3504103	55014413	0.06	23.70
9/17/13	11.5	2291677	26354285	0.03	23.72
10/3/13	19.9	2756374	54851845	0.05	23.78
10/22/13	24	2944017	70656407	0.07	23.85
11/6/13	13.6	3115367	42368997	0.04	23.89
11/19/13	12.4	3728472	46233048	0.05	23.94
12/2/13	10.7	3559900	38090927	0.04	23.98
12/16/13	14.2	2835273	40260883	0.04	24.02
1/8/14	14.1	5479989	77267848	0.08	24.09
1/23/14	11.7	4579118	53575681	0.05	24.15
2/4/14	16.3	3282558	53505690	0.05	24.20
4/8/14	30.1	6922761	208375109	0.21	24.41
4/21/14	19	3055963	58063296	0.06	24.47
5/7/14	21.7	3390215	73567661	0.07	24.54
5/19/14	20.7	2184940	45228252	0.05	24.59
6/5/14	19.5	3321453	64768330	0.06	24.65
6/17/14	15.8	3164619	50000987	0.05	24.70
7/1/14	13.1	3955774	51820643	0.05	24.75
7/16/14	15	2292067	34381003	0.03	24.79
8/5/14	16.6	3259065	54100486	0.05	24.84
8/18/14	10.5	2911580	30571588	0.03	24.87
9/9/14	9.85	3230429	31819724	0.03	24.90
9/30/14	9.85	1362445	13420087	0.01	24.92
11/6/14	16.5	1801303	29721505	0.03	24.95
11/18/14	13.4	3580076	47973017	0.05	25.00
12/2/14	14.4	3894515	56081015	0.06	25.05
12/16/14	14.4	4559366	65654867	0.07	25.12
1/6/15	14.9	4559366	67934550	0.07	25.18
1/21/15	13.7	1596460	21871496	0.02	25.21
2/12/15	18.3	3092167	56586649	0.06	25.26
2/25/15	16.5	2196849	36248002	0.04	25.30
3/10/15	13.7	3132943	42921320	0.04	25.34
3/23/15	10.7	3413771	36527354	0.04	25.38
4/1/15	11.8	2331144	27507495	0.03	25.41
4/14/15	13.4	2994696	40128927	0.04	25.45
5/6/15	10.3	5287554	54461807	0.05	25.50
5/27/15	6.3	5606210	35375185	0.04	25.54
6/10/15	18.7	2365413	44233223	0.04	25.58

Table F-39
Cumulative Mass Removal
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Sample date	Influent Concentration (pCi/L)	Liters Pumped	picoCuries pumped	milliCuries pumped	Cumulative mCi
6/22/15	13.0	1557485	20247305	0.02	25.60
7/10/15	13.6	2885998	39249572	0.04	25.64
7/22/15	10.2	2216737	22610719	0.02	25.66
8/5/15	14.8	2654331	39284095	0.04	25.70
8/18/15	12.7	2578623	32748506	0.03	25.73
9/2/15	10.2	3132807	31954629	0.03	25.77
9/23/15	8.8	5818935	50915681	0.05	25.82
10/1/15	9.5	2171691	20631062	0.02	25.84
10/20/15	9.9	4433035	43665397	0.04	25.88
11/5/15	7.2	3516065	25456308	0.03	25.91
11/23/15	12.6	3418454	43072520	0.04	25.95
12/2/15	8.4	1722347	14536611	0.01	25.97
12/15/15	10.1	2697659	27246352	0.03	25.99
1/7/16	7.1	4288429	30233422	0.03	26.02
2/9/16	46.7	5255859	245448606	0.25	26.27
2/18/16	8.3	1330690	10978189	0.01	26.28
3/3/16	7.9	2167977	17148700	0.02	26.30
3/29/16	8.4	4693684	39286131	0.04	26.34
4/11/16	8.2	3033228	24902800	0.02	26.36
4/25/16	5.8	3266553	18848011	0.02	26.38
5/4/16	7.8	2305217	17980695	0.02	26.40
5/17/16	7.1	3700422	26198986	0.03	26.42
6/7/16	10.1	5455119	55096703	0.06	26.48
6/21/16	8.9	2940099	26078679	0.03	26.50
7/18/16	8.6	6430945	55434748	0.06	26.56
7/25/16	6.4	1774722	11304980	0.01	26.57
8/3/16	7.5	2125285	15854629	0.02	26.59
8/16/16	7.5	2617745	19502198	0.02	26.61
9/20/16	9.8	4832078	47499328	0.05	26.65
10/4/16	7.9	1246135	9794620	0.01	26.66
10/26/16	16.4	2425586	39779609	0.04	26.70
11/17/16	9.4	4014887	37780089	0.04	26.74
11/29/16	7.5	2444907	18361249	0.02	26.76
12/8/16	9.7	2245502	21669099	0.02	26.78
12/19/16	9.0	2296980	20649853	0.02	26.80
1/5/17	9.5	1717438	16332831	0.02	26.82
1/18/17	7.2	3671437	26287488	0.03	26.84
2/2/17	6.2	3909032	24196908	0.02	26.87
3/7/17	7.1	4146506	29440193	0.03	26.90
3/20/17	8.1	1964428	15911868	0.02	26.91
4/5/17	8.3	2729801	22711940	0.02	26.94
4/20/17	3.7	3008778	11162566	0.01	26.95
5/3/17	8.6	2970678	25399294	0.03	26.97
5/17/17	7.2	4502520	32373120	0.03	27.01
6/6/17	7.1	6174817	43841199	0.04	27.05
6/20/17	8.1	3902025	31450323	0.03	27.08
7/14/17	8.2	6742803	55290982	0.06	27.14
7/25/17	6.4	3143368	20117556	0.02	27.16
8/1/17	7.7	1971215	15198070	0.02	27.17

Table F-39
Cumulative Mass Removal
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Sample date	Influent Concentration (pCi/L)	Liters Pumped	picoCuries pumped	milliCuries pumped	Cumulative mCi
8/16/17	5.3	3850218	20213645	0.02	27.19
9/7/17	6.1	5962894	36075510	0.04	27.23
9/19/17	5.2	3621731	18651913	0.02	27.25
10/6/17	7.9	4154853	32657143	0.03	27.28
10/18/17	8.6	2169677	18680918	0.02	27.30
11/2/17	4.3	2801636	12047036	0.01	27.31
11/15/17	3.5	2932494	10263730	0.01	27.32
12/13/17	9.6	5236368	50269130	0.05	27.37
12/19/17	4.4	855102	3728244	0.00	27.37
1/3/18	4.6	2206214	10170645	0.01	27.38
1/18/18	3.3	3198881	10396364	0.01	27.40
2/1/18	4.8	2922281	14026949	0.01	27.41
2/13/18	4.1	1799009	7375938	0.01	27.42
3/7/18	8.1	3659165	29639233	0.03	27.45
3/20/18	9.2	2619319	24176319	0.02	27.47
4/3/18	8.2	3350161	27471323	0.03	27.50
4/17/18	13.1	2658321	34824000	0.03	27.53
5/15/18	7.9	5319310	41916162	0.04	27.57
5/22/18	7.9	1330406	10510205	0.01	27.59
6/5/18	8.3	2238681	18581054	0.02	27.60
6/21/18	15.0	1690111	25351660	0.03	27.63
7/3/18	11.1	1546121	17161945	0.02	27.65
8/1/18	14.9	5662397	84369714	0.08	27.73
8/14/18	16.5	1365637	22533003	0.02	27.75
9/6/18	8.9	3024839	26800076	0.03	27.78
9/18/18	10.5	2688112	28225174	0.03	27.81
10/11/18	5.7	4164400	23612146	0.02	27.83
10/25/18	10.5	1878912	19728575	0.02	27.85
11/1/18	9.0	814583	7298662	0.01	27.86
01/17/19	19.4	1902953	36917288	0.04	27.90
02/05/19	19	3958042	75202793	0.08	27.97
03/12/19	11.5	4252918	48908554	0.05	28.02
04/02/19	13.3	2910853	38714345	0.04	28.06
05/02/19	13.5	4600025	62100335	0.06	28.12
06/06/19	17.2	5613599	96553905	0.10	28.22
07/31/19	21.1	5347068	112823141	0.11	28.33
08/31/19	16.5	4483271	73973978	0.07	28.40
9/31/2019	13.4	2616590	35062309	0.04	28.44
10/31/19	15.4	4238041	65265832	0.07	28.50
11/30/19	12.9	5477445	70659046	0.07	28.57
12/31/19	13	4063469	52825100	0.05	28.63
01/31/20	4.27	6572179	28063204	0.03	28.66
02/29/20	12.2	3810248	46485024	0.05	28.70
03/31/20	9.68	5301889	51322289	0.05	28.75
04/30/20	7.98	1931014	15409494	0.02	28.77
05/31/20	5.41	6297237	34068052	0.03	28.80
06/30/20	14.4	4140548	59623888	0.06	28.86
07/31/20	11.5	333949	3840414	0.00	28.87
08/31/20	11.5	1144709	13164148	0.01	28.88

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Cumulative Mass Removal
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Sample date	Influent Concentration (pCi/L)	Liters Pumped	picoCuries pumped	milliCuries pumped	Cumulative mCi
09/30/20	8.62	6357489	54801558	0.05	28.93
10/31/20	2.36	4454018	10511482	0.01	28.95
11/30/20	5.03	6253591	31455563	0.03	28.98
12/31/20	7.63	1764793	13465371	0.01	28.99
01/31/21	1.01	5267491	5320166	0.01	29.00
02/28/21	8.15	3457989	28182609	0.03	29.02
03/31/21	20.5	5753186	117940317	0.12	29.14
04/30/21	9.99	4228517	42242884	0.04	29.18
05/31/21	10.6	6287141	66643697	0.07	29.25
06/30/21	13.7	2311437	31666684	0.03	29.28
07/31/21	5.7	6092363	34726468	0.03	29.32
08/31/21	7.9	4264808	33691981	0.03	29.35
09/30/21	3.97	6369326	25286226	0.03	29.38
10/31/21	5.05	3599158	18175749	0.02	29.39
11/30/21	4.79	4501422	21561813	0.02	29.42
12/31/21	18.6	1414677	26312983	0.03	29.44
01/14/22	4.34	4967304	21558101	0.02	29.46
02/10/22	5.37	4114538	22095070	0.02	29.49
03/12/22	6.09	6072542	36981784	0.04	29.52
04/08/22	5.98	4267064	25517042	0.03	29.55
05/11/22	15	1759096	26386440	0.03	29.57
06/15/22	10.2	3348969	34159483	0.03	29.61
07/07/22	10.4	1759096	18294598	0.02	29.63
08/10/22	10.2	1582514	16141644	0.02	29.64
09/08/22	10.2	1114141	11364242	0.01	29.65
10/12/22	9.22	2092848	19296060	0.02	29.67
11/10/22	8.79	2003107	17607314	0.02	29.69
12/08/22	7.66	3592980	27522230	0.03	29.72
01/11/23	6.91	2003107	13841472	0.01	29.73
02/10/23	6.81	3348969	22806479	0.02	29.76
03/13/23	6.57	1759096	11557261	0.01	29.77
04/12/23	4.85	3348969	16242499	0.02	29.78
05/01/23	8.72	1759096	15339317	0.02	29.80
06/12/23	8.26	1759096	14530133	0.01	29.81
07/14/23	8.88	2195580	19496755	0.02	29.83
08/15/23	9.82	776388	7624130	0.01	29.84
09/20/23	5.59	341732	1910281	0.00	29.84
10/18/23	5.23	2248137	11757757	0.01	29.85
11/06/23	5.11	1923133	9827210	0.01	29.86
12/04/23	3.62	2013279	7288069	0.01	29.87

Table F-40
Extraction Well Data
OU III Chemical/Animal Holes Sr-90 System

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Site ID : 106-92 (EW-1)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual
Strontium-90	01/06/23	19.1	0.505	0.68	PCI/L	0	
Strontium-90	04/11/23	15.3	0.761	1.53	PCI/L	0	
Strontium-90	09/13/23	22.3	0.388	1.29	PCI/L	0	
Strontium-90	10/11/23	18.6	0.525	1.41	PCI/L	0	

Site ID : 106-123 (EW-2)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual
Strontium-90	01/06/23	3.31	0.672	0.507	PCI/L	0	
Strontium-90	04/11/23	2.24	0.777	0.661	PCI/L	0	
Strontium-90	09/13/23	2.36	0.781	0.717	PCI/L	0	
Strontium-90	10/11/23	3.18	0.447	0.54	PCI/L	0	

Site ID : 106-124 (EW-3)

Chemical Name	Sample Date	Value	Detlim	Error	Units	Depth	Qual
Strontium-90	01/06/23	0.606	0.786	0.496	PCI/L	0	U
Strontium-90	04/11/23	1.25	0.775	0.528	PCI/L	0	N2
Strontium-90	09/13/23	0.87	0.778	0.511	PCI/L	0	N2
Strontium-90	10/11/23	1.83	0.427	0.45	PCI/L	0	

Table F-41
System Influent Data
OU III Chemical/Animal Holes Sr-90 System

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No Influent samples collected as sytem has been in stand-by mode since 7/1/2018.

Table F-42
System Effluent Data
OU III Chemical/Animal Holes Sr-90 System

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Site ID: 106-118 (Effluent)

No samples were collected due to the system being in stand-by mode since 7/1/2018.

Table F-43
Cumulative Mass Removal
OU III Chemical/Animal Holes Sr-90 System

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Sample Date	Influent Concentration (pCi/L)	Millicuries pumped	Cumulative mCi
December 31, 2003	31.7	0.884	
January 2, 2004	35.7	0.002	0.887
January 5, 2004	31.8	0.003	0.890
January 7, 2004	37.8	0.000	0.890
January 9, 2004	31.7	0.002	0.892
January 12, 2004	35.9	0.002	0.894
January 14, 2004	38.2	0.002	0.897
January 16, 2004	34.5	0.002	0.899
January 21, 2004	35.3	0.006	0.905
January 23, 2004	32.4	0.002	0.907
January 26, 2004	34.3	0.003	0.910
January 28, 2004	34.7	0.002	0.913
January 30, 2004	33.8	0.002	0.915
February 2, 2004	34.4	0.003	0.918
February 4, 2004	33.2	0.002	0.920
February 6, 2004	37.4	0.002	0.923
February 9, 2004	39.5	0.004	0.927
February 11, 2004	35.6	0.002	0.929
February 13, 2004	41.2	0.003	0.932
February 18, 2004	37.1	0.004	0.936
February 20, 2004	32.1	0.002	0.938
February 23, 2004	46.1	0.001	0.939
February 25, 2004	35.2	0.002	0.941
February 27, 2004	34.6	0.002	0.944
March 1, 2004	36.8	0.004	0.947
March 3, 2004	35.0	0.002	0.950
March 5, 2004	36.7	0.002	0.952
March 8, 2004	40.7	0.004	0.956
March 10, 2004	38.4	0.003	0.958
March 12, 2004	34.9	0.002	0.961
March 15, 2004	36.8	0.004	0.964
April 2, 2004	66.7	0.004	0.969
April 5, 2004	57.1	0.006	0.974
May 21, 2004	169.0	0.006	0.980
May 25, 2004	82.8	0.011	0.991
May 28, 2004	78.6	0.008	0.998
June 2, 2004	66.5	0.011	1.009
June 8, 2004	52.9	0.010	1.020
June 11, 2004	56.6	0.006	1.025
June 15, 2004	51.4	0.007	1.032
June 18, 2004	62.8	0.006	1.038
June 22, 2004	51.8	0.007	1.045
June 25, 2004	67.6	0.007	1.052
June 29, 2004	61.5	0.008	1.060
July 2, 2004	68.5	0.007	1.066
July 7, 2004	93.1	0.015	1.082
July 9, 2004	73.9	0.005	1.086
July 13, 2004	71.1	0.009	1.096
July 16, 2004	64.4	0.006	1.102
October 15, 2004	124.0	0.024	1.126
January 12, 2005	181.0	0.086	1.213
January 14, 2005	136.0	0.004	1.217

Table F-43
Cumulative Mass Removal
OU III Chemical/Animal Holes Sr-90 System

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Sample Date	Influent Concentration (pCi/L)	Millicuries pumped	Cumulative mCi
January 18, 2005	185.0	0.012	1.229
January 21, 2005	157.0	0.005	1.234
January 31, 2005	278.0	0.045	1.280
May 26, 2005	566.0	0.296	1.576
June 1, 2005	496.0	0.097	1.673
June 7, 2005	277.0	0.054	1.728
June 15, 2005	204.0	0.053	1.781
June 22, 2005	162.0	0.037	1.818
June 28, 2005	119.0	0.023	1.841
July 7, 2005	102	0.030	1.871
July 13, 2005	73.9	0.002	1.873
July 26, 2005	56.3	0.013	1.886
August 3, 2005	80.7	0.021	1.907
August 11, 2005	68.3	0.020	1.927
August 17, 2005	57.5	0.014	1.941
August 24, 2005	55.7	0.013	1.954
September 1, 2005	50.8	0.013	1.967
September 8, 2005	50	0.011	1.979
September 15, 2005	50.6	0.013	1.992
September 20, 2005	46.4	0.007	1.999
September 27, 2005	42.7	0.010	2.009
October 6, 2005	44.1	0.013	2.022
October 13, 2005	43.9	0.010	2.032
October 19, 2005	37	0.007	2.039
October 25, 2005	37.2	0.007	2.046
November 1, 2005	33	0.003	2.050
November 8, 2005	31.8	0.007	2.057
November 18, 2005	33.6	0.007	2.064
November 22, 2005	37.8	0.006	2.070
December 1, 2005	32.2	0.012	2.081
February 9, 2006	36	0.000	2.081
February 15, 2006	40	0.008	2.089
February 23, 2006	32.2	0.008	2.098
February 28, 2006	27.1	0.003	2.101
March 8, 2006	31.4	0.008	2.109
March 14, 2006	33.6	0.007	2.116
March 21, 2006	36.9	0.008	2.124
March 29, 2006	31.1	0.009	2.133
April 4, 2006	26.3	0.003	2.137
April 10, 2006	24.1	0.004	2.140
April 18, 2006	23	0.005	2.145
April 25, 2006	28.7	0.005	2.150
May 1, 2006	31.7	0.005	2.154
May 9, 2006	34.3	0.009	2.163
May 16, 2006	24.9	0.006	2.169
May 24, 2006	22.7	0.006	2.174
May 31, 2006	26.3	0.006	2.180
June 7, 2006	26.7	0.005	2.185
June 14, 2006	24.6	0.005	2.190
June 22, 2006	27.7	0.006	2.196
June 28, 2006	26.2	0.004	2.200

Table F-43
Cumulative Mass Removal
OU III Chemical/Animal Holes Sr-90 System

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Sample Date	Influent Concentration (pCi/L)	Millicuries pumped	Cumulative mCi
July 6, 2006	16	0.003	2.203
July 12, 2006	23.9	0.005	2.208
August 8, 2006	22	0.010	2.218
August 16, 2006	21.7	0.006	2.224
August 23, 2006	25.6	0.007	2.231
August 30, 2006	25.9	0.003	2.234
September 6, 2006	27.6	0.008	2.241
September 12, 2006	24.3	0.006	2.247
September 19, 2006	19	0.005	2.252
September 28, 2006	21.6	0.007	2.260
October 4, 2006	24.1	0.007	2.266
October 11, 2006	20.9	0.005	2.271
October 18, 2006	20.1	0.006	2.277
October 25, 2006	21.6	0.006	2.283
November 1, 2006	18.5	0.004	2.287
November 9, 2006	19.9	0.006	2.293
November 20, 2006	22.8	0.004	2.297
November 29, 2006	26.1	0.010	2.307
December 5, 2006	18.1	0.004	2.311
December 14, 2006	20.4	0.006	2.318
December 20, 2006	20.4	0.004	2.322
December 27, 2006	22.6	0.006	2.328
January 3, 2007	22.8	0.006	2.333
January 10, 2007	17.2	0.005	2.338
January 17, 2007	20.7	0.006	2.345
January 24, 2007	19.4	0.006	2.350
January 31, 2007	14.5	0.004	2.355
February 7, 2007	18.2	0.005	2.359
February 14, 2007	17.1	0.004	2.363
February 27, 2007	17.3	0.008	2.371
March 2, 2007	18.5	0.002	2.373
March 15, 2007	18.5	0.009	2.382
March 28, 2007	6.26	0.003	2.385
April 5, 2007	16.6	0.004	2.389
April 11, 2007	17.6	0.003	2.392
April 19, 2007	18.7	0.005	2.397
April 25, 2007	18.1	0.003	2.400
May 3, 2007	17.3	0.004	2.404
May 8, 2007	16.9	0.002	2.407
May 16, 2007	18	0.004	2.411
May 24, 2007	17.4	0.004	2.415
May 30, 2007	18.4	0.003	2.418
June 12, 2007	22.9	0.002	2.419
June 21, 2007	22.7	0.001	2.421
July 27, 2007	26.6	0.007	2.427
August 14, 2007	28.8	0.008	2.435
September 6, 2007	31.6	0.012	2.446
September 25, 2007	32.5	0.012	2.459
October 4, 2007	32.2	0.008	2.467
October 10, 2007	29.1	0.005	2.471
October 17, 2007	26.8	0.005	2.476

Table F-43
Cumulative Mass Removal
OU III Chemical/Animal Holes Sr-90 System

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Sample Date	Influent Concentration (pCi/L)	Millicuries pumped	Cumulative mCi
November 15, 2007	78.7	0.040	2.516
November 20, 2007	66.4	0.003	2.519
November 30, 2007	62	0.005	2.524
December 4, 2007	47	0.013	2.537
December 13, 2007	40.1	0.026	2.563
December 20, 2007	36.7	0.018	2.581
December 26, 2007	41.2	0.018	2.599
January 4, 2008	38.5	0.030	2.629
January 15, 2008	36.8	0.035	2.664
January 23, 2008	32.7	0.023	2.687
January 31, 2008	35.9	0.025	2.712
February 6, 2008	30.3	0.012	2.724
February 12, 2008	51.4	0.021	2.745
February 20, 2008	30.8	0.016	2.761
February 27, 2008	34.1	0.015	2.776
March 5, 2008	34.9	0.015	2.791
March 11, 2008	28.5	0.012	2.804
March 17, 2008	28.9	0.012	2.816
March 25, 2008	27.9	0.016	2.832
April 2, 2008	32.5	0.017	2.850
April 9, 2008	33.4	0.018	2.867
April 14, 2008	28.3	0.013	2.880
April 21, 2008	39.1	0.021	2.901
April 25, 2008	26.2	0.008	2.909
May 6, 2008	19.8	0.013	2.922
May 12, 2008	18.4	0.005	2.927
May 19, 2008	18.2	0.006	2.932
May 29, 2008	19.3	0.008	2.941
June 4, 2008	21.5	0.008	2.949
June 9, 2008	23.7	0.009	2.958
June 16, 2008	23.3	0.012	2.970
June 23, 2008	15	0.008	2.978
July 1, 2008	18.2	0.006	2.984
July 16, 2008	15.8	0.009	2.993
July 22, 2008	20.5	0.005	2.998
July 28, 2008	17.3	0.004	3.002
August 11, 2008	33.4	0.033	3.035
August 22, 2008	23.5	0.018	3.053
August 28, 2008	23.7	0.010	3.063
September 3, 2008	21.8	0.006	3.070
September 9, 2008	18.5	0.005	3.075
September 17, 2008	15.2	0.006	3.081
September 22, 2008	13	0.003	3.084
September 29, 2008	12.1	0.004	3.088
October 7, 2008	43.2	0.028	3.116
October 13, 2008	41.4	0.018	3.133
October 22, 2008	22.4	0.014	3.148
October 27, 2008	23.3	0.008	3.156
November 5, 2008	26.6	0.016	3.172
November 13, 2008	15.5	0.008	3.180
November 18, 2008	16.5	0.005	3.186

Table F-43
Cumulative Mass Removal
OU III Chemical/Animal Holes Sr-90 System

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Sample Date	Influent Concentration (pCi/L)	Millicuries pumped	Cumulative mCi
November 24, 2008	14.3	0.006	3.191
December 2, 2008	13.2	0.013	3.205
December 9, 2008	28.2	0.021	3.225
December 19, 2008	40.9	0.043	3.269
December 26, 2008	51.2	0.038	3.307
December 31, 2008	45.8	0.024	3.331
January 8, 2009	25.1	0.008	3.339
January 16, 2009	15.6	0.005	3.343
January 21, 2009	15.1	0.003	3.346
February 4, 2009	30.2	0.016	3.363
February 9, 2009	28.8	0.006	3.369
February 19, 2009	22.7	0.010	3.378
February 23, 2009	22.7	0.004	3.382
March 4, 2009	26.4	0.012	3.394
March 10, 2009	15.9	0.006	3.400
March 16, 2009	14.8	0.005	3.405
March 24, 2009	12.6	0.006	3.411
April 1, 2009	10.6	0.003	3.414
April 7, 2009	25	0.014	3.428
April 14, 2009	23.1	0.013	3.442
April 20, 2009	16.8	0.008	3.450
April 27, 2009	18.3	0.010	3.460
May 7, 2009	13.4	0.011	3.471
May 11, 2009	20.8	0.007	3.478
May 21, 2009	18.7	0.016	3.494
May 27, 2009	17.4	0.009	3.502
June 3, 2009	14.6	0.008	3.511
June 8, 2009	17.1	0.006	3.517
June 18, 2009	17.8	0.013	3.531
June 24, 2009	15.3	0.007	3.538
July 6, 2009	13.2	0.010	3.547
July 15, 2009	8.56	0.005	3.552
July 23, 2009	11.3	0.006	3.558
July 28, 2009	9.81	0.003	3.561
August 4, 2009	11.3	0.005	3.566
August 10, 2009	20.1	0.009	3.576
August 18, 2009	21.7	0.013	3.589
August 25, 2009	20.2	0.011	3.600
September 2, 2009	17.5	0.010	3.609
September 8, 2009	13	0.005	3.615
September 16, 2009	8.47	0.005	3.619
September 21, 2009	11.3	0.004	3.623
October 1, 2009	9.66	0.007	3.630
October 8, 2009	21.4	0.014	3.644
October 12, 2009	22.2	0.008	3.652
October 19, 2009	19.7	0.013	3.665
November 4, 2009	15.6	0.018	3.683
December 16, 2009	49.8	0.088	3.771
December 29, 2009	33.7	0.022	3.793
January 6, 2010	14	0.005	3.798
January 20, 2010	10.2	0.009	3.806

Table F-43
Cumulative Mass Removal
OU III Chemical/Animal Holes Sr-90 System

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Sample Date	Influent Concentration (pCi/L)	Millicuries pumped	Cumulative mCi
February 2, 2010	12.1	0.009	3.815
February 17, 2010	23	0.037	3.852
March 2, 2010	20.9	0.027	3.878
March 15, 2010	9.19	0.009	3.887
April 1, 2010	5.95	0.007	3.894
April 13, 2010	17.1	0.016	3.910
May 4, 2010	14	0.022	3.932
May 17, 2010	6.42	0.005	3.938
June 3, 2010	9.53	0.011	3.949
June 15, 2010	18.7	0.021	3.970
July 1, 2010	13.6	0.021	3.991
July 14, 2010	13	0.014	4.005
August 4, 2010	8.33	0.014	4.019
August 16, 2010	6.06	0.005	4.024
September 1, 2010	5.98	0.006	4.030
September 13, 2010	11.5	0.007	4.038
October 6, 2010	7.36	0.009	4.047
October 19, 2010	6.14	0.005	4.051
November 4, 2010	16.1	0.015	4.066
November 15, 2010	13.7	0.009	4.075
December 1, 2010	20.3	0.020	4.095
December 14, 2010	14.3	0.005	4.100
January 6, 2011	6.68	0.006	4.106
January 19, 2011	22.3	0.024	4.130
February 7, 2011	16.6	0.022	4.152
February 14, 2011	6.3	0.000	4.152
March 1, 2011	8.38	0.008	4.160
March 14, 2011	15.4	0.010	4.170
April 5, 2011	9.49	0.018	4.188
April 18, 2011	7.28	0.005	4.193
May 5, 2011	15.8	0.017	4.210
May 19, 2011	19.5	0.027	4.237
June 2, 2011	15.6	0.021	4.257
June 13, 2011	8.3	0.006	4.264
July 6, 2011	13	0.021	4.285
July 18, 2011	15.5	0.015	4.300
August 3, 2011	10.7	0.012	4.312
August 15, 2011	7.14	0.006	4.318
September 8, 2011	19.8	0.030	4.348
September 27, 2011	13.2	0.014	4.362
October 4, 2011	15.8	0.006	4.368
October 17, 2011	9.82	0.006	4.374
November 2, 2011	12.1	0.011	4.385
November 15, 2011	14.2	0.018	4.403
December 6, 2011	12.2	0.022	4.424
December 13, 2011	6.71	0.002	4.427
January 4, 2012	12.3	0.017	4.444
January 18, 2012	12.6	0.021	4.465
February 1, 2012	8.51	0.010	4.476
February 14, 2012	6.34	0.003	4.480
March 1, 2012	4.41	0.002	4.483

Table F-43
Cumulative Mass Removal
OU III Chemical/Animal Holes Sr-90 System

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Sample Date	Influent Concentration (pCi/L)	Millicuries pumped	Cumulative mCi
March 13, 2012	14.5	0.004	4.485
April 3, 2012	12.1	0.003	4.489
April 16, 2012	5.06	0.006	4.492
May 2, 2012	7.55	0.011	4.499
May 16, 2012	8.4	0.012	4.510
June 5, 2012	8.27	0.002	4.523
June 19, 2012	3.55	0.010	4.525
July 11, 2012	7.16	0.009	4.535
July 24, 2012	8.15	0.002	4.545
August 1, 2012	4.13	0.002	4.547
August 13, 2012	3.39	0.009	4.550
September 5, 2012	6.13	0.010	4.559
September 17, 2012	8.43	0.005	4.569
October 4, 2012	4.51	0.002	4.575
October 16, 2012	2.59	0.002	4.577
November 5, 2012	4.04	0.006	4.584
November 19, 2012	5.41	0.007	4.592
December 4, 2012	5.37	0.007	4.600
December 18, 2012	2.52	0.002	4.602
January 2, 2013	1.33	0.001	4.601
January 15, 2013	4.94	0.007	4.608
January 22, 2013	4.43	0.003	4.611
February 4, 2013	4.24	0.005	4.615
February 20, 2013	1.98	0.001	4.617
March 5, 2013	4.98	0.003	4.619
March 27, 2013	7.58	0.007	4.626
April 2, 2013	6.54	0.002	4.628
April 15, 2013	2.06	0.001	4.629
May 1, 2013	2.69	0.002	4.632
May 14, 2013	5.95	0.010	4.642
June 3, 2013	4.11	0.009	4.651
June 17, 2013	1.09	0.001	4.652
July 2, 2013	3.07	0.003	4.655
July 15, 2013	11.8	0.010	4.665
August 5, 2013	3.8	0.005	4.670
August 20, 2013	1.62	0.001	4.672
September 4, 2013	2.21	0.002	4.674
September 16, 2013	4.73	0.006	4.681
November 18, 2013	8.5	0.025	4.705
November 25, 2013	7.3	0.003	4.709
January 10, 2014	7.57	0.003	4.711
January 31, 2014	7.88	0.006	4.718
March 4, 2014	6.84	0.003	4.721
March 18, 2014	5.5	0.008	4.729
May 6, 2014	4.61	0.010	4.738
May 19, 2014	5.13	0.008	4.746
July 8, 2014	4.23	0.008	4.755
July 24, 2014	3.59	0.002	4.757
September 3, 2014	5.03	0.003	4.759
September 17, 2014	4.12	0.005	4.764
December 2, 2014	5.93	0.011	4.775

Table F-43
Cumulative Mass Removal
OU III Chemical/Animal Holes Sr-90 System

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Sample Date	Influent Concentration (pCi/L)	Millicuries pumped	Cumulative mCi
December 23, 2014	5.08	0.010	4.785
March 6, 2015	6.05	0.008	4.818
March 23, 2015	2.61	0.006	4.824
June 2, 2015	8.83	0.002	4.826
June 30, 2015	4.33	0.015	4.840
September 2, 2015	6.79	0.002	4.842
September 16, 2015	3.46	0.006	4.848
November 23, 2015	5.07	0.021	4.869
December 1, 2015	5.22	0.002	4.872
December 15, 2015	2.45	0.004	4.876
January 5, 2016	2.25	0.005	4.881
February 17, 2016	4.45	0.004	4.885
March 2, 2016	4.34	0.003	4.887
March 15, 2016	3.81	0.006	4.893
April 15, 2016	1.64	0.003	4.897
April 25, 2016	7	0.000	4.897
May 4, 2016	5.15	0.001	4.897
May 17, 2016	3.15	0.002	4.899
June 8, 2016	2.92	0.004	4.903
June 21, 2016	1.9	0.003	4.906
July 11, 2016	3.26	0.004	4.909
July 25, 2016	2.55	0.001	4.911
September 1, 2016	1.66	0.000	4.911
September 12, 2016	1.83	0.001	4.912
November 1, 2016	1.36	0.003	4.915
November 14, 2016	0.904	0.000	4.916
December 1, 2016	1.78	0.001	4.917
December 15, 2016	1.67	0.00001	4.917
January 15, 2017	2.69	0.00187	4.920
January 30, 2017	0.79	0.00055	4.921
March 15, 2017	3.42	0.00123	4.922
March 31, 2017	0.63	0.00028	4.923
June 6, 2017	2.31	0.00130	4.924
July 12, 2017	3	0.00155	4.925
July 25, 2017	1.37	0.00112	4.926
September 14, 2017	3.76	0.00160	4.928
September 26, 2017	1.17	0.00061	4.929
November 30, 2017	1	0.00085	4.930
January 9, 2018	2.63	0.00252	4.932
March 1, 2018	0.94	0.00039	4.932
March 14, 2018	2.78	0.00115	4.934
May 2, 2018	3.45	0.00146	4.935
May 16, 2018	5.09	0.00215	4.937

*System in stand-by mode as of July 2018

Table F-44
Extraction Well VOC Data
OU VI EDB Pump and Treat System

2023 BNL Groundwater Status Report

Site ID: 000-503 (EW-1)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/05/23	0.92	0	UG/L	0	
Chloroform	01/05/23	0.92	0.5	UG/L	0	
8260 TVOC	04/11/23	0.94	0	UG/L	0	
Chloroform	04/11/23	0.94	0.5	UG/L	0	
8260 TVOC	08/07/23	0.78	0	UG/L	0	
Chloroform	08/07/23	0.78	0.5	UG/L	0	
8260 TVOC	10/05/23	0.92	0	UG/L	0	
Chloroform	10/05/23	0.92	0.5	UG/L	0	

Site ID : 000-504 (EW-2)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/05/23	0.9	0	UG/L	0	
Chloroform	01/05/23	0.9	0.5	UG/L	0	
EDB	01/05/23	0.056	0.011	UG/L	0	
8260 TVOC	04/11/23	0.82	0	UG/L	0	
Chloroform	04/11/23	0.82	0.5	UG/L	0	
EDB	04/11/23	0.047	0.011	UG/L	0	
8260 TVOC	08/07/23	0.97	0	UG/L	0	
Chloroform	08/07/23	0.97	0.5	UG/L	0	
EDB	08/07/23	0.013	0.01	UG/L	0	
8260 TVOC	10/05/23	0.96	0	UG/L	0	
Chloroform	10/05/23	0.96	0.5	UG/L	0	
EDB	10/05/23	0.043	0.011	UG/L	0	

J = Estimated Value below the method detection limit of 0.50 UG/L
B = Compound was found in both the sample and associated laboratory blank.

Table F-45
System Influent VOC Data
OU VI EDB Pump and Treat System

2023 BNL Groundwater Status Report

Site ID: 000-512 (Combined Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/05/23	0.92	0	UG/L	0	
Chloroform	01/05/23	0.92	0.5	UG/L	0	
EDB	01/05/23	0.029	0.011	UG/L	0	
8260 TVOC	02/09/23	1.08	0	UG/L	0	
Chloroform	02/09/23	0.86	0.5	UG/L	0	
EDB	02/09/23	0.036	0.011	UG/L	0	
Trichloroethylene	02/09/23	0.22	0.5	UG/L	0	J
Barium	02/09/23	13	10	UG/L	0	
Calcium	02/09/23	5000	130	UG/L	0	
Chromium	02/09/23	0.53	1.5	UG/L	0	B
Copper	02/09/23	2.3	5	UG/L	0	B
Iron	02/09/23	1100	100	UG/L	0	
Lead	02/09/23	9	0.5	UG/L	0	
Magnesium	02/09/23	2400	130	UG/L	0	
Nickel	02/09/23	10	5	UG/L	0	
Potassium	02/09/23	760	1000	UG/L	0	B
Sodium	02/09/23	13000	130	UG/L	0	
Zinc	02/09/23	55	5	UG/L	0	
8260 TVOC	03/08/23	0.85	0	UG/L	0	
Chloroform	03/08/23	0.85	0.5	UG/L	0	
EDB	03/08/23	0.029	0.01	UG/L	0	
8260 TVOC	04/11/23	0.91	0	UG/L	0	
Chloroform	04/11/23	0.91	0.5	UG/L	0	
EDB	04/11/23	0.029	0.011	UG/L	0	
8260 TVOC	05/04/23	1	0	UG/L	0	
Chloroform	05/04/23	1	0.5	UG/L	0	
EDB	05/04/23	0.023	0.01	UG/L	0	
8260 TVOC	06/05/23	1	0	UG/L	0	
Chloroform	06/05/23	1	0.5	UG/L	0	
EDB	06/05/23	0.023	0.01	UG/L	0	
8260 TVOC	08/07/23	0.85	0	UG/L	0	
Chloroform	08/07/23	0.85	0.5	UG/L	0	
8260 TVOC	09/07/23	1.1	0	UG/L	0	
Chloroform	09/07/23	1.1	0.5	UG/L	0	
EDB	09/07/23	0.023	0.01	UG/L	0	
8260 TVOC	10/05/23	0.92	0	UG/L	0	
Chloroform	10/05/23	0.92	0.5	UG/L	0	
EDB	10/05/23	0.028	0.011	UG/L	0	
1,4-Dioxane	10/05/23	0.17	0.2	UG/L	0	HJ
8260 TVOC	11/01/23	0.88	0	UG/L	0	
Chloroform	11/01/23	0.88	0.5	UG/L	0	
EDB	11/01/23	0.014	0.011	UG/L	0	
8260 TVOC	12/04/23	0.8	0	UG/L	0	
Chloroform	12/04/23	0.8	0.5	UG/L	0	
EDB	12/04/23	0.0085	0.011	UG/L	0	J

J - Estimated value.

B - Compound was found in both the sample and associated laboratory blank.

HJ - Technical holding time exceedance; the associated numerical value is an estimated quantity

Table F-46
System Effluent VOC Data
OU VI EDB Pump and Treat System

2023 BNL Groundwater Status Report

Site ID: 000-510 (Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/05/23	1.1	0	UG/L	0	
Chloroform	01/05/23	1.1	0.5	UG/L	0	
8260 TVOC	02/09/23	1	0	UG/L	0	
Chloroform	02/09/23	1	0.5	UG/L	0	
8260 TVOC	03/08/23	0	0	UG/L	0	
8260 TVOC	04/11/23	0.16	0	UG/L	0	
Chloroform	04/11/23	0.16	0.5	UG/L	0	J
8260 TVOC	05/04/23	0.38	0	UG/L	0	
Chloroform	05/04/23	0.38	0.5	UG/L	0	J
8260 TVOC	06/05/23	0	0	UG/L	0	
8260 TVOC	08/07/23	1	0	UG/L	0	
Chloroform	08/07/23	1	0.5	UG/L	0	
8260 TVOC	09/07/23	0.81	0	UG/L	0	
Chloroform	09/07/23	0.81	0.5	UG/L	0	
8260 TVOC	10/05/23	1.1	0	UG/L	0	
Chloroform	10/05/23	1.1	0.5	UG/L	0	
1,4-Dioxane	10/05/23	0.18	0.24	UG/L	0	HJ
8260 TVOC	11/01/23	1.1	0	UG/L	0	
Chloroform	11/01/23	1.1	0.5	UG/L	0	
8260 TVOC	12/04/23	0.16	0	UG/L	0	
Chloroform	12/04/23	0.16	0.5	UG/L	0	J

J - Estimated Value below the method detection limit of 0.50 UG/L

B - Compound was found in both the sample and associated laboratory blank.

HJ -Technical holding time exceedance; the associated numerical value is an estimated quantity

Table F-47
Extraction Well Data
OU X PFAS CFH System

2023 BNL Groundwater Status Report

Site ID : 073-34 (CF-RW-A)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	1.9	0	UG/L	0	
Chloroform	01/11/23	1.9	0.5	UG/L	0	
537 TPFAS	01/11/23	247.136	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	01/11/23	1.2	3.43	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	01/11/23	6.51	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/11/23	2.83	3.61	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/11/23	5.44	1.81	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/11/23	1.41	1.72	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	01/11/23	5.63	1.81	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/11/23	57.2	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	17.4	1.81	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	01/11/23	0.966	1.81	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	01/11/23	119	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/11/23	4.98	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/11/23	7.67	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/11/23	16.9	1.81	NG/L	0	
Barium	01/11/23	28.9	1	UG/L	0	B
Calcium	01/11/23	6380	50	UG/L	0	
Copper	01/11/23	7.63	3	UG/L	0	B
Magnesium	01/11/23	2100	110	UG/L	0	B
Manganese	01/11/23	4.76	2	UG/L	0	B
Mercury	01/11/23	0.068	0.067	UG/L	0	B
Potassium	01/11/23	806	50	UG/L	0	B
Sodium	01/11/23	41200	100	UG/L	0	
Zinc	01/11/23	87	3.3	UG/L	0	
537 TPFAS	02/16/23	367.691	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	02/16/23	1.27	3.38	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	02/16/23	5.52	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/16/23	2.83	3.56	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/16/23	5.4	1.78	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/16/23	1.9	1.69	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/16/23	5.08	1.78	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/16/23	81.6	1.62	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/16/23	17.7	1.78	NG/L	0	
Perfluorononanoic acid (PFNA)	02/16/23	0.99	1.78	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	02/16/23	0.791	1.78	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/16/23	217	8.89	NG/L	0	D
Perfluorooctanoic acid (PFOA)	02/16/23	4.75	1.78	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/16/23	9.06	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/16/23	13.8	1.78	NG/L	0	
8260 TVOC	02/16/23	1.6	0	UG/L	0	
Chloroform	02/16/23	1.6	0.5	UG/L	0	
537 TPFAS	03/02/23	290.899	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/02/23	4.65	1.62	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/02/23	2.41	3.63	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/02/23	4.78	1.82	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/02/23	1.46	1.72	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/02/23	4.95	1.82	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/02/23	45.8	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/02/23	16	1.82	NG/L	0	
Perfluorononanoic acid (PFNA)	03/02/23	0.819	1.82	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	03/02/23	186	9.08	NG/L	0	D
Perfluorooctanoic acid (PFOA)	03/02/23	5.1	1.82	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/02/23	6.03	1.71	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/02/23	12.9	1.82	NG/L	0	
8260 TVOC	03/02/23	1.6	0	UG/L	0	

Table F-47
Extraction Well Data
OU X PFAS CFH System

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Chloroform	03/02/23	1.6	0.5	UG/L	0	
537 TPFAS	04/06/23	97.755	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	04/06/23	7.76	3.49	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/06/23	7.76	1.67	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	1.41	1.83	NG/L	0	J
Perfluorononanoic acid (PFNA)	04/06/23	2.34	1.83	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/06/23	76.5	1.83	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/06/23	1.09	1.83	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	04/06/23	0.895	1.83	NG/L	0	J
8260 TVOC	04/06/23	1.4	0	UG/L	0	
Chloroform	04/06/23	1.4	0.5	UG/L	0	
1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	05/11/23	1.23	3.54	NG/L	0	J
537 TPFAS	05/11/23	422.895	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/11/23	6.18	1.64	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/11/23	3.06	3.69	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/11/23	7.14	1.84	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/11/23	2.61	1.75	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	05/11/23	7.57	1.84	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/11/23	83.6	1.68	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/11/23	20.6	1.84	NG/L	0	
Perfluorononanoic acid (PFNA)	05/11/23	0.724	1.84	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	05/11/23	0.951	1.84	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	05/11/23	255	9.22	NG/L	0	D
Perfluorooctanoic acid (PFOA)	05/11/23	8.13	1.84	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/11/23	8.1	1.73	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/11/23	18	1.84	NG/L	0	
8260 TVOC	05/11/23	1.7	0	UG/L	0	
Chloroform	05/11/23	1.7	0.5	UG/L	0	
537 TPFAS	06/14/23	359.07	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/14/23	6.98	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	06/14/23	3	3.56	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/14/23	6.45	1.78	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/14/23	2.82	1.69	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	06/14/23	6.81	1.78	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/14/23	84.4	1.62	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/14/23	18.3	1.78	NG/L	0	
Perfluorononanoic acid (PFNA)	06/14/23	0.754	1.78	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	06/14/23	0.696	1.78	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	06/14/23	195	8.89	NG/L	0	D
Perfluorooctanoic acid (PFOA)	06/14/23	6.71	1.78	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/14/23	8.75	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/14/23	18.4	1.78	NG/L	0	
8260 TVOC	06/14/23	1.1	0	UG/L	0	
Chloroform	06/14/23	1.1	0.5	UG/L	0	
537 TPFAS	07/07/23	378.817	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/07/23	9.6	1.57	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/07/23	3.33	3.52	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/07/23	6.71	1.76	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/07/23	2.9	1.67	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/07/23	7.03	1.76	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/07/23	88.8	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/07/23	20.1	1.76	NG/L	0	
Perfluorononanoic acid (PFNA)	07/07/23	0.719	1.76	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	07/07/23	0.708	1.76	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	07/07/23	200	8.81	NG/L	0	D
Perfluorooctanoic acid (PFOA)	07/07/23	7.42	1.76	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/07/23	10.4	1.66	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/07/23	21.1	1.76	NG/L	0	
1633 TPFAS	08/10/23	398.23	0	NG/L	0	

Table F-47
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OU X PFAS CFH System

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1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	08/10/23	1	5.9	NG/L	0	J
Fluorotelomer sulfonate 6:2 (6:2 FTS)	08/10/23	2.3	5.9	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	08/10/23	11	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	08/10/23	6.1	5.9	NG/L	0	
Perfluorodecanoic acid (PFDA)	08/10/23	0.22	1.5	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/10/23	3.9	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/10/23	7	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/10/23	73	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/10/23	21	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	08/10/23	0.81	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	08/10/23	1.3	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/10/23	230	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/10/23	6.6	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/10/23	10	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/10/23	24	2.9	NG/L	0	
1633 TPFAS	09/14/23	210.94	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	09/14/23	0.89	5.9	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	09/14/23	6	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	09/14/23	3.9	5.9	NG/L	0	J
Perfluorodecanoic acid (PFDA)	09/14/23	0.13	1.5	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/14/23	1.6	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/14/23	4.1	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/14/23	45	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/14/23	14	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	09/14/23	0.42	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	09/14/23	0.8	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	09/14/23	110	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/14/23	3.7	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/14/23	6.4	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/14/23	14	3	NG/L	0	
1633 TPFAS	10/28/23	138.37	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	10/28/23	0.85	6	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	10/28/23	4.4	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	10/28/23	3.1	6	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	10/28/23	0.78	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/28/23	3.1	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/28/23	31	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/28/23	11	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	10/28/23	0.3	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	10/28/23	0.44	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/28/23	66	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/28/23	2.9	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/28/23	4.5	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/28/23	10	3	NG/L	0	
1633 TPFAS	11/05/23	132.01	0	NG/L	0	
1633 TPFAS	11/05/23	132.01	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	4.6	1.5	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	4.6	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	11/05/23	3	6	NG/L	0	J
Perfluorobutyric acid (PFBA)	11/05/23	3	6	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/05/23	0.64	1.5	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/05/23	0.64	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	3.1	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	11/05/23	3.1	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/05/23	31	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/05/23	31	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	9.9	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	9.9	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	11/05/23	0.33	1.5	NG/L	0	J

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Perfluorononanoic acid (PFNA)	11/05/23	0.33	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.44	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.44	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/05/23	61	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/05/23	61	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	2.7	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	2.7	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/05/23	4.3	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/05/23	4.3	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/05/23	11	3	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/05/23	11	3	NG/L	0	
1633 TPFAS	12/06/23	84.69	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/06/23	4.1	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	12/06/23	2.5	5.7	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/06/23	2.3	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	12/06/23	25	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/06/23	7.5	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	12/06/23	0.24	1.4	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	12/06/23	0.25	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/06/23	30	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/06/23	2.2	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/06/23	3.5	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/06/23	7.1	2.9	NG/L	0	

Site ID : 073-35 (CF-RW-B)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	0.37	0	UG/L	0	
Chloroform	01/11/23	0.37	0.5	UG/L	0	J
537 TPFAS	01/11/23	140.39	0	NG/L	0	
Perfluorobutyric acid (PFBA)	01/11/23	0.739	1.8	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	01/11/23	14.5	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	1.56	1.8	NG/L	0	J
Perfluorononanoic acid (PFNA)	01/11/23	4.99	1.8	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/11/23	115	1.8	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/11/23	1.23	1.8	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	01/11/23	0.648	1.8	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	01/11/23	1.11	1.8	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	01/11/23	0.613	1.8	NG/L	0	J
Barium	01/11/23	22.4	1	UG/L	0	B
Calcium	01/11/23	3970	50	UG/L	0	B
Copper	01/11/23	8.54	3	UG/L	0	B
Magnesium	01/11/23	1200	110	UG/L	0	B
Potassium	01/11/23	502	50	UG/L	0	B
Sodium	01/11/23	13100	100	UG/L	0	
Zinc	01/11/23	124	3.3	UG/L	0	
537 TPFAS	02/16/23	119.998	0	NG/L	0	
Perfluorobutyric acid (PFBA)	02/16/23	0.737	1.74	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	02/16/23	11.3	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/16/23	1.35	1.74	NG/L	0	J
Perfluorononanoic acid (PFNA)	02/16/23	3.06	1.74	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/16/23	101	1.74	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/16/23	0.781	1.74	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	02/16/23	1.77	1.74	NG/L	0	
8260 TVOC	02/16/23	0.28	0	UG/L	0	
Chloroform	02/16/23	0.28	0.5	UG/L	0	J
537 TPFAS	03/02/23	131.779	0	NG/L	0	
Perfluorobutyric acid (PFBA)	03/02/23	0.891	1.83	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	03/02/23	10.6	1.67	NG/L	0	

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Perfluorohexanoic acid (PFHxA)	03/02/23	1.52	1.83	NG/L	0	J
Perfluorononanoic acid (PFNA)	03/02/23	2.92	1.83	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/02/23	113	1.83	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/02/23	0.988	1.83	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	03/02/23	1.2	1.83	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	03/02/23	0.66	1.83	NG/L	0	J
8260 TVOC	03/02/23	0.32	0	UG/L	0	
Chloroform	03/02/23	0.32	0.5	UG/L	0	J
537 TPFAS	04/06/23	411.11	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	04/06/23	2.5	3.4	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	04/06/23	7.07	1.59	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/06/23	2.85	3.58	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/06/23	6.06	1.79	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/06/23	2.75	1.7	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/06/23	8.02	1.79	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/06/23	91.2	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	24.5	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	04/06/23	1.15	1.79	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	04/06/23	0.9	1.79	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	04/06/23	227	8.94	NG/L	0	D
Perfluorooctanoic acid (PFOA)	04/06/23	6.81	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/06/23	10.6	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/06/23	19.7	1.79	NG/L	0	
8260 TVOC	04/06/23	0.32	0	UG/L	0	
Chloroform	04/06/23	0.32	0.5	UG/L	0	J
537 TPFAS	05/11/23	84.197	0	NG/L	0	
Perfluorobutyric acid (PFBA)	05/11/23	0.849	1.94	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	05/11/23	6.82	1.77	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/11/23	1.13	1.94	NG/L	0	J
Perfluorononanoic acid (PFNA)	05/11/23	2.07	1.94	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/11/23	71.5	1.94	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/11/23	0.984	1.94	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	05/11/23	0.844	1.94	NG/L	0	J
8260 TVOC	05/11/23	0.43	0	UG/L	0	
Chloroform	05/11/23	0.43	0.5	UG/L	0	J
537 TPFAS	06/14/23	84.197	0	NG/L	0	
Perfluorobutyric acid (PFBA)	06/14/23	0.724	1.71	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	06/14/23	7.6	1.55	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/14/23	1.28	1.71	NG/L	0	J
Perfluorononanoic acid (PFNA)	06/14/23	1.77	1.71	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/14/23	71.1	1.71	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/14/23	1.12	1.71	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	06/14/23	0.603	1.71	NG/L	0	J
8260 TVOC	06/14/23	0.3	0	UG/L	0	
Chloroform	06/14/23	0.3	0.5	UG/L	0	J
537 TPFAS	07/07/23	76.594	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/07/23	7.69	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/07/23	1.22	1.75	NG/L	0	J
Perfluorononanoic acid (PFNA)	07/07/23	1.83	1.75	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/07/23	64.3	1.75	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/07/23	0.9	1.75	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	07/07/23	0.654	1.75	NG/L	0	J
1633 TPFAS	08/10/23	77.86	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	08/10/23	0.32	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	08/10/23	0.31	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	08/10/23	7.3	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/10/23	1.1	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	08/10/23	1.9	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/10/23	0.3	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/10/23	64	1.5	NG/L	0	

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Perfluorooctanoic acid (PFOA)	08/10/23	0.78	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	08/10/23	0.37	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	08/10/23	0.55	3	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	08/10/23	0.48	1.5	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	08/10/23	0.45	1.5	NG/L	0	J
1633 TPFAS	09/14/23	83.9	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/14/23	0.31	1.5	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/14/23	0.37	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	09/14/23	0.43	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	09/14/23	9.9	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/14/23	1.3	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	09/14/23	1.4	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	09/14/23	0.23	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	09/14/23	67	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/14/23	0.86	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	09/14/23	0.5	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	09/14/23	0.6	2.9	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	09/14/23	0.59	1.5	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	09/14/23	0.41	1.5	NG/L	0	J
1633 TPFAS	10/28/23	74.62	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/28/23	0.26	1.4	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/28/23	0.36	1.4	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/28/23	9.3	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/28/23	0.99	1.4	NG/L	0	J
Perfluorononanoic acid (PFNA)	10/28/23	1.1	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/28/23	60	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/28/23	0.91	1.4	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	10/28/23	0.29	1.4	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	10/28/23	0.53	2.9	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	10/28/23	0.49	1.4	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	10/28/23	0.39	1.4	NG/L	0	J
1633 TPFAS	11/05/23	83.67	0	NG/L	0	
1633 TPFAS	11/05/23	83.67	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	0.31	1.5	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	11/05/23	0.31	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.38	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.38	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/05/23	10	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/05/23	10	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	0.89	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	11/05/23	0.89	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	11/05/23	1.1	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	11/05/23	1.1	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.32	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.32	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/05/23	68	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/05/23	68	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	0.94	1.5	NG/L	0	J
Perfluorooctanoic acid (PFOA)	11/05/23	0.94	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	11/05/23	0.37	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	11/05/23	0.37	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	0.48	3	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	0.48	3	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	11/05/23	0.58	1.5	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	11/05/23	0.58	1.5	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	11/05/23	0.3	1.5	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	11/05/23	0.3	1.5	NG/L	0	J
1633 TPFAS	12/06/23	66.94	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/06/23	0.29	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/06/23	0.28	1.5	NG/L	0	J

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Perfluorohexanesulfonate (PFHxS)	12/06/23	7.7	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/06/23	1.1	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	12/06/23	1.4	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/06/23	54	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/06/23	0.97	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	12/06/23	0.27	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	12/06/23	0.41	3	NG/L	0	J
Perfluorotridecanoic acid (PFTrDA)	12/06/23	0.52	1.5	NG/L	0	J

Site ID : 083-45 (CF-RW-C)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	0.27	0	UG/L	0	
Chloroform	01/11/23	0.27	0.5	UG/L	0	J
1,4-Dioxane	01/11/23	0.47	0.2	UG/L	0	
537 TPFAS	01/11/23	2.469	0	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/11/23	1.76	1.75	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/11/23	0.709	1.75	NG/L	0	J
Arsenic	01/11/23	3.81	2	UG/L	0	B
Barium	01/11/23	30.9	1	UG/L	0	B
Calcium	01/11/23	3140	50	UG/L	0	B
Cobalt	01/11/23	1.63	1	UG/L	0	B
Copper	01/11/23	12.8	3	UG/L	0	B
Iron	01/11/23	4090	30	UG/L	0	
Magnesium	01/11/23	1720	110	UG/L	0	B
Manganese	01/11/23	64.3	2	UG/L	0	
Potassium	01/11/23	566	50	UG/L	0	B
Sodium	01/11/23	16400	100	UG/L	0	
Vanadium	01/11/23	2.01	1	UG/L	0	B
Zinc	01/11/23	239	3.3	UG/L	0	
1,4-Dioxane	02/16/23	0.37	0.2	UG/L	0	
537 TPFAS	02/16/23	6.95	0	NG/L	0	
Perfluorobutyric acid (PFBA)	02/16/23	0.887	1.71	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	02/16/23	0.578	1.56	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	02/16/23	1.51	1.71	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/16/23	1.82	1.71	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/16/23	1.18	1.71	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	02/16/23	0.975	1.71	NG/L	0	J
1,1-Dichloroethane	02/16/23	0.74	0.5	UG/L	0	
1,1-Dichloroethylene	02/16/23	0.63	0.5	UG/L	0	
8260 TVOC	02/16/23	1.37	0	UG/L	0	
1,4-Dioxane	03/02/23	0.41	0.2	UG/L	0	
537 TPFAS	03/02/23	2.748	0	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/02/23	1.97	1.75	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/02/23	0.778	1.75	NG/L	0	J
8260 TVOC	03/02/23	0.18	0	UG/L	0	
Chloroform	03/02/23	0.18	0.5	UG/L	0	J
1,4-Dioxane	03/10/23	0.45	0.22	UG/L	0	
1,4-Dioxane	03/16/23	0.48	0.2	UG/L	0	
1,4-Dioxane	03/22/23	0.37	0.2	UG/L	0	
1,4-Dioxane	03/29/23	0.39	0.2	UG/L	0	
1,4-Dioxane	04/06/23	0.43	0.21	UG/L	0	
537 TPFAS	04/06/23	1.52	0	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/06/23	1.52	1.85	NG/L	0	J
8260 TVOC	04/06/23	0.25	0	UG/L	0	
Chloroform	04/06/23	0.25	0.5	UG/L	0	J
1,4-Dioxane	04/12/23	0.51	0.2	UG/L	0	
1,4-Dioxane	05/22/23	0.87	0.2	UG/L	0	B
537 TPFAS	05/22/23	5.356	0	NG/L	0	

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Perfluorobutyric acid (PFBA)	05/22/23	0.692	1.72	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	05/22/23	0.694	1.72	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	05/22/23	2.76	1.72	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/22/23	1.21	1.72	NG/L	0	J
1,1-Dichloroethane	05/22/23	0.23	0.5	UG/L	0	J
1,1-Dichloroethylene	05/22/23	0.17	0.5	UG/L	0	J
8260 TVOC	05/22/23	0.4	0	UG/L	0	
1,4-Dioxane	06/14/23	1	0.2	UG/L	0	
537 TPFAS	06/14/23	3.307	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/14/23	0.847	1.77	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	06/14/23	2.46	1.94	NG/L	0	
1,1-Dichloroethane	06/14/23	0.24	0.5	UG/L	0	J
1,1-Dichloroethylene	06/14/23	0.18	0.5	UG/L	0	J
8260 TVOC	06/14/23	0.42	0	UG/L	0	
1,4-Dioxane	07/07/23	0.93	0.2	UG/L	0	
537 TPFAS	07/07/23	6.782	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/07/23	0.922	1.83	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	07/07/23	1.37	2.01	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	07/07/23	2.22	2.01	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/07/23	1.17	2.01	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	07/07/23	1.1	2.01	NG/L	0	J
1633 TPFAS	08/10/23	2.78	0	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/10/23	0.22	1.6	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	08/10/23	0.58	1.6	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/10/23	1.6	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/10/23	0.38	3.1	NG/L	0	J
1,4-Dioxane	08/10/23	1.7	0.2	UG/L	0	
1633 TPFAS	09/14/23	2.76	0	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/14/23	0.2	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	09/14/23	0.74	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	09/14/23	0.6	1.5	NG/L	0	J
Perfluorooctanoic acid (PFOA)	09/14/23	0.84	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	09/14/23	0.38	2.9	NG/L	0	J
1,4-Dioxane	09/14/23	1.7	0.2	UG/L	0	
1633 TPFAS	10/28/23	4.48	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/28/23	1.1	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	10/28/23	0.42	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	10/28/23	0.13	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/28/23	2	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/28/23	0.83	1.5	NG/L	0	J
1,4-Dioxane	10/28/23	0.91	0.2	UG/L	0	
1633 TPFAS	11/05/23	4.58	0	NG/L	0	
1633 TPFAS	11/05/23	4.58	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	0.22	1.5	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	11/05/23	0.22	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.19	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.19	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/05/23	0.76	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/05/23	0.76	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	11/05/23	0.52	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	11/05/23	0.52	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/05/23	1.6	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/05/23	1.6	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	0.9	1.5	NG/L	0	J
Perfluorooctanoic acid (PFOA)	11/05/23	0.9	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	0.39	2.9	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	0.39	2.9	NG/L	0	J
1,4-Dioxane	11/05/23	0.88	0.2	UG/L	0	
1633 TPFAS	12/06/23	3.81	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	12/06/23	0.78	1.5	NG/L	0	J

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Perfluorohexanoic acid (PFHxA)	12/06/23	0.33	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/06/23	1.7	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/06/23	1	1.5	NG/L	0	J
1,4-Dioxane	12/06/23	0.8	0.21	UG/L	0	

Site ID : 083-46 (CF-RW-D)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	0.26	0	UG/L	0	
Chloroform	01/11/23	0.26	0.5	UG/L	0	J
537 TPFAS	01/11/23	338.138	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/11/23	0.798	1.53	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/11/23	1.47	1.72	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	01/11/23	1.88	1.63	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/11/23	1.17	1.72	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	01/11/23	27.6	1.56	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	3.87	1.72	NG/L	0	
Perfluorononanoic acid (PFNA)	01/11/23	4.54	1.72	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/11/23	291	8.59	NG/L	0	D
Perfluorooctanoic acid (PFOA)	01/11/23	3.08	1.72	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/11/23	1.11	1.61	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	01/11/23	1.62	1.72	NG/L	0	J
Barium	01/11/23	39.6	1	UG/L	0	B
Calcium	01/11/23	9190	50	UG/L	0	
Chromium	01/11/23	1.23	1	UG/L	0	B
Cobalt	01/11/23	1	1	UG/L	0	B
Copper	01/11/23	6.61	3	UG/L	0	B
Magnesium	01/11/23	2910	110	UG/L	0	B
Potassium	01/11/23	891	50	UG/L	0	B
Sodium	01/11/23	53900	100	UG/L	0	
Zinc	01/11/23	186	3.3	UG/L	0	
537 TPFAS	02/16/23	248.892	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/16/23	0.822	1.55	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/16/23	1.5	1.74	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	02/16/23	1.66	1.65	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/16/23	1.06	1.74	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	02/16/23	36.6	1.58	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/16/23	3.82	1.74	NG/L	0	
Perfluorononanoic acid (PFNA)	02/16/23	3.45	1.74	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/16/23	195	8.71	NG/L	0	D
Perfluorooctanoic acid (PFOA)	02/16/23	2.49	1.74	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/16/23	1.12	1.64	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	02/16/23	1.37	1.74	NG/L	0	J
8260 TVOC	02/16/23	0.27	0	UG/L	0	
Chloroform	02/16/23	0.27	0.5	UG/L	0	J
537 TPFAS	03/02/23	253.687	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/02/23	0.766	1.56	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/02/23	1.4	1.76	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	03/02/23	1.46	1.67	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/02/23	1.4	1.76	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	03/02/23	23.4	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/02/23	3.08	1.76	NG/L	0	
Perfluorononanoic acid (PFNA)	03/02/23	3.81	1.76	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/02/23	213	8.78	NG/L	0	D
Perfluorooctanoic acid (PFOA)	03/02/23	2.85	1.76	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/02/23	0.961	1.65	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	03/02/23	1.56	1.76	NG/L	0	J
8260 TVOC	03/02/23	0.25	0	UG/L	0	
Chloroform	03/02/23	0.25	0.5	UG/L	0	J

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537 TPFAS	04/06/23	237.002	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	04/06/23	3.46	3.29	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/06/23	0.924	1.54	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/06/23	1.43	1.73	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	04/06/23	1.49	1.65	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	04/06/23	1.6	1.73	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	04/06/23	27.8	1.58	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	3.72	1.73	NG/L	0	
Perfluorononanoic acid (PFNA)	04/06/23	3.28	1.73	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/06/23	188	8.66	NG/L	0	D
Perfluorooctanoic acid (PFOA)	04/06/23	2.83	1.73	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/06/23	0.858	1.63	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	04/06/23	1.61	1.73	NG/L	0	J
8260 TVOC	04/06/23	0.23	0	UG/L	0	
Chloroform	04/06/23	0.23	0.5	UG/L	0	J
537 TPFAS	05/11/23	198.794	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/11/23	0.707	1.51	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/11/23	1.2	1.7	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	05/11/23	0.797	1.62	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	05/11/23	1.01	1.7	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	05/11/23	18.9	1.55	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/11/23	2.66	1.7	NG/L	0	
Perfluorononanoic acid (PFNA)	05/11/23	2.42	1.7	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/11/23	168	1.7	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/11/23	1.96	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/11/23	1.14	1.7	NG/L	0	J
8260 TVOC	05/11/23	0.31	0	UG/L	0	
Chloroform	05/11/23	0.31	0.5	UG/L	0	J
537 TPFAS	06/15/23	167.246	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/15/23	0.674	1.53	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/15/23	1.61	1.72	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	06/15/23	0.715	1.63	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	06/15/23	0.659	1.72	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	06/15/23	17.8	1.56	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/15/23	2.01	1.72	NG/L	0	
Perfluorononanoic acid (PFNA)	06/15/23	1.62	1.72	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	06/15/23	139	1.72	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/15/23	1.6	1.72	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	06/15/23	0.593	1.62	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	06/15/23	0.965	1.72	NG/L	0	J
8260 TVOC	06/15/23	0.22	0	UG/L	0	
Chloroform	06/15/23	0.22	0.5	UG/L	0	J
537 TPFAS	07/07/23	159.638	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/07/23	0.767	1.47	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/07/23	0.806	1.65	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	07/07/23	0.716	1.57	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	07/07/23	0.765	1.65	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	07/07/23	14	1.51	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/07/23	1.95	1.65	NG/L	0	
Perfluorononanoic acid (PFNA)	07/07/23	1.77	1.65	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/07/23	136	1.65	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/07/23	1.88	1.65	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/07/23	0.984	1.65	NG/L	0	J
1633 TPFAS	08/10/23	103.83	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	08/10/23	0.62	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	08/10/23	0.9	5.8	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/10/23	0.49	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	08/10/23	0.63	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	08/10/23	10	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/10/23	1.8	1.5	NG/L	0	

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Perfluorononanoic acid (PFNA)	08/10/23	1.4	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/10/23	85	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/10/23	1.3	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	08/10/23	0.39	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	08/10/23	0.78	2.9	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	08/10/23	0.52	1.5	NG/L	0	J
1633 TPFAS	09/14/23	91.37	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/14/23	0.6	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	09/14/23	0.8	6.1	NG/L	0	J
Perfluorodecanoic acid (PFDA)	09/14/23	0.12	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	09/14/23	0.58	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	09/14/23	9.3	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/14/23	1.7	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	09/14/23	1.3	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	09/14/23	0.16	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	09/14/23	74	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/14/23	1.3	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	09/14/23	0.35	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	09/14/23	0.75	3	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	09/14/23	0.41	1.5	NG/L	0	J
1633 TPFAS	10/28/23	78.71	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/28/23	0.51	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	10/28/23	0.74	5.9	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/28/23	0.49	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/28/23	8.6	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/28/23	1.6	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	10/28/23	1	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	10/28/23	0.14	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/28/23	63	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/28/23	1.2	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	10/28/23	0.4	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	10/28/23	0.66	2.9	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	10/28/23	0.37	1.5	NG/L	0	J
1633 TPFAS	11/05/23	75.82	0	NG/L	0	
1633 TPFAS	11/05/23	75.82	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	0.54	1.5	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	11/05/23	0.54	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	11/05/23	0.75	6.2	NG/L	0	J
Perfluorobutyric acid (PFBA)	11/05/23	0.75	6.2	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.47	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.47	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/05/23	7.9	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/05/23	7.9	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	1.3	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	11/05/23	1.3	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	11/05/23	0.98	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	11/05/23	0.98	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.21	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.21	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/05/23	61	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/05/23	61	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	1.3	1.5	NG/L	0	J
Perfluorooctanoic acid (PFOA)	11/05/23	1.3	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	11/05/23	0.35	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	11/05/23	0.35	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	0.66	3.1	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	0.66	3.1	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	11/05/23	0.36	1.5	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	11/05/23	0.36	1.5	NG/L	0	J
1633 TPFAS	12/06/23	69.61	0	NG/L	0	

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Perfluorobutanesulfonate (PFBS)	12/06/23	0.54	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	12/06/23	0.78	6.2	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/06/23	0.47	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	12/06/23	7.8	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/06/23	1.6	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	12/06/23	0.94	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/06/23	55	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/06/23	1.2	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	12/06/23	0.28	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	12/06/23	0.69	3.1	NG/L	0	J
Perfluoroundecanoic acid (PFUdA)	12/06/23	0.31	1.5	NG/L	0	J

Site ID : 084-102 (CF-RW-E)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	1.3	0	UG/L	0	
Chloroform	01/11/23	1.3	0.5	UG/L	0	
1,4-Dioxane	01/11/23	0.25	0.2	UG/L	0	
537 TPFAS	01/11/23	496.77	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/11/23	7.42	1.52	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/11/23	5.45	3.43	NG/L	0	
Perfluorobutyric acid (PFBA)	01/11/23	3.49	1.71	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/11/23	4.98	1.63	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/11/23	3.91	1.71	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/11/23	110	1.56	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	18.4	1.71	NG/L	0	
Perfluorononanoic acid (PFNA)	01/11/23	76.7	1.71	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	01/11/23	1.31	1.71	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	01/11/23	225	8.56	NG/L	0	D
Perfluorooctanoic acid (PFOA)	01/11/23	20.9	1.71	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/11/23	11.3	1.61	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/11/23	7.91	1.71	NG/L	0	
Barium	01/11/23	66.5	1	UG/L	0	B
Calcium	01/11/23	9880	50	UG/L	0	
Chromium	01/11/23	1.16	1	UG/L	0	B
Copper	01/11/23	7.68	3	UG/L	0	B
Iron	01/11/23	126	30	UG/L	0	
Magnesium	01/11/23	4510	110	UG/L	0	B
Manganese	01/11/23	63.4	2	UG/L	0	
Potassium	01/11/23	1200	50	UG/L	0	B
Sodium	01/11/23	67700	100	UG/L	0	
Zinc	01/11/23	218	3.3	UG/L	0	
1,4-Dioxane	02/16/23	0.27	0.2	UG/L	0	
537 TPFAS	02/16/23	517.32	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/16/23	6.58	1.6	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/16/23	5.63	3.58	NG/L	0	
Perfluorobutyric acid (PFBA)	02/16/23	4.15	1.79	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/16/23	4.89	1.7	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/16/23	4.1	1.79	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/16/23	134	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/16/23	15.8	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	02/16/23	60.3	1.79	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	02/16/23	1.32	1.79	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/16/23	244	8.96	NG/L	0	D
Perfluorooctanoic acid (PFOA)	02/16/23	17.6	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/16/23	11.3	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/16/23	7.65	1.79	NG/L	0	
8260 TVOC	02/16/23	1.1	0	UG/L	0	
Chloroform	02/16/23	1.1	0.5	UG/L	0	

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1,4-Dioxane	03/02/23	0.23	0.2	UG/L	0	
537 TPFAS	03/02/23	536.88	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/02/23	5.79	1.6	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/02/23	6.49	3.59	NG/L	0	
Perfluorobutyric acid (PFBA)	03/02/23	3.92	1.8	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/02/23	5.22	1.71	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/02/23	4.42	1.8	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/02/23	117	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/02/23	16.5	1.8	NG/L	0	
Perfluorononanoic acid (PFNA)	03/02/23	63.3	1.8	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	03/02/23	1.23	1.8	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	03/02/23	274	8.98	NG/L	0	D
Perfluorooctanoic acid (PFOA)	03/02/23	20	1.8	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/02/23	10.7	1.69	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/02/23	8.31	1.8	NG/L	0	
8260 TVOC	03/02/23	1.1	0	UG/L	0	
Chloroform	03/02/23	1.1	0.5	UG/L	0	
1,4-Dioxane	03/10/23	0.24	0.2	UG/L	0	
1,4-Dioxane	03/22/23	0.23	0.2	UG/L	0	
1,4-Dioxane	03/29/23	0.24	0.2	UG/L	0	
1,4-Dioxane	04/06/23	0.23	0.2	UG/L	0	
537 TPFAS	04/06/23	662.24	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/06/23	6.51	1.6	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/06/23	5.57	3.59	NG/L	0	
Perfluorobutyric acid (PFBA)	04/06/23	3.76	1.8	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/06/23	5.9	1.71	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/06/23	5.01	1.8	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/06/23	143	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	19.3	1.8	NG/L	0	
Perfluorononanoic acid (PFNA)	04/06/23	64	1.8	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	04/06/23	1.54	1.8	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	04/06/23	361	8.98	NG/L	0	D
Perfluorooctanoic acid (PFOA)	04/06/23	25.2	1.8	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/06/23	12	1.69	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/06/23	9.45	1.8	NG/L	0	
8260 TVOC	04/06/23	1	0	UG/L	0	
Chloroform	04/06/23	1	0.5	UG/L	0	
1,4-Dioxane	04/12/23	0.27	0.2	UG/L	0	
1,4-Dioxane	04/22/23	0.27	0.2	UG/L	0	
1,4-Dioxane	05/11/23	0.3	0.2	UG/L	0	
537 TPFAS	05/11/23	632.35	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/11/23	5.89	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/11/23	4.69	3.56	NG/L	0	
Perfluorobutyric acid (PFBA)	05/11/23	4.12	1.78	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/11/23	6.1	1.69	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	05/11/23	4.93	1.78	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/11/23	145	1.62	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/11/23	17.1	1.78	NG/L	0	
Perfluorononanoic acid (PFNA)	05/11/23	47.8	1.78	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	05/11/23	1.28	1.78	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	05/11/23	355	8.9	NG/L	0	D
Perfluorooctanoic acid (PFOA)	05/11/23	21	1.78	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/11/23	11.3	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/11/23	8.14	1.78	NG/L	0	
8260 TVOC	05/11/23	1.3	0	UG/L	0	
Chloroform	05/11/23	1.3	0.5	UG/L	0	
1,4-Dioxane	06/15/23	0.23	0.2	UG/L	0	
537 TPFAS	06/15/23	893.89	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/15/23	5.94	1.6	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	06/15/23	5.66	3.59	NG/L	0	

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Perfluorobutyric acid (PFBA)	06/15/23	4.04	1.79	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/15/23	5.8	1.7	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	06/15/23	4.28	1.79	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/15/23	133	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/15/23	16.1	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	06/15/23	39.9	1.79	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	06/15/23	1.24	1.79	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	06/15/23	637	8.97	NG/L	0	D
Perfluorooctanoic acid (PFOA)	06/15/23	21.6	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/15/23	10.1	1.69	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/15/23	9.23	1.79	NG/L	0	
8260 TVOC	06/15/23	0.9	0	UG/L	0	
Chloroform	06/15/23	0.9	0.5	UG/L	0	
537 TPFAS	07/07/23	656.71	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/07/23	5.67	1.64	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/07/23	5.02	3.68	NG/L	0	
Perfluorobutyric acid (PFBA)	07/07/23	3.52	1.84	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/07/23	6.6	1.75	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/07/23	4.31	1.84	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/07/23	140	1.67	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/07/23	16.3	1.84	NG/L	0	
Perfluorononanoic acid (PFNA)	07/07/23	43.8	1.84	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	07/07/23	1.22	1.84	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	07/07/23	388	9.19	NG/L	0	D
Perfluorooctanoic acid (PFOA)	07/07/23	22.7	1.84	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/07/23	11.3	1.73	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/07/23	8.27	1.84	NG/L	0	
1633 TPFAS	08/10/23	644.8	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	08/10/23	5.4	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	08/10/23	3.3	6	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/10/23	7	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/10/23	4	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/10/23	120	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/10/23	16	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	08/10/23	39	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/10/23	2	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	08/10/23	410	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/10/23	20	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/10/23	9.7	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/10/23	8.4	3	NG/L	0	
1,4-Dioxane	08/10/23	0.17	0.2	UG/L	0	J
1633 TPFAS	09/14/23	621.33	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/14/23	5.3	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	09/14/23	3.1	5.7	NG/L	0	J
Perfluorodecanoic acid (PFDA)	09/14/23	0.23	1.4	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/14/23	6.3	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/14/23	4.1	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/14/23	120	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/14/23	15	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	09/14/23	40	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/14/23	1.7	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	09/14/23	390	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/14/23	18	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/14/23	9.6	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/14/23	8	2.9	NG/L	0	
1633 TPFAS	10/28/23	626.86	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/28/23	5.1	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	10/28/23	2.9	6	NG/L	0	J
Perfluorodecanoic acid (PFDA)	10/28/23	0.16	1.5	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	10/28/23	5.9	1.5	NG/L	0	

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Perfluoroheptanoic acid (PFHpA)	10/28/23	4.1	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/28/23	110	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/28/23	15	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	10/28/23	38	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/28/23	1.9	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	10/28/23	410	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/28/23	17	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/28/23	9	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/28/23	7.8	3	NG/L	0	
1,4-Dioxane	10/28/23	0.21	0.2	UG/L	0	
1633 TPFAS	11/05/23	673.9	0	NG/L	0	
1633 TPFAS	11/05/23	673.9	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	6.2	16	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	11/05/23	6.2	16	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/05/23	4.7	16	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/05/23	4.7	16	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	4.1	16	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	4.1	16	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/05/23	120	16	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/05/23	120	16	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	14	16	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	11/05/23	14	16	NG/L	0	J
Perfluorononanoic acid (PFNA)	11/05/23	39	16	NG/L	0	
Perfluorononanoic acid (PFNA)	11/05/23	39	16	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	2.3	16	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	2.3	16	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/05/23	450	16	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/05/23	450	16	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	18	16	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	18	16	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/05/23	7.2	16	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	11/05/23	7.2	16	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	8.4	31	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	8.4	31	NG/L	0	J
1,4-Dioxane	11/05/23	0.2	0.2	UG/L	0	
1633 TPFAS	12/06/23	598.6	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/06/23	5	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	12/06/23	3	6	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	12/06/23	5.9	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	12/06/23	3.6	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	12/06/23	110	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/06/23	14	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	12/06/23	35	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	12/06/23	1.5	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	12/06/23	390	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/06/23	15	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/06/23	8.1	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/06/23	7.5	3	NG/L	0	
1,4-Dioxane	12/06/23	0.21	0.22	UG/L	0	J

Site ID : 102-32 (CF-RW-F)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	0.4	0	UG/L	0	
Chloroform	01/11/23	0.4	0.5	UG/L	0	J
537 TPFAS	01/11/23	213.75	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/11/23	5.53	1.6	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/11/23	6.29	3.6	NG/L	0	
Perfluorobutyric acid (PFBA)	01/11/23	1.39	1.8	NG/L	0	J

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OU X PFAS CFH System

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Perfluoroheptanesulfonate (PFHpS)	01/11/23	1.96	1.71	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/11/23	1.16	1.8	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	01/11/23	69.3	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	7.02	1.8	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/11/23	106	1.8	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/11/23	4.53	1.8	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/11/23	8.47	1.69	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/11/23	2.1	1.8	NG/L	0	
Barium	01/11/23	25.4	1	UG/L	0	B
Calcium	01/11/23	3810	50	UG/L	0	B
Cobalt	01/11/23	1.38	1	UG/L	0	B
Copper	01/11/23	15.6	3	UG/L	0	B
Iron	01/11/23	66.4	30	UG/L	0	B
Magnesium	01/11/23	2090	110	UG/L	0	B
Manganese	01/11/23	113	2	UG/L	0	
Potassium	01/11/23	902	50	UG/L	0	B
Sodium	01/11/23	18400	100	UG/L	0	
Zinc	01/11/23	258	3.3	UG/L	0	
537 TPFAS	02/16/23	203.36	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/16/23	4.6	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/16/23	5.78	3.63	NG/L	0	
Perfluorobutyric acid (PFBA)	02/16/23	1.32	1.81	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	02/16/23	1.71	1.72	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	02/16/23	1.13	1.81	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	02/16/23	76.7	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/16/23	5.28	1.81	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/16/23	92.2	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/16/23	4.06	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/16/23	8.65	1.71	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/16/23	1.93	1.81	NG/L	0	
8260 TVOC	02/16/23	0.27	0	UG/L	0	
Chloroform	02/16/23	0.27	0.5	UG/L	0	J
537 TPFAS	03/02/23	155.31	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/02/23	3.17	1.64	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/02/23	4.79	3.69	NG/L	0	
Perfluorobutyric acid (PFBA)	03/02/23	1.1	1.85	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	03/02/23	1.22	1.75	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/02/23	0.71	1.85	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	03/02/23	62.6	1.68	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/02/23	4.48	1.85	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/02/23	64.9	1.85	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/02/23	3.08	1.85	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/02/23	8.15	1.74	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/02/23	1.11	1.85	NG/L	0	J
8260 TVOC	03/02/23	0.21	0	UG/L	0	
Chloroform	03/02/23	0.21	0.5	UG/L	0	J
537 TPFAS	04/06/23	42.93	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/06/23	16	3.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	1.72	4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	04/06/23	23.5	4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/06/23	1.71	3.76	NG/L	0	J
8260 TVOC	04/06/23	0	0	UG/L	0	
537 TPFAS	05/11/23	99.952	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/11/23	1.81	1.64	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/11/23	1.64	3.68	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	05/11/23	0.981	1.75	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	05/11/23	36.9	1.67	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/11/23	2.83	1.84	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/11/23	48.7	1.84	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/11/23	2.29	1.84	NG/L	0	

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Perfluoropentanesulfonate (PFPeS)	05/11/23	3.87	1.73	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/11/23	0.931	1.84	NG/L	0	J
8260 TVOC	05/11/23	0.36	0	UG/L	0	
Chloroform	05/11/23	0.36	0.5	UG/L	0	J
537 TPFAS	06/21/23	0	0	NG/L	0	
537 TPFAS	07/07/23	6.57	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/07/23	2.4	1.83	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/07/23	4.17	2.01	NG/L	0	
1633 TPFAS	08/10/23	6.69	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/10/23	2.6	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/10/23	0.39	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/10/23	3.7	1.5	NG/L	0	
1633 TPFAS	08/10/23	25.44	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	08/10/23	2.5	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	08/10/23	0.75	5.7	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	08/10/23	0.4	1.4	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	08/10/23	5.6	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/10/23	1.4	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	08/10/23	0.28	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/10/23	12	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/10/23	1.1	1.4	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	08/10/23	0.67	1.4	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	08/10/23	0.74	2.9	NG/L	0	J
1633 TPFAS	09/14/23	3.77	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/14/23	2.3	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/14/23	0.27	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	09/14/23	1.2	16	NG/L	0	J D
1633 TPFAS	10/28/23	2.66	0	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/28/23	0.89	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	10/28/23	0.17	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/28/23	1.6	1.5	NG/L	0	
1633 TPFAS	11/05/23	0.23	0	NG/L	0	
1633 TPFAS	11/05/23	0.23	0	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	0.23	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	11/05/23	0.23	1.5	NG/L	0	J
1633 TPFAS	12/06/23	1.06	0	NG/L	0	
Perfluoro-3-methoxypropanoic acid (PFMPA)	12/06/23	0.89	3.1	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	12/06/23	0.17	1.6	NG/L	0	J

Site ID : 102-33 (CF-RW-G)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	0.6	0	UG/L	0	
Chloroform	01/11/23	0.6	0.5	UG/L	0	
537 TPFAS	01/11/23	16.377	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/11/23	4.42	1.57	NG/L	0	
Perfluorobutyric acid (PFBA)	01/11/23	1.02	1.76	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	01/11/23	1.82	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	1.09	1.76	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	01/11/23	5.83	1.76	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/11/23	1.23	1.76	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	01/11/23	0.967	1.76	NG/L	0	J
Barium	01/11/23	19	1	UG/L	0	B
Calcium	01/11/23	5860	50	UG/L	0	
Copper	01/11/23	4.43	3	UG/L	0	B
Magnesium	01/11/23	1690	110	UG/L	0	B
Manganese	01/11/23	8.96	2	UG/L	0	B
Potassium	01/11/23	1120	50	UG/L	0	B

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Sodium	01/11/23	25400	100	UG/L	0	
Zinc	01/11/23	204	3.3	UG/L	0	
537 TPFAS	02/16/23	20.406	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/16/23	3.18	1.61	NG/L	0	
Perfluorobutyric acid (PFBA)	02/16/23	1.13	1.81	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	02/16/23	3.27	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/16/23	1.62	1.81	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/16/23	8.99	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/16/23	0.876	1.81	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	02/16/23	1.34	1.81	NG/L	0	J
8260 TVOC	02/16/23	0.39	0	UG/L	0	
Chloroform	02/16/23	0.39	0.5	UG/L	0	J
537 TPFAS	03/02/23	24.76	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/02/23	3.53	1.62	NG/L	0	
Perfluorobutyric acid (PFBA)	03/02/23	1.22	1.82	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	03/02/23	3.98	1.66	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/02/23	1.71	1.82	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	03/02/23	11.2	1.82	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/02/23	1.44	1.82	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	03/02/23	1.68	1.82	NG/L	0	J
8260 TVOC	03/02/23	0.51	0	UG/L	0	
Chloroform	03/02/23	0.51	0.5	UG/L	0	
537 TPFAS	04/06/23	28.666	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/06/23	3.71	1.53	NG/L	0	
Perfluorobutyric acid (PFBA)	04/06/23	1.29	1.72	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	04/06/23	4.91	1.57	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	1.84	1.72	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/06/23	13.7	1.72	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/06/23	1.45	1.72	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	04/06/23	0.676	1.62	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	04/06/23	1.09	1.72	NG/L	0	J
8260 TVOC	04/06/23	0.44	0	UG/L	0	
Chloroform	04/06/23	0.44	0.5	UG/L	0	J
537 TPFAS	05/11/23	25.228	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/11/23	3.42	1.58	NG/L	0	
Perfluorobutyric acid (PFBA)	05/11/23	0.943	1.78	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	05/11/23	4.67	1.62	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/11/23	1.44	1.78	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	05/11/23	11.9	1.78	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/11/23	1.3	1.78	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	05/11/23	0.644	1.67	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	05/11/23	0.911	1.78	NG/L	0	J
8260 TVOC	05/11/23	0.57	0	UG/L	0	
Chloroform	05/11/23	0.57	0.5	UG/L	0	
537 TPFAS	06/15/23	24.608	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/15/23	2.93	1.52	NG/L	0	
Perfluorobutyric acid (PFBA)	06/15/23	1.08	1.71	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	06/15/23	4.69	1.56	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/15/23	1.37	1.71	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	06/15/23	12.3	1.71	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/15/23	1.38	1.71	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	06/15/23	0.858	1.71	NG/L	0	J
8260 TVOC	06/15/23	0.44	0	UG/L	0	
Chloroform	06/15/23	0.44	0.5	UG/L	0	J
537 TPFAS	07/07/23	31.237	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/07/23	3.2	1.55	NG/L	0	
Perfluorobutyric acid (PFBA)	07/07/23	0.958	1.74	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	07/07/23	6.68	1.58	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/07/23	1.42	1.74	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	07/07/23	16	1.74	NG/L	0	

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Perfluorooctanoic acid (PFOA)	07/07/23	1.43	1.74	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	07/07/23	0.816	1.63	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	07/07/23	0.733	1.74	NG/L	0	J
1633 TPFAS	09/14/23	27.8	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/14/23	2.7	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	09/14/23	0.75	5.8	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	09/14/23	0.33	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	09/14/23	5.9	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/14/23	1.4	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	09/14/23	0.27	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	09/14/23	14	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/14/23	1.2	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	09/14/23	0.59	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	09/14/23	0.66	2.9	NG/L	0	J
1,4-Dioxane	09/14/23	0.1	0.2	UG/L	0	J
1633 TPFAS	10/28/23	23.37	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/28/23	2.7	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	10/28/23	0.68	5.7	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/28/23	0.29	1.4	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/28/23	4.4	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/28/23	0.93	1.4	NG/L	0	J
Perfluorononanoic acid (PFNA)	10/28/23	0.22	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/28/23	12	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/28/23	1.1	1.4	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	10/28/23	0.41	1.4	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	10/28/23	0.64	2.9	NG/L	0	J
1633 TPFAS	11/05/23	23.27	0	NG/L	0	
1633 TPFAS	11/05/23	23.27	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	2.5	1.5	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	2.5	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	11/05/23	0.65	6.1	NG/L	0	J
Perfluorobutyric acid (PFBA)	11/05/23	0.65	6.1	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.31	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.31	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/05/23	4.7	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/05/23	4.7	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	1	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	11/05/23	1	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/05/23	12	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/05/23	12	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	0.96	1.5	NG/L	0	J
Perfluorooctanoic acid (PFOA)	11/05/23	0.96	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	11/05/23	0.5	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	11/05/23	0.5	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	0.65	3.1	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	0.65	3.1	NG/L	0	J
1633 TPFAS	12/06/23	21.42	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/06/23	2.3	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	12/06/23	0.73	6.1	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/06/23	0.29	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	12/06/23	3.7	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/06/23	1	1.5	NG/L	0	J
Perfluorononanoic acid (PFNA)	12/06/23	0.21	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/06/23	11	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/06/23	1.1	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	12/06/23	0.4	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	12/06/23	0.69	3.1	NG/L	0	J

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Site ID : 102-34 (CF-RW-H)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	0.45	0	UG/L	0	
Chloroform	01/11/23	0.45	0.5	UG/L	0	J
1,4-Dioxane	01/11/23	0.69	0.2	UG/L	0	
537 TPFAS	01/11/23	120.052	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/11/23	1.88	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/11/23	1.2	3.55	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/11/23	1.68	1.78	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	01/11/23	1.07	1.69	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	01/11/23	0.932	1.78	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	01/11/23	17.5	1.62	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	5.2	1.78	NG/L	0	
Perfluorononanoic acid (PFNA)	01/11/23	3.69	1.78	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/11/23	79.3	1.78	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/11/23	2.97	1.78	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/11/23	1.84	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/11/23	2.79	1.78	NG/L	0	
Antimony	01/11/23	5.19	3.5	UG/L	0	B
Barium	01/11/23	49.8	1	UG/L	0	B
Calcium	01/11/23	8270	50	UG/L	0	
Chromium	01/11/23	1.6	1	UG/L	0	B
Cobalt	01/11/23	1.88	1	UG/L	0	B
Copper	01/11/23	9.79	3	UG/L	0	B
Iron	01/11/23	953	30	UG/L	0	
Magnesium	01/11/23	3120	110	UG/L	0	B
Manganese	01/11/23	161	2	UG/L	0	
Potassium	01/11/23	1350	50	UG/L	0	B
Sodium	01/11/23	64700	100	UG/L	0	
Zinc	01/11/23	108	3.3	UG/L	0	
1,4-Dioxane	02/16/23	0.66	0.2	UG/L	0	
537 TPFAS	02/16/23	137.57	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/16/23	2.15	1.66	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/16/23	1.3	3.73	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/16/23	2.04	1.86	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/16/23	1.03	1.77	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	02/16/23	1.11	1.86	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	02/16/23	27	1.7	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/16/23	5.67	1.86	NG/L	0	
Perfluorononanoic acid (PFNA)	02/16/23	3.68	1.86	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/16/23	85.8	1.86	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/16/23	3.08	1.86	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/16/23	2.23	1.75	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/16/23	2.48	1.86	NG/L	0	
8260 TVOC	02/16/23	0.53	0	UG/L	0	
Chloroform	02/16/23	0.53	0.5	UG/L	0	
1,4-Dioxane	03/02/23	0.71	0.2	UG/L	0	
537 TPFAS	03/02/23	128.829	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/02/23	2.22	1.59	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/02/23	1.4	3.58	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/02/23	1.71	1.79	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	03/02/23	0.979	1.7	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/02/23	1.39	1.79	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	03/02/23	24	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/02/23	5.44	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	03/02/23	3.45	1.79	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/02/23	80.8	1.79	NG/L	0	

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Perfluorooctanoic acid (PFOA)	03/02/23	2.59	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/02/23	2.6	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/02/23	2.25	1.79	NG/L	0	
8260 TVOC	03/02/23	0.38	0	UG/L	0	
Chloroform	03/02/23	0.38	0.5	UG/L	0	J
1,4-Dioxane	03/10/23	0.71	0.2	UG/L	0	
1,4-Dioxane	03/16/23	0.73	0.2	UG/L	0	
1,4-Dioxane	03/22/23	0.7	0.2	UG/L	0	
1,4-Dioxane	03/29/23	0.64	0.2	UG/L	0	
1,4-Dioxane	04/06/23	0.7	0.21	UG/L	0	
537 TPFAS	04/06/23	157.54	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/06/23	2.43	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/06/23	1.7	3.48	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/06/23	2.06	1.74	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/06/23	1.04	1.65	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	04/06/23	1.07	1.74	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	04/06/23	29.1	1.58	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	6.63	1.74	NG/L	0	
Perfluorononanoic acid (PFNA)	04/06/23	4.02	1.74	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/06/23	101	1.74	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/06/23	3.38	1.74	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/06/23	2.6	1.63	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/06/23	2.51	1.74	NG/L	0	
8260 TVOC	04/06/23	0.34	0	UG/L	0	
Chloroform	04/06/23	0.34	0.5	UG/L	0	J
1,4-Dioxane	04/12/23	2.8	0.2	UG/L	0	
1,4-Dioxane	04/22/23	0.8	0.21	UG/L	0	
1,4-Dioxane	04/29/23	0.79	0.2	UG/L	0	
1,4-Dioxane	05/05/23	0.8	0.2	UG/L	0	
537 TPFAS	05/11/23	137.613	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/11/23	1.89	1.59	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/11/23	1.45	3.57	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/11/23	1.93	1.79	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/11/23	0.963	1.7	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	05/11/23	1.12	1.79	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	05/11/23	25.2	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/11/23	5.42	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	05/11/23	3.31	1.79	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/11/23	87.9	1.79	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/11/23	3.51	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/11/23	2.27	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/11/23	2.65	1.79	NG/L	0	
8260 TVOC	05/11/23	0.43	0	UG/L	0	
Chloroform	05/11/23	0.43	0.5	UG/L	0	J
1,4-Dioxane	05/11/23	0.95	0.2	UG/L	0	
1,4-Dioxane	05/18/23	0.79	0.2	UG/L	0	
1,4-Dioxane	05/22/23	0.82	0.2	UG/L	0	B
1,4-Dioxane	06/01/23	0.85	0.2	UG/L	0	
537 TPFAS	06/15/23	126.067	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/15/23	1.78	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	06/15/23	1.31	3.48	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/15/23	1.87	1.74	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/15/23	0.906	1.65	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	06/15/23	0.781	1.74	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	06/15/23	23.3	1.58	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/15/23	4.59	1.74	NG/L	0	
Perfluorononanoic acid (PFNA)	06/15/23	3.12	1.74	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/15/23	81.5	1.74	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/15/23	2.89	1.74	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/15/23	1.81	1.64	NG/L	0	

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Perfluoropentanoic acid (PFPeA)	06/15/23	2.21	1.74	NG/L	0	
8260 TVOC	06/15/23	0.28	0	UG/L	0	
Chloroform	06/15/23	0.28	0.5	UG/L	0	J
1,4-Dioxane	07/07/23	0.68	0.2	UG/L	0	
537 TPFAS	07/07/23	144.958	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/07/23	2.2	1.63	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/07/23	1.29	3.65	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/07/23	1.34	1.83	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	07/07/23	1.09	1.73	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	07/07/23	0.998	1.83	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	07/07/23	24.8	1.66	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/07/23	4.67	1.83	NG/L	0	
Perfluorononanoic acid (PFNA)	07/07/23	3.64	1.83	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/07/23	98	1.83	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/07/23	3.08	1.83	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/07/23	1.87	1.72	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/07/23	1.98	1.83	NG/L	0	
1633 TPFAS	08/10/23	114.31	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	08/10/23	1.5	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	08/10/23	1.4	5.7	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/10/23	0.78	1.4	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	08/10/23	0.92	1.4	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	08/10/23	21	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/10/23	3.9	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	08/10/23	3.3	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/10/23	0.21	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/10/23	75	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/10/23	2.5	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/10/23	1.8	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/10/23	2	2.9	NG/L	0	J
1,4-Dioxane	08/10/23	0.56	0.2	UG/L	0	
1633 TPFAS	09/14/23	109.17	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/14/23	1.6	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	09/14/23	1.4	5.9	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/14/23	0.84	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	09/14/23	0.79	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	09/14/23	22	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/14/23	4.1	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	09/14/23	2.9	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/14/23	0.14	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	09/14/23	69	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/14/23	2.6	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/14/23	2	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/14/23	1.8	3	NG/L	0	J
1,4-Dioxane	09/14/23	0.78	0.2	UG/L	0	
1633 TPFAS	10/28/23	110.78	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/28/23	1.4	1.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	10/28/23	1.4	5.9	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	10/28/23	0.77	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/28/23	0.91	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/28/23	20	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/28/23	4.4	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	10/28/23	2.6	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	10/28/23	73	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/28/23	2.7	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/28/23	1.5	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/28/23	2.1	2.9	NG/L	0	J
1,4-Dioxane	10/28/23	0.61	0.2	UG/L	0	
1633 TPFAS	11/05/23	109.137	0	NG/L	0	
1633 TPFAS	11/05/23	10.093	0	NG/L	0	

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Perfluorobutanesulfonate (PFBS)	11/05/23	0.13	0.13	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	1.4	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	11/05/23	1.3	5.8	NG/L	0	J
Perfluorobutyric acid (PFBA)	11/05/23	0.12	0.54	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/05/23	0.8	1.4	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/05/23	0.075	0.13	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.84	1.4	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.079	0.13	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/05/23	21	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/05/23	1.9	0.13	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	0.4	0.13	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	4.3	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	11/05/23	0.22	0.13	NG/L	0	
Perfluorononanoic acid (PFNA)	11/05/23	2.4	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.097	1.4	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.009	0.13	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/05/23	71	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/05/23	6.6	0.13	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	2.3	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	0.22	0.13	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/05/23	0.15	0.13	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/05/23	1.6	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/05/23	0.19	0.27	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/05/23	2.1	2.9	NG/L	0	J
1,4-Dioxane	11/05/23	0.6	0.2	UG/L	0	
1633 TPFAS	12/06/23	104.5	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/06/23	1.5	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	12/06/23	1.4	5.9	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	12/06/23	0.37	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/06/23	0.83	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	12/06/23	20	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/06/23	3.9	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	12/06/23	2	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	12/06/23	69	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/06/23	2.3	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/06/23	1.3	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	12/06/23	1.9	2.9	NG/L	0	J
1,4-Dioxane	12/06/23	0.57	0.21	UG/L	0	

Site ID : 102-35 (CF-RW-I)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	01/11/23	0.39	0	UG/L	0	
Chloroform	01/11/23	0.39	0.5	UG/L	0	J
537 TPFAS	01/11/23	224.17	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/11/23	5.05	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/11/23	6.55	3.61	NG/L	0	
Perfluorobutyric acid (PFBA)	01/11/23	1.36	1.81	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	01/11/23	2.36	1.72	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/11/23	1.01	1.81	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	01/11/23	78.9	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	6.29	1.81	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/11/23	106	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/11/23	4.92	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/11/23	9.74	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/11/23	1.99	1.81	NG/L	0	
Barium	01/11/23	24.8	1	UG/L	0	B
Calcium	01/11/23	3700	50	UG/L	0	B
Cobalt	01/11/23	1.04	1	UG/L	0	B

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Copper	01/11/23	4.6	3	UG/L	0	B
Iron	01/11/23	133	30	UG/L	0	
Magnesium	01/11/23	2040	110	UG/L	0	B
Manganese	01/11/23	108	2	UG/L	0	
Potassium	01/11/23	927	50	UG/L	0	B
Sodium	01/11/23	18300	100	UG/L	0	
Zinc	01/11/23	54.7	3.3	UG/L	0	
537 TPFAS	02/16/23	157.979	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/16/23	3.23	1.54	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/16/23	3.99	3.45	NG/L	0	
Perfluorobutyric acid (PFBA)	02/16/23	1.3	1.73	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	02/16/23	1.67	1.64	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/16/23	0.609	1.73	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	02/16/23	58.2	1.57	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/16/23	4.53	1.73	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/16/23	72.8	1.73	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/16/23	3.1	1.73	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/16/23	6.98	1.62	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/16/23	1.57	1.73	NG/L	0	J
8260 TVOC	02/16/23	0.35	0	UG/L	0	
Chloroform	02/16/23	0.35	0.5	UG/L	0	J
537 TPFAS	03/02/23	165.23	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/02/23	3.81	1.6	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/02/23	3.99	3.59	NG/L	0	
Perfluorobutyric acid (PFBA)	03/02/23	1.36	1.79	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	03/02/23	1.52	1.7	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/02/23	0.89	1.79	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	03/02/23	59.7	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/02/23	4.69	1.79	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/02/23	76.8	1.79	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/02/23	3.57	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/02/23	7.36	1.69	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/02/23	1.54	1.79	NG/L	0	J
8260 TVOC	03/02/23	0.33	0	UG/L	0	
Chloroform	03/02/23	0.33	0.5	UG/L	0	J
537 TPFAS	04/06/23	156.25	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/06/23	2.78	1.6	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/06/23	2.96	3.59	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/06/23	1.21	1.79	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	04/06/23	1.77	1.71	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/06/23	1.1	1.79	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	04/06/23	52.7	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	4.66	1.79	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/06/23	78.2	1.79	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/06/23	3.48	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/06/23	6.04	1.69	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/06/23	1.35	1.79	NG/L	0	J
8260 TVOC	04/06/23	0	0	UG/L	0	
537 TPFAS	05/11/23	105.902	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/11/23	2.08	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/11/23	1.95	3.61	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/11/23	1.01	1.8	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	05/11/23	1.08	1.71	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	05/11/23	38.6	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/11/23	2.9	1.8	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/11/23	50.2	1.8	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/11/23	2.97	1.8	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/11/23	4.15	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/11/23	0.962	1.8	NG/L	0	J
8260 TVOC	05/11/23	0.39	0	UG/L	0	

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Chloroform	05/11/23	0.39	0.5	UG/L	0	J
1,4-Dioxane	06/15/23	0.76	0.2	UG/L	0	
537 TPFAS	06/15/23	81.918	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/15/23	1.52	1.63	NG/L	0	J
Perfluorobutylsulfonamide (FBSA)	06/15/23	1.38	3.67	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/15/23	0.968	1.84	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	06/15/23	0.916	1.74	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	06/15/23	0.744	1.84	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	06/15/23	31.1	1.67	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/15/23	2.18	1.84	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/15/23	38.1	1.84	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/15/23	2.05	1.84	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/15/23	2.96	1.73	NG/L	0	
8260 TVOC	06/15/23	0.26	0	UG/L	0	
Chloroform	06/15/23	0.26	0.5	UG/L	0	J
537 TPFAS	07/07/23	69.038	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/07/23	1.2	1.54	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	07/07/23	0.88	1.64	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	07/07/23	27.9	1.57	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/07/23	1.85	1.73	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/07/23	31.7	1.73	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/07/23	2.18	1.73	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/07/23	2.75	1.62	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/07/23	0.578	1.73	NG/L	0	J
1633 TPFAS	09/14/23	35.74	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/14/23	0.64	1.6	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/14/23	0.48	1.6	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	09/14/23	0.32	1.6	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	09/14/23	14	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/14/23	1.2	1.6	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	09/14/23	0.68	1.6	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	09/14/23	15	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/14/23	1.7	1.6	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/14/23	1.3	1.6	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	09/14/23	0.42	3.2	NG/L	0	J
1633 TPFAS	10/28/23	24.9	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/28/23	0.45	1.4	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/28/23	0.31	1.4	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/28/23	11	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/28/23	0.73	1.4	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	10/28/23	0.29	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/28/23	10	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/28/23	1.4	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/28/23	0.72	1.4	NG/L	0	J
1633 TPFAS	11/05/23	24.22	0	NG/L	0	
1633 TPFAS	11/05/23	24.22	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/05/23	0.42	1.5	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	11/05/23	0.42	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.23	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/05/23	0.23	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/05/23	11	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/05/23	11	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/05/23	0.85	1.5	NG/L	0	J
Perfluorohexanoic acid (PFHxA)	11/05/23	0.85	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.19	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/05/23	0.19	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/05/23	9.2	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/05/23	9.2	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/05/23	1.4	1.5	NG/L	0	J
Perfluorooctanoic acid (PFOA)	11/05/23	1.4	1.5	NG/L	0	J

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Perfluoropentanesulfonate (PFPeS)	11/05/23	0.93	1.5	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	11/05/23	0.93	1.5	NG/L	0	J
1633 TPFAS	12/06/23	20.37	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/06/23	0.42	1.4	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/06/23	0.27	1.4	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	12/06/23	9.1	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/06/23	0.76	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/06/23	8	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/06/23	1.2	1.4	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	12/06/23	0.62	1.4	NG/L	0	J
Perfluoropentanesulfonate (PFPeS)	12/05/22	12.6	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/05/22	2.96	1.8	NG/L	0	
8260 TVOC	12/05/22	0	0	UG/L	0	
537 TPFAS	12/12/22	225.11	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/12/22	6.27	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	12/12/22	8.18	3.54	NG/L	0	
Perfluorobutyric acid (PFBA)	12/12/22	1.54	1.77	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	12/12/22	2.75	1.68	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	12/12/22	1.5	1.77	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	12/12/22	74.2	1.61	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/12/22	8.11	1.77	NG/L	0	
Perfluorooctanesulfonate (PFOS)	12/12/22	104	1.77	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/12/22	5.54	1.77	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/12/22	10.3	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/12/22	2.72	1.77	NG/L	0	
8260 TVOC	12/12/22	0	0	UG/L	0	
537 TPFAS	12/20/22	220.85	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/20/22	5.57	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	12/20/22	6.81	3.63	NG/L	0	
Perfluorobutyric acid (PFBA)	12/20/22	1.34	1.81	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	12/20/22	2.6	1.72	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	12/20/22	1.11	1.81	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	12/20/22	77.5	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/20/22	6.78	1.81	NG/L	0	
Perfluorooctanesulfonate (PFOS)	12/20/22	102	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/20/22	5	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/20/22	10.2	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/20/22	1.94	1.81	NG/L	0	
8260 TVOC	12/20/22	0.49	0	UG/L	0	
Chloroform	12/20/22	0.49	0.5	UG/L	0	J

J = Estimated Value below the method detection limit of 0.50 UG/L
B = Compound was found in both the sample and associated laboratory blank.

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System Influent Data
OU X PFAS CFH System

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Site ID: 084-99 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
537 TPFAS	01/04/23	232.19	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/04/23	3.16	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/04/23	2.65	3.55	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/04/23	2.2	1.77	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/04/23	1.71	1.68	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/04/23	1.95	1.77	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/04/23	53.9	8.07	NG/L	0	D
Perfluorohexanoic acid (PFHxA)	01/04/23	7.81	1.77	NG/L	0	
Perfluorononanoic acid (PFNA)	01/04/23	14.1	1.77	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/04/23	127	1.77	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/04/23	6.85	1.77	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/04/23	5.52	8.34	NG/L	0	JD
Perfluoropentanoic acid (PFPeA)	01/04/23	5.34	1.77	NG/L	0	
8260 TVOC	01/04/23	0.82	0	UG/L	0	
Chloroform	01/04/23	0.82	0.5	UG/L	0	
1,4-Dioxane	01/11/23	0.19	0.2	UG/L	0	J
537 TPFAS	01/11/23	215.53	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/11/23	3.18	1.67	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/11/23	2.95	3.76	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/11/23	1.91	1.88	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/11/23	1.81	1.79	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/11/23	2	1.88	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/11/23	42.3	1.71	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/11/23	7.6	1.88	NG/L	0	
Perfluorononanoic acid (PFNA)	01/11/23	11.7	1.88	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/11/23	128	1.88	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/11/23	5.45	1.88	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/11/23	4.19	1.77	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/11/23	4.44	1.88	NG/L	0	
1,4-Dioxane	01/19/23	0.17	0.2	UG/L	0	J
537 TPFAS	01/19/23	263.17	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/19/23	4.42	1.65	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/19/23	2.84	3.7	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/19/23	2.25	1.85	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/19/23	1.8	1.76	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/19/23	2.15	1.85	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/19/23	54.5	1.68	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/19/23	9.34	1.85	NG/L	0	
Perfluorononanoic acid (PFNA)	01/19/23	17.2	1.85	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/19/23	152	1.85	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/19/23	6.23	1.85	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/19/23	5.37	1.74	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/19/23	5.07	1.85	NG/L	0	
8260 TVOC	01/19/23	0.79	0	UG/L	0	
Chloroform	01/19/23	0.79	0.5	UG/L	0	
1,4-Dioxane	01/24/23	0.19	0.2	UG/L	0	J
537 TPFAS	01/24/23	256.92	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/24/23	3.85	1.59	NG/L	0	h
Perfluorobutylsulfonamide (FBSA)	01/24/23	3.17	3.58	NG/L	0	hJ

Table F-48
System Influent Data
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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorobutyric acid (PFBA)	01/24/23	2.17	1.79	NG/L	0	h
Perfluoroheptanesulfonate (PFHpS)	01/24/23	1.97	1.7	NG/L	0	h
Perfluoroheptanoic acid (PFHpA)	01/24/23	2.23	1.79	NG/L	0	h
Perfluorohexanesulfonate (PFHxS)	01/24/23	52.2	1.63	NG/L	0	h
Perfluorohexanoic acid (PFHxA)	01/24/23	8.63	1.79	NG/L	0	h
Perfluorononanoic acid (PFNA)	01/24/23	15.1	1.79	NG/L	0	h
Perfluorooctanesulfonate (PFOS)	01/24/23	151	1.79	NG/L	0	h
Perfluorooctanoic acid (PFOA)	01/24/23	7.03	1.79	NG/L	0	h
Perfluoropentanesulfonate (PFPeS)	01/24/23	4.84	1.68	NG/L	0	h
Perfluoropentanoic acid (PFPeA)	01/24/23	4.73	1.79	NG/L	0	h
1,4-Dioxane	02/02/23	0.14	0.2	UG/L	0	J
537 TPFAS	02/02/23	211.03	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/02/23	3.36	1.59	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/02/23	2.47	3.58	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/02/23	1.72	1.79	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	02/02/23	1.84	1.7	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/02/23	1.57	1.79	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	02/02/23	46.9	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/02/23	6	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	02/02/23	10.8	1.79	NG/L	0	
Perfluorooctadecanoic acid (PFODA)	02/02/23	0	3.58	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/02/23	124	1.79	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/02/23	4.85	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/02/23	4.31	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/02/23	3.21	1.79	NG/L	0	
1,4-Dioxane	02/13/23	0.15	0.2	UG/L	0	J
537 TPFAS	02/13/23	243.45	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/13/23	3.34	1.44	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/13/23	2.77	3.24	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/13/23	2.48	1.62	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/13/23	1.6	1.54	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/13/23	1.89	1.62	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/13/23	58.8	1.47	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/13/23	6.14	1.62	NG/L	0	
Perfluorononanoic acid (PFNA)	02/13/23	13	1.62	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/13/23	138	1.62	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/13/23	5.7	1.62	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/13/23	5.76	1.52	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/13/23	3.97	1.62	NG/L	0	
8260 TVOC	02/13/23	0.64	0	UG/L	0	
Chloroform	02/13/23	0.64	0.5	UG/L	0	
1,4-Dioxane	02/23/23	0.13	0.22	UG/L	0	J
537 TPFAS	02/24/23	239.36	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/24/23	4.06	1.63	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/24/23	2.74	3.66	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/24/23	2.1	1.83	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/24/23	1.81	1.74	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/24/23	2.22	1.83	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/24/23	51.9	1.67	NG/L	0	

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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorohexanoic acid (PFHxA)	02/24/23	7.61	1.83	NG/L	0	
Perfluorononanoic acid (PFNA)	02/24/23	12.5	1.83	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/24/23	139	1.83	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/24/23	6.44	1.83	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/24/23	4.78	1.72	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/24/23	4.2	1.83	NG/L	0	
8260 TVOC	02/24/23	0.63	0	UG/L	0	
Chloroform	02/24/23	0.63	0.5	UG/L	0	
1,4-Dioxane	03/02/23	0.18	0.2	UG/L	0	J
537 TPFAS	03/02/23	226.78	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/02/23	3.27	1.71	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/02/23	2.73	3.85	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/02/23	1.98	1.92	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/02/23	2.11	1.83	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/02/23	2.07	1.92	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/02/23	53.4	1.75	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/02/23	7.17	1.92	NG/L	0	
Perfluorononanoic acid (PFNA)	03/02/23	10.6	1.92	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/02/23	129	1.92	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/02/23	4.91	1.92	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/02/23	5.64	1.81	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/02/23	3.9	1.92	NG/L	0	
8260 TVOC	03/02/23	0.56	0	UG/L	0	
Chloroform	03/02/23	0.56	0.5	UG/L	0	
1,4-Dioxane	03/10/23	0.14	0.2	UG/L	0	J
537 TPFAS	03/10/23	263.91	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	03/10/23	1.77	3.34	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	03/10/23	3.8	1.56	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/10/23	3.08	3.52	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/10/23	2.57	1.76	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/10/23	2.62	1.67	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/10/23	2.44	1.76	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/10/23	65	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/10/23	9.16	1.76	NG/L	0	
Perfluorononanoic acid (PFNA)	03/10/23	10.7	1.76	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/10/23	144	8.79	NG/L	0	D
Perfluorooctanoic acid (PFOA)	03/10/23	6.85	1.76	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/10/23	6.86	1.65	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/10/23	5.06	1.76	NG/L	0	
8260 TVOC	03/17/23	0	0	UG/L	0	
537 TPFAS	03/17/23	268.75	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/17/23	3.41	1.56	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/17/23	2.64	3.51	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/17/23	2.04	1.75	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/17/23	2.17	1.67	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/17/23	1.88	1.75	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/17/23	53.2	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/17/23	8.45	1.75	NG/L	0	
Perfluorononanoic acid (PFNA)	03/17/23	11.6	1.75	NG/L	0	

Table F-48
System Influent Data
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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorooctanesulfonate (PFOS)	03/17/23	167	1.75	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/17/23	6.97	1.75	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/17/23	4.99	1.65	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/17/23	4.4	1.75	NG/L	0	
1,4-Dioxane	03/22/23	0.14	0.2	UG/L	0	J
537 TPFAS	03/22/23	207.11	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/22/23	2.91	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/22/23	2.69	3.61	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/22/23	2.18	1.8	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/22/23	1.73	1.71	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/22/23	2.05	1.8	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/22/23	40	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/22/23	6.78	1.8	NG/L	0	
Perfluorononanoic acid (PFNA)	03/22/23	9.09	1.8	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/22/23	126	1.8	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/22/23	5.56	1.8	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/22/23	4.38	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/22/23	3.74	1.8	NG/L	0	
1,4-Dioxane	03/29/23	0.15	0.2	UG/L	0	J
537 TPFAS	03/29/23	216.08	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	03/29/23	1.71	3.23	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	03/29/23	2.5	1.51	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/29/23	1.91	3.4	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/29/23	1.93	1.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/29/23	1.61	1.62	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/29/23	1.95	1.7	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/29/23	44.9	1.55	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/29/23	6.21	1.7	NG/L	0	
Perfluorononanoic acid (PFNA)	03/29/23	9.37	1.7	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/29/23	131	1.7	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/29/23	4.9	1.7	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/29/23	4.5	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/29/23	3.59	1.7	NG/L	0	
1,4-Dioxane	04/06/23	0.17	0.2	UG/L	0	J
537 TPFAS	04/06/23	213.08	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/06/23	2.69	1.62	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/06/23	1.66	3.63	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/06/23	1.76	1.82	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	04/06/23	1.79	1.73	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/06/23	2.16	1.82	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/06/23	43.1	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/06/23	6.71	1.82	NG/L	0	
Perfluorononanoic acid (PFNA)	04/06/23	10.1	1.82	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/06/23	130	1.82	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/06/23	5.61	1.82	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/06/23	3.62	1.71	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/06/23	3.88	1.82	NG/L	0	
8260 TVOC	04/06/23	0.53	0	UG/L	0	
Chloroform	04/06/23	0.53	0.5	UG/L	0	

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Site ID: 084-99 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
537 TPFAS	04/22/23	263.79	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/22/23	2.74	1.74	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/22/23	2.33	3.92	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/22/23	2.19	1.96	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/22/23	2.09	1.86	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/22/23	2.53	1.96	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/22/23	50.8	1.78	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/22/23	8.25	1.96	NG/L	0	
Perfluorononanoic acid (PFNA)	04/22/23	11.3	1.96	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/22/23	164	1.96	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/22/23	7.58	1.96	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/22/23	4.93	1.84	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/22/23	5.05	1.96	NG/L	0	
8260 TVOC	04/22/23	0.59	0	UG/L	0	
Chloroform	04/22/23	0.59	0.5	UG/L	0	
1,4-Dioxane	05/05/23	0.17	0.2	UG/L	0	J
537 TPFAS	05/05/23	273.09	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/05/23	3.46	1.62	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/05/23	2.34	3.64	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/05/23	2.44	1.82	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/05/23	2.15	1.73	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	05/05/23	2.49	1.82	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/05/23	52.1	1.66	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/05/23	7.92	1.82	NG/L	0	
Perfluorononanoic acid (PFNA)	05/05/23	10.1	1.82	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/05/23	173	1.82	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/05/23	7.33	1.82	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/05/23	4.75	1.71	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/05/23	5.01	1.82	NG/L	0	
8260 TVOC	05/05/23	0.63	0	UG/L	0	
Chloroform	05/05/23	0.63	0.5	UG/L	0	
537 TPFAS	05/18/23	236.82	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/18/23	2.95	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/18/23	1.97	3.49	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/18/23	2.22	1.75	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/18/23	1.64	1.66	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	05/18/23	2.13	1.75	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/18/23	51.4	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/18/23	7.94	1.75	NG/L	0	
Perfluorononanoic acid (PFNA)	05/18/23	8.27	1.75	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/18/23	144	1.75	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/18/23	5.71	1.75	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/18/23	4.05	1.64	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/18/23	4.54	1.75	NG/L	0	
8260 TVOC	05/18/23	0.78	0	UG/L	0	
Chloroform	05/18/23	0.78	0.5	UG/L	0	
1,4-Dioxane	06/09/23	0.15	0.2	UG/L	0	J
537 TPFAS	06/09/23	248.02	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/09/23	3.08	1.56	NG/L	0	

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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorobutylsulfonamide (FBSA)	06/09/23	1.71	3.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/09/23	2.31	1.75	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/09/23	2.08	1.66	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	06/09/23	2.11	1.75	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/09/23	49.2	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/09/23	6.41	1.75	NG/L	0	
Perfluorononanoic acid (PFNA)	06/09/23	8.11	1.75	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/09/23	158	1.75	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/09/23	6.07	1.75	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/09/23	4.5	1.64	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/09/23	4.44	1.75	NG/L	0	
8260 TVOC	06/09/23	0.66	0	UG/L	0	
Chloroform	06/09/23	0.66	0.5	UG/L	0	
537 TPFAS	06/20/23	210.46	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/20/23	2.9	1.45	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	06/20/23	1.67	3.27	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/20/23	2.2	1.63	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/20/23	1.4	1.55	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	06/20/23	1.71	1.63	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/20/23	44.8	1.49	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/20/23	6.87	1.63	NG/L	0	
Perfluorononanoic acid (PFNA)	06/20/23	6.68	1.63	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/20/23	129	1.63	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/20/23	5.29	1.63	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/20/23	3.9	1.54	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/20/23	4.04	1.63	NG/L	0	
8260 TVOC	06/20/23	0.58	0	UG/L	0	
Chloroform	06/20/23	0.58	0.5	UG/L	0	
537 TPFAS	07/03/23	213.85	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/03/23	3.14	1.5	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/03/23	1.67	3.37	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/03/23	1.95	1.68	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/03/23	1.74	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/03/23	1.8	1.68	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/03/23	45.3	1.53	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/03/23	6.5	1.68	NG/L	0	
Perfluorononanoic acid (PFNA)	07/03/23	7.22	1.68	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/03/23	131	1.68	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/03/23	5.59	1.68	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/03/23	3.69	1.58	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/03/23	4.25	1.68	NG/L	0	
8260 TVOC	07/13/23	0.52	0	UG/L	0	
Chloroform	07/13/23	0.52	0.5	UG/L	0	
537 TPFAS	07/20/23	228.67	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/20/23	2.95	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/20/23	1.61	3.62	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/20/23	1.92	1.81	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/20/23	2.14	1.72	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/20/23	1.88	1.81	NG/L	0	

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System Influent Data
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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorohexanesulfonate (PFHxS)	07/20/23	42.9	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/20/23	6	1.81	NG/L	0	
Perfluorononanoic acid (PFNA)	07/20/23	7.54	1.81	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/20/23	148	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/20/23	5.76	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/20/23	3.81	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/20/23	4.16	1.81	NG/L	0	
1633 TPFAS	08/03/23	188.82	0	NG/L	0	
8260 TVOC	08/03/23	0.53	0	UG/L	0	
Chloroform	08/03/23	0.53	0.5	UG/L	0	
Perfluorobutanesulfonate (PFBS)	08/03/23	2.4	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	08/03/23	1.5	6	NG/L	0	J
Perfluorodecanoic acid (PFDA)	08/03/23	0.12	1.5	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/03/23	1.6	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/03/23	1.7	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/03/23	35	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/03/23	5.5	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	08/03/23	7.5	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/03/23	1.2	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/03/23	120	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/03/23	5.2	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/03/23	3.2	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/03/23	3.9	3	NG/L	0	
1633 TPFAS	08/14/23	237.61	0	NG/L	0	
8260 TVOC	08/14/23	0.66	0	UG/L	0	
Chloroform	08/14/23	0.66	0.5	UG/L	0	
Perfluorobutanesulfonate (PFBS)	08/14/23	4	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	08/14/23	2	5.8	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/14/23	2.1	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/14/23	2.3	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/14/23	44	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/14/23	7.7	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	08/14/23	9.6	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/14/23	0.71	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/14/23	150	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/14/23	6.1	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/14/23	4.1	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/14/23	5	2.9	NG/L	0	
1633 TPFAS	09/05/23	155.84	0	NG/L	0	
8260 TVOC	09/05/23	0.48	0	UG/L	0	
Chloroform	09/05/23	0.48	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	09/05/23	2.7	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	09/05/23	1.5	5.8	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/05/23	1.4	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/05/23	1.7	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/05/23	34	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/05/23	5.4	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	09/05/23	6.8	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/05/23	0.64	1.4	NG/L	0	J

Table F-48
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Site ID: 084-99 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorooctanesulfonate (PFOS)	09/05/23	90	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/05/23	4.9	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/05/23	3.1	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/05/23	3.7	2.9	NG/L	0	
1,4-Dioxane	09/18/23	0.17	0.2	UG/L	0	J
1633 TPFAS	09/18/23	159.86	0	NG/L	0	
8260 TVOC	09/18/23	0.46	0	UG/L	0	
Chloroform	09/18/23	0.46	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	09/18/23	2.3	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	09/18/23	1.5	6.4	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/18/23	1.2	1.6	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	09/18/23	1.5	1.6	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	09/18/23	31	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/18/23	5.1	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	09/18/23	6.3	1.6	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/18/23	0.46	1.6	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	09/18/23	100	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/18/23	4	1.6	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/18/23	2.9	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/18/23	3.6	3.2	NG/L	0	
1,4-Dioxane	10/05/23	0.17	0.2	UG/L	0	HJ
1633 TPFAS	10/05/23	172.13	0	NG/L	0	
8260 TVOC	10/05/23	0.53	0	UG/L	0	
Chloroform	10/05/23	0.53	0.5	UG/L	0	
Perfluorobutanesulfonate (PFBS)	10/05/23	2.4	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	10/05/23	1.7	5.7	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	10/05/23	1.5	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	10/05/23	1.7	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/05/23	32	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/05/23	5.5	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	10/05/23	6.3	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/05/23	0.53	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/05/23	110	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/05/23	4.2	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/05/23	2.7	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/05/23	3.6	2.9	NG/L	0	
1633 TPFAS	10/16/23	182.4	0	NG/L	0	
8260 TVOC	10/16/23	0.35	0	UG/L	0	
Chloroform	10/16/23	0.35	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	10/16/23	2.9	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	10/16/23	6.7	6.4	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	10/16/23	1.8	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	10/16/23	2.5	1.6	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/16/23	60	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/16/23	13	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	10/16/23	3.2	1.6	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/16/23	6	1.6	NG/L	0	
Perfluorooctanesulfonate (PFOS)	10/16/23	66	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/16/23	15	1.6	NG/L	0	

Table F-48
System Influent Data
OU X PFAS CFH System

2023 BNL Groundwater Status Report

Site ID: 084-99 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluoropentanesulfonate (PFPeS)	10/16/23	1.5	1.6	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	10/16/23	3.8	3.2	NG/L	0	
1,4-Dioxane	10/16/23	0.17	0.2	UG/L	0	J
1633 TPFAS	11/02/23	157.73	0	NG/L	0	
8260 TVOC	11/02/23	0.47	0	UG/L	0	
Chloroform	11/02/23	0.47	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	11/02/23	2.1	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	11/02/23	1.4	6	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/02/23	1.2	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/02/23	1.4	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/02/23	29	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/02/23	5.2	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	11/02/23	7.1	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	11/02/23	0.43	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/02/23	100	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/02/23	3.9	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/02/23	2.6	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/02/23	3.4	3	NG/L	0	
1633 TPFAS	11/18/23	142.31	0	NG/L	0	
8260 TVOC	11/18/23	0.53	0	UG/L	0	
Chloroform	11/18/23	0.53	0.5	UG/L	0	
Perfluorobutanesulfonate (PFBS)	11/18/23	1.9	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	11/18/23	1.2	5.7	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/18/23	0.99	1.4	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	11/18/23	1.2	1.4	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	11/18/23	24	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/18/23	4.4	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	11/18/23	5.4	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	11/18/23	0.32	1.4	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/18/23	95	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/18/23	3	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/18/23	2.1	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/18/23	2.8	2.8	NG/L	0	
1633 TPFAS	12/05/23	153.43	0	NG/L	0	
8260 TVOC	12/05/23	0.52	0	UG/L	0	
Chloroform	12/05/23	0.52	0.5	UG/L	0	
Perfluorobutanesulfonate (PFBS)	12/05/23	2.2	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	12/05/23	1.4	5.9	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	12/05/23	0.99	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/05/23	1.3	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	12/05/23	27	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/05/23	4.8	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	12/05/23	6.2	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	12/05/23	0.34	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/05/23	100	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/05/23	3.7	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/05/23	2.4	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/05/23	3.1	3	NG/L	0	
1633 TPFAS	12/16/23	139.91	0	NG/L	0	

Table F-48
System Influent Data
OU X PFAS CFH System

2023 BNL Groundwater Status Report

Site ID: 084-99 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
8260 TVOC	12/16/23	0.49	0	UG/L	0	
Chloroform	12/16/23	0.49	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	12/16/23	2.2	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	12/16/23	1.2	6.4	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/16/23	1.5	1.6	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	12/16/23	29	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/16/23	4.3	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	12/16/23	5.8	1.6	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	12/16/23	0.41	1.6	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/16/23	87	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/16/23	3.3	1.6	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/16/23	2.1	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/16/23	3.1	3.2	NG/L	0	J

J = Estimated Value below the method detection limit of 0.50 UG/L

B = Compound was found in both the sample and associated laboratory blank.

Table F-49
System Effluent Data
OU X PFAS CFH System

2023 BNL Groundwater Status Report

Site ID: 084-101 (Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
1,4-Dioxane	01/04/23	0.133	0.2	UG/L	0	J
537 TPFAS	01/04/23	0	0	NG/L	0	
8260 TVOC	01/04/23	0	0	UG/L	0	
1,4-Dioxane	01/11/23	0.16	0.2	UG/L	0	J
537 TPFAS	01/11/23	0	0	NG/L	0	
1,4-Dioxane	01/19/23	0.16	0.21	UG/L	0	J
537 TPFAS	01/19/23	0	0	NG/L	0	
8260 TVOC	01/19/23	0	0	UG/L	0	
1,4-Dioxane	01/24/23	0.24	0.2	UG/L	0	
537 TPFAS	01/24/23	0	0	NG/L	0	
1,4-Dioxane	02/02/23	0.15	0.2	UG/L	0	J
537 TPFAS	02/02/23	0	0	NG/L	0	
1,4-Dioxane	02/13/23	0.17	0.2	UG/L	0	J
537 TPFAS	02/13/23	0	0	NG/L	0	
8260 TVOC	02/13/23	0	0	UG/L	0	
1,4-Dioxane	02/23/23	0.15	0.21	UG/L	0	J
537 TPFAS	02/24/23	0	0	NG/L	0	
8260 TVOC	02/24/23	0	0	UG/L	0	
1,4-Dioxane	03/02/23	0.17	0.2	UG/L	0	J
537 TPFAS	03/02/23	0	0	NG/L	0	
8260 TVOC	03/02/23	0	0	UG/L	0	
1,4-Dioxane	03/10/23	0.15	0.2	UG/L	0	J
537 TPFAS	03/10/23	0	0	NG/L	0	
8260 TVOC	03/17/23	0	0	UG/L	0	
537 TPFAS	03/17/23	0	0	NG/L	0	
1,4-Dioxane	03/17/23	0.17	0.2	UG/L	0	J
537 TPFAS	03/22/23	0	0	NG/L	0	
537 TPFAS	03/29/23	1.27	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	03/29/23	1.27	3.37	NG/L	0	J
1,4-Dioxane	04/06/23	0.18	0.2	UG/L	0	J
537 TPFAS	04/06/23	2.33	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	04/06/23	2.33	3.29	NG/L	0	J
8260 TVOC	04/06/23	0	0	UG/L	0	
537 TPFAS	04/22/23	0	0	NG/L	0	
8260 TVOC	04/22/23	0	0	UG/L	0	
1,4-Dioxane	05/05/23	0.16	0.2	UG/L	0	J
537 TPFAS	05/05/23	0	0	NG/L	0	
8260 TVOC	05/05/23	0	0	UG/L	0	
537 TPFAS	05/18/23	0	0	NG/L	0	
8260 TVOC	05/18/23	0	0	UG/L	0	
1,4-Dioxane	06/09/23	0.22	0.2	UG/L	0	
537 TPFAS	06/09/23	0	0	NG/L	0	
8260 TVOC	06/09/23	0	0	UG/L	0	
537 TPFAS	06/20/23	0	0	NG/L	0	
8260 TVOC	06/20/23	0	0	UG/L	0	
537 TPFAS	07/03/23	0	0	NG/L	0	
8260 TVOC	07/13/23	0	0	UG/L	0	
537 TPFAS	07/20/23	0	0	NG/L	0	
1633 TPFAS	08/03/23	1.3	0	NG/L	0	
8260 TVOC	08/03/23	0	0	UG/L	0	

Table F-49
System Effluent Data
OU X PFAS CFH System

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Site ID: 084-101 (Effluent)

	Sample					
Perfluorooctane sulfonamide (PFOSAm)	08/03/23	1.3	1.5	NG/L	0	J
1633 TPFAS	08/14/23	0.58	0	NG/L	0	
8260 TVOC	08/14/23	0	0	UG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/14/23	0.58	1.5	NG/L	0	J
1633 TPFAS	09/05/23	0.21	0	NG/L	0	
8260 TVOC	09/05/23	0	0	UG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/05/23	0.21	1.4	NG/L	0	J
1633 TPFAS	09/18/23	0.51	0	NG/L	0	
8260 TVOC	09/18/23	0	0	UG/L	0	
Perfluorohexanoic acid (PFHxA)	09/18/23	0.4	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	09/18/23	0.11	1.5	NG/L	0	J
1,4-Dioxane	10/05/23	0.2	0.2	UG/L	0	HJ
1633 TPFAS	10/05/23	0.26	0	NG/L	0	
8260 TVOC	10/05/23	0	0	UG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/05/23	0.26	1.4	NG/L	0	J
1633 TPFAS	10/16/23	0.16	0	NG/L	0	
8260 TVOC	10/16/23	0	0	UG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/16/23	0.16	1.4	NG/L	0	J
1,4-Dioxane	10/16/23	0.16	0.2	UG/L	0	J
1633 TPFAS	11/02/23	0	0	NG/L	0	
8260 TVOC	11/02/23	0	0	UG/L	0	
1,4-Dioxane	11/02/23	0.11	0.21	UG/L	0	J
1633 TPFAS	11/18/23	0.86	0	NG/L	0	
8260 TVOC	11/18/23	0	0	UG/L	0	
Perfluorobutyric acid (PFBA)	11/18/23	0.73	6.3	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/18/23	0.13	1.6	NG/L	0	J
1633 TPFAS	12/05/23	0.92	0	NG/L	0	
8260 TVOC	12/05/23	0.18	0	UG/L	0	
Chloroform	12/05/23	0.18	0.5	UG/L	0	J
Perfluorobutyric acid (PFBA)	12/05/23	0.92	6.2	NG/L	0	J
1,4-Dioxane	12/05/23	0.1	0.2	UG/L	0	J
1633 TPFAS	12/16/23	0	0	NG/L	0	
8260 TVOC	12/16/23	0	0	UG/L	0	
1,4-Dioxane	12/16/23	0.1	0.2	UG/L	0	J

J = Estimated Value below the method detection limit of 0.50 UG/L
B = Compound was found in both the sample and associated laboratory blank.

Table F-50
Pumpage And Mass Removal
OU X PFAS CFH System

2023 BNL Groundwater Status Report

Date Sampled	Gallons Pumped	Total PFAS (NG/L)	Mass Removed	Total Mass Removed (lbs)
10/24/22	4,078,294	516.43	0.0175	0.0175
10/25/22	169,929	452.62	0.0006	0.0181
10/26/22	169,929	439.13	0.0006	0.0187
10/27/22	169,929	435.8	0.0006	0.0194
10/28/22	169,929	312.03	0.0004	0.0198
10/31/22	509,787	379.04	0.0016	0.0214
11/08/22	3,466,637	334.98	0.0096	0.0310
11/14/22	2,559,980	294.24	0.0063	0.0373
11/21/22	3,033,310	260.87	0.0066	0.0439
11/28/22	3,033,310	206.07	0.0052	0.0490
12/05/22	3,266,790	292.01	0.0079	0.0570
12/12/22	3,360,182	171.4	0.0048	0.0617
12/20/22	2,840,208	205.42	0.0048	0.0666
01/04/23	2,512,628	232.19	0.0048	0.0714
01/11/23	4,397,099	215.53	0.0079	0.0793
01/19/23	5,025,256	263.17	0.0110	0.0903
01/24/23	3,140,785	256.92	0.0067	0.0970
02/02/23	5,284,375	211.03	0.0093	0.1062
02/13/23	4,880,018	243.45	0.0099	0.1161
02/24/23	4,880,018	239.36	0.0097	0.1258
03/02/23	3,070,354	226.78	0.0058	0.1316
03/10/23	5,183,208	263.91	0.0114	0.1429
03/17/23	4,535,307	268.75	0.0101	0.1530
03/22/23	3,239,505	207.11	0.0056	0.1586
03/29/23	4,535,307	216.08	0.0081	0.1667
04/06/23	4,661,718	213.08	0.0082	0.1750
04/22/23	8,975,776	263.79	0.0197	0.1946
05/05/23	7,191,503	273.09	0.0163	0.2109
05/18/23	7,029,399	236.82	0.0138	0.2247
06/09/23	12,085,698	248.02	0.0249	0.2496
06/20/23	6,179,921	210.46	0.0108	0.2604
07/03/23	7,983,439	213.85	0.0142	0.2746
07/20/23	7,983,439	228.67	0.0152	0.2897
08/03/23	8,066,419	188.82	0.0126	0.3024
08/14/23	8,066,419	237.61	0.0159	0.3183
09/05/23	7,611,674	155.84	0.0098	0.3281
09/18/23	7,611,674	159.86	0.0101	0.3382
10/05/23	9,319,425	172.13	0.0133	0.3516
10/16/23	9,319,425	182.4	0.0141	0.3657
11/02/23	8,675,632	157.73	0.0114	0.3770
11/18/23	8,675,632	142.31	0.0102	0.3873
12/05/23	9,710,230	153.43	0.0124	0.3996
12/16/23	9,710,230	139.91	0.0113	0.4109

Table F-51
Extraction Well Data
OU X FFAS CFH System

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Site ID : 085-414 (FF-RW-A)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
1,4-Dioxane	01/26/23	0.16	0.2	UG/L	0	J
537 TPFAS	01/26/23	858.18	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/26/23	14.4	1.46	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/26/23	4.09	3.28	NG/L	0	
Perfluorobutyric acid (PFBA)	01/26/23	15.2	1.64	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/26/23	6.46	1.56	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/26/23	6.08	1.64	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/26/23	269	7.47	NG/L	0	D
Perfluorohexanoic acid (PFHxA)	01/26/23	59.3	1.64	NG/L	0	
Perfluorononanoic acid (PFNA)	01/26/23	2.85	1.64	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/26/23	417	8.21	NG/L	0	D
Perfluorooctanoic acid (PFOA)	01/26/23	25.2	1.64	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/26/23	23.7	1.54	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/26/23	14.9	1.64	NG/L	0	
8260 TVOC	01/26/23	0.4	0	UG/L	0	
Chloroform	01/26/23	0.18	0.5	UG/L	0	J
Methyl tert-butyl ether	01/26/23	0.22	0.5	UG/L	0	J
1,4-Dioxane	01/30/23	0.11	0.2	UG/L	0	J
537 TPFAS	01/30/23	599.38	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/30/23	6.31	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/30/23	2.02	3.56	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/30/23	13.5	1.78	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/30/23	4.51	1.69	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/30/23	4.63	1.78	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/30/23	203	8.09	NG/L	0	D
Perfluorohexanoic acid (PFHxA)	01/30/23	29	1.78	NG/L	0	
Perfluorononanoic acid (PFNA)	01/30/23	2.38	1.78	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/30/23	298	8.89	NG/L	0	D
Perfluorooctanoic acid (PFOA)	01/30/23	18.5	1.78	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/30/23	8.45	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/30/23	9.08	1.78	NG/L	0	
8260 TVOC	01/30/23	0.17	0	UG/L	0	
Chloroform	01/30/23	0.17	0.5	UG/L	0	J
537 TPFAS	02/01/23	477.003	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/01/23	5.74	1.56	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/01/23	1.76	3.51	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/01/23	12.9	1.76	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/01/23	5.08	1.67	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/01/23	5.29	1.76	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/01/23	140	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/01/23	24.6	1.76	NG/L	0	
Perfluorononanoic acid (PFNA)	02/01/23	2.47	1.76	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	02/01/23	0.843	1.76	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/01/23	245	8.78	NG/L	0	D
Perfluorooctanoic acid (PFOA)	02/01/23	18.6	1.76	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/01/23	6.2	1.65	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/01/23	8.52	1.76	NG/L	0	
8260 TVOC	02/01/23	0	0	UG/L	0	
537 TPFAS	02/06/23	431.79	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/06/23	4.7	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/06/23	1.72	3.49	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/06/23	11.7	1.75	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/06/23	5.49	1.66	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/06/23	4.81	1.75	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/06/23	131	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/06/23	23.1	1.75	NG/L	0	
Perfluorononanoic acid (PFNA)	02/06/23	1.9	1.75	NG/L	0	

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Perfluorooctane sulfonamide (PFOSAm)	02/06/23	3.71	1.75	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/06/23	211	8.73	NG/L	0	D
Perfluorooctanoic acid (PFOA)	02/06/23	21.8	1.75	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/06/23	4.67	1.64	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/06/23	6.19	1.75	NG/L	0	
8260 TVOC	02/06/23	0	0	UG/L	0	
537 TPFAS	02/13/23	452.92	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/13/23	4.36	1.57	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/13/23	2.21	3.53	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/13/23	12.6	1.77	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/13/23	4.81	1.68	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/13/23	4.59	1.77	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/13/23	143	1.61	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/13/23	26.2	1.77	NG/L	0	
Perfluorononanoic acid (PFNA)	02/13/23	1.69	1.77	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	02/13/23	8.21	1.77	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/13/23	206	8.83	NG/L	0	D
Perfluorooctanoic acid (PFOA)	02/13/23	28.1	1.77	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/13/23	4.51	1.66	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/13/23	6.64	1.77	NG/L	0	
8260 TVOC	02/13/23	0	0	UG/L	0	
1,4-Dioxane	02/22/23	0.26	0.2	UG/L	0	
537 TPFAS	02/22/23	460.95	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/22/23	5	1.47	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/22/23	2.08	3.31	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/22/23	10.5	1.66	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/22/23	5.15	1.57	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/22/23	5.01	1.66	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/22/23	139	7.53	NG/L	0	D
Perfluorohexanoic acid (PFHxA)	02/22/23	31.4	1.66	NG/L	0	
Perfluorononanoic acid (PFNA)	02/22/23	1.98	1.66	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	02/22/23	10.3	1.66	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/22/23	206	8.28	NG/L	0	D
Perfluorooctanoic acid (PFOA)	02/22/23	33	1.66	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/22/23	4.23	1.56	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/22/23	7.3	1.66	NG/L	0	
8260 TVOC	02/22/23	0	0	UG/L	0	
1,4-Dioxane	03/01/23	0.13	0.2	UG/L	0	J
537 TPFAS	03/01/23	451.6	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/01/23	3.88	1.59	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/01/23	3.07	3.57	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/01/23	12.3	1.78	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/01/23	4.88	1.69	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/01/23	6.13	1.78	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/01/23	149	1.62	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/01/23	32.4	1.78	NG/L	0	
Perfluorononanoic acid (PFNA)	03/01/23	1.71	1.78	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/01/23	12.3	1.78	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/01/23	179	8.92	NG/L	0	D
Perfluorooctanoic acid (PFOA)	03/01/23	35.8	1.78	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/01/23	3.61	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/01/23	7.52	1.78	NG/L	0	
8260 TVOC	03/01/23	0.18	0	UG/L	0	
Chloroform	03/01/23	0.18	0.5	UG/L	0	J
1,4-Dioxane	03/08/23	0.12	0.21	UG/L	0	J
537 TPFAS	03/08/23	403.26	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/08/23	4.19	1.74	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/08/23	2.38	3.9	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/08/23	11.1	1.95	NG/L	0	

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Perfluoroheptanesulfonate (PFHpS)	03/08/23	4.03	1.85	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/08/23	4.92	1.95	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/08/23	131	1.77	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/08/23	30.1	1.95	NG/L	0	
Perfluorononanoic acid (PFNA)	03/08/23	1.48	1.95	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/08/23	9.1	1.95	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/08/23	169	1.95	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/08/23	27.7	1.95	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/08/23	2.76	1.83	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/08/23	5.5	1.95	NG/L	0	
8260 TVOC	03/08/23	0	0	UG/L	0	
8260 TVOC	03/13/23	0	0	UG/L	0	
537 TPFAS	03/15/23	414.26	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/15/23	3.99	1.59	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/15/23	2.75	3.58	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/15/23	12.4	1.79	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/15/23	4.17	1.7	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/15/23	4.32	1.79	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/15/23	151	8.14	NG/L	0	D
Perfluorohexanoic acid (PFHxA)	03/15/23	29.9	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	03/15/23	1.59	1.79	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/15/23	12.1	1.79	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/15/23	154	8.94	NG/L	0	D
Perfluorooctanoic acid (PFOA)	03/15/23	28.2	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/15/23	3.23	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/15/23	6.61	1.79	NG/L	0	
Strontium-90	03/15/23	1.7	0.989	PCI/L	0	
537 TPFAS	03/20/23	430.4	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/20/23	3.72	1.59	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/20/23	2.66	3.56	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/20/23	12.1	1.78	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/20/23	4.27	1.69	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/20/23	4.73	1.78	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/20/23	157	1.62	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/20/23	33.4	1.78	NG/L	0	
Perfluorononanoic acid (PFNA)	03/20/23	1.51	1.78	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/20/23	10.9	1.78	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/20/23	161	8.91	NG/L	0	D
Perfluorooctanoic acid (PFOA)	03/20/23	29.6	1.78	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/20/23	2.7	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/20/23	6.81	1.78	NG/L	0	
8260 TVOC	03/20/23	0	0	UG/L	0	
537 TPFAS	03/29/23	407.8	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/29/23	4.19	1.56	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/29/23	2.28	3.51	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/29/23	10.3	1.76	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/29/23	3.79	1.67	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/29/23	5.69	1.76	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/29/23	134	7.99	NG/L	0	D
Perfluorohexanoic acid (PFHxA)	03/29/23	31.5	1.76	NG/L	0	
Perfluorononanoic acid (PFNA)	03/29/23	2.09	1.76	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	03/29/23	10.9	1.76	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/29/23	164	8.78	NG/L	0	D
Perfluorooctanoic acid (PFOA)	03/29/23	28.1	1.76	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/29/23	3.6	1.65	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/29/23	7.36	1.76	NG/L	0	
Strontium-90	03/29/23	1.07	0.774	PCI/L	0	N2
8260 TVOC	03/29/23	0	0	UG/L	0	
8260 TVOC	04/22/23	0	0	UG/L	0	

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537 TPFAS	04/22/23	438.93	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/22/23	3.76	1.64	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/22/23	2.71	3.68	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/22/23	10	1.84	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/22/23	3.54	1.75	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/22/23	5.97	1.84	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/22/23	159	1.67	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/22/23	32.5	1.84	NG/L	0	
Perfluorononanoic acid (PFNA)	04/22/23	2.1	1.84	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	04/22/23	8.53	1.84	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/22/23	167	1.84	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/22/23	33.7	1.84	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/22/23	3.19	1.73	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/22/23	6.93	1.84	NG/L	0	
1,4-Dioxane	05/08/23	0.17	0.2	UG/L	0	J
537 TPFAS	05/08/23	356.9	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/08/23	3.77	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/08/23	2.24	3.61	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/08/23	10.8	1.81	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/08/23	2.77	1.72	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	05/08/23	5.65	1.81	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/08/23	113	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/08/23	27.8	1.81	NG/L	0	
Perfluorononanoic acid (PFNA)	05/08/23	1.56	1.81	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	05/08/23	8.24	1.81	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/08/23	145	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/08/23	26.8	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/08/23	2.42	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/08/23	6.85	1.81	NG/L	0	
8260 TVOC	05/08/23	0.19	0	UG/L	0	
Chloroform	05/08/23	0.19	0.5	UG/L	0	J
537 TPFAS	06/12/23	379.96	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/12/23	3.77	1.54	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	06/12/23	1.93	3.46	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/12/23	12	1.73	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/12/23	3	1.64	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	06/12/23	4.85	1.73	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/12/23	131	1.58	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/12/23	28.5	1.73	NG/L	0	
Perfluorononanoic acid (PFNA)	06/12/23	1.5	1.73	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	06/12/23	10	1.73	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/12/23	146	1.73	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/12/23	28.2	1.73	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/12/23	2.48	1.63	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/12/23	6.73	1.73	NG/L	0	
8260 TVOC	06/12/23	0.17	0	UG/L	0	
Chloroform	06/12/23	0.17	0.5	UG/L	0	J
537 TPFAS	07/06/23	310.29	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/06/23	3.25	1.53	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/06/23	1.7	3.45	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/06/23	9.39	1.72	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/06/23	2.52	1.64	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/06/23	3.52	1.72	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/06/23	93.7	1.57	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/06/23	18.2	1.72	NG/L	0	
Perfluorononanoic acid (PFNA)	07/06/23	1.46	1.72	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	07/06/23	11.4	1.72	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/06/23	133	1.72	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/06/23	25.3	1.72	NG/L	0	

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Perfluoropentanesulfonate (PFPeS)	07/06/23	1.92	1.62	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/06/23	4.93	1.72	NG/L	0	
1633 TPFAS	08/09/23	237.5	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	08/09/23	2.8	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	08/09/23	7.7	6	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	08/09/23	2.1	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/09/23	3.4	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/09/23	69	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/09/23	16	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	08/09/23	1.5	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/09/23	16	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	08/09/23	90	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/09/23	23	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/09/23	1.6	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/09/23	4.4	3	NG/L	0	
1633 TPFAS	09/15/23	206.5	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/15/23	2.6	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	09/15/23	7.8	6.3	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	09/15/23	2	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/15/23	3.1	1.6	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/15/23	57	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/15/23	12	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	09/15/23	1.6	1.6	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/15/23	13	1.6	NG/L	0	
Perfluorooctanesulfonate (PFOS)	09/15/23	85	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/15/23	17	1.6	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/15/23	1.5	1.6	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	09/15/23	3.9	3.2	NG/L	0	
1,4-Dioxane	09/15/23	0.12	0.2	UG/L	0	J
1633 TPFAS	10/11/23	184.7	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/11/23	3	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	10/11/23	7.7	5.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	10/11/23	2	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	10/11/23	2.7	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/11/23	50	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/11/23	11	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	10/11/23	1.4	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/11/23	11	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	10/11/23	76	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/11/23	15	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/11/23	1	1.4	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	10/11/23	3.9	2.8	NG/L	0	
1633 TPFAS	11/06/23	183.1	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/06/23	2.7	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	11/06/23	7.8	6	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	11/06/23	1.7	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	11/06/23	2.6	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/06/23	47	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/06/23	11	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	11/06/23	1.4	1.5	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	11/06/23	9	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/06/23	81	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/06/23	14	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/06/23	1.2	1.5	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	11/06/23	3.7	3	NG/L	0	
1633 TPFAS	12/07/23	211	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/07/23	2.8	1.7	NG/L	0	
Perfluorobutyric acid (PFBA)	12/07/23	8.7	6.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	12/07/23	1.7	1.7	NG/L	0	

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Perfluoroheptanoic acid (PFHpA)	12/07/23	2.9	1.7	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	12/07/23	59	1.7	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/07/23	13	1.7	NG/L	0	
Perfluorononanoic acid (PFNA)	12/07/23	1.6	1.7	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	12/07/23	13	1.7	NG/L	0	
Perfluorooctanesulfonate (PFOS)	12/07/23	88	1.7	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/07/23	15	1.7	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/07/23	1.1	1.7	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	12/07/23	4.2	3.3	NG/L	0	

Site ID : 096-132 (FF-RW-B)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
537 TPFAS	01/26/23	174.944	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/26/23	3.85	1.5	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/26/23	1.48	3.37	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/26/23	6.64	1.69	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/26/23	2.08	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/26/23	3.42	1.69	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/26/23	62.2	1.53	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/26/23	12.8	1.69	NG/L	0	
Perfluorononanoic acid (PFNA)	01/26/23	0.634	1.69	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	01/26/23	60.2	1.69	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/26/23	16	1.69	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/26/23	2.06	1.59	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/26/23	3.58	1.69	NG/L	0	
8260 TVOC	01/26/23	0.89	0	UG/L	0	
Chloroform	01/26/23	0.89	0.5	UG/L	0	
537 TPFAS	01/30/23	274.634	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/30/23	3.62	1.7	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/30/23	2.14	3.83	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/30/23	7.12	1.91	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/30/23	2.66	1.82	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/30/23	4.42	1.91	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/30/23	122	1.74	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/30/23	23.2	1.91	NG/L	0	
Perfluorononanoic acid (PFNA)	01/30/23	0.714	1.91	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	01/30/23	81.7	1.91	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/30/23	19.1	1.91	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/30/23	2.9	1.8	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/30/23	5.06	1.91	NG/L	0	
8260 TVOC	01/30/23	0.92	0	UG/L	0	
Chloroform	01/30/23	0.92	0.5	UG/L	0	
537 TPFAS	02/01/23	275.72	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/01/23	3.65	1.61	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/01/23	2.44	3.62	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/01/23	6.66	1.81	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/01/23	2.71	1.72	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/01/23	3.68	1.81	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/01/23	120	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/01/23	18.4	1.81	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/01/23	89.5	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/01/23	21.6	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/01/23	2.75	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/01/23	4.33	1.81	NG/L	0	
8260 TVOC	02/01/23	0.73	0	UG/L	0	
Chloroform	02/01/23	0.73	0.5	UG/L	0	

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537 TPFAS	02/06/23	260.49	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/06/23	3.6	1.49	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/06/23	2.03	3.36	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/06/23	6.94	1.68	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/06/23	3.01	1.59	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/06/23	3.3	1.68	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/06/23	96	1.53	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/06/23	18.3	1.68	NG/L	0	
Perfluorononanoic acid (PFNA)	02/06/23	0.78	1.68	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	02/06/23	1.57	1.68	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/06/23	97.1	1.68	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/06/23	21.1	1.68	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/06/23	2.2	1.58	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/06/23	4.56	1.68	NG/L	0	
8260 TVOC	02/06/23	0.75	0	UG/L	0	
Chloroform	02/06/23	0.75	0.5	UG/L	0	
537 TPFAS	02/13/23	239.407	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/13/23	3.19	1.56	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/13/23	2.22	3.5	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/13/23	7.62	1.75	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/13/23	2.89	1.66	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/13/23	3.03	1.75	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/13/23	90.5	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/13/23	16.5	1.75	NG/L	0	
Perfluorononanoic acid (PFNA)	02/13/23	0.607	1.75	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	02/13/23	1.55	1.75	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/13/23	88.6	1.75	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/13/23	16.3	1.75	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/13/23	2.22	1.64	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/13/23	4.18	1.75	NG/L	0	
8260 TVOC	02/13/23	0.65	0	UG/L	0	
Chloroform	02/13/23	0.65	0.5	UG/L	0	
537 TPFAS	02/22/23	220.043	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/22/23	3.61	1.51	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/22/23	1.46	3.4	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/22/23	6.62	1.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/22/23	2.71	1.62	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/22/23	3.7	1.7	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/22/23	83.7	1.55	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/22/23	16.5	1.7	NG/L	0	
Perfluorononanoic acid (PFNA)	02/22/23	0.723	1.7	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	02/22/23	1.55	1.7	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/22/23	77.2	1.7	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/22/23	16	1.7	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/22/23	2.3	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/22/23	3.97	1.7	NG/L	0	
8260 TVOC	02/22/23	0.6	0	UG/L	0	
Chloroform	02/22/23	0.6	0.5	UG/L	0	
537 TPFAS	03/01/23	229.278	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/01/23	3.38	1.6	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/01/23	1.98	3.6	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/01/23	7.74	1.8	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/01/23	3.13	1.71	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/01/23	3	1.8	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/01/23	88.2	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/01/23	13.8	1.8	NG/L	0	
Perfluorononanoic acid (PFNA)	03/01/23	0.688	1.8	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/01/23	1.71	1.8	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	03/01/23	82.8	1.8	NG/L	0	

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Perfluorooctanoic acid (PFOA)	03/01/23	15.8	1.8	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/01/23	2.66	1.69	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/01/23	4.39	1.8	NG/L	0	
8260 TVOC	03/01/23	0.55	0	UG/L	0	
Chloroform	03/01/23	0.55	0.5	UG/L	0	
1,4-Dioxane	03/08/23	0.14	0.2	UG/L	0	J
537 TPFAS	03/08/23	197.811	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/08/23	3.1	1.68	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/08/23	1.57	3.77	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/08/23	6.99	1.89	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/08/23	2.46	1.79	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/08/23	2.73	1.89	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/08/23	70.7	1.72	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/08/23	15.1	1.89	NG/L	0	
Perfluorononanoic acid (PFNA)	03/08/23	0.731	1.89	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/08/23	1.37	1.89	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	03/08/23	71.3	1.89	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/08/23	15.3	1.89	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/08/23	2.44	1.77	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/08/23	4.02	1.89	NG/L	0	
8260 TVOC	03/08/23	0.58	0	UG/L	0	
Chloroform	03/08/23	0.58	0.5	UG/L	0	
8260 TVOC	03/13/23	0.53	0	UG/L	0	
Chloroform	03/13/23	0.53	0.5	UG/L	0	
537 TPFAS	03/15/23	254.297	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	03/15/23	1.47	3.32	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	03/15/23	4.04	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/15/23	1.68	3.49	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/15/23	8.44	1.75	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/15/23	3.54	1.66	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/15/23	3.54	1.75	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/15/23	94.3	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/15/23	16.1	1.75	NG/L	0	
Perfluorononanoic acid (PFNA)	03/15/23	0.717	1.75	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/15/23	1.89	1.75	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/15/23	94.3	1.75	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/15/23	17	1.75	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/15/23	2.96	1.64	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/15/23	4.32	1.75	NG/L	0	
537 TPFAS	03/20/23	202.69	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/20/23	2.8	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/20/23	1.57	3.55	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/20/23	7.74	1.77	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/20/23	2.48	1.69	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/20/23	3.12	1.77	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/20/23	71.5	1.61	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/20/23	14.1	1.77	NG/L	0	
Perfluorononanoic acid (PFNA)	03/20/23	0.72	1.77	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/20/23	1.61	1.77	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	03/20/23	75.6	1.77	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/20/23	15	1.77	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/20/23	2.57	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/20/23	3.88	1.77	NG/L	0	
8260 TVOC	03/20/23	0.51	0	UG/L	0	
Chloroform	03/20/23	0.51	0.5	UG/L	0	
1,4-Dioxane	03/29/23	0.19	0.2	UG/L	0	J
537 TPFAS	03/29/23	202.771	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/29/23	3.11	1.53	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/29/23	1.49	3.44	NG/L	0	J

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Perfluorobutyric acid (PFBA)	03/29/23	6.6	1.72	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/29/23	2.58	1.63	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/29/23	2.96	1.72	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/29/23	67.8	1.57	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/29/23	13.6	1.72	NG/L	0	
Perfluorononanoic acid (PFNA)	03/29/23	0.881	1.72	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/29/23	1.92	1.72	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/29/23	80.4	1.72	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/29/23	15.3	1.72	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/29/23	2.14	1.62	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/29/23	3.99	1.72	NG/L	0	
8260 TVOC	03/29/23	0.48	0	UG/L	0	
Chloroform	03/29/23	0.48	0.5	UG/L	0	J
537 TPFAS	04/07/23	228.24	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/07/23	3.43	1.59	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/07/23	1.61	3.58	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/07/23	8.61	1.79	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/07/23	2.97	1.7	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/07/23	3.18	1.79	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/07/23	80.6	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/07/23	14.3	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	04/07/23	0.95	1.79	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	04/07/23	1.86	1.79	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/07/23	87.8	1.79	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/07/23	16.6	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/07/23	2.44	1.68	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/07/23	3.89	1.79	NG/L	0	
8260 TVOC	04/07/23	0.43	0	UG/L	0	
Chloroform	04/07/23	0.43	0.5	UG/L	0	J
1,4-Dioxane	05/08/23	0.12	0.2	UG/L	0	J
537 TPFAS	05/08/23	183.12	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/08/23	2.75	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/08/23	1.42	3.49	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/08/23	7.4	1.74	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/08/23	2.35	1.66	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	05/08/23	2.87	1.74	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/08/23	61.7	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/08/23	11.8	1.74	NG/L	0	
Perfluorononanoic acid (PFNA)	05/08/23	1.53	1.74	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	05/08/23	1.64	1.74	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	05/08/23	70.6	1.74	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/08/23	13.9	1.74	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/08/23	1.83	1.64	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/08/23	3.33	1.74	NG/L	0	
8260 TVOC	05/08/23	0.54	0	UG/L	0	
Chloroform	05/08/23	0.54	0.5	UG/L	0	
1,4-Dioxane	06/12/23	0.18	0.2	UG/L	0	J
537 TPFAS	06/12/23	180.57	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/12/23	3.18	1.5	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	06/12/23	1.44	3.37	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/12/23	7.93	1.68	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/12/23	2.22	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	06/12/23	2.47	1.68	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/12/23	58.5	1.53	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/12/23	13.1	1.68	NG/L	0	
Perfluorononanoic acid (PFNA)	06/12/23	2.31	1.68	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	06/12/23	1.78	1.68	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/12/23	68.8	1.68	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/12/23	13.7	1.68	NG/L	0	

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Perfluoropentanesulfonate (PFPeS)	06/12/23	1.66	1.58	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/12/23	3.48	1.68	NG/L	0	
8260 TVOC	06/12/23	0.53	0	UG/L	0	
Chloroform	06/12/23	0.53	0.5	UG/L	0	
537 TPFAS	07/06/23	195.5	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/06/23	2.99	1.54	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/06/23	1.45	3.47	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/06/23	7.21	1.73	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/06/23	2.31	1.65	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/06/23	2.83	1.73	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/06/23	68.3	1.58	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/06/23	12.7	1.73	NG/L	0	
Perfluorononanoic acid (PFNA)	07/06/23	2.88	1.73	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	07/06/23	1.64	1.73	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	07/06/23	71.6	1.73	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/06/23	15.8	1.73	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/06/23	1.86	1.63	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/06/23	3.93	1.73	NG/L	0	
1633 TPFAS	08/09/23	160.8	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	08/09/23	2.8	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	08/09/23	6.1	6.4	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/09/23	2	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/09/23	3.1	1.6	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/09/23	60	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/09/23	13	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	08/09/23	3.6	1.6	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/09/23	2.1	1.6	NG/L	0	
Perfluorooctanesulfonate (PFOS)	08/09/23	48	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/09/23	15	1.6	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/09/23	1.6	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/09/23	3.5	3.2	NG/L	0	
1,4-Dioxane	08/09/23	0.25	0.2	UG/L	0	
1633 TPFAS	09/15/23	180.5	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/15/23	2.7	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	09/15/23	6.3	5.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	09/15/23	1.7	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/15/23	3.1	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/15/23	69	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/15/23	13	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	09/15/23	4.3	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/15/23	2.5	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	09/15/23	56	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/15/23	16	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/15/23	2	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/15/23	3.9	2.8	NG/L	0	
1,4-Dioxane	09/15/23	0.23	0.21	UG/L	0	
1633 TPFAS	10/11/23	182.7	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/11/23	3	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	10/11/23	6.4	5.9	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	10/11/23	2.4	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	10/11/23	3.2	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/11/23	72	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/11/23	16	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	10/11/23	5	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/11/23	2.3	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	10/11/23	52	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/11/23	15	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/11/23	1.6	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/11/23	3.8	2.9	NG/L	0	

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1,4-Dioxane	10/11/23	0.25	0.21	UG/L	0	
1633 TPFAS	11/06/23	169.7	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/06/23	2.6	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	11/06/23	5.9	6	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/06/23	1.8	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	11/06/23	2.9	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/06/23	60	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/06/23	12	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	11/06/23	4.7	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	11/06/23	2.2	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/06/23	57	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/06/23	15	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/06/23	1.7	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/06/23	3.9	3	NG/L	0	
1,4-Dioxane	11/06/23	0.18	0.2	UG/L	0	J
1633 TPFAS	12/07/23	192.5	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/07/23	2.7	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	12/07/23	6.7	6	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	12/07/23	2.2	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	12/07/23	3.1	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	12/07/23	67	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/07/23	13	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	12/07/23	6	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	12/07/23	2.6	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	12/07/23	65	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/07/23	18	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/07/23	2	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/07/23	4.2	3	NG/L	0	
1,4-Dioxane	12/07/23	0.14	0.22	UG/L	0	J

Site ID : 105-79 (FF-RW-C)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
1,4-Dioxane	01/26/23	0.26	0.2	UG/L	0	
537 TPFAS	01/26/23	142.34	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/26/23	1.88	1.51	NG/L	0	
Perfluorobutyric acid (PFBA)	01/26/23	5.65	1.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/26/23	2.13	1.62	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/26/23	2.49	1.7	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/26/23	54.6	1.55	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/26/23	9.8	1.7	NG/L	0	
Perfluorononanoic acid (PFNA)	01/26/23	2.47	1.7	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/26/23	41.4	1.7	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/26/23	16.4	1.7	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/26/23	2.19	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/26/23	3.33	1.7	NG/L	0	
1,1,1-Trichloroethane	01/26/23	0.18	0.5	UG/L	0	J
1,1-Dichloroethane	01/26/23	0.25	0.5	UG/L	0	J
8260 TVOC	01/26/23	0.83	0	UG/L	0	
Chloroform	01/26/23	0.4	0.5	UG/L	0	J
1,4-Dioxane	01/30/23	0.22	0.22	UG/L	0	
537 TPFAS	01/30/23	111.46	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/30/23	1.67	1.63	NG/L	0	
Perfluorobutyric acid (PFBA)	01/30/23	5.59	1.83	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/30/23	1.59	1.74	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	01/30/23	2.27	1.83	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/30/23	44.1	1.67	NG/L	0	

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Perfluorohexanoic acid (PFHxA)	01/30/23	6.17	1.83	NG/L	0	
Perfluorononanoic acid (PFNA)	01/30/23	2.61	1.83	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/30/23	32.3	1.83	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/30/23	10.6	1.83	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/30/23	1.92	1.72	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/30/23	2.64	1.83	NG/L	0	
1,1-Dichloroethane	01/30/23	0.23	0.5	UG/L	0	J
1,1-Dichloroethylene	01/30/23	0.17	0.5	UG/L	0	J
8260 TVOC	01/30/23	0.83	0	UG/L	0	
Chloroform	01/30/23	0.43	0.5	UG/L	0	J
1,4-Dioxane	02/01/23	0.21	0.2	UG/L	0	
537 TPFAS	02/01/23	127.18	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/01/23	1.84	1.63	NG/L	0	
Perfluorobutyric acid (PFBA)	02/01/23	6.28	1.83	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/01/23	2.3	1.74	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/01/23	2.24	1.83	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/01/23	47.5	1.67	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/01/23	5.86	1.83	NG/L	0	
Perfluorononanoic acid (PFNA)	02/01/23	3.23	1.83	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/01/23	41.6	1.83	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/01/23	12.2	1.83	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/01/23	1.75	1.72	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/01/23	2.38	1.83	NG/L	0	
8260 TVOC	02/01/23	0.38	0	UG/L	0	
Chloroform	02/01/23	0.38	0.5	UG/L	0	J
1,4-Dioxane	02/06/23	0.22	0.23	UG/L	0	J
537 TPFAS	02/06/23	122.84	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/06/23	1.89	1.67	NG/L	0	
Perfluorobutyric acid (PFBA)	02/06/23	5.7	1.88	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/06/23	1.82	1.78	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/06/23	1.98	1.88	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/06/23	48.7	1.71	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/06/23	6.01	1.88	NG/L	0	
Perfluorononanoic acid (PFNA)	02/06/23	2.71	1.88	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/06/23	39.1	1.88	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/06/23	13.3	1.88	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/06/23	1.63	1.77	NG/L	0	J
8260 TVOC	02/06/23	0.41	0	UG/L	0	
Chloroform	02/06/23	0.41	0.5	UG/L	0	J
1,4-Dioxane	02/13/23	0.19	0.2	UG/L	0	J
537 TPFAS	02/13/23	110.14	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/13/23	1.68	1.58	NG/L	0	
Perfluorobutyric acid (PFBA)	02/13/23	6.53	1.77	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/13/23	1.72	1.68	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/13/23	2.41	1.77	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/13/23	41.8	1.61	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/13/23	6.02	1.77	NG/L	0	
Perfluorononanoic acid (PFNA)	02/13/23	2.47	1.77	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/13/23	33.1	1.77	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/13/23	9.62	1.77	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/13/23	1.67	1.66	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/13/23	3.12	1.77	NG/L	0	
8260 TVOC	02/13/23	0.39	0	UG/L	0	
Chloroform	02/13/23	0.39	0.5	UG/L	0	J
1,4-Dioxane	02/22/23	0.3	0.2	UG/L	0	
537 TPFAS	02/22/23	106.43	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/22/23	2.31	1.71	NG/L	0	
Perfluorobutyric acid (PFBA)	02/22/23	6.04	1.92	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/22/23	1.24	1.82	NG/L	0	J

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Perfluoroheptanoic acid (PFHpA)	02/22/23	2.19	1.92	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/22/23	39.4	1.74	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/22/23	6.29	1.92	NG/L	0	
Perfluorononanoic acid (PFNA)	02/22/23	2.14	1.92	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/22/23	30.7	1.92	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/22/23	11	1.92	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/22/23	1.49	1.8	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	02/22/23	3.63	1.92	NG/L	0	
8260 TVOC	02/22/23	0.39	0	UG/L	0	
Chloroform	02/22/23	0.39	0.5	UG/L	0	J
1,4-Dioxane	03/01/23	0.23	0.2	UG/L	0	
537 TPFAS	03/01/23	108.03	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/01/23	1.76	1.62	NG/L	0	
Perfluorobutyric acid (PFBA)	03/01/23	7.2	1.82	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/01/23	1.63	1.73	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/01/23	2.37	1.82	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/01/23	38.5	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/01/23	6.63	1.82	NG/L	0	
Perfluorononanoic acid (PFNA)	03/01/23	2.64	1.82	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/01/23	31.5	1.82	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/01/23	10.7	1.82	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/01/23	1.78	1.71	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/01/23	3.32	1.82	NG/L	0	
8260 TVOC	03/01/23	0.44	0	UG/L	0	
Chloroform	03/01/23	0.44	0.5	UG/L	0	J
1,4-Dioxane	03/08/23	0.2	0.22	UG/L	0	J
537 TPFAS	03/08/23	103.15	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/08/23	1.7	1.66	NG/L	0	
Perfluorobutyric acid (PFBA)	03/08/23	6.77	1.87	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/08/23	1.43	1.78	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/08/23	2.05	1.87	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/08/23	39.4	1.7	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/08/23	6.54	1.87	NG/L	0	
Perfluorononanoic acid (PFNA)	03/08/23	2.07	1.87	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/08/23	28.5	1.87	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/08/23	9.94	1.87	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/08/23	1.73	1.76	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	03/08/23	3.02	1.87	NG/L	0	
8260 TVOC	03/08/23	0.48	0	UG/L	0	
Chloroform	03/08/23	0.48	0.5	UG/L	0	J
1,4-Dioxane	03/11/23	0.19	0.22	UG/L	0	J
8260 TVOC	03/13/23	0.47	0	UG/L	0	
Chloroform	03/13/23	0.47	0.5	UG/L	0	J
537 TPFAS	03/15/23	107.24	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/15/23	1.88	1.57	NG/L	0	
Perfluorobutyric acid (PFBA)	03/15/23	7.42	1.76	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/15/23	1.43	1.67	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/15/23	2.33	1.76	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/15/23	42.5	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/15/23	5.62	1.76	NG/L	0	
Perfluorononanoic acid (PFNA)	03/15/23	2.05	1.76	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/15/23	30.4	1.76	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/15/23	8.49	1.76	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/15/23	1.94	1.65	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/15/23	3.18	1.76	NG/L	0	
1,4-Dioxane	03/20/23	0.18	0.2	UG/L	0	J
537 TPFAS	03/20/23	119.95	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/20/23	1.76	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	03/20/23	7.52	1.79	NG/L	0	

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Perfluoroheptanesulfonate (PFHpS)	03/20/23	1.51	1.7	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/20/23	2.14	1.79	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/20/23	44.3	1.63	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/20/23	6.59	1.79	NG/L	0	
Perfluorononanoic acid (PFNA)	03/20/23	2.07	1.79	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/20/23	39.1	1.79	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/20/23	10	1.79	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/20/23	1.92	1.69	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/20/23	3.04	1.79	NG/L	0	
8260 TVOC	03/20/23	0.41	0	UG/L	0	
Chloroform	03/20/23	0.41	0.5	UG/L	0	J
537 TPFAS	03/29/23	117.7	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/29/23	2.08	1.61	NG/L	0	
Perfluorobutyric acid (PFBA)	03/29/23	5.94	1.81	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/29/23	1.38	1.72	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	03/29/23	2.18	1.81	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/29/23	44.8	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/29/23	6.6	1.81	NG/L	0	
Perfluorononanoic acid (PFNA)	03/29/23	1.89	1.81	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/29/23	37.4	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/29/23	9.98	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/29/23	2.14	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/29/23	3.31	1.81	NG/L	0	
8260 TVOC	03/29/23	0.41	0	UG/L	0	
Chloroform	03/29/23	0.41	0.5	UG/L	0	J
1,4-Dioxane	04/07/23	0.18	0.2	UG/L	0	J
537 TPFAS	04/07/23	112.58	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/07/23	1.7	1.49	NG/L	0	
Perfluorobutyric acid (PFBA)	04/07/23	7.4	1.68	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/07/23	1.46	1.59	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	04/07/23	2.07	1.68	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/07/23	39.4	1.53	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/07/23	6.66	1.68	NG/L	0	
Perfluorononanoic acid (PFNA)	04/07/23	2.33	1.68	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/07/23	35.2	1.68	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/07/23	10.9	1.68	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/07/23	1.87	1.58	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/07/23	3.59	1.68	NG/L	0	
8260 TVOC	04/07/23	0.41	0	UG/L	0	
Chloroform	04/07/23	0.41	0.5	UG/L	0	J
1,4-Dioxane	05/08/23	0.19	0.2	UG/L	0	J
537 TPFAS	05/08/23	103.81	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/08/23	1.8	1.58	NG/L	0	
Perfluorobutyric acid (PFBA)	05/08/23	6.29	1.77	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/08/23	1.55	1.69	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	05/08/23	2.04	1.77	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/08/23	36.3	1.61	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/08/23	6.75	1.77	NG/L	0	
Perfluorononanoic acid (PFNA)	05/08/23	1.96	1.77	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/08/23	32.3	1.77	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/08/23	9.84	1.77	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/08/23	1.8	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/08/23	3.18	1.77	NG/L	0	
8260 TVOC	05/08/23	0.54	0	UG/L	0	
Chloroform	05/08/23	0.54	0.5	UG/L	0	
1,4-Dioxane	06/12/23	0.22	0.2	UG/L	0	
537 TPFAS	06/12/23	129.15	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/12/23	2.14	1.61	NG/L	0	
Perfluorobutyric acid (PFBA)	06/12/23	7.39	1.81	NG/L	0	

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Perfluoroheptanesulfonate (PFHpS)	06/12/23	1.79	1.72	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	06/12/23	2.4	1.81	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/12/23	52.1	1.65	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/12/23	6.77	1.81	NG/L	0	
Perfluorononanoic acid (PFNA)	06/12/23	2.4	1.81	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/12/23	37.4	1.81	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/12/23	10.9	1.81	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/12/23	2.25	1.7	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/12/23	3.61	1.81	NG/L	0	
8260 TVOC	06/12/23	0.48	0	UG/L	0	
Chloroform	06/12/23	0.48	0.5	UG/L	0	J
537 TPFAS	07/06/23	124.61	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/06/23	2.2	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	07/06/23	5.97	1.8	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/06/23	2.12	1.71	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/06/23	2.19	1.8	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/06/23	44.9	1.64	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/06/23	7.51	1.8	NG/L	0	
Perfluorononanoic acid (PFNA)	07/06/23	2.1	1.8	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/06/23	40.6	1.8	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/06/23	11.9	1.8	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/06/23	1.55	1.69	NG/L	0	J
Perfluoropentanoic acid (PFPeA)	07/06/23	3.57	1.8	NG/L	0	
1633 TPFAS	08/09/23	111.7	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	08/09/23	2	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	08/09/23	5.5	5.9	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/09/23	2.1	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/09/23	2.4	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/09/23	45	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/09/23	8.2	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	08/09/23	1.9	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/09/23	1.3	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	08/09/23	27	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/09/23	11	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/09/23	1.8	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/09/23	3.5	2.9	NG/L	0	
1,4-Dioxane	08/09/23	0.27	0.2	UG/L	0	
1633 TPFAS	09/15/23	135.6	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	09/15/23	1.9	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	09/15/23	5.6	6.2	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/15/23	2.6	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/15/23	2.4	1.6	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/15/23	51	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/15/23	9.2	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	09/15/23	1.8	1.6	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/15/23	1.1	1.6	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	09/15/23	42	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/15/23	12	1.6	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/15/23	2.2	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/15/23	3.8	3.1	NG/L	0	
1,4-Dioxane	09/15/23	0.22	0.2	UG/L	0	
1633 TPFAS	10/30/23	130.74	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	10/30/23	2.2	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	10/30/23	5.4	6.3	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	10/30/23	2.1	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	10/30/23	2.6	1.6	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/30/23	48	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/30/23	8.5	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	10/30/23	1.9	1.6	NG/L	0	

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Perfluorooctane sulfonamide (PFOSAm)	10/30/23	0.94	1.6	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/30/23	40	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/30/23	13	1.6	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/30/23	2.1	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/30/23	4	3.1	NG/L	0	
1,4-Dioxane	10/30/23	0.2	0.21	UG/L	0	J
1633 TPFAS	11/06/23	131.92	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	11/06/23	2.2	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	11/06/23	5.4	6.1	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	11/06/23	2.2	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	11/06/23	2.5	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/06/23	53	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/06/23	8.3	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	11/06/23	1.9	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	11/06/23	0.92	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	11/06/23	39	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/06/23	11	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/06/23	1.7	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/06/23	3.8	3.1	NG/L	0	
1,4-Dioxane	11/06/23	0.2	0.22	UG/L	0	J
1633 TPFAS	12/07/23	144.04	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	12/07/23	2.2	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	12/07/23	6.2	5.9	NG/L	0	
Perfluorodecanoic acid (PFDA)	12/07/23	0.13	1.5	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	12/07/23	2.2	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	12/07/23	2.5	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	12/07/23	57	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/07/23	9.2	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	12/07/23	1.9	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	12/07/23	0.91	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	12/07/23	42	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/07/23	14	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/07/23	1.9	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/07/23	3.9	2.9	NG/L	0	
1,4-Dioxane	12/07/23	0.17	0.2	UG/L	0	J

J = Estimated Value below the method detection limit of 0.50 UG/L

B = Compound was found in both the sample and associated laboratory blank.

Table F-52
System Influent Data
OU X PFAS FFH System

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Site ID: 076-422 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
1,4-Dioxane	01/26/23	0.16	0.2	UG/L	0	J
537 TPFAS	01/26/23	337.35	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/26/23	5.83	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/26/23	2.07	3.49	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/26/23	8.4	1.74	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/26/23	3.23	1.66	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/26/23	3.83	1.74	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/26/23	98.7	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/26/23	27.1	1.74	NG/L	0	
Perfluorononanoic acid (PFNA)	01/26/23	1.95	1.74	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/26/23	153	1.74	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/26/23	18.7	1.74	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/26/23	7.62	1.64	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/26/23	6.92	1.74	NG/L	0	
8260 TVOC	01/26/23	0.53	0	UG/L	0	
Chloroform	01/26/23	0.53	0.5	UG/L	0	
1,4-Dioxane	01/27/23	0.16	0.2	UG/L	0	J
537 TPFAS	01/27/23	333.1	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/27/23	5.68	1.52	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/27/23	2.03	3.42	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/27/23	8.15	1.71	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/27/23	3.12	1.62	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/27/23	4.55	1.71	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/27/23	113	1.56	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/27/23	23.8	1.71	NG/L	0	
Perfluorononanoic acid (PFNA)	01/27/23	2.25	1.71	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/27/23	139	1.71	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/27/23	18.2	1.71	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/27/23	6.59	1.61	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/27/23	6.73	1.71	NG/L	0	
8260 TVOC	01/27/23	0.54	0	UG/L	0	
Chloroform	01/27/23	0.54	0.5	UG/L	0	
1,4-Dioxane	01/30/23	0.12	0.2	UG/L	0	J
537 TPFAS	01/30/23	319.44	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/30/23	3.64	1.53	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	01/30/23	1.48	3.44	NG/L	0	J
Perfluorobutyric acid (PFBA)	01/30/23	9.31	1.72	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	01/30/23	3.67	1.63	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	01/30/23	3.59	1.72	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	01/30/23	99.8	1.57	NG/L	0	
Perfluorohexanoic acid (PFHxA)	01/30/23	18.6	1.72	NG/L	0	
Perfluorononanoic acid (PFNA)	01/30/23	2.28	1.72	NG/L	0	
Perfluorooctanesulfonate (PFOS)	01/30/23	152	1.72	NG/L	0	
Perfluorooctanoic acid (PFOA)	01/30/23	16	1.72	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	01/30/23	3.86	1.62	NG/L	0	
Perfluoropentanoic acid (PFPeA)	01/30/23	5.21	1.72	NG/L	0	
8260 TVOC	01/30/23	0.48	0	UG/L	0	
Chloroform	01/30/23	0.48	0.5	UG/L	0	J
8260 TVOC	01/31/23	0.49	0	UG/L	0	
Chloroform	01/31/23	0.49	0.5	UG/L	0	J
537 TPFAS	01/31/23	0	0	NG/L	0	
537 TPFAS	01/31/23	280.1	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	01/31/23	3.48	1.58	NG/L	0	h

Table F-52
System Influent Data
OU X PFAS FFH System

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Site ID: 076-422 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorobutylsulfonamide (FBSA)	01/31/23	1.69	3.56	NG/L	0	Jh
Perfluorobutyric acid (PFBA)	01/31/23	8.01	1.78	NG/L	0	h
Perfluoroheptanesulfonate (PFHpS)	01/31/23	3.13	1.69	NG/L	0	h
Perfluoroheptanoic acid (PFHpA)	01/31/23	3.22	1.78	NG/L	0	h
Perfluorohexanesulfonate (PFHxS)	01/31/23	106	1.62	NG/L	0	h
Perfluorohexanoic acid (PFHxA)	01/31/23	17.5	1.78	NG/L	0	h
Perfluorononanoic acid (PFNA)	01/31/23	1.95	1.78	NG/L	0	h
Perfluorooctanesulfonate (PFOS)	01/31/23	111	1.78	NG/L	0	h
Perfluorooctanoic acid (PFOA)	01/31/23	15.7	1.78	NG/L	0	h
Perfluoropentanesulfonate (PFPeS)	01/31/23	4.13	1.67	NG/L	0	h
Perfluoropentanoic acid (PFPeA)	01/31/23	4.29	1.78	NG/L	0	h
1,4-Dioxane	01/31/23	0.14	0.2	UG/L	0	J
1,4-Dioxane	02/01/23	0.13	0.2	UG/L	0	J
537 TPFAS	02/01/23	302.788	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/01/23	3.82	1.64	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/01/23	1.62	3.68	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/01/23	8.13	1.84	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/01/23	3.57	1.75	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/01/23	3.51	1.84	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/01/23	108	1.67	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/01/23	15.5	1.84	NG/L	0	
Perfluorononanoic acid (PFNA)	02/01/23	2.17	1.84	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	02/01/23	0.758	1.84	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	02/01/23	130	1.84	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/01/23	17.6	1.84	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/01/23	3.9	1.73	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/01/23	4.21	1.84	NG/L	0	
8260 TVOC	02/01/23	0.17	0	UG/L	0	
Chloroform	02/01/23	0.17	0.5	UG/L	0	J
1,4-Dioxane	02/06/23	0.13	0.2	UG/L	0	J
537 TPFAS	02/06/23	298.11	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/06/23	3.12	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/06/23	2.8	3.48	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/06/23	8.31	1.74	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/06/23	3.67	1.65	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/06/23	3.48	1.74	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/06/23	93.1	1.58	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/06/23	15.9	1.74	NG/L	0	
Perfluorononanoic acid (PFNA)	02/06/23	1.97	1.74	NG/L	0	
Perfluorooctadecanoic acid (PFODA)	02/06/23	0	3.48	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	02/06/23	1.83	1.74	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/06/23	123	1.74	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/06/23	33.5	1.74	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/06/23	3.13	1.63	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/06/23	4.3	1.74	NG/L	0	
8260 TVOC	02/06/23	0	0	UG/L	0	
537 TPFAS	02/13/23	230.44	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/13/23	2.64	1.47	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/13/23	1.54	3.3	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/13/23	7.95	1.65	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/13/23	2.8	1.57	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/13/23	3.39	1.65	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/13/23	74.4	1.5	NG/L	0	

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System Influent Data
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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorohexanoic acid (PFHxA)	02/13/23	14.3	1.65	NG/L	0	
Perfluorononanoic acid (PFNA)	02/13/23	1.59	1.65	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	02/13/23	2.92	1.65	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/13/23	97	1.65	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/13/23	15.8	1.65	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/13/23	2.38	1.55	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/13/23	3.73	1.65	NG/L	0	
8260 TVOC	02/13/23	0.38	0	UG/L	0	
Chloroform	02/13/23	0.38	0.5	UG/L	0	J
1,4-Dioxane	02/22/23	0.25	0.2	UG/L	0	
537 TPFAS	02/22/23	252.23	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	02/22/23	2.88	1.5	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	02/22/23	1.46	3.38	NG/L	0	J
Perfluorobutyric acid (PFBA)	02/22/23	7.54	1.69	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	02/22/23	3.17	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	02/22/23	3.89	1.69	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	02/22/23	76.6	1.54	NG/L	0	
Perfluorohexanoic acid (PFHxA)	02/22/23	18.3	1.69	NG/L	0	
Perfluorononanoic acid (PFNA)	02/22/23	1.95	1.69	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	02/22/23	4.25	1.69	NG/L	0	
Perfluorooctanesulfonate (PFOS)	02/22/23	106	1.69	NG/L	0	
Perfluorooctanoic acid (PFOA)	02/22/23	19.2	1.69	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	02/22/23	2.21	1.59	NG/L	0	
Perfluoropentanoic acid (PFPeA)	02/22/23	4.78	1.69	NG/L	0	
8260 TVOC	02/22/23	0.38	0	UG/L	0	
Chloroform	02/22/23	0.38	0.5	UG/L	0	J
1,4-Dioxane	03/01/23	0.16	0.2	UG/L	0	J
537 TPFAS	03/01/23	248.38	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/01/23	2.9	1.52	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/01/23	1.55	3.41	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/01/23	8.8	1.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/01/23	3.01	1.62	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/01/23	3.76	1.7	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/01/23	71.5	1.55	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/01/23	17.5	1.7	NG/L	0	
Perfluorononanoic acid (PFNA)	03/01/23	1.5	1.7	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/01/23	3.73	1.7	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/01/23	109	1.7	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/01/23	18.4	1.7	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/01/23	2.01	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/01/23	4.72	1.7	NG/L	0	
8260 TVOC	03/01/23	0.41	0	UG/L	0	
Chloroform	03/01/23	0.41	0.5	UG/L	0	J
1,4-Dioxane	03/06/23	0.17	0.2	UG/L	0	J
537 TPFAS	03/06/23	222.93	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/06/23	2.75	1.48	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/06/23	1.57	3.34	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/06/23	8.38	1.67	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/06/23	2.34	1.58	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/06/23	3.36	1.67	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/06/23	71	1.52	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/06/23	16.1	1.67	NG/L	0	
Perfluorononanoic acid (PFNA)	03/06/23	1.48	1.67	NG/L	0	J

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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorooctane sulfonamide (PFOSAm)	03/06/23	4.09	1.67	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/06/23	86.3	1.67	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/06/23	19	1.67	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/06/23	2.02	1.57	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/06/23	4.54	1.67	NG/L	0	
8260 TVOC	03/06/23	0.39	0	UG/L	0	
Chloroform	03/06/23	0.39	0.5	UG/L	0	J
1,4-Dioxane	03/15/23	0.13	0.2	UG/L	0	J
537 TPFAS	03/15/23	256.62	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	03/15/23	1.65	3.56	NG/L	0	J
Perfluorobutanesulfonate (PFBS)	03/15/23	3.26	1.67	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/15/23	1.59	3.74	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/15/23	9.85	1.87	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/15/23	3.24	1.78	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/15/23	4	1.87	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/15/23	89.1	1.7	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/15/23	17.4	1.87	NG/L	0	
Perfluorononanoic acid (PFNA)	03/15/23	1.37	1.87	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	03/15/23	4.51	1.87	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/15/23	97.3	1.87	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/15/23	16.6	1.87	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/15/23	2.17	1.76	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/15/23	4.58	1.87	NG/L	0	
8260 TVOC	03/15/23	0.41	0	UG/L	0	
Chloroform	03/15/23	0.41	0.5	UG/L	0	J
537 TPFAS	03/20/23	242.93	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/20/23	3.02	1.57	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/20/23	1.81	3.52	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/20/23	8.46	1.76	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/20/23	2.36	1.67	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/20/23	3.62	1.76	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/20/23	82	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/20/23	17.4	1.76	NG/L	0	
Perfluorononanoic acid (PFNA)	03/20/23	1.98	1.76	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	03/20/23	3.87	1.76	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/20/23	92.3	1.76	NG/L	0	
Perfluorooctanoic acid (PFOA)	03/20/23	19	1.76	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/20/23	2.25	1.66	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/20/23	4.86	1.76	NG/L	0	
8260 TVOC	03/20/23	0.38	0	UG/L	0	
Chloroform	03/20/23	0.38	0.5	UG/L	0	J
1,4-Dioxane	03/29/23	0.14	0.2	UG/L	0	J
537 TPFAS	03/29/23	258.42	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	03/29/23	2.91	1.52	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	03/29/23	1.47	3.41	NG/L	0	J
Perfluorobutyric acid (PFBA)	03/29/23	9.1	1.71	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	03/29/23	2.9	1.62	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	03/29/23	3.02	1.71	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	03/29/23	96.5	1.55	NG/L	0	
Perfluorohexanoic acid (PFHxA)	03/29/23	16.2	1.71	NG/L	0	
Perfluorononanoic acid (PFNA)	03/29/23	1.75	1.71	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	03/29/23	3.49	1.71	NG/L	0	
Perfluorooctanesulfonate (PFOS)	03/29/23	96.8	1.71	NG/L	0	

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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorooctanoic acid (PFOA)	03/29/23	17.1	1.71	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	03/29/23	2.49	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	03/29/23	4.69	1.71	NG/L	0	
8260 TVOC	03/29/23	0.38	0	UG/L	0	
Chloroform	03/29/23	0.38	0.5	UG/L	0	J
1,4-Dioxane	04/07/23	0.17	0.2	UG/L	0	J
537 TPFAS	04/07/23	164.26	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/07/23	2.79	1.64	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/07/23	1.23	3.67	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/07/23	7.94	1.84	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/07/23	2.01	1.75	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/07/23	2.97	1.84	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/07/23	59.8	1.67	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/07/23	10.3	1.84	NG/L	0	
Perfluorononanoic acid (PFNA)	04/07/23	1.72	1.84	NG/L	0	J
Perfluorooctane sulfonamide (PFOSAm)	04/07/23	1.05	1.84	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	04/07/23	54.9	1.84	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/07/23	13.3	1.84	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/07/23	2.36	1.73	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/07/23	3.89	1.84	NG/L	0	
8260 TVOC	04/07/23	0.45	0	UG/L	0	
Chloroform	04/07/23	0.45	0.5	UG/L	0	J
537 TPFAS	04/29/23	228.59	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	04/29/23	2.43	1.51	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	04/29/23	1.56	3.39	NG/L	0	J
Perfluorobutyric acid (PFBA)	04/29/23	9.44	1.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	04/29/23	2.61	1.61	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	04/29/23	2.92	1.7	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	04/29/23	86.7	1.54	NG/L	0	
Perfluorohexanoic acid (PFHxA)	04/29/23	16.1	1.7	NG/L	0	
Perfluorononanoic acid (PFNA)	04/29/23	1.79	1.7	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	04/29/23	2.96	1.7	NG/L	0	
Perfluorooctanesulfonate (PFOS)	04/29/23	78.2	1.7	NG/L	0	
Perfluorooctanoic acid (PFOA)	04/29/23	17.1	1.7	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	04/29/23	2.5	1.59	NG/L	0	
Perfluoropentanoic acid (PFPeA)	04/29/23	4.28	1.7	NG/L	0	
8260 TVOC	04/29/23	0.46	0	UG/L	0	
Chloroform	04/29/23	0.46	0.5	UG/L	0	J
537 TPFAS	05/05/23	213.75	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/05/23	2.36	1.58	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/05/23	1.55	3.56	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/05/23	9.24	1.78	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/05/23	2.14	1.69	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	05/05/23	2.91	1.78	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/05/23	79	1.62	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/05/23	13.9	1.78	NG/L	0	
Perfluorononanoic acid (PFNA)	05/05/23	2.04	1.78	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	05/05/23	2.7	1.78	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/05/23	75.6	1.78	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/05/23	15.2	1.78	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/05/23	2.37	1.67	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/05/23	4.74	1.78	NG/L	0	
8260 TVOC	05/05/23	0.44	0	UG/L	0	

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System Influent Data
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Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Chloroform	05/05/23	0.44	0.5	UG/L	0	J
1,4-Dioxane	05/15/23	0.16	0.2	UG/L	0	J
537 TPFAS	05/15/23	207.12	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	05/15/23	2.63	1.5	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	05/15/23	1.59	3.36	NG/L	0	J
Perfluorobutyric acid (PFBA)	05/15/23	8.21	1.68	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	05/15/23	2.43	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	05/15/23	2.8	1.68	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	05/15/23	68.3	1.53	NG/L	0	
Perfluorohexanoic acid (PFHxA)	05/15/23	14	1.68	NG/L	0	
Perfluorononanoic acid (PFNA)	05/15/23	1.91	1.68	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	05/15/23	3.02	1.68	NG/L	0	
Perfluorooctanesulfonate (PFOS)	05/15/23	79.5	1.68	NG/L	0	
Perfluorooctanoic acid (PFOA)	05/15/23	16.7	1.68	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	05/15/23	1.82	1.58	NG/L	0	
Perfluoropentanoic acid (PFPeA)	05/15/23	4.21	1.68	NG/L	0	
8260 TVOC	05/15/23	0.8	0	UG/L	0	
Chloroform	05/15/23	0.56	0.5	UG/L	0	
Dichlorodifluoromethane	05/15/23	0.24	0.5	UG/L	0	J
1,4-Dioxane	06/07/23	0.17	0.2	UG/L	0	J
537 TPFAS	06/07/23	214.82	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/07/23	2.57	1.55	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	06/07/23	1.45	3.48	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/07/23	8.64	1.74	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/07/23	2.27	1.65	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	06/07/23	2.82	1.74	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/07/23	80.2	1.59	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/07/23	13	1.74	NG/L	0	
Perfluorononanoic acid (PFNA)	06/07/23	2.02	1.74	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	06/07/23	3.22	1.74	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/07/23	75.6	1.74	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/07/23	16.5	1.74	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/07/23	2.22	1.64	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/07/23	4.31	1.74	NG/L	0	
8260 TVOC	06/07/23	0.48	0	UG/L	0	
Chloroform	06/07/23	0.48	0.5	UG/L	0	J
537 TPFAS	06/20/23	179.52	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	06/20/23	2.38	1.49	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	06/20/23	1.39	3.35	NG/L	0	J
Perfluorobutyric acid (PFBA)	06/20/23	6.51	1.68	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	06/20/23	2.02	1.59	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	06/20/23	2.73	1.68	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	06/20/23	58.7	1.52	NG/L	0	
Perfluorohexanoic acid (PFHxA)	06/20/23	12.9	1.68	NG/L	0	
Perfluorononanoic acid (PFNA)	06/20/23	1.94	1.68	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	06/20/23	3.07	1.68	NG/L	0	
Perfluorooctanesulfonate (PFOS)	06/20/23	67	1.68	NG/L	0	
Perfluorooctanoic acid (PFOA)	06/20/23	15.3	1.68	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	06/20/23	1.69	1.58	NG/L	0	
Perfluoropentanoic acid (PFPeA)	06/20/23	3.89	1.68	NG/L	0	
8260 TVOC	06/20/23	0.4	0	UG/L	0	
Chloroform	06/20/23	0.4	0.5	UG/L	0	J
537 TPFAS	07/03/23	175.43	0	NG/L	0	

Table F-52
System Influent Data
OU X PFAS FFH System

2023 BNL Groundwater Status Report

Site ID: 076-422 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorobutanesulfonate (PFBS)	07/03/23	2.84	1.53	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/03/23	1.3	3.43	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/03/23	6.85	1.72	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/03/23	2.2	1.63	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/03/23	2.64	1.72	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/03/23	57.5	1.56	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/03/23	11.6	1.72	NG/L	0	
Perfluorononanoic acid (PFNA)	07/03/23	2.15	1.72	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	07/03/23	3.08	1.72	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/03/23	65.2	1.72	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/03/23	14.2	1.72	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/03/23	1.85	1.61	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/03/23	4.02	1.72	NG/L	0	
8260 TVOC	07/03/23	0.38	0	UG/L	0	
Chloroform	07/03/23	0.38	0.5	UG/L	0	J
537 TPFAS	07/20/23	190.02	0	NG/L	0	
Perfluorobutanesulfonate (PFBS)	07/20/23	3.03	1.49	NG/L	0	
Perfluorobutylsulfonamide (FBSA)	07/20/23	1.36	3.34	NG/L	0	J
Perfluorobutyric acid (PFBA)	07/20/23	6.87	1.67	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	07/20/23	2.14	1.59	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	07/20/23	2.65	1.67	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	07/20/23	65.6	1.52	NG/L	0	
Perfluorohexanoic acid (PFHxA)	07/20/23	12.4	1.67	NG/L	0	
Perfluorononanoic acid (PFNA)	07/20/23	2.45	1.67	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	07/20/23	3.08	1.67	NG/L	0	
Perfluorooctanesulfonate (PFOS)	07/20/23	67.8	1.67	NG/L	0	
Perfluorooctanoic acid (PFOA)	07/20/23	16.3	1.67	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	07/20/23	2.16	1.57	NG/L	0	
Perfluoropentanoic acid (PFPeA)	07/20/23	4.18	1.67	NG/L	0	
1633 TPFAS	08/02/23	144.6	0	NG/L	0	
8260 TVOC	08/02/23	0.45	0	UG/L	0	
Chloroform	08/02/23	0.45	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	08/02/23	2.4	1.6	NG/L	0	
Perfluorobutyric acid (PFBA)	08/02/23	5.1	6.3	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	08/02/23	1.7	1.6	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/02/23	2.5	1.6	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/02/23	50	1.6	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/02/23	9.9	1.6	NG/L	0	
Perfluorononanoic acid (PFNA)	08/02/23	2.2	1.6	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/02/23	3.4	1.6	NG/L	0	
Perfluorooctanesulfonate (PFOS)	08/02/23	49	1.6	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/02/23	13	1.6	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/02/23	1.9	1.6	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/02/23	3.5	3.2	NG/L	0	
1633 TPFAS	08/14/23	174.8	0	NG/L	0	
8260 TVOC	08/14/23	0.4	0	UG/L	0	
Chloroform	08/14/23	0.4	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	08/14/23	2.9	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	08/14/23	6.4	6.2	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	08/14/23	2.9	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	08/14/23	2.8	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	08/14/23	60	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	08/14/23	12	1.5	NG/L	0	

Table F-52
System Influent Data
OU X PFAS FFH System

2023 BNL Groundwater Status Report

Site ID: 076-422 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorononanoic acid (PFNA)	08/14/23	2.5	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	08/14/23	3.7	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	08/14/23	61	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	08/14/23	15	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	08/14/23	1.8	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	08/14/23	3.8	3.1	NG/L	0	
1633 TPFAS	09/05/23	156.5	0	NG/L	0	
8260 TVOC	09/05/23	0.32	0	UG/L	0	
Chloroform	09/05/23	0.32	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	09/05/23	2.5	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	09/05/23	6.3	5.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	09/05/23	1.8	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/05/23	2.5	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/05/23	52	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/05/23	9.8	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	09/05/23	2.3	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/05/23	4.1	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	09/05/23	55	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/05/23	15	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/05/23	1.6	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/05/23	3.6	2.8	NG/L	0	
1633 TPFAS	09/18/23	157.792	0	NG/L	0	
8260 TVOC	09/18/23	0.34	0	UG/L	0	
Chloroform	09/18/23	0.34	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	09/18/23	2.5	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	09/18/23	6	5.7	NG/L	0	
Perfluorodecanoic acid (PFDA)	09/18/23	0.092	1.4	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	09/18/23	1.9	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	09/18/23	2.8	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	09/18/23	54	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	09/18/23	10	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	09/18/23	2.6	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/18/23	4.3	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	09/18/23	54	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	09/18/23	14	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	09/18/23	1.9	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	09/18/23	3.7	2.8	NG/L	0	
1,4-Dioxane	09/18/23	0.12	0.2	UG/L	0	J
1,4-Dioxane	10/05/23	0.2	0.2	UG/L	0	HJ
1633 TPFAS	10/05/23	185.6	0	NG/L	0	
8260 TVOC	10/05/23	0.36	0	UG/L	0	
Chloroform	10/05/23	0.36	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	10/05/23	2.5	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	10/05/23	6.7	5.8	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	10/05/23	2.5	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	10/05/23	2.8	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	10/05/23	56	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/05/23	10	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	10/05/23	3.2	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/05/23	5.7	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	10/05/23	74	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/05/23	17	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/05/23	1.5	1.4	NG/L	0	

Table F-52
System Influent Data
OU X PFAS FFH System

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Site ID: 076-422 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluoropentanoic acid (PFPeA)	10/05/23	3.7	2.9	NG/L	0	
1633 TPFAS	10/16/23	163.49	0	NG/L	0	
8260 TVOC	10/16/23	0.56	0	UG/L	0	
Chloroform	10/16/23	0.56	0.5	UG/L	0	
Perfluorobutanesulfonate (PFBS)	10/16/23	2.5	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	10/16/23	1.4	5.9	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	10/16/23	1	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	10/16/23	1.3	1.5	NG/L	0	J
Perfluorohexanesulfonate (PFHxS)	10/16/23	34	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	10/16/23	5.2	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	10/16/23	7.3	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	10/16/23	0.39	1.5	NG/L	0	J
Perfluorooctanesulfonate (PFOS)	10/16/23	100	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	10/16/23	4.2	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	10/16/23	2.6	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	10/16/23	3.6	2.9	NG/L	0	
1,4-Dioxane	10/16/23	0.2	0.2	UG/L	0	
1633 TPFAS	11/02/23	159.8	0	NG/L	0	
8260 TVOC	11/02/23	0.36	0	UG/L	0	
Chloroform	11/02/23	0.36	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	11/02/23	2.1	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	11/02/23	6.4	5.7	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	11/02/23	2.1	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	11/02/23	2.7	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/02/23	55	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/02/23	11	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	11/02/23	2.9	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	11/02/23	4.1	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/02/23	53	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/02/23	15	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/02/23	1.5	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/02/23	4	2.9	NG/L	0	
1,4-Dioxane	11/02/23	0.17	0.2	UG/L	0	J
1633 TPFAS	11/18/23	151.3	0	NG/L	0	
8260 TVOC	11/18/23	0.35	0	UG/L	0	
Chloroform	11/18/23	0.35	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	11/18/23	2.2	1.4	NG/L	0	
Perfluorobutyric acid (PFBA)	11/18/23	5.8	5.8	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	11/18/23	1.9	1.4	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	11/18/23	2.6	1.4	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	11/18/23	52	1.4	NG/L	0	
Perfluorohexanoic acid (PFHxA)	11/18/23	10	1.4	NG/L	0	
Perfluorononanoic acid (PFNA)	11/18/23	2.7	1.4	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	11/18/23	2.9	1.4	NG/L	0	
Perfluorooctanesulfonate (PFOS)	11/18/23	53	1.4	NG/L	0	
Perfluorooctanoic acid (PFOA)	11/18/23	13	1.4	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	11/18/23	1.5	1.4	NG/L	0	
Perfluoropentanoic acid (PFPeA)	11/18/23	3.7	2.9	NG/L	0	
1,4-Dioxane	11/18/23	0.16	0.2	UG/L	0	J
1633 TPFAS	12/05/23	183.32	0	NG/L	0	
8260 TVOC	12/05/23	0.36	0	UG/L	0	
Chloroform	12/05/23	0.36	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	12/05/23	2.5	1.5	NG/L	0	

Table F-52
System Influent Data
OU X PFAS FFH System

2023 BNL Groundwater Status Report

Site ID: 076-422 (Influent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
Perfluorobutyric acid (PFBA)	12/05/23	7.2	5.9	NG/L	0	
Perfluorodecanoic acid (PFDA)	12/05/23	0.12	1.5	NG/L	0	J
Perfluoroheptanesulfonate (PFHpS)	12/05/23	2.2	1.5	NG/L	0	
Perfluoroheptanoic acid (PFHpA)	12/05/23	2.9	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	12/05/23	63	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/05/23	12	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	12/05/23	3.3	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	12/05/23	4.2	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	12/05/23	65	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/05/23	15	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/05/23	1.7	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/05/23	4.2	2.9	NG/L	0	
1,4-Dioxane	12/05/23	0.15	0.2	UG/L	0	J
1633 TPFAS	12/16/23	168.7	0	NG/L	0	
8260 TVOC	12/16/23	0.35	0	UG/L	0	
Chloroform	12/16/23	0.35	0.5	UG/L	0	J
Perfluorobutanesulfonate (PFBS)	12/16/23	2.7	1.5	NG/L	0	
Perfluorobutyric acid (PFBA)	12/16/23	7.1	6.1	NG/L	0	
Perfluoroheptanesulfonate (PFHpS)	12/16/23	1.4	1.5	NG/L	0	J
Perfluoroheptanoic acid (PFHpA)	12/16/23	2.5	1.5	NG/L	0	
Perfluorohexanesulfonate (PFHxS)	12/16/23	59	1.5	NG/L	0	
Perfluorohexanoic acid (PFHxA)	12/16/23	10	1.5	NG/L	0	
Perfluorononanoic acid (PFNA)	12/16/23	3.2	1.5	NG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	12/16/23	4.3	1.5	NG/L	0	
Perfluorooctanesulfonate (PFOS)	12/16/23	58	1.5	NG/L	0	
Perfluorooctanoic acid (PFOA)	12/16/23	15	1.5	NG/L	0	
Perfluoropentanesulfonate (PFPeS)	12/16/23	1.5	1.5	NG/L	0	
Perfluoropentanoic acid (PFPeA)	12/16/23	4	3	NG/L	0	
1,4-Dioxane	12/16/23	0.15	0.2	UG/L	0	J

J = Estimated Value below the method detection limit of 0.50 UG/L

B = Compound was found in both the sample and associated laboratory blank.

Table F-53
System Effluent Data
OU X PFAS FFH System

2023 BNL Groundwater Status Report

Site ID:076-424 (Effluent)

Chemical Name	Sample Date	Value	Detlim	Units	Depth	Qual
537 TPFAS	01/26/23	0	0	NG/L	0	
Strontium-90	01/26/23	0.397	0.361	PCI/L	0	N2
8260 TVOC	01/26/23	0	0	UG/L	0	
537 TPFAS	01/27/23	0	0	NG/L	0	
8260 TVOC	01/27/23	0	0	UG/L	0	
537 TPFAS	01/30/23	0	0	NG/L	0	
8260 TVOC	01/30/23	0	0	UG/L	0	
8260 TVOC	01/31/23	0	0	UG/L	0	
537 TPFAS	01/31/23	0	0	NG/L	0	
537 TPFAS	02/01/23	0	0	NG/L	0	
8260 TVOC	02/01/23	0	0	UG/L	0	
537 TPFAS	02/06/23	0	0	NG/L	0	
8260 TVOC	02/06/23	0	0	UG/L	0	
537 TPFAS	02/13/23	0	0	NG/L	0	
8260 TVOC	02/13/23	0	0	UG/L	0	
1,4-Dioxane	02/22/23	0.21	0.2	UG/L	0	
537 TPFAS	02/22/23	0	0	NG/L	0	
8260 TVOC	02/22/23	0	0	UG/L	0	
1,4-Dioxane	03/01/23	0.18	0.2	UG/L	0	J
537 TPFAS	03/01/23	0	0	NG/L	0	
8260 TVOC	03/01/23	0	0	UG/L	0	
1,4-Dioxane	03/06/23	0.16	0.21	UG/L	0	J
537 TPFAS	03/06/23	0	0	NG/L	0	
8260 TVOC	03/06/23	0	0	UG/L	0	
1,4-Dioxane	03/15/23	0.14	0.2	UG/L	0	J
537 TPFAS	03/15/23	0	0	NG/L	0	
8260 TVOC	03/15/23	0	0	UG/L	0	
537 TPFAS	03/20/23	0	0	NG/L	0	
8260 TVOC	03/20/23	0	0	UG/L	0	
1,4-Dioxane	03/29/23	0.15	0.2	UG/L	0	J
537 TPFAS	03/29/23	1.69	0	NG/L	0	
Fluorotelomer sulfonate 6:2 (6:2 FTS)	03/29/23	1.69	3.29	NG/L	0	J
8260 TVOC	03/29/23	0	0	UG/L	0	
1,4-Dioxane	04/07/23	0.15	0.2	UG/L	0	J
537 TPFAS	04/07/23	0	0	NG/L	0	
8260 TVOC	04/07/23	0	0	UG/L	0	
537 TPFAS	04/29/23	0	0	NG/L	0	
Strontium-90	04/29/23	0.888	0.578	PCI/L	0	N2
8260 TVOC	04/29/23	0	0	UG/L	0	
537 TPFAS	05/05/23	0	0	NG/L	0	
8260 TVOC	05/05/23	0	0	UG/L	0	
537 TPFAS	05/15/23	0	0	NG/L	0	
8260 TVOC	05/15/23	0	0	UG/L	0	
1,4-Dioxane	06/07/23	0.17	0.2	UG/L	0	J
537 TPFAS	06/07/23	0	0	NG/L	0	

Table F-53
System Effluent Data
OU X PFAS FFH System

2023 BNL Groundwater Status Report

Site ID:076-424 (Effluent)

	Sample					
8260 TVOC	06/07/23	0	0	UG/L	0	
537 TPFAS	06/20/23	0	0	NG/L	0	
8260 TVOC	06/20/23	0	0	UG/L	0	
537 TPFAS	07/03/23	0	0	NG/L	0	
8260 TVOC	07/03/23	0	0	UG/L	0	
537 TPFAS	07/20/23	0	0	NG/L	0	
1633 TPFAS	08/02/23	0	0	NG/L	0	
8260 TVOC	08/02/23	0	0	UG/L	0	
1633 TPFAS	08/14/23	0	0	NG/L	0	
8260 TVOC	08/14/23	0	0	UG/L	0	
1633 TPFAS	09/05/23	0.12	0	NG/L	0	
8260 TVOC	09/05/23	0	0	UG/L	0	
Perfluorooctane sulfonamide (PFOSAm)	09/05/23	0.12	1.4	NG/L	0	J
1633 TPFAS	09/18/23	0	0	NG/L	0	
8260 TVOC	09/18/23	0	0	UG/L	0	
1,4-Dioxane	09/18/23	0.1	0.2	UG/L	0	J
1,4-Dioxane	10/05/23	0.26	0.2	UG/L	0	HJ
1633 TPFAS	10/05/23	0	0	NG/L	0	
8260 TVOC	10/05/23	0	0	UG/L	0	
Strontium-90	10/05/23	0.744	0.319	PCI/L	0	
1633 TPFAS	10/16/23	0	0	NG/L	0	
8260 TVOC	10/16/23	0	0	UG/L	0	
1,4-Dioxane	10/16/23	0.16	0.2	UG/L	0	J
1633 TPFAS	11/02/23	0.64	0	NG/L	0	
8260 TVOC	11/02/23	0	0	UG/L	0	
Perfluorobutyric acid (PFBA)	11/02/23	0.64	5.8	NG/L	0	J
1,4-Dioxane	11/02/23	0.16	0.2	UG/L	0	J
1633 TPFAS	11/18/23	1.2	0	NG/L	0	
8260 TVOC	11/18/23	0	0	UG/L	0	
Perfluorobutyric acid (PFBA)	11/18/23	1.2	6.2	NG/L	0	J
1,4-Dioxane	11/18/23	0.15	0.2	UG/L	0	J
1633 TPFAS	12/05/23	2.8	0	NG/L	0	
8260 TVOC	12/05/23	0	0	UG/L	0	
Perfluorobutyric acid (PFBA)	12/05/23	2.8	6.5	NG/L	0	J
Strontium-90	12/05/23	1.07	0.342	PCI/L	0	
1,4-Dioxane	12/05/23	0.15	0.2	UG/L	0	J
1633 TPFAS	12/16/23	3.7	0	NG/L	0	
8260 TVOC	12/16/23	0	0	UG/L	0	
Perfluorobutyric acid (PFBA)	12/16/23	3.7	6.2	NG/L	0	J
1,4-Dioxane	12/16/23	0.15	0.2	UG/L	0	J

J = Estimated Value below the method detection limit of 0.50 UG/L

B = Compound was found in both the sample and associated laboratory blank.

Table F-54
Pumpage and Mass Removal
OU X PFAS FFH System

2023 BNL Groundwater Status Report

DATE	Gallons Pumped	TPFAS (NG/L)	LBS/DAY	CUM. LBS
01/26/23	1,883,697	337.35	0.0053	0.0053
01/27/23	72,450	333.10	0.0002	0.0055
01/30/23	217,350	319.44	0.0006	0.0061
01/31/23	72,450	280.10	0.0002	0.0062
02/01/23	345,313	302.79	0.0009	0.0071
02/06/23	1,726,569	298.11	0.0043	0.0114
02/13/23	2,417,197	230.44	0.0046	0.0160
02/22/23	3,107,825	252.23	0.0065	0.0225
03/01/23	2,762,511	248.38	0.0057	0.0282
03/06/23	1,778,687	222.93	0.0033	0.0315
03/15/23	3,201,636	256.62	0.0068	0.0383
03/20/23	1,778,687	242.93	0.0036	0.0419
03/29/23	3,201,636	258.42	0.0069	0.0488
04/07/23	2,698,328	164.26	0.0037	0.0525
04/29/23	7,420,402	228.59	0.0141	0.0665
05/05/23	2,023,746	213.25	0.0036	0.0701
05/15/23	3,372,910	207.12	0.0058	0.0759
06/07/23	7,717,693	214.82	0.0138	0.0897
06/20/23	4,384,783	179.52	0.0065	0.0962
07/03/23	5,162,687	175.43	0.0075	0.1037
07/20/23	5,162,687	190.02	0.0081	0.1119
08/02/23	5,314,644	144.60	0.0064	0.1182
08/14/23	5,314,644	174.80	0.0077	0.1260
09/05/23	4,081,651	156.50	0.0053	0.1313
09/18/23	4,081,651	157.79	0.0053	0.1366
10/05/23	3,375,217	185.60	0.0052	0.1418
10/16/23	3,375,217	163.49	0.0046	0.1464
11/02/23	4,970,972	159.80	0.0066	0.1530
11/18/23	4,970,972	151.30	0.0062	0.1592
12/05/23	4,752,113	183.30	0.0072	0.1664
12/16/23	4,752,113	168.70	0.0067	0.1731

APPENDIX G

USABILITY REPORTS

Attachment 1

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project	WFWSW - P1
Sampling Contractor	EPD Field Sampling Team
Analytical Laboratory	General Engineering
Analytical Method	EPA 901.1, EPA 905.0/DOE RP501, EPA 906.0 Mod
Sample Delivery Group	44592
COC No./Sample IDs	44592 / TB-1, 109-03, 117-04, 117-02
Date Sampled	1/3/2023
Parameter(s)	Radionuclides

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs	X			
Detection Limits (CRDL)	X			
Duplicates			X	
Matrix Spike (MS/MSD)			X	
MS/MSD Recoveries			X	
Field Blanks			X	
Equipment Blanks			X	
Method Blanks	X			
Chain-of-Custody Forms	X			
Field Sampling Logs			X	
Holding Times	X			
Nonconformance			X	
Other			X	

EI.80.QR.23

Reviewed by : _____
(Project Manager)
Larry D. Singh

Date : _____
02/27/2023

Site ID Verification Data

Sample ID	Site ID
44592-001	TB-1
44592-002	109-03
44592-003	117-04
44592-004	117-02

Attachment 1

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project	SITEWD - O3S
Sampling Contractor	EPD Field Sampling Team
Analytical Laboratory	General Engineering
Analytical Method	EPA 905.0/DOE RP501
Sample Delivery Group	44866
COC No./Sample IDs	44866 / 075-419
Date Sampled	2/23/2023
Parameter(s)	Radionuclides

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs	X			
Detection Limits (CRDL)	X			
Duplicates			X	
Matrix Spike (MS/MSD)			X	
MS/MSD Recoveries			X	
Field Blanks			X	
Equipment Blanks			X	
Method Blanks	X			
Chain-of-Custody Forms	X			
Field Sampling Logs			X	
Holding Times	X			
Nonconformance			X	
Other			X	

EI.80.QR.23

Reviewed by : _____
(Project Manager)
Larry D. Singh

Date : _____
03/30/2023

Site ID Verification Data

Sample ID	Site ID
44866-001	075-419

Attachment 1

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project	SITEWD - O3S
Sampling Contractor	EPD Field Sampling Team
Analytical Laboratory	General Engineering
Analytical Method	EPA 905.0/DOE RP501
Sample Delivery Group	45364A
COC No./Sample IDs	45364 / 075-701, 075-664
Date Sampled	7/26/2023
Parameter(s)	Radionuclides

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs	X			
Detection Limits (CRDL)	X			
Duplicates			X	
Matrix Spike (MS/MSD)	X			
MS/MSD Recoveries	X			
Field Blanks			X	
Equipment Blanks			X	
Method Blanks	X			
Chain-of-Custody Forms	X			
Field Sampling Logs			X	
Holding Times	X			
Nonconformance			X	
Other			X	

Reviewed by : _____ EI.80.QR.23 Date : _____
(Project Manager)
Larry D. Singh 09/13/2023

Site ID Verification Data

Sample ID	Site ID
45364-001	
45364-001	
45364-001	
45364-001	075-701
45364-002	075-664

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	SITEWD - MAG
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	Test America-Colorado
Analytical Method and/or Parameter :	8260C
Sample Delivery Group :	44977A
COC No. / Sample IDs :	44977 / TB-1, 000-458, 000-459
Date Sampled :	3/28/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :			X	
Matrix Spike (MS/MSD) :			X	
MS/MSD Recoveries :			X	
Trip Blanks :	X			
Field Blanks :			X	
Equipment Blanks :			X	
Method Blanks :	X			
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :	X			
Surrogates :	X			
Other :			X	

Reviewed by : Larry D. Singh
(Subject Matter Expert)

EI.90.QR.23

Date : 04/14/2023

Reviewed by : _____
(Project Manager)

Date : _____

Site ID Verification Data

Sample ID	Site ID
44977-001	TB-1
44977-002	000-458
44977-003	000-459

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	OU6 - MM
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	General Engineering
Analytical Method and/or Parameter :	EPA 300.0, SM 2520B
Sample Delivery Group :	45173
COC No. / Sample IDs :	45173 / Meadow Marsh
Date Sampled :	5/23/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :			X	
Matrix Spike (MS/MSD) :	X			
MS/MSD Recoveries :	X			
Trip Blanks :			X	
Field Blanks :			X	
Equipment Blanks :			X	
Method Blanks :	X			
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :			X	
Surrogates :			X	
Other :			X	

EI.90.QR.23

Reviewed by : Larry D.Singh
(Subject Matter Expert)

Date : 07/06/2023

Reviewed by : _____
(Project Manager)

Date : _____

Site ID Verification Data

Sample ID	Site ID
45173-001	
45173-001	
45173-001	
45173-001	Meadow Marsh

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	OU10 - PFAS14
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	Test America-Colorado
Analytical Method and/or Parameter :	8260C, Draft-2 1633
Sample Delivery Group :	45375
COC No. / Sample IDs :	45375 / TB-1, 076-422, 076-423, 076-424
Date Sampled :	8/2/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :			X	
Matrix Spike (MS/MSD) :			X	
MS/MSD Recoveries :			X	
Trip Blanks :			X	
Field Blanks :			X	
Equipment Blanks :			X	
Method Blanks :		X		Sample 45375-003(076-423) for method 1633 has been qualified "R" rejected due to possible sample contamination.
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :	X			
Surrogates :	X			
Other :			X	

Reviewed by : Larry D. Singh
(Subject Matter Expert)

EI.90.QR.23

Date : 09/05/2023

Reviewed by : _____
(Project Manager)

Date : _____

Site ID Verification Data

Sample ID	Site ID
45375-001	TB-1
45375-002	076-422
45375-003	076-423
45375-004	076-424

Method Blank Verification Data

Sample ID	Compound	Prev Val	Prev Det Lim	New Val	New Det Lim	Lab Qual	New Qual
45375-003	Perfluoroundecanoic acid (PFUdA)	1.50	1.50			U	R
45375-003	Perfluorotridecanoic acid (PFTrDA)	1.50	1.50			U	R
45375-003	Perfluorotetradecanoic acid (PFTeDA)	1.50	1.50			U	R
45375-003	Perfluoropentanoic acid (PFPeA)	0.50	3.10			J	R
45375-003	Perfluoropentanesulfonate (PFPeS)	1.50	1.50			U	R
45375-003	Perfluorooctanoic acid (PFOA)	1.60	1.50				R
45375-003	Perfluorooctanesulfonate (PFOS)	6.20	1.50				R
45375-003	Perfluorooctane sulfonamide (PFOSAm)	0.54	1.50			J	R
45375-003	Perfluorononanoic acid (PFNA)	0.25	1.50			J	R
45375-003	Perfluorononanesulfonate (PFNS)	1.50	1.50			U	R
45375-003	Perfluorohexanoic acid (PFHxA)	1.10	1.50			J	R
45375-003	Perfluorohexanesulfonate (PFHxS)	6.80	1.50				R
45375-003	Perfluoroheptanoic acid (PFHpA)	0.31	1.50			J	R
45375-003	Perfluoroheptanesulfonate (PFHpS)	1.50	1.50			U	R
45375-003	Perfluorododecanoic acid (PFDoA)	1.50	1.50			U	R
45375-003	Perfluorododecane sulfonic acid (PFDoS)	1.50	1.50			U	R
45375-003	Perfluorodecanoic acid (PFDA)	1.50	1.50			U	R
45375-003	Perfluorodecanesulfonate (PFDS)	1.50	1.50			U	R
45375-003	Perfluorobutyric acid (PFBA)	2.80	6.10			J	R
45375-003	Perfluorobutanesulfonate (PFBS)	0.19	1.50			J	R
45375-003	Perfluoro-4-methoxybutanoic acid (PFMBA)	3.10	3.10			U	R
45375-003	Perfluoro-3-methoxypropanoic acid (PFMPA)	3.10	3.10			U	R
45375-003	Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	3.10	3.10			U	R
45375-003	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.10	3.10			U	R
45375-003	N-Methylperfluorooctane sulfonamido ethanol (NMeFOSE)	15	15			U	R
45375-003	N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.50	1.50			U	R
45375-003	N-Methylperfluorooctane sulfonamide (NMeFOSAA)	1.50	1.50			U	R
45375-003	N-Ethylperfluorooctane sulfonamido ethanol (NEtFOSE)	15	15			U	R
45375-003	N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.50	1.50			U	R
45375-003	N-Ethylperfluorooctane sulfonamide (EtFOSAm)	1.50	1.50			U	R
45375-003	Hexafluoropropyleneoxide dimer acid (HFPO-DA)(Gen-X)	6.10	6.10			U	R
45375-003	Fluorotelomer sulfonate 6:2 (6:2 FTS)	6.10	6.10			U	R
45375-003	Fluorotelomer sulfonate 4:2 (4:2 FTS)	6.10	6.10			U	R
45375-003	D9-N-ETFOSE-M	260					R
45375-003	D7-N-MEFOSE-M	260					R
45375-003	D5-NETPFOSA	20					R
45375-003	D5-NETFOSAA	66					R
45375-003	D3-NMEPFOSA	20					R
45375-003	D3-NMEFOSAA	59					R
45375-003	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9-Cl-PF3ONS)	6.10	6.10			U	R
45375-003	4,8-Dioxa-3H-perfluorononanoic acid (DONA)	6.10	6.10			U	R
45375-003	4,4,5,5,6,6-Heptafluorohexanoic acid (3:3 FTCA)	7.70	7.70			U	R
45375-003	2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA)	38	38			U	R
45375-							

003	2H,2H,3H,3H-Perfluorodecanoic acid (7:3 FTCA)	38	38			U	R
45375-003	1H, 1H, 2H, 2H-Perfluorodecane sulfonic acid (8:2 FTS)	6.10	6.10			U	R
45375-003	1633 TPFAS	20.29	0				R
45375-003	13C9 PFNA	13					R
45375-003	13C8 PFOSA	28					R
45375-003	13C8 PFOS	25					R
45375-003	13C8 PFOA	26					R
45375-003	13C7 PFUNA	13					R
45375-003	13C6 PFDA	12					R
45375-003	13C5 PFHXA	24					R
45375-003	13C5 PEPEA	48					R
45375-003	13C4 PFHPA	21					R
45375-003	13C4 PFBA	100					R
45375-003	13C3 PFHXS	25					R
45375-003	13C3 PFHXS	23					R
45375-003	13C3 PFBS	29					R
45375-003	13C3 HFPO-DA	77					R
45375-003	13C2 PFTEDA	11					R
45375-003	13C2 PFDOA	11					R
45375-003	13C2 8:2 FTS	71					R
45375-003	13C2 6:2 FTS	56					R
45375-003	13C2 4:2 FTS	62					R
45375-003	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11-Cl-PF3OUdS)	6.10	6.10			U	R

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	OU10 - PFAS14
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	Test America Buffalo
Analytical Method and/or Parameter :	8270D SIM ID
Sample Delivery Group :	45385
COC No. / Sample IDs :	45385 / 084-99, 084-100, 084-101
Date Sampled :	8/3/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :			X	
Matrix Spike (MS/MSD) :			X	
MS/MSD Recoveries :			X	
Trip Blanks :			X	
Field Blanks :			X	
Equipment Blanks :			X	
Method Blanks :	X			
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :	X			
Surrogates :	X			
Other :			X	

EI.90.QR.23

Reviewed by : Larry D. Singh
(Subject Matter Expert)

Date : 08/22/2023

Reviewed by : _____
(Project Manager)

Date : _____

Site ID Verification Data

Sample ID	Site ID
45385-001	084-99
45385-002	084-100
45385-003	084-101

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	SITEWD - LIPA
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	Test America-Colorado
Analytical Method and/or Parameter :	8260C
Sample Delivery Group :	45511
COC No. / Sample IDs :	45511 / 000-131, 000-451
Date Sampled :	8/30/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :			X	
Matrix Spike (MS/MSD) :			X	
MS/MSD Recoveries :			X	
Trip Blanks :			X	
Field Blanks :			X	
Equipment Blanks :			X	
Method Blanks :	X			
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :			X	
Surrogates :	X			
Other :			X	

Reviewed by : Larry D. Singh
(Subject Matter Expert)

EI.90.QR.23

Date : 10/19/2023

Reviewed by : _____
(Project Manager)

Date : _____

Site ID Verification Data

Sample ID	Site ID
45511-001	000-131
45511-002	000-451

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	SITEWD - O3WSB
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	Test America-Colorado
Analytical Method and/or Parameter :	8260C
Sample Delivery Group :	45532
COC No. / Sample IDs :	45532 / 000-558, 000-559, 119-06, 119-10, 111-16, 130-11, 130-10, 130-09
Date Sampled :	9/7/2023, 9/8/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :			X	
Matrix Spike (MS/MSD) :			X	
MS/MSD Recoveries :			X	
Trip Blanks :			X	
Field Blanks :			X	
Equipment Blanks :			X	
Method Blanks :	X			
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :			X	
Surrogates :	X			
Other :			X	

Reviewed by : Larry D. Singh (Subject Matter Expert) EI.90.QR.23 Date : 10/19/2023

Reviewed by : _____ (Project Manager) Date : _____

Site ID Verification Data

Sample ID	Site ID
45532-001	000-558
45532-002	000-559
45532-003	119-06
45532-004	119-10
45532-005	111-16
45532-006	130-11
45532-007	130-10
45532-008	130-09

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	SITEWD - CLF
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	Test America-Colorado
Analytical Method and/or Parameter :	8260C
Sample Delivery Group :	45555
COC No. / Sample IDs :	45555 / TB-1, FB-1, BD-1, 098-99, 088-109
Date Sampled :	9/14/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :	X			
Matrix Spike (MS/MSD) :	X			
MS/MSD Recoveries :	X			
Trip Blanks :	X			
Field Blanks :	X			
Equipment Blanks :			X	
Method Blanks :	X			
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :			X	
Surrogates :	X			
Other :			X	

EI.90.QR.23

Reviewed by : Larry D. Singh
(Subject Matter Expert)

Date : 10/20/2023

Reviewed by : _____
(Project Manager)

Date : _____

Site ID Verification Data

Sample ID	Site ID
45555-001	TB-1
45555-002	FB-1
45555-003	BD-1
45555-004	098-99
45555-005	088-109
45555-005	088-109
45555-005	088-109

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	TS - EMC
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	General Engineering
Analytical Method and/or Parameter :	draft EPA 1633
Sample Delivery Group :	45619
COC No. / Sample IDs :	45619 / 000-441, 000-444
Date Sampled :	10/5/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :			X	
Matrix Spike (MS/MSD) :			X	
MS/MSD Recoveries :			X	
Trip Blanks :			X	
Field Blanks :			X	
Equipment Blanks :			X	
Method Blanks :	X			
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :			X	
Surrogates :			X	
Other :			X	

Reviewed by : Larry D. Singh
(Subject Matter Expert)

EI.90.QR.23

Date : 11/09/2023

Reviewed by : _____
(Project Manager)

Date : _____

Site ID Verification Data

Sample ID	Site ID
45619-001	000-441
45619-002	000-444

Attachment 2

Brookhaven National Laboratory

Analytical Data Package Verification Checklist

Project :	SITEWD - O3A
Sampling Contractor :	EPD Field Sampling Team
Analytical Laboratory :	Test America-Colorado
Analytical Method and/or Parameter :	8260C
Sample Delivery Group :	45624
COC No. / Sample IDs :	45624 / TB-1, 127-08, 127-09, 000-250, 000-249, BD-1, FB-1, 000-253, 000-252, 000-256, 000-255, 000-248, 000-530, 000-542, 000-259
Date Sampled :	10/10/2023, 10/11/2023, 10/12/2023, 10/13/2023

	Satisfactory	Unsatisfactory	NA	Comments
Sample IDs :	X			
Detection Limits (CRDL) :	X			
Duplicates :	X			
Matrix Spike (MS/MSD) :	X			
MS/MSD Recoveries :	X			
Trip Blanks :			X	
Field Blanks :	X			
Equipment Blanks :			X	
Method Blanks :	X			
Chain of Custody Forms :	X			
Field Sampling Logs :			X	
Holding Times :	X			
Non-Conformance Summary :			X	
Laboratory Control Standard :	X			
Surrogates :	X			
Other :			X	

Reviewed by : Larry D. Singh (Subject Matter Expert) EI.90.QR.23 Date : 10/23/2023

Reviewed by : _____ (Project Manager) Date : _____

Site ID Verification Data

Sample ID	Site ID
45624-001	TB-1
45624-002	127-08
45624-003	127-09
45624-004	000-250
45624-005	000-249
45624-005	000-249
45624-005	000-249
45624-006	BD-1
45624-007	FB-1
45624-008	000-253
45624-009	000-252
45624-010	000-256
45624-011	000-255
45624-012	000-248
45624-013	000-530
45624-014	000-542
45624-015	000-259

Table 1-1
Groundwater Standards for
Inorganic Compounds

2023 BNL Groundwater Status Report

CHEMICAL CONSTITUENT	CAS #	NYS AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES µg/L (a)	FEDERAL DRINKING WATER STANDARDS µg/L (b)	
Inorganics				
Aluminum	7429-90-5	-	200	(c)
Antimony	7440-36-0	3	6	
Arsenic	7440-38-2	25	10	
Barium	7440-39-3	1000	2000	
Beryllium	7440-41-7	3	4	
Cadmium	7440-43-9	5	5	
Calcium	7440-70-2	-	-	
Chromium	7440-47-3	50	100 total	
Cobalt	7440-48-4	-	-	
Copper	7440-50-8	200	1300	
Cyanide	57-12-5	200	200	
Iron	7439-89-6	300	300	(c)
Lead	7439-92-1	25	15	
Magnesium	7439-95-4	35000	-	
Manganese	7439-96-5	300	50	(c)
Mercury	7439-97-6	0.7	2	
Nickel	7440-02-0	100	-	
Potassium	7440-09-7	-	-	
Selenium	7782-49-2	10	50	
Silver	7440-22-4	50	100	
Sodium	7440-23-5	20000	-	(c)
Thallium	7440-28-0	0.5	2	
Vanadium	7440-62-2	-	-	
Zinc	7440-66-6	2000	5000	(c)
Hexavalent Chromium	18540-29-9	50	-	

Notes:

- No standard available
(a) NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.
(b) USEPA March 2018, Drinking Water Regulations and Health Advisories. Note that the information under MCL was converted from mg/l to µg/L in order to maintain uniform units for this table.
(c) Listed standard represents a secondary MCL, which has been developed to control the aesthetic quality of drinking water only.

NYSDEC = New York State Department of Environmental Conservation
µg/L = micrograms per liter (ppb)
mg/L = milligrams per liter (ppm)
MCL = Maximum Contaminent Level
USEPA = United Stated Environmental Protection Agency

Table 1-2
Groundwater Standards for
Pesticides and PCBs

2023 BNL Groundwater Status Report

CHEMICAL CONSTITUENT	CAS #	NYS AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES µg/L (a)	FEDERAL DRINKING WATER STANDARDS µg/L (b)
PESTICIDES & PCBs			
4,4'-DDD	72-54-8	0.3	-
4,4'-DDE	72-55-9	0.2	-
4,4'-DDT	50-29-3	0.2	-
Aldrin	309-00-2	ND	-
alpha-BHC	319-84-6	0.01	-
Chlordane	57-74-9	0.05	2
Aroclor-1016	12674-11-2	0.09 (c)	-
Aroclor-1221	11104-28-2	0.09 (c)	-
Aroclor-1232	11141-16-5	0.09 (c)	-
Aroclor-1242	53469-21-9	0.09 (c)	-
Aroclor-1248	12672-29-6	0.09 (c)	-
Aroclor-1254	11097-69-1	0.09 (c)	-
Aroclor-1260	11096-82-5	0.09 (c)	-
beta-BHC	319-85-7	0.04	-
delta-BHC	319-86-8	0.04	-
Dieldrin	60-57-1	0.004	-
Endosulfan I	959-98-8	-	-
Endosulfan II	33213-65-9	-	-
Endosulfan sulphate	1031-07-8	-	-
Endrin	72-20-8	ND	2
Endrin aldehyde	7421-93-4	5	-
Endrin ketone	53494-70-5	5	-
gamma-BHC (Lindane)	58-89-9	0.05	0.2
gamma-Chlordane	5103-74-2	-	2
Heptachlor	76-44-8	0.04	0.4
Heptachlor Epoxide	1024-57-3	0.03	0.2
Methoxychlor	72-43-5	35	40
Toxaphene	8001-35-2	0.06	3
PCB (total)	-	0.09	0.5

Notes:

- No standard available

ND Non-dectectable

(a) NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

(b) USEPA March 2018, Drinking Water Regulations and Health Advisories. Note that the information under MCL was converted from mg/l to µg/L in order to maintain uniform units for this table.

(c) Standard listed applies to the sum of these substances.

PCBs = Polychlorinated Biphenyls

NYSDEC = New York State Department of Environmental Conservation

µg/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

MCL = Maximum Contaminent Level

USEPA = United Stated Environmental Protection Agency

Table 1-3
Groundwater Standards for
Organic Compounds

2023 BNL Groundwater Status Report

CHEMICAL CONSTITUENT	CAS #	NYS AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES µg/L (a)	FEDERAL DRINKING WATER STANDARDS µg/L (b)
Volatile Organics			
1,1-Dichloroethane	75-34-3	5	-
1,1-Dichloroethene	75-35-4	5	7
1,1,1-Trichloroethane	71-55-6	5	200
1,1,2-Trichloroethane	79-00-5	1	5
1,1,2,2-Tetrachloroethane	79-34-5	5	-
1,2-Dibromo-3-chloropropane	96-12-8	0.04	0.2
1,2-Dibromoethane (EDB)	106-93-4	0.0006	0.05
1,2-Dichlorobenzene	95-50-1	3	600
1,2-Dichloroethane	107-06-2	0.6	5
1,2-Dichloropropane	78-87-5	1	5
1,3-Dichlorobenzene	541-73-1	3	600
1,4-Dichlorobenzene	106-46-7	3	75
2-Butanone	78-93-3	50	-
2-Hexanone	591-78-6	50	-
4-Methyl-2-pentanone	108-10-1	-	-
Acetone	67-64-1	50	-
Benzene	71-43-2	1	5
Bromochloromethane	74-97-5	5	-
Bromodichloromethane(THM)	75-27-4	50	80(h)
Bromoform(THM)	75-25-2	50	80(h)
Bromomethane	74-83-9	5	-
Carbon disulfide	75-15-0	60	-
Carbon Tetrachloride	56-23-5	5	5
Chlorobenzene	108-90-7	5	100
Chloroethane	75-00-3	5	-
Chloroform(THM)	67-66-3	7	80(h)
Chloromethane	74-87-3	5	-
cis-1,2-Dichloroethene	156-59-2	5	70
cis-1,3-Dichloropropene	10061-01-5	0.4(c)	-
Dibromochloromethane(THM)	124-48-1	50	80(h)
Dichlorodifluoromethane	75-71-8	5	-
Ethylbenzene	100-41-4	5	700
Methylene chloride	75-09-2	5	5
Methyl-tert-butyl ether (MTBE)	1634-04-4	10	-
Styrene	100-42-5	5	100
Tetrachloroethene	127-18-4	5	5
Toluene	108-88-3	5	1000
trans-1,2-Dichloroethene	156-60-5	5	100
trans-1,3-Dichloropropene	10061-02-6	0.4(c)	-
Trichloroethene	79-01-6	5	5
Vinyl chloride	75-01-4	2	2
Xylenes (total)	1330-20-7	5(d)	10000

Table 1-3
Groundwater Standards for
Organic Compounds

2023 BNL Groundwater Status Report

CHEMICAL CONSTITUENT	CAS #	NYS AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES µg/L (a)	FEDERAL DRINKING WATER STANDARDS µg/L (b)
Semivolatile Organics			
1,2,4-Trichlorobenzene	120-82-1	5	70
1,4-Dioxane	123-91-1	1 (g)	-
2-Chloronaphthalene	91-58-7	10	-
2-Chlorophenol	95-57-8	1(e)	-
2-Methylnaphthalene	91-57-6	-	-
2-Methylphenol	95-48-7	1(e)	-
2-Nitroaniline	88-74-4	5	-
2-Nitrophenol	88-75-5	1(e)	-
2,2'-oxybis(1-Chloropropane)	108-60-1	5	-
2,4-Dichlorophenol	120-83-2	1(e)	-
2,4-Dimethylphenol	105-67-9	1(e)	-
2,4-Dinitrophenol	51-28-5	1(e)	-
2,4-Dinitrotoluene	121-14-2	5	-
2,4,5-Trichlorophenol	95-95-4	1(e)	-
2,4,6-Trichlorophenol	88-06-2	1(e)	-
2,6-Dinitrotoluene	606-20-2	5	-
3-Nitroaniline	99-09-2	5	-
3,3'-Dichlorobenzidine	91-94-1	5	-
4-Bromophenyl phenyl ether	101-55-3	-	-
4-Chloro-3-methylphenol	59-50-7	1(e)	-
4-Chloroaniline	106-47-8	5	-
4-Chlorophenyl phenyl ether	7005-72-3	-	-
4-Methylphenol	106-44-5	1(e)	-
4-Nitroaniline	100-01-6	5	-
4-Nitrophenol	100-02-7	1(e)	-
4,6-Dinitro-2-methylphenol	534-52-1	1(e)	-
Acenaphthene	83-32-9	20	-
Acenaphthylene	208-96-8	-	-
Anthracene	120-12-7	50	-
Benzo(a)anthracene	56-55-3	0.002	-
Benzo(a)pyrene	50-32-8	ND	0.2
Benzo(b)fluoranthene	205-99-2	0.002	-
Benzo(g,h,j)perylene	191-24-2	-	-
Benzo(k)fluoranthene	207-08-9	0.002	-
bis-(2-Chloroethoxy)methane	111-91-1	5	-
bis-(2-Chloroethyl)ether	111-44-4	1	-
bis(2-Ethylhexyl)phthalate	117-81-7	5	-
Butylbenzylphthalate	85-68-7	50	-
Carbazole	86-74-8	-	-
Chrysene	218-01-9	0.002	-
Dibenzofuran	132-64-9	-	-
Dibenz(a,h)anthracene	53-70-3	-	-
Diethylphthalate	84-66-2	50	-
Dimethylphalate	131-11-3	50	-

Table 1-3
Groundwater Standards for
Organic Compounds

2023 BNL Groundwater Status Report

CHEMICAL CONSTITUENT	CAS #	NYS AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES µg/L (a)	FEDERAL DRINKING WATER STANDARDS µg/L (b)
Di-n-butylphthalate	84-74-2	50	-
Di-n-octylphthalate	117-84-0	50	-
Fluoranthene	206-44-0	50	-
Fluorene	86-73-7	50	-
Hexachlorobenzene	118-74-1	0.04	1
Hexachlorobutadiene	87-68-3	0.5	-
Hexachlorocyclopentadiene	77-47-4	5	50
Hexachloroethane	67-72-1	5	-
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	-
Isophorone	78-59-1	50	-
Naphthalene	91-20-3	10	-
Nitrobenzene	98-95-3	0.4	-
N-Nitroso-di-n-propylamine	621-64-7	-	-
N-Nitrosodiphenylamine	86-30-6	50	-
Pentachlorophenol	87-86-5	1(e)	1
Perchlorate	14797-73-0	18	-
Phenanthrene	85-01-8	50	-
Phenol	108-95-2	1(e)	-
Pyrene	129-00-0	50	-
Emerging contaminants			
Perfluorooctanoic acid (PFOA)	335-67-1	0.0067 (g)	-
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0027 (g)	-
1,4-dioxane	123-91-1	0.35 (g)	-

Notes:

- No standard available

ND Non-dectectable

(a) NYSDEC June 1998 Ambient Water Quality Standards and Guidance Values for Groundwater Class GA and April 2000 Addendum.

(b) USEPA March 2018, Drinking Water Regulations and Health Advisories. Note that the information under MCL was converted from mg/l to µg/L in order to maintain uniform units for this table.

(c) Refers to sum of cis and trans isomers.

(d) Refers to concentration of individual isomers.

(e) Refers to sum of all phenolic compounds.

(f) US EPA Interim Health Standard

(g) NYS Guidance Values est. March 15, 2023

(h) 1998 Final Rule for Disinfectants and Disinfection By-products: The total for trihalomethanes(THM) is 80ug/L

NYSDEC = New York State Department of Environmental Conservation

µg/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

MCL = Maximum Contaminent Level

USEPA = United Stated Environmental Protection Agency

Table 1-4
Groundwater Standards for
Radiological Compounds

2023 BNL Groundwater Status Report

RADIONUCLIDE	CAS #	NYS Ambient Water Quality Standards pCi/L (a)	DOE Derived Concentration Standard pCi/L (b)	DOE Groundwater Screening Level pCi/L (c)	Federal 4 mrem/yr Drinking Water Calculations pCi/L	Federal Drinking Water Standards pCi/L (d)
Americium-241	14596-10-2	-	740	29.6	--	--
Bismuth-212	14913-49-6	-	430000	17200	--	--
Bismuth-214	14733-03-0	-	1000000	40000	--	--
Beryllium-7	13966-02-4	-	2500000	100000	6000	--
Cesium-134	13967-70-9	-	3900	156	80	--
Cesium-134m					20000	
Cesium-137	10045-97-3	-	4100	164	200	--
Cobalt-57	13981-50-5	-	370000	14800	1000	--
Cobalt-58	13981-38-9	-	89000	3560	300	--
Cobalt-58m					9000	
Cobalt-60	10198-40-0	-	14000	560	100	--
Europium-152	14683-23-9	-	75000	3000	200	--
Europium-154	15585-10-1	-	68000	2720	60	--
Europium-155	14391-16-3	-	1000000	40000	600	--
Lead-210	14255-04-0	-	110	4.4	--	--
Lead-212	15092-94-1	-	7300	292	--	--
Lead-214	15067-28-4	-	590000	23600	--	--
Manganese-54	13966-31-9	-	98000	3920	300	--
Neptunium-237	13994-20-2	-	1400	56	--	--
Potassium-40	13966-00-2	-	16000	640	--	--
Protactinium-231	7440-13-3	-	260	10.4	--	--
Radium-224	13233-32-4	-	1000	40	--	--
Radium-226	13982-63-3	3	280	11.2	--	5 (g)
Radium-228	15262-20-1	5 (g)	73	2.92	--	5 (g)
Sodium-22	13966-32-0	-	16000	640	400	--
Strontium-89	14158-27-1	-	39000	1560	20	--
Strontium-90	10098-97-2	8	1700	68	--	8 (e)
Thallium-208	7440-28-00	-	-	-	--	--
Thorium-228	14274-82-9	-	830	33.2	--	--
Thorium-230	14269-63-7	-	720	28.8	--	--
Thorium-232	7440-29-1	-	620	24.8	--	--
Thorium-234	15065-10-8	-	84000	3360	--	--
Tritium (Tritiated Water)	10028-17-8	20000	2600000	104000	--	20000 (e)
Tritium (Organic Bound)		-	1000000	40000		
Uranium-234	13966-29-5	-	1200	48	--	30 ug/L
Uranium-235	15117-96-1	-	1300	52	--	30 ug/L
Uranium-238	7440-61-1	-	1400	56	--	30 ug/L
Zinc-65	13982-39-3	-	1200	48	300	--
Gross Beta	12587-47-2	1000	-	-	--	4 millirem per year (f)
Gross Alpha	12587-46-1	15	-	-	--	15

Notes:

- No standard available

(a) NYSDEC, June 1998, Ambient Water Quality Standards and Guidance Values for Groundwater Class GA.

(b) Department of Energy (DOE) Standard DOE-STD-1196-2021, July 2021, Derived Concentration Standard (DCS) is the concentration of a radionuclide in water that would result in an effective dose equivalent of 100 mrem.

(c) DOE screening levels have been derived for a dose equivalent of 4 mrem/year by multiplying the DCS by 4 percent

(d) USEPA, March 2018, Drinking Water Regulations and Health Advisories.

(e) Beta particle and photon activity less than 4 mrem/year.

(f) The generic standard of 4 mrem is applicable to all radionuclides specifically the sum of the fractions of all radionuclides shall not exceed 4 mrem.

(g) The sum of Ra-226 and Ra-228 must be below 5 pCi/L.

NYSDEC New York State Department of Environmental Conservation

USEPA United Stated Environmental Protection Agency

pCi/L pico Curies per liter

Table 1-5
BNL CERCLA Groundwater Monitoring Schedule for 2022

2023 BNL Groundwater Status Report

Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
			First Quarter 2023																											
075-664	OU III (BGRR/WCF Sr-90)		Plume Core																						M					1/5/23
075-701	OU III (BGRR/WCF Sr-90)		Plume Core																						M					1/5/23
075-40	OU III (AOC 29/HFBR Tritium)		Plume Perimeter																					X						1/5/23
075-802	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						1/5/23
075-803	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						1/5/23
075-804	OU III (AOC 29/HFBR Tritium)		Plume Core																					X		X				1/5/23
075-805	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						1/10/23
075-806	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						1/5/23
075-807	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						1/5/23
075-808	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						1/5/23
085-335	OU III (Building 96)		Plume Core																							X	X			2/17/23
085-348	OU III (Building 96)		Plume Core																								X			2/28/23
085-349	OU III (Building 96)		Plume Core																								X			2/16/23
085-350	OU III (Building 96)		Plume Core																								X			2/16/23
085-351	OU III (Building 96)		Plume Core																								X			*
085-352	OU III (Building 96)		Plume Core																								X			2/17/23
085-354	OU III (Building 96)		Plume Core																								X			*
095-159	OU III (Building 96)		Plume Core																								X			2/17/23
095-162	OU III (Building 96)		Plume Core																								X			2/17/23
095-163	OU III (Building 96)		Bypass Detection																								X			2/27/23
095-165	OU III (Building 96)		Bypass Detection																							X	X			2/27/23
095-166	OU III (Building 96)		Bypass Detection																								X			2/27/23
095-168	OU III (Building 96)		Bypass Detection																								X			2/16/23
095-169	OU III (Building 96)		Bypass Detection																								X			2/16/23
095-170	OU III (Building 96)		Bypass Detection																								X			2/16/23
095-172	OU III (Building 96)		Plume Core																								X			2/28/23
095-305	OU III (Building 96)		Plume Core																								X			2/28/23
095-306	OU III (Building 96)		Plume Core																								X			2/28/23
095-312	OU III (Building 96)		Plume Core																								X			2/28/23
095-84	OU III (Building 96)		Plume Core																								X			2/28/23
085-378	OU III (Building 96)		Background																								X			*
085-379	OU III (Building 96)		Plume Core																							X	X			2/27/23
095-325	OU III (Building 96)		None																								X			2/28/23
097-313	Chemical/Animal Holes Sr-90		Plume Core																						X	X				3/7/23
097-314	Chemical/Animal Holes Sr-90		Plume Core																						X					3/7/23
097-315	Chemical/Animal Holes Sr-90		Plume Core																						X					3/7/23

Table 1-5
BNL CERCLA Groundwater Monitoring Schedule for 2022

2023 BNL Groundwater Status Report

Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
095-322	OU III (Middle Rd)		Plume Core																								X			3/8/23
095-323	OU III (Middle Rd)		Plume Core																								X			3/8/23
104-37	OU III (Middle Rd)		Plume Core																							X	X			3/1/23
105-23	OU III (Middle Rd)		Plume Core																								X			3/1/23
105-66	OU III (Middle Rd)		Plume Core																								X			3/8/23
105-67	OU III (Middle Rd)		Plume Core																								X			3/8/23
105-68	OU III (Middle Rd)		Plume Core																								X			3/1/23
113-17	OU III (Middle Rd)		Bypass Detection																								X			3/10/23
113-19	OU III (Middle Rd)	OU III (Magothy) Sampling Program	Bypass Detection																								X			3/17/23
113-29	OU III (Middle Rd)		Plume Core																								X			3/1/23
113-30	OU III (Middle Rd)		Plume Perimeter																								X			3/10/23
113-31	OU III (Middle Rd)		Plume Perimeter																								X			3/1/23
114-12	OU III (Middle Rd)		Bypass Detection																							X	X			3/13/23
121-45	OU III (Middle Rd)	OU III (South Boundary)	Bypass Detection																							X	X			3/10/23
121-53	OU III (Middle Rd)	OU III (South Boundary)	Plume Core																								X			3/31/23
121-54	OU III (Middle Rd)	OU III (South Boundary)	Plume Core																								X			3/31/23
121-45	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																							X	X			3/10/23
121-49	OU III (South Boundary)	OU III (Middle Rd)	Plume Perimeter																							X	X			3/31/23
121-53	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																								X			3/31/23
121-54	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																							X	X			3/31/23
000-558	OU III (Western South Boundary)		Plume Core																								X			3/7/23
000-559	OU III (Western South Boundary)		Plume Core																								X			3/7/23
000-560	OU III (Western South Boundary)		Plume Core																								X			3/7/23
103-15	OU III (Western South Boundary)		Plume Core																								X			3/21/23
103-18	OU III (Western South Boundary)		Plume Core																								X			3/22/23
103-19	OU III (Western South Boundary)		Plume Core																								X			3/22/23
111-15	OU III (Western South Boundary)		Plume Core																								X			3/13/23
111-16	OU III (Western South Boundary)		Plume Core																								X			3/13/23
119-06	OU III (Western South Boundary)		Plume Core																								X			3/17/23
119-10	OU III (Western South Boundary)		Plume Core																								X			3/17/23
119-11	OU III (Western South Boundary)		Plume Core																								X			3/13/23
119-12	OU III (Western South Boundary)		Plume Core																							X	X			3/17/23
126-14	OU III (Western South Boundary)	OU III (South Boundary) Radionuclide	Plume Core																							X	X			3/21/23
126-16	OU III (Western South Boundary)	OU III (South Boundary) Radionuclide	Bypass Detection																								X			3/6/23
126-17	OU III (Western South Boundary)		Plume Core																								X			3/21/23
126-18	OU III (Western South Boundary)		Plume Core																								X			3/17/23
126-19	OU III (Western South Boundary)		Plume Core																								X			3/21/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
126-20	OU III (Western South Boundary)		Plume Core																								X			3/21/23
126-21	OU III (Western South Boundary)		Plume Core																								X			3/21/23
127-07	OU III (Western South Boundary)	OU III (South Boundary) Radionuclide	Bypass Detection																								X			3/6/23
130-08	OU III (Western South Boundary)	OU III (South Boundary) Radionuclide	Bypass Detection																							X	X			3/6/23
130-09	OU III (Western South Boundary)		Plume Perimeter																								X			3/6/23
130-10	OU III (Western South Boundary)		Plume Core																								X			3/6/23
130-11	OU III (Western South Boundary)		Plume Core																								X			3/6/23
130-14	OU III (Western South Boundary)		Plume Core																								X			3/21/23
000-138	OU III (North Street East-EDB)		None		X																									3/8/23
000-394	OU III (North Street East-EDB)		None		X																									3/9/23
000-551	OU III (North Street East-EDB)		None		X																					X				3/8/23
000-552	OU III (North Street East-EDB)		None		X																									3/8/23
000-553	OU III (North Street East-EDB)		None		X																									3/8/23
000-554	OU III (North Street East-EDB)		None		X																									3/9/23
000-555	OU III (North Street East-EDB)		None		X																									3/8/23
000-563	OU III (North Street East-EDB)		None		X																									3/9/23
000-564	OU III (North Street East-EDB)		None		X																									3/9/23
000-565	OU III (North Street East-EDB)		None		X																									3/8/23
000-566	OU III (North Street East-EDB)		None		X																									3/8/23
000-529	OU III (Industrial Park)		Plume Core																								X			2/17/23
000-530	OU III (Industrial Park)		Plume Core																								X			2/23/23
000-531	OU III (Industrial Park)		Plume Core																								X			2/17/23
000-537	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			2/23/23
000-538	OU III (Industrial Park)		Plume Core																							X	X			2/23/23
000-541	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			2/23/23
000-548	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Bypass Detection																								X			2/17/23
127-08	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			2/24/23
000-428	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			02/24/23
000-458	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			3/28/23
000-459	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			3/28/23
113-19	OU III (Magothy) Sampling Program	OU III (Middle Rd)	None																								X			3/17/23
000-101	OU III (LIPA)		Plume Perimeter																								X			2/24/23

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000-102	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			2/24/23
000-104	OU III (LIPA)		Plume Core																							X	X			2/27/23
000-105	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			2/27/23
000-130	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Core																								X			3/3/23
000-131	OU III (LIPA)		Bypass Detection																								X			2/27/23
000-425	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Core																								X			3/3/23
000-445	OU III (LIPA)		Plume Perimeter																								X			3/2/23
000-446	OU III (LIPA)		Plume Perimeter																								X			3/2/23
000-447	OU III (LIPA)		Plume Core																								X			3/3/23
000-448	OU III (LIPA)		Plume Core																								X			2/27/23
000-449	OU III (LIPA)		Plume Core																								X			3/2/23
000-450	OU III (LIPA)		Plume Perimeter																								X			3/3/23
000-451	OU III (LIPA)		Bypass Detection																								X			2/27/23
000-452	OU III (LIPA)		Bypass Detection																								X			3/2/23
000-458	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			3/28/23
000-459	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			3/28/23
800-108	OU III (Airport)		Bypass Detection																								X			01/11/23
800-126	OU III (Airport)		Bypass Detection																								X			01/13/23
800-127	OU III (Airport)		Bypass Detection																								X			01/13/23
800-128	OU III (Airport)		Bypass Detection																								X			01/06/23
800-131	OU III (Airport)		Bypass Detection																							X	X			01/06/23
800-133	OU III (Airport)		Bypass Detection																								X			01/11/23
800-60	OU III (Airport)		Sentinel																								X			01/09/23
000-500	OU VI EDB		Plume Core		X																					X				3/13/23
000-508	OU VI EDB		Bypass Detection		X																									3/10/23
000-519	OU VI EDB		Bypass Detection		X																									3/10/23
000-527	OU VI EDB		Bypass Detection		X																									3/10/23
000-549	OU VI EDB		None		X																									3/14/23
000-550	OU VI EDB		None		X																									3/14/23
000-567	OU VI EDB		None		X																									3/14/23
000-568	OU VI EDB		None		X																									3/14/23
000-570	OU VI EDB		None		X																									3/13/23
000-571	OU VI EDB		None		X																									3/13/23
000-572	OU VI EDB		None		X																									3/13/23

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088-26	OU I (South Boundary)		Plume Perimeter																						X					3/23/23
098-100	OU I (South Boundary)		Plume Core																						X					3/23/23
098-103	OU I (South Boundary)		Plume Core																						X					3/24/23
098-104	OU I (South Boundary)		Plume Core																						X					3/24/23
098-21	OU I (South Boundary)		Plume Perimeter																						X					3/23/23
098-30	OU I (South Boundary)		Plume Perimeter																						X					3/23/23
098-99	OU I (South Boundary)	Current Landfill	Plume Perimeter																							X	X			3/3/23
099-04	OU I (South Boundary)		Plume Perimeter																						X					3/23/23
107-34	OU I (South Boundary)		Plume Core																						X	X				3/24/23
107-35	OU I (South Boundary)		Plume Core																						X					3/24/23
107-42	OU I (South Boundary)		Plume Perimeter																						X					3/22/23
108-43	OU I (South Boundary)		Plume Core																						X					3/22/23
108-44	OU I (South Boundary)		Plume Core																						X					3/22/23
108-45	OU I (South Boundary)		Plume Perimeter																						X					3/22/23
108-55	OU I (South Boundary)		Plume Core																						X					3/24/23
108-56	OU I (South Boundary)		Plume Core																						X					3/24/23
108-57	OU I (South Boundary)		Plume Core																						X					3/22/23
108-58	OU I (South Boundary)		Plume Core																						X					3/22/23
108-59	OU I (South Boundary)		Plume Perimeter																						X					3/22/23
088-109	Current Landfill		Downgradient																							X	X			3/3/23
098-99	Current Landfill	OU I (South Boundary)	Downgradient																								X			3/3/23
109-03	William Floyd Wellfield Sentinel		None																				X	X	X		X	X	X	3/29/23
117-01	William Floyd Wellfield Sentinel		None																				X	X	X		X	X	X	3/29/23
117-02	William Floyd Wellfield Sentinel		None																				X	X	X	X	X	X	X	3/29/23
117-104	William Floyd Wellfield Sentinel		Bypass Detection																				X	X	X		X	X	X	3/29/23
117-105	William Floyd Wellfield Sentinel		Bypass Detection																				X	X	X		X	X	X	3/30/23
117-106	William Floyd Wellfield Sentinel		Bypass Detection																				X	X	X		X	X	X	3/29/23
076-06	OU IV (AOC 6 Sr-90)		None																						X					3/27/23
076-13	OU IV (AOC 6 Sr-90)		Plume Core																						X	X				03/20/23
076-168	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					3/20/23
076-169	OU IV (AOC 6 Sr-90)		Plume Core																						X	X				3/20/23
076-184	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					3/14/23
076-24	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					3/14/23
076-25	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					3/20/23
076-28	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					3/20/23
076-415	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					3/20/23
076-416	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					3/20/23
076-418	OU IV (AOC 6 Sr-90)		None																						X					3/27/23

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076-419	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					3/27/23
076-420	OU IV (AOC 6 Sr-90)		None																						X					3/27/23
076-421	OU IV (AOC 6 Sr-90)		None																						X					3/27/23
073-01	OU10 Current Firehouse MW		Background																										D	1/30/23
073-26	OU10 Current Firehouse MW		Background																										D	1/17/23
073-27	OU10 Current Firehouse MW		Background																										D	1/23/23
073-28	OU10 Current Firehouse MW		Background																										D	1/23/23
073-29	OU10 Current Firehouse MW		Background																										D	1/30/23
073-30	OU10 Current Firehouse MW		Background																										D	1/17/23
073-31	OU10 Current Firehouse MW		Background																										D	1/23/23
073-32	OU10 Current Firehouse MW		Background																										D	1/23/23
073-33	OU10 Current Firehouse MW		Background																										D	1/23/23
074-135	OU10 Current Firehouse MW		Background																										D	1/23/26
083-01	OU10 Current Firehouse MW		Background																										D	2/3/23
083-02	OU10 Current Firehouse MW		Background																										D	2/3/23
083-05	OU10 Current Firehouse MW		Background																										D	2/7/23
083-33	OU10 Current Firehouse MW		Background																										D	1/31/23
083-34	OU10 Current Firehouse MW		Background																										D	1/31/23
083-35	OU10 Current Firehouse MW		Background																										D	1/31/23
083-36	OU10 Current Firehouse MW		Background																										D	1/31/23
083-37	OU10 Current Firehouse MW		Background																										D	1/31/23
083-38	OU10 Current Firehouse MW		Background																										D	2/1/23
083-39	OU10 Current Firehouse MW		Background																										D	2/6/23
083-40	OU10 Current Firehouse MW		Background																										D	2/2/23
083-41	OU10 Current Firehouse MW		Background																							X		D	D	2/1/23
083-42	OU10 Current Firehouse MW		Background																									D	D	1/18/23
083-43	OU10 Current Firehouse MW		Background																									D	D	1/18/23
083-44	OU10 Current Firehouse MW		Background																										D	2/1/23
083-47	OU10 Current Firehouse MW		Background																										D	2/3/23
084-03	OU10 Current Firehouse MW		Background																										D	2/6/23
084-04	OU10 Current Firehouse MW		Background																										D	2/6/23
084-28	OU10 Current Firehouse MW		Background																										D	2/7/23
084-86	OU10 Current Firehouse MW		Background																										D	2/2/23
084-87	OU10 Current Firehouse MW		Background																										D	2/2/23
084-88	OU10 Current Firehouse MW		Background																										D	2/2/23
084-89	OU10 Current Firehouse MW		Background																										D	2/7/23
084-90	OU10 Current Firehouse MW		Background																										D	1/12/23
084-91	OU10 Current Firehouse MW		Background																										D	1/12/23
084-92	OU10 Current Firehouse MW		Background																										D	1/12/23
084-93	OU10 Current Firehouse MW		Background																										D	1/23/23
084-94	OU10 Current Firehouse MW		Background																							X		D	D	1/23/23

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084-95	OU10 Current Firehouse MW		Background																									D	D	1/24/23
084-96	OU10 Current Firehouse MW		Background																										D	1/24/23
084-97	OU10 Current Firehouse MW		Background																									D	D	1/24/23
084-98	OU10 Current Firehouse MW		Background																									D	D	2/7/23
093-04	OU10 Current Firehouse MW		Background																										D	2/22/23
093-88	OU10 Current Firehouse MW		Background																										D	2/3/23
093-89	OU10 Current Firehouse MW		Background																										D	1/30/23
093-90	OU10 Current Firehouse MW		Background																									D	D	1/30/23
093-91	OU10 Current Firehouse MW		Background																										D	1/30/23
093-92	OU10 Current Firehouse MW		Background																									D	D	1/30/23
093-93	OU10 Current Firehouse MW		Background																										D	2/3/23
093-94	OU10 Current Firehouse MW		Background																										D	2/3/23
093-95	OU10 Current Firehouse MW		Background																										D	2/3/23
093-96	OU10 Current Firehouse MW		Background																							X			D	2/3/23
093-97	OU10 Current Firehouse MW		Background																										D	2/3/23
093-98	OU10 Current Firehouse MW		Background																										D	2/3/23
094-275	OU10 Current Firehouse MW		Background																										D	1/25/23
094-276	OU10 Current Firehouse MW		Background																									D	D	1/25/23
094-277	OU10 Current Firehouse MW		Background																										D	2/1/23
094-278	OU10 Current Firehouse MW		Background																									D	D	2/1/23
102-12	OU10 Current Firehouse MW		Background																										D	2/22/23
102-26	OU10 Current Firehouse MW		Background																										D	1/25/23
102-27	OU10 Current Firehouse MW		Background																										D	1/25/23
102-28	OU10 Current Firehouse MW		Background																										D	1/25/23
102-29	OU10 Current Firehouse MW		Background																										D	1/25/23
102-30	OU10 Current Firehouse MW		Background																									D	D	1/26/23
102-31	OU10 Current Firehouse MW		Background																									D	D	1/26/23
102-36	OU10 Current Firehouse MW		Background																										D	2/6/23
102-37	OU10 Current Firehouse MW		Background																							X			D	2/6/23
102-38	OU10 Current Firehouse MW		Background																										D	3/31/23
102-39	OU10 Current Firehouse MW		Background																										D	1/26/23
102-40	OU10 Current Firehouse MW		Background																									D	D	1/26/23
103-02	OU10 Current Firehouse MW		Background																									D	D	*
103-10	OU10 Current Firehouse MW		Background																									D	D	3/28/23
103-30	OU10 Current Firehouse MW		Background																									D	D	1/25/23
103-31	OU10 Current Firehouse MW		Background																									D	D	1/25/23
103-32	OU10 Current Firehouse MW		Background																									D	D	1/25/23
103-33	OU10 Current Firehouse MW		Background																									D	D	1/30/23
103-34	OU10 Current Firehouse MW		Background																									D	D	1/30/23
075-809	OU10 Fomer Firehouse MW		Background																										D	2/13/23
075-810	OU10 Fomer Firehouse MW		Background																										D	2/13/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
075-811	OU10 Fomer Firehouse MW		Background																										D	2/13/23
075-87	OU10 Fomer Firehouse MW		Background																										D	2/15/23
085-350	OU10 Fomer Firehouse MW		Background																										D	2/16/23
085-384	OU10 Fomer Firehouse MW		Background																										D	2/15/23
085-404	OU10 Fomer Firehouse MW		Background																							X			D	2/13/23
085-405	OU10 Fomer Firehouse MW		Background																										D	2/13/23
085-406	OU10 Fomer Firehouse MW		Background																										D	2/13/23
085-407	OU10 Fomer Firehouse MW		Background																										D	2/13/23
085-408	OU10 Fomer Firehouse MW		Background																										D	2/13/23
085-409	OU10 Fomer Firehouse MW		Background																										D	2/13/23
085-410	OU10 Fomer Firehouse MW		Background																										D	2/13/23
085-411	OU10 Fomer Firehouse MW		Background																										D	2/15/23
085-412	OU10 Fomer Firehouse MW		Background																										D	2/15/23
085-43	OU10 Fomer Firehouse MW		Background																										D	2/15/23
086-123	OU10 Fomer Firehouse MW		Background																										D	2/16/23
095-170	OU10 Fomer Firehouse MW		Background																										D	2/16/23
095-171	OU10 Fomer Firehouse MW		Background																										D	2/16/23
096-115	OU10 Fomer Firehouse MW		Background																							X		D	D	2/10/23
096-117	OU10 Fomer Firehouse MW		Background																									D	D	2/10/23
096-118	OU10 Fomer Firehouse MW		Background																										D	2/8/23
096-122	OU10 Fomer Firehouse MW		Background																										D	2/14/23
096-123	OU10 Fomer Firehouse MW		Background																										D	2/14/23
096-124	OU10 Fomer Firehouse MW		Background																										D	2/14/23
096-125	OU10 Fomer Firehouse MW		Background																										D	2/14/23
096-126	OU10 Fomer Firehouse MW		Background																										D	2/9/23
096-127	OU10 Fomer Firehouse MW		Background																									D	D	2/9/23
096-128	OU10 Fomer Firehouse MW		Background																										D	2/9/23
096-129	OU10 Fomer Firehouse MW		Background																									D	D	2/9/23
096-130	OU10 Fomer Firehouse MW		Background																										D	2/9/23
096-131	OU10 Fomer Firehouse MW		Background																									D	D	2/9/23
096-84	OU10 Fomer Firehouse MW		Background																										D	2/15/23
105-43	OU10 Fomer Firehouse MW		Background																									D	D	2/8/23
105-44	OU10 Fomer Firehouse MW		Background																										D	2/14/23
105-72	OU10 Fomer Firehouse MW		Background																									D	D	2/8/23
105-73	OU10 Fomer Firehouse MW		Background																									D	D	2/8/23
105-74	OU10 Fomer Firehouse MW		Background																										D	2/14/23
105-75	OU10 Fomer Firehouse MW		Background																										D	2/14/23
105-76	OU10 Fomer Firehouse MW		Background																									D	D	2/10/26
105-77	OU10 Fomer Firehouse MW		Background																									D	D	2/8/23
105-78	OU10 Fomer Firehouse MW		Background																									D	D	2/8/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
			Secound Quarter 2023																											
087-09	Current Landfill		Background						X	X	X	X	X	X	X	X			X								X			5/22/23
087-11	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			5/24/23
087-23	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			5/24/23
087-24	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X											5/24/23
087-26	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			5/22/23
087-27	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			5/22/23
088-109	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X							X	X			5/22/23
088-110	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			5/22/23
088-21	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			5/24/23
098-99	Current Landfill	OU I South Boundary VOCs	Downgradient																								X			5/24/23
098-99	OU I South Boundary VOCs	Current Landfill	Plume Perimeter																							X	X			5/24/23
000-428	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			6/12/23
800-100	OU III (Airport)		Plume Core																								X			6/26/23
800-101	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Core																								X			6/27/23
800-102	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Core																								X			6/27/23
800-103	OU III (Airport)		Plume Core																							X	X			6/27/23
800-104	OU III (Airport)		Plume Perimeter																								X			6/26/23
800-105	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			6/26/23
800-106	OU III (Airport)		Plume Core																								X			6/28/23
800-108	OU III (Airport)		Bypass Detection																								X			6/26/23
800-126	OU III (Airport)		Bypass Detection																								X			6/27/23
800-127	OU III (Airport)		Bypass Detection																								X			6/27/23
800-128	OU III (Airport)		Bypass Detection																								X			6/23/23
800-129	OU III (Airport)		Plume Perimeter																								X			6/23/23
800-130	OU III (Airport)		Plume Perimeter																								X			6/23/23
800-131	OU III (Airport)		Bypass Detection																							X	X			6/27/23
800-133	OU III (Airport)		Bypass Detection																								X			6/26/23
800-43	OU III (Airport)		Plume Core																								X			6/27/23
800-44	OU III (Airport)		Plume Core																								X			6/28/23
800-50	OU III (Airport)		Plume Perimeter																								X			6/28/23
800-59	OU III (Airport)		Plume Core																								X			6/28/23
800-60	OU III (Airport)		Sentinel																								X			6/27/23
800-63	OU III (Airport)	OU III (North Street)	Plume Core																								X			6/28/23
800-90	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Core																								X			6/28/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
800-92	OU III (Airport)		Plume Core																								X			6/28/23
800-94	OU III (Airport)		Plume Core																								X			6/28/23
800-95	OU III (Airport)		Plume Core																							X	X			6/28/23
800-96	OU III (Airport)		Plume Perimeter																								X			6/28/23
800-97	OU III (Airport)		Plume Core																								X			6/23/23
800-98	OU III (Airport)		Plume Core																								X			6/26/23
800-99	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Core																								X			6/27/23
800-138	OU III (Airport)		Plume Core																								X			6/27/23
075-11	OU III (AOC 29/HFBR Tritium)		Plume Perimeter																					X						4/12/23
075-288	OU III (AOC 29/HFBR Tritium)		Plume Perimeter																					X						4/13/23
075-40	OU III (AOC 29/HFBR Tritium)		Plume Perimeter																					X						4/12/23
075-802	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						4/12/23
075-803	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						4/12/23
075-804	OU III (AOC 29/HFBR Tritium)		Plume Core																					X		X				4/13/23
075-805	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						4/13/23
075-806	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						4/11/23
075-807	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						4/11/23
075-808	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						4/11/23
065-160	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					4/24/23
065-175	OU III (BGRR/WCF Sr-90)		Plume Core																						X	X				4/25/23
065-405	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					4/27/23
065-37	OU III (BGRR/WCF Sr-90)	OU III (AOC 29/HFBR Tritium)	Plume Perimeter																			X		X	X	X				4/26/23
065-38	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					4/24/23
065-39	OU III (BGRR/WCF Sr-90)		Plume Core																						X					4/24/23
075-210	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X	X				4/19/23
075-47	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/18/23
075-48	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/18/23
075-664	OU III (BGRR/WCF Sr-90)		Plume Core																						M					04/13/23
075-670	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/25/23
075-671	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/25/23
075-682	OU III (BGRR/WCF Sr-90)		Plume Core																						X	X				4/25/23
075-684	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/18/23
075-87	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/18/23
075-705	OU III (BGRR/WCF Sr-90)		Plume Core																						X					4/19/23
075-706	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					4/19/23
075-707	OU III (BGRR/WCF Sr-90)		Plume Core																						X					4/18/23
065-401	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					4/19/23
075-699	OU III (BGRR/WCF Sr-90)		Plume Core																						X					4/24/23
075-700	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					4/13/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
065-402	OU III (BGRR/WCF Sr-90)		Background																						X					4/25/23
075-701	OU III (BGRR/WCF Sr-90)		Plume Core																						M					04/13/23
065-404	OU III (BGRR/WCF Sr-90)		Plume Core																						X					4/24/23
085-398	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/21/23
085-399	OU III (BGRR/WCF Sr-90)		Sentinel																						X	X				4/26/23
085-402	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/26/23
065-325	OU III (BGRR/WCF Sr-90)		Plume Core																						X					4/27/23
085-403	OU III (BGRR/WCF Sr-90)		Sentinel																						X					4/21/23
095-326	OU III (BGRR/WCF Sr-90)		None																						X					4/21/23
085-335	OU III (Building 96)		Plume Core																							X	X			4/10/23
085-347	OU III (Building 96)		Plume Core																								X			4/5/23
085-348	OU III (Building 96)		Plume Core																								X			4/5/23
085-349	OU III (Building 96)		Plume Core																								X			4/11/23
085-350	OU III (Building 96)		Plume Core																								X			4/3/23
085-351	OU III (Building 96)		Plume Core																								X			4/10/23
085-352	OU III (Building 96)		Plume Core																								X			4/3/23
085-354	OU III (Building 96)		Plume Core																								X			*
085-378	OU III (Building 96)		Background																								X			*
085-379	OU III (Building 96)		Plume Core																							X	X			4/10/23
085-382	OU III (Building 96)		None																								X			4/11/23
085-383	OU III (Building 96)		None																								X			4/11/23
085-386	OU III (Building 96)		None																								X			4/7/23
095-159	OU III (Building 96)		Plume Core																								X			4/7/23
095-162	OU III (Building 96)		Plume Core																								X			4/4/23
095-163	OU III (Building 96)		Bypass Detection																								X			4/4/23
095-165	OU III (Building 96)		Bypass Detection																							X	X			4/10/23
095-166	OU III (Building 96)		Bypass Detection																								X			4/4/23
095-168	OU III (Building 96)		Bypass Detection																								X			4/4/23
095-169	OU III (Building 96)		Bypass Detection																								X			4/4/23
095-170	OU III (Building 96)		Bypass Detection																								X			4/4/23
095-172	OU III (Building 96)		Plume Core																								X			4/4/23
095-294	OU III (Building 96)		Plume Core																								X			4/7/23
095-305	OU III (Building 96)		Plume Core																								X			4/6/23
095-306	OU III (Building 96)		Plume Core																								X			4/6/23
095-307	OU III (Building 96)		Plume Core																								X			4/6/23
095-308	OU III (Building 96)		Plume Core																								X			4/6/23
095-312	OU III (Building 96)		Plume Core																								X			4/4/23
095-313	OU III (Building 96)		Plume Core																								X			4/6/23
095-325	OU III (Building 96)		None																								X			4/3/23
095-84	OU III (Building 96)		Plume Core																								X			4/3/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
000-112	OU III (Industrial Park)		Plume Core																								X			5/12/23
000-249	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																							X	X			5/11/23
000-253	OU III (Industrial Park)		Plume Core																							X	X			5/11/23
000-256	OU III (Industrial Park)		Plume Core																							X	X			5/11/23
000-259	OU III (Industrial Park)		Plume Core																								X			5/11/23
000-262	OU III (Industrial Park)		Plume Core																								X			5/15/23
000-265	OU III (Industrial Park)		Plume Core																								X			*
000-268	OU III (Industrial Park)		Plume Core																								X			4/20/23
000-271	OU III (Industrial Park)		Plume Core																								X			4/20/23
000-273	OU III (Industrial Park)		Bypass Detection																								X			5/9/23
000-274	OU III (Industrial Park)		Bypass Detection																								X			5/9/23
000-275	OU III (Industrial Park)		Bypass Detection																								X			5/30/23
000-276	OU III (Industrial Park)		Bypass Detection																								X			5/30/23
000-277	OU III (Industrial Park)		Bypass Detection																								X			5/9/23
000-278	OU III (Industrial Park)		Bypass Detection																								X			5/9/23
000-279	OU III (Industrial Park)		Plume Core																							X	X			4/17/23
000-431	OU III (Industrial Park)		Bypass Detection																								X			5/9/23
000-432	OU III (Industrial Park)		Bypass Detection																								X			5/30/23
000-530	OU III (Industrial Park)		Plume Core																								X			4/14/23
000-531	OU III (Industrial Park)		Plume Core																								X			5/10/23
000-529	OU III (Industrial Park)		Plume Core																								X			5/15/23
000-528	OU III (Industrial Park)		Plume Core																								X			4/20/23
000-537	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			5/10/23
000-538	OU III (Industrial Park)		Plume Core																							X	X			5/10/23
127-08	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			5/15/23
127-09	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			5/12/23
000-541	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			5/15/23
000-542	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			5/19/23
000-543	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			5/10/23
000-544	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Bypass Detection																								X			4/14/23
000-548	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Bypass Detection																								X			4/14/23
000-101	OU III (LIPA)		Plume Perimeter																								X			6/5/23

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000-102	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			6/5/23
000-104	OU III (LIPA)		Plume Core																							X	X			6/6/23
000-105	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			6/6/23
000-130	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Core																								X			6/9/23
000-131	OU III (LIPA)		Bypass Detection																								X			4/5/23
000-425	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Core																								X			6/12/23
000-445	OU III (LIPA)		Plume Perimeter																								X			6/2/23
000-446	OU III (LIPA)		Plume Perimeter																								X			6/2/23
000-447	OU III (LIPA)		Plume Core																								X			6/13/23
000-448	OU III (LIPA)		Plume Core																								X			6/6/23
000-449	OU III (LIPA)		Plume Core																								X			6/9/23
000-450	OU III (LIPA)		Plume Perimeter																								X			6/12/23
000-451	OU III (LIPA)		Bypass Detection																								X			6/5/23
000-452	OU III (LIPA)		Bypass Detection																								X			6/5/23
000-458	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			6/13/23
000-459	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			6/13/23
000-130	OU III (Magothy) Sampling Program	OU III (LIPA)	Magothy																								X			6/9/23
000-249	OU III (Magothy) Sampling Program	OU III (Industrial Park)	Magothy																							X	X			5/11/23
000-343	OU III (Magothy) Sampling Program	OU III (North Street)	None																								X			6/13/23
000-425	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			6/12/23
000-428	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			6/12/23
000-458	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			6/13/23
000-459	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			6/13/23
113-09	OU III (Magothy) Sampling Program	OU III (Middle Rd)	None																								X			5/2/23
113-19	OU III (Magothy) Sampling Program	OU III (Middle Rd)	None																								X			5/12/23
113-22	OU III (Magothy) Sampling Program	OU III (Middle Rd)	None																								X			5/1/23
122-05	OU III (Magothy) Sampling Program	OU III (South Boundary)	None																								X			5/5/23
800-101	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			6/27/23
800-102	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			6/27/23
800-105	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			6/26/23
800-90	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			6/28/23
800-99	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			6/27/23
095-322	OU III (Middle Rd)		Plume Core																								X			4/27/23
095-323	OU III (Middle Rd)		Plume Core																								X			4/28/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
095-92	OU III (Middle Rd)		Sentinel																								X			4/28/23
104-11	OU III (Middle Rd)		Plume Perimeter																								X			4/28/23
104-36	OU III (Middle Rd)		Plume Perimeter																								X			4/27/23
104-37	OU III (Middle Rd)		Plume Core																							X	X			4/28/23
104-38	OU III (Middle Rd)		Plume Perimeter																								X			4/28/23
105-23	OU III (Middle Rd)		Plume Core																								X			4/27/23
105-25	OU III (Middle Rd)		Plume Core																								X			5/1/23
105-42	OU III (Middle Rd)		Plume Perimeter																								X			4/27/23
105-44	OU III (Middle Rd)	OU III (AOC 29/HFBR Tritium)	Plume Core																							X	X			5/3/23
105-53	OU III (Middle Rd)		Plume Core																								X			5/3/23
105-66	OU III (Middle Rd)		Plume Core																								X			5/3/23
105-67	OU III (Middle Rd)		Plume Core																								X			5/3/23
105-68	OU III (Middle Rd)		Plume Core																								X			5/3/23
106-56	OU III (Middle Rd)		Plume Core																								X			5/10/23
106-58	OU III (Middle Rd)		Plume Core																								X			5/10/23
106-62	OU III (Middle Rd)	Chemical/Animal Holes Sr-90	Plume Perimeter																						X	X	X			5/10/23
113-08	OU III (Middle Rd)		Plume Core																								X			5/2/23
113-09	OU III (Middle Rd)	OU III (Magothy) Sampling Program	Plume Core																								X			5/2/23
113-11	OU III (Middle Rd)		Plume Core																								X			5/12/23
113-17	OU III (Middle Rd)		Bypass Detection																								X			5/8/23
113-19	OU III (Middle Rd)	OU III (Magothy) Sampling Program	Bypass Detection																								X			5/12/23
113-22	OU III (Middle Rd)		Plume Core																								X			5/1/23
113-29	OU III (Middle Rd)		Plume Core																								X			5/3/23
113-30	OU III (Middle Rd)		Plume Perimeter																								X			5/2/23
113-31	OU III (Middle Rd)		Plume Perimeter																								X			5/12/23
114-12	OU III (Middle Rd)		Bypass Detection																							X	X			5/1/23
121-45	OU III (Middle Rd)	OU III (South Boundary)	Bypass Detection																							X	X			5/12/23
121-53	OU III (Middle Rd)	OU III (South Boundary)	Plume Core																								X			5/5/23
121-54	OU III (Middle Rd)	OU III (South Boundary)	Plume Core																								X			5/5/23
000-138	OU III (North Street East-EDB)		None		X																									6/15/23
000-394	OU III (North Street East-EDB)		None		X																									6/15/23
000-551	OU III (North Street East-EDB)		None		X																					X				6/13/23
000-552	OU III (North Street East-EDB)		None		X																									6/13/23
000-553	OU III (North Street East-EDB)		None		X																									6/13/23
000-554	OU III (North Street East-EDB)		None		X																									6/14/23
000-555	OU III (North Street East-EDB)		None		X																									6/15/23
000-563	OU III (North Street East-EDB)		None		X																									6/14/23
000-564	OU III (North Street East-EDB)		None		X																									6/14/23
000-565	OU III (North Street East-EDB)		None		X																									6/15/23

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000-566	OU III (North Street East-EDB)		None		X																									6/15/23
115-42	OU III (North Street East-EDB)		None		X																									6/16/23
121-08	OU III (South Boundary)		Plume Perimeter																								X			5/8/23
121-10	OU III (South Boundary)		Plume Core																								X			5/4/23
121-11	OU III (South Boundary)		Plume Core																								X			5/4/23
121-14	OU III (South Boundary)		Plume Core																								X			5/4/23
121-43	OU III (South Boundary)		Bypass Detection																								X			5/31/23
121-45	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																							X	X			5/12/23
121-47	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																								X			5/5/23
121-48	OU III (South Boundary)	OU III (Middle Rd)	None																								X			5/4/23
121-49	OU III (South Boundary)	OU III (Middle Rd)	Plume Perimeter																							X	X			5/5/23
121-53	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																								X			5/5/23
121-54	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																							X	X			5/5/23
122-05	OU III (South Boundary)		Plume Core																								X			5/5/23
122-17	OU III (South Boundary)		Plume Core																								X			5/5/23
000-558	OU III (Western South Boundary)		Plume Core																								X			6/1/23
000-559	OU III (Western South Boundary)		Plume Core																								X			6/1/23
000-560	OU III (Western South Boundary)		Plume Core																								X			6/1/23
103-15	OU III (Western South Boundary)		Plume Core																								X			5/19/23
103-18	OU III (Western South Boundary)		Plume Core																								X			5/25/23
103-19	OU III (Western South Boundary)		Plume Core																								X			5/23/23
111-15	OU III (Western South Boundary)		Plume Core																								X			5/19/23
111-16	OU III (Western South Boundary)		Plume Core																								X			6/29/23
119-06	OU III (Western South Boundary)		Plume Core																								X			5/17/23
119-10	OU III (Western South Boundary)		Plume Core																								X			5/17/23
119-11	OU III (Western South Boundary)		Plume Core																								X			5/23/23
119-12	OU III (Western South Boundary)		Plume Core																							X	X			5/17/23
121-42	OU III (Western South Boundary)		Plume Core																								X			5/25/23
126-11	OU III (Western South Boundary)		Plume Core																								X			5/18/23
126-13	OU III (Western South Boundary)		Plume Core																								X			5/18/23
126-14	OU III (Western South Boundary)		Plume Core																							X	X			5/25/23
126-15	OU III (Western South Boundary)		Plume Core																								X			5/25/23
126-16	OU III (Western South Boundary)		Bypass Detection																								X			6/1/23
126-17	OU III (Western South Boundary)		Plume Core																								X			5/26/23
126-18	OU III (Western South Boundary)		Plume Core																								X			5/16/23
126-19	OU III (Western South Boundary)		Plume Core																								X			5/16/23
126-20	OU III (Western South Boundary)		Plume Core																								X			5/18/23
126-21	OU III (Western South Boundary)		Plume Core																								X			5/23/23
127-04	OU III (Western South Boundary)		Plume Core																								X			5/24/23
127-06	OU III (Western South Boundary)		Plume Core																								X			5/24/23

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127-07	OU III (Western South Boundary)		Bypass Detection																								X			5/31/23
130-02	OU III (Western South Boundary)		Plume Perimeter																								X			5/23/23
130-03	OU III (Western South Boundary)		Plume Perimeter																								X			5/23/23
130-08	OU III (Western South Boundary)		Bypass Detection																							X	X			5/31/23
130-09	OU III (Western South Boundary)		Plume Perimeter																								X			5/31/23
130-10	OU III (Western South Boundary)		Plume Core																								X			6/1/23
130-11	OU III (Western South Boundary)		Plume Core																								X			6/1/23
130-14	OU III (Western South Boundary)		Plume Core																								X			5/23/23
000-178	OU VI EDB		Plume Core		X																									6/21/23
000-283	OU VI EDB		Plume Core		X																									6/21/23
000-284	OU VI EDB		Plume Core		X																									6/21/23
000-498	OU VI EDB		Plume Perimeter		X																									6/21/23
000-499	OU VI EDB		Plume Perimeter		X																									6/20/23
000-500	OU VI EDB		Plume Core		X																					X				6/20/23
000-501	OU VI EDB		Plume Perimeter		X																									6/20/23
000-507	OU VI EDB		Plume Core		X																									6/21/23
000-508	OU VI EDB		Bypass Detection		X																									6/20/23
000-519	OU VI EDB		Bypass Detection		X																									6/20/23
000-520	OU VI EDB		Plume Core		X																									6/16/23
000-524	OU VI EDB		Plume Perimeter		X																									6/22/23
000-527	OU VI EDB		Bypass Detection		X																									6/20/23
000-549	OU VI EDB		None		X																									6/21/23
000-550	OU VI EDB		None		X																									6/22/23
000-567	OU VI EDB		None		X																									6/16/23
000-568	OU VI EDB		None		X																									6/16/23
000-570	OU VI EDB		None		X																									6/21/23
000-571	OU VI EDB		None		X																									6/20/23
000-572	OU VI EDB		None		X																									6/20/23
109-03	William Floyd Wellfield Sentinel		None																				X	X	X		X	4	4	6/21/23
117-01	William Floyd Wellfield Sentinel		None																				X	X	X		X	4	4	6/21/23
117-02	William Floyd Wellfield Sentinel		None																				X	X	X	X	X	4	4	6/21/23
117-04	William Floyd Wellfield Sentinel		Bypass Detection																				X	X	X		X	4	4	6/21/23
117-05	William Floyd Wellfield Sentinel		Bypass Detection																				X	X	X		X	4	4	6/21/23
117-06	William Floyd Wellfield Sentinel		Bypass Detection																				X	X	X		X	4	4	6/21/23
073-26	OU10 Current Firehouse MW		Background																										4	6/8/23
073-27	OU10 Current Firehouse MW		Background																										4	6/8/23
073-28	OU10 Current Firehouse MW		Background																										4	6/8/23
073-29	OU10 Current Firehouse MW		Background																										4	6/8/23
073-30	OU10 Current Firehouse MW		Background																										4	6/8/23

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073-31	OU10 Current Firehouse MW		Background																										4	6/7/23
073-32	OU10 Current Firehouse MW		Background																										4	6/7/23
073-33	OU10 Current Firehouse MW		Background																										4	6/8/23
074-135	OU10 Current Firehouse MW		Background																							F			4	6/7/23
093-04	OU10 Current Firehouse MW		Background																										4	6/7/23
093-93	OU10 Current Firehouse MW		Background																										4	6/7/23
093-94	OU10 Current Firehouse MW		Background																										4	6/7/23
093-95	OU10 Current Firehouse MW		Background																										4	6/7/23
075-809	OU10 Fomer Firehouse MW		Background																										4	6/5/23
075-810	OU10 Fomer Firehouse MW		Background																										4	6/5/23
075-811	OU10 Fomer Firehouse MW		Background																							4			4	6/5/23
085-404	OU10 Fomer Firehouse MW		Background																							4			4	6/5/23
085-405	OU10 Fomer Firehouse MW		Background																										4	6/5/23
085-406	OU10 Fomer Firehouse MW		Background																										4	5/26/23
085-407	OU10 Fomer Firehouse MW		Background																										4	5/26/23
085-408	OU10 Fomer Firehouse MW		Background																										4	5/30/23
085-409	OU10 Fomer Firehouse MW		Background																										4	5/30/23
085-410	OU10 Fomer Firehouse MW		Background																										4	6/6/23
			Third Quarter 2023																											
097-313	Chemical/Animal Holes Sr-90		Plume Core																						X	X				8/2/23
097-314	Chemical/Animal Holes Sr-90		Plume Core																						X					8/2/23
097-315	Chemical/Animal Holes Sr-90		Plume Core																						X					8/2/23
106-100	Chemical/Animal Holes Sr-90		Plume Core																						X					7/31/23
106-101	Chemical/Animal Holes Sr-90		Plume Core																						X					8/2/23
106-102	Chemical/Animal Holes Sr-90		Plume Core																						X					8/2/23
106-103	Chemical/Animal Holes Sr-90		Plume Core																						X					7/31/23
106-104	Chemical/Animal Holes Sr-90		Plume Core																						X					7/31/23
106-105	Chemical/Animal Holes Sr-90		Plume Core																						X					7/31/23
106-119	Chemical/Animal Holes Sr-90		Plume Core																						X					8/3/23
106-120	Chemical/Animal Holes Sr-90		Bypass Detection																						X					8/3/23
106-121	Chemical/Animal Holes Sr-90		Bypass Detection																						X					8/3/23
106-122	Chemical/Animal Holes Sr-90		Bypass Detection																						X					8/3/23
106-125	Chemical/Animal Holes Sr-90		Plume Core																						X					8/10/23
106-13	Chemical/Animal Holes Sr-90		Plume Perimeter																						X					8/10/23
106-135	Chemical/Animal Holes Sr-90		Plume Core																						X					8/3/23
106-136	Chemical/Animal Holes Sr-90		Plume Core																						X					08/10/23
106-14	Chemical/Animal Holes Sr-90		Plume Perimeter																						X					8/8/23
106-16	Chemical/Animal Holes Sr-90		Plume Core																						X					8/8/23
106-46	Chemical/Animal Holes Sr-90		Plume Perimeter																						X					8/8/23
106-47	Chemical/Animal Holes Sr-90		Plume Perimeter																						X					8/8/23

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106-48	Chemical/Animal Holes Sr-90		Plume Perimeter																						X					8/3/23
106-49	Chemical/Animal Holes Sr-90		Plume Core																						X	X				8/3/23
106-50	Chemical/Animal Holes Sr-90		Plume Core																						X					8/3/23
106-94	Chemical/Animal Holes Sr-90		Plume Core																						X					8/8/23
106-95	Chemical/Animal Holes Sr-90		Plume Core																						X					8/8/23
106-96	Chemical/Animal Holes Sr-90		Plume Core																						X					8/10/23
106-98	Chemical/Animal Holes Sr-90		Plume Core																						X					8/2/23
106-99	Chemical/Animal Holes Sr-90		Plume Core																						X					8/2/23
088-109	Current Landfill		Downgradient																							X	X			9/14/23
098-99	Current Landfill	OU I South Boundary VOCs	Downgradient																								X			9/14/23
088-26	OU I South Boundary VOCs		Plume Perimeter																						X					9/23/23
098-100	OU I South Boundary VOCs		Plume Core																						X					9/23/23
098-103	OU I South Boundary VOCs		Plume Core																						X					9/23/23
098-104	OU I South Boundary VOCs		Plume Core																						X					9/23/23
098-21	OU I South Boundary VOCs		Plume Perimeter																						X					9/27/23
098-30	OU I South Boundary VOCs		Plume Perimeter																						X					9/27/23
098-99	OU I South Boundary VOCs	Current Landfill	Plume Perimeter																							X	X			9/14/23
099-04	OU I South Boundary VOCs		Plume Perimeter																						X					9/27/23
107-34	OU I South Boundary VOCs		Plume Core																						X	X				9/20/23
107-35	OU I South Boundary VOCs		Plume Core																						X					9/20/23
107-40	OU I South Boundary VOCs		Plume Core																								X			9/20/23
107-41	OU I South Boundary VOCs		Plume Core																								X			9/20/23
107-42	OU I South Boundary VOCs		Plume Perimeter																						X					9/20/23
108-08	OU I South Boundary VOCs		Plume Perimeter																						X					9/26/23
108-12	OU I South Boundary VOCs		Plume Perimeter																						X					9/20/23
108-13	OU I South Boundary VOCs		Plume Perimeter																						X					9/20/23
108-14	OU I South Boundary VOCs		Plume Perimeter																						X					9/20/23
108-17	OU I South Boundary VOCs		Plume Perimeter																						X					9/20/23
108-18	OU I South Boundary VOCs		Plume Perimeter																						X					9/20/23
108-43	OU I South Boundary VOCs		Plume Core																						X					9/19/23
108-44	OU I South Boundary VOCs		Plume Core																						X					9/19/23
108-45	OU I South Boundary VOCs		Plume Perimeter																						X					9/19/23
108-55	OU I South Boundary VOCs		Plume Core																						X					9/26/23
108-56	OU I South Boundary VOCs		Plume Core																						X					9/26/23
108-57	OU I South Boundary VOCs		Plume Core																						X					9/19/23
108-58	OU I South Boundary VOCs		Plume Core																						X					9/19/23
108-59	OU I South Boundary VOCs		Plume Perimeter																						X					9/19/23
115-13	OU I South Boundary VOCs		Plume Core																								X			9/26/23
115-16	OU I South Boundary VOCs		Plume Core																								X			9/27/23
115-51	OU I South Boundary VOCs		Plume Perimeter																						X		X			9/27/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
800-108	OU III (Airport)		Bypass Detection																								X			9/12/23
800-126	OU III (Airport)		Bypass Detection																								X			9/11/23
800-127	OU III (Airport)		Bypass Detection																								X			9/12/23
800-128	OU III (Airport)		Bypass Detection																								X			9/12/23
800-131	OU III (Airport)		Bypass Detection																							X	X			9/12/23
800-133	OU III (Airport)		Bypass Detection																								X			9/13/23
800-60	OU III (Airport)		Sentinel																								X			9/13/23
075-11	OU III (AOC 29/HFBR Tritium)		Plume Perimeter																					X						7/7/23
075-288	OU III (AOC 29/HFBR Tritium)		Plume Perimeter																					X						7/12/23
075-40	OU III (AOC 29/HFBR Tritium)	OU III (BGRR/WCF Sr-90)	Plume Perimeter																					X						7/7/23
075-802	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						7/7/23
075-803	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						7/7/23
075-804	OU III (AOC 29/HFBR Tritium)		Plume Core																					X		X				7/7/23
075-805	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						7/7/23
075-806	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						7/7/23
075-807	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						7/12/23
075-808	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						7/12/23
075-415	OU III (BGRR/WCF Sr-90)		None																						X					9/1/23
075-417	OU III (BGRR/WCF Sr-90)		None																						X					9/13/23
075-419	OU III (BGRR/WCF Sr-90)		None																						X					8/18/23
075-664	OU III (BGRR/WCF Sr-90)		Plume Core																						M					07/26/23
075-701	OU III (BGRR/WCF Sr-90)		Plume Core																						M					07/26/23
085-01	OU III (BGRR/WCF Sr-90)		None																						X					8/18/23
085-171	OU III (BGRR/WCF Sr-90)		None																						X					8/18/23
085-285	OU III (BGRR/WCF Sr-90)		None																						X					9/13/23
085-286	OU III (BGRR/WCF Sr-90)		None																						X					9/13/23
085-287	OU III (BGRR/WCF Sr-90)		None																						X					8/18/23
085-290	OU III (BGRR/WCF Sr-90)		None																						X	X				8/18/23
085-335	OU III (Building 96)		Plume Core																							X	X			7/28/23
085-348	OU III (Building 96)		Plume Core																								X			7/19/23
085-349	OU III (Building 96)		Plume Core																								X			7/17/23
085-350	OU III (Building 96)	OU10 Fomer Firehouse MW	Plume Core																								X			7/17/23
085-351	OU III (Building 96)		Plume Core																								X			7/28/23
085-352	OU III (Building 96)		Plume Core																								X			7/28/23
085-354	OU III (Building 96)		Plume Core																								X			7/17/23
085-378	OU III (Building 96)		Background																								X			* 7/24/2
085-379	OU III (Building 96)		Plume Core																							X	X			7/19/23
095-159	OU III (Building 96)		Plume Core																								X			7/27/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
095-162	OU III (Building 96)		Plume Core																								X			7/27/23
095-163	OU III (Building 96)		Bypass Detection																								X			7/27/23
095-165	OU III (Building 96)		Bypass Detection																							X	X			7/27/23
095-166	OU III (Building 96)		Bypass Detection																								X			7/26/23
095-168	OU III (Building 96)		Bypass Detection																								X			7/26/23
095-169	OU III (Building 96)		Bypass Detection																								X			7/26/23
095-170	OU III (Building 96)	OU10 Fomer Firehouse MW	Bypass Detection																								X			7/25/23
095-172	OU III (Building 96)		Plume Core																								X			7/27/23
095-305	OU III (Building 96)		Plume Core																								X			7/28/23
095-306	OU III (Building 96)		Plume Core																								X			7/28/23
095-312	OU III (Building 96)		Plume Core																								X			7/27/23
095-325	OU III (Building 96)		None																								X			7/27/23
095-84	OU III (Building 96)		Plume Core																								X			7/19/23
000-529	OU III (Industrial Park)		Plume Core																								X			8/29/23
000-530	OU III (Industrial Park)		Plume Core																								X			8/30/23
000-531	OU III (Industrial Park)		Plume Core																								X			8/29/23
000-537	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			8/28/23
000-538	OU III (Industrial Park)		Plume Core																							X	X			8/28/23
000-541	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			8/28/23
000-548	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Bypass Detection																								X			8/28/23
127-08	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			8/29/23
000-101	OU III (LIPA)		Plume Perimeter																								X			8/31/23
000-102	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			8/31/23
000-104	OU III (LIPA)		Plume Core																							X	X			9/5/23
000-105	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			8/31/23
000-130	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Core																								X			9/7/23
000-131	OU III (LIPA)		Bypass Detection																								X			8/30/23
000-425	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Core																								X			9/1/23
000-445	OU III (LIPA)		Plume Perimeter																								X			9/5/23
000-446	OU III (LIPA)		Plume Perimeter																								X			9/5/23
000-447	OU III (LIPA)		Plume Core																								X			9/6/23
000-448	OU III (LIPA)		Plume Core																								X			8/31/23

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000-449	OU III (LIPA)		Plume Core																								X			9/6/23
000-450	OU III (LIPA)		Plume Perimeter																								X			9/5/23
000-451	OU III (LIPA)		Bypass Detection																								X			8/30/23
000-452	OU III (LIPA)		Bypass Detection																								X			9/5/23
000-458	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			9/6/23
000-459	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			9/7/23
000-428	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			8/31/23
000-458	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			9/6/23
000-459	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			9/7/23
113-19	OU III (Magothy) Sampling Program	OU III (Middle Rd)	None																								X			9/8/23
095-322	OU III (Middle Rd)		Plume Core																								X			9/6/23
095-323	OU III (Middle Rd)		Plume Core																								X			9/6/23
104-37	OU III (Middle Rd)		Plume Core																							X	X			9/7/23
105-23	OU III (Middle Rd)		Plume Core																								X			9/7/23
105-66	OU III (Middle Rd)		Plume Core																								X			9/5/23
105-67	OU III (Middle Rd)		Plume Core																								X			9/5/23
105-68	OU III (Middle Rd)		Plume Core																								X			9/5/23
113-17	OU III (Middle Rd)		Bypass Detection																								X			9/6/23
113-19	OU III (Middle Rd)	OU III (Magothy) Sampling Program	Bypass Detection																								X			9/7/23
113-29	OU III (Middle Rd)		Plume Core																								X			9/5/23
113-30	OU III (Middle Rd)		Plume Perimeter																								X			9/6/23
113-31	OU III (Middle Rd)		Plume Perimeter																								X			9/5/23
114-12	OU III (Middle Rd)		Bypass Detection																							X	X			9/5/23
121-45	OU III (Middle Rd)	OU III (South Boundary)	Bypass Detection																							X	X			9/8/23
121-53	OU III (Middle Rd)	OU III (South Boundary)	Plume Core																								X			9/7/23
121-54	OU III (Middle Rd)	OU III (South Boundary)	Plume Core																								X			9/7/23
000-138	OU III (North Street East-EDB)		Plume Core		X																									9/21/23
000-394	OU III (North Street East-EDB)		Plume Core		X																									9/14/23
000-551	OU III (North Street East-EDB)		Plume Core		X																					X				9/14/23
000-552	OU III (North Street East-EDB)		Plume Core		X																									9/14/23
000-553	OU III (North Street East-EDB)		Plume Core		X																									9/14/23
000-554	OU III (North Street East-EDB)		Plume Core		X																									9/21/23
000-555	OU III (North Street East-EDB)		Sentinel		X																									9/15/23
000-563	OU III (North Street East-EDB)		Plume Core		X																									9/21/23
000-564	OU III (North Street East-EDB)		Plume Perimeter		X																									9/21/23
000-565	OU III (North Street East-EDB)		Bypass Detection		X																									9/15/23

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000-566	OU III (North Street East-EDB)		Bypass Detection		X																									9/15/23
121-06	OU III (South Boundary)		Plume Perimeter																								X			9/8/23
121-10	OU III (South Boundary)		Plume Core																								X			9/8/23
121-12	OU III (South Boundary)		Plume Perimeter																								X			9/8/23
121-18	OU III (South Boundary)		Plume Perimeter																								X			9/8/23
121-21	OU III (South Boundary)		Plume Perimeter																								X			9/8/23
121-45	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																							X	X			9/8/23
121-49	OU III (South Boundary)	OU III (Middle Rd)	Plume Perimeter																							X	X			9/8/23
121-53	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																								X			9/7/23
121-54	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																							X	X			9/7/23
122-10	OU III (South Boundary)		Plume Perimeter																								X			9/8/23
000-558	OU III (Western South Boundary)		Plume Core																								X			9/7/23
000-559	OU III (Western South Boundary)		Plume Core																								X			9/7/23
000-560	OU III (Western South Boundary)		Plume Core																								X			9/11/23
103-15	OU III (Western South Boundary)		Plume Core																								X			9/11/23
103-18	OU III (Western South Boundary)		Plume Core																								X			9/13/23
103-19	OU III (Western South Boundary)		Plume Core																								X			9/11/23
111-15	OU III (Western South Boundary)		Plume Core																								X			9/11/23
111-16	OU III (Western South Boundary)		Plume Core																								X			9/7/23
119-06	OU III (Western South Boundary)		Plume Core																								X			9/7/23
119-10	OU III (Western South Boundary)		Plume Core																								X			9/7/23
119-11	OU III (Western South Boundary)		Plume Core																								X			9/11/23
119-12	OU III (Western South Boundary)		Plume Core																							X	X			9/11/23
126-14	OU III (Western South Boundary)		Plume Core																							X	X			9/12/23
126-16	OU III (Western South Boundary)		Bypass Detection																								X			9/11/23
126-17	OU III (Western South Boundary)		Plume Core																								X			9/12/23
126-18	OU III (Western South Boundary)		Plume Core																								X			9/8/23
126-19	OU III (Western South Boundary)		Plume Core																								X			9/12/23
126-20	OU III (Western South Boundary)		Plume Core																								X			9/12/23
126-21	OU III (Western South Boundary)		Plume Core																								X			9/12/23
127-07	OU III (Western South Boundary)		Bypass Detection																								X			9/11/23
130-08	OU III (Western South Boundary)		Bypass Detection																							X	X			9/11/23
130-09	OU III (Western South Boundary)		Plume Perimeter																								X			9/8/23
130-10	OU III (Western South Boundary)		Plume Core																								X			9/8/23
130-11	OU III (Western South Boundary)		Plume Core																								X			9/8/23
130-14	OU III (Western South Boundary)		Plume Core																								X			9/13/23
066-189	OU IV (AOC 6 Sr-90)		Background																						X					9/19/23
076-04	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/28/23
076-06	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/18/23

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076-07	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/28/23
076-13	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X	X				9/19/23
076-168	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/19/23
076-169	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X	X				9/19/23
076-181	OU IV (AOC 6 Sr-90)		Sentinel																						X					9/28/23
076-182	OU IV (AOC 6 Sr-90)		Sentinel																						X					9/28/23
076-184	OU IV (AOC 6 Sr-90)		Plume Core																						X					9/18/23
076-20	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/18/23
076-22	OU IV (AOC 6 Sr-90)		Plume Core																						X					9/28/23
076-24	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/18/23
076-25	OU IV (AOC 6 Sr-90)		Plume Core																						X					9/18/23
076-262	OU IV (AOC 6 Sr-90)		Plume Core																						X					9/18/23
076-28	OU IV (AOC 6 Sr-90)		Plume Core																						X					9/19/23
076-317	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/18/23
076-373	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/19/23
076-415	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/28/23
076-416	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/28/23
076-418	OU IV (AOC 6 Sr-90)		Plume Core																						X					9/19/23
076-419	OU IV (AOC 6 Sr-90)		Plume Core																						X					9/18/23
076-420	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/18/23
076-421	OU IV (AOC 6 Sr-90)		Plume Perimeter																						X					9/18/23
000-500	OU VI EDB		Plume Core		X																					X				9/22/23
000-508	OU VI EDB		Bypass Detection		X																									9/22/23
000-519	OU VI EDB		Bypass Detection		X																									9/22/23
000-527	OU VI EDB		Bypass Detection		X																									*
000-549	OU VI EDB		Plume Core		X																									9/21/23
000-550	OU VI EDB		Plume Core		X																									9/21/23
000-567	OU VI EDB		Plume Core		X																									9/22/23
000-568	OU VI EDB		Plume Core		X																									9/22/23
000-570	OU VI EDB		Plume Core		X																									9/22/23
000-571	OU VI EDB		Plume Core		X																									9/21/23
000-572	OU VI EDB		Plume Core		X																									9/21/23
073-01	OU10 Current Firehouse MW		Plume Core																										D	8/2/23
073-26	OU10 Current Firehouse MW		Plume Core																										4	8/17/23
073-27	OU10 Current Firehouse MW		Plume Core																										4	8/17/23
073-28	OU10 Current Firehouse MW		Plume Core																										4	8/17/23
073-29	OU10 Current Firehouse MW		Plume Core																										4	8/2/23
073-30	OU10 Current Firehouse MW		Plume Core																										4	8/4/23
073-31	OU10 Current Firehouse MW		Plume Core																										4	8/2/23
073-32	OU10 Current Firehouse MW		Plume Core																										4	8/2/23

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073-33	OU10 Current Firehouse MW		Plume Core																										4	8/4/23
074-135	OU10 Current Firehouse MW		Plume Core																										4	8/4/23
083-01	OU10 Current Firehouse MW		Plume Core																										D	8/17/23
083-02	OU10 Current Firehouse MW		Plume Core																										D	8/2/23
083-05	OU10 Current Firehouse MW		Plume Core																										D	8/17/23
083-33	OU10 Current Firehouse MW		Plume Core																										D	7/31/23
083-34	OU10 Current Firehouse MW		Plume Core																										D	7/31/23
083-35	OU10 Current Firehouse MW		Plume Core																										D	7/31/23
083-36	OU10 Current Firehouse MW		Plume Core																										D	7/31/23
083-37	OU10 Current Firehouse MW		Plume Core																										D	7/31/23
083-38	OU10 Current Firehouse MW		Plume Core																										D	7/31/23
083-39	OU10 Current Firehouse MW		Plume Core																										D	7/31/23
083-40	OU10 Current Firehouse MW		Plume Core																										D	7/26/23
083-41	OU10 Current Firehouse MW		Plume Core																							X		X	D	8/11/23
083-42	OU10 Current Firehouse MW		Plume Core																									X	D	8/10/23
083-43	OU10 Current Firehouse MW		Plume Core																									X	D	8/10/23
083-44	OU10 Current Firehouse MW		Plume Core																										D	8/11/23
083-47	OU10 Current Firehouse MW		Plume Core																										D	8/16/23
084-03	OU10 Current Firehouse MW		Plume Core																										D	7/26/23
084-04	OU10 Current Firehouse MW		Plume Core																										D	7/26/23
084-28	OU10 Current Firehouse MW		Plume Core																										D	8/15/23
084-86	OU10 Current Firehouse MW		Plume Core																										D	7/26/23
084-87	OU10 Current Firehouse MW		Plume Core																										D	7/26/23
084-88	OU10 Current Firehouse MW		Plume Core																										D	7/26/23
084-89	OU10 Current Firehouse MW		Plume Core																										D	7/26/23
084-90	OU10 Current Firehouse MW		Plume Core																										D	8/16/23
084-91	OU10 Current Firehouse MW		Plume Core																										D	8/16/23
084-92	OU10 Current Firehouse MW		Plume Core																										D	8/16/23
084-93	OU10 Current Firehouse MW		Plume Core																										D	7/28/23
084-94	OU10 Current Firehouse MW		Plume Core																							X		X	D	7/28/23
084-95	OU10 Current Firehouse MW		Plume Core																									X	D	7/28/23
084-96	OU10 Current Firehouse MW		Plume Core																										D	7/27/23
084-97	OU10 Current Firehouse MW		Plume Core																									X	D	7/27/23
084-98	OU10 Current Firehouse MW		Plume Core																									X	D	7/27/23
093-04	OU10 Current Firehouse MW		Plume Core																										4	8/7/23
093-88	OU10 Current Firehouse MW		Plume Core																										D	8/7/23
093-89	OU10 Current Firehouse MW		Plume Core																										D	8/14/23
093-90	OU10 Current Firehouse MW		Plume Core																									X	D	8/14/23
093-91	OU10 Current Firehouse MW		Plume Core																										D	8/11/23
093-92	OU10 Current Firehouse MW		Plume Core																									X	D	8/11/23
093-93	OU10 Current Firehouse MW		Plume Core																										4	8/16/23
093-94	OU10 Current Firehouse MW		Plume Core																										4	8/16/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
093-95	OU10 Current Firehouse MW		Plume Core																										4	8/16/23
093-96	OU10 Current Firehouse MW		Plume Core																							X			D	8/7/23
093-97	OU10 Current Firehouse MW		Plume Core																										D	8/16/23
093-98	OU10 Current Firehouse MW		Plume Core																										D	8/14/23
094-275	OU10 Current Firehouse MW		Plume Core																										D	8/14/23
094-276	OU10 Current Firehouse MW		Plume Core																									X	D	8/14/23
094-277	OU10 Current Firehouse MW		Plume Core																										D	8/14/23
094-278	OU10 Current Firehouse MW		Plume Core																									X	D	8/14/23
102-12	OU10 Current Firehouse MW		Plume Core																										D	8/17/23
102-26	OU10 Current Firehouse MW		Plume Core																										D	8/9/23
102-27	OU10 Current Firehouse MW		Plume Core																										D	8/9/23
102-28	OU10 Current Firehouse MW		Plume Core																										D	8/9/23
102-29	OU10 Current Firehouse MW		Bypass Detection																										D	8/11/23
102-30	OU10 Current Firehouse MW		Bypass Detection																									X	D	8/10/23
102-31	OU10 Current Firehouse MW		Bypass Detection																									X	D	8/11/23
102-36	OU10 Current Firehouse MW		Plume Core																										D	8/9/23
102-37	OU10 Current Firehouse MW		Plume Core																							X			D	8/9/23
102-38	OU10 Current Firehouse MW		Bypass Detection																										D	8/16/23
102-39	OU10 Current Firehouse MW		Bypass Detection																										D	8/16/23
102-40	OU10 Current Firehouse MW		Bypass Detection																									X	D	8/10/23
103-02	OU10 Current Firehouse MW		Plume Core																									X	D	*
103-10	OU10 Current Firehouse MW		Plume Core																									X	D	8/15/23
103-30	OU10 Current Firehouse MW		Plume Core																									X	D	8/14/23
103-31	OU10 Current Firehouse MW		Plume Core																									X	D	7/27/23
103-32	OU10 Current Firehouse MW		Plume Core																									X	D	7/27/23
103-33	OU10 Current Firehouse MW		Plume Core																									X	D	8/14/23
103-34	OU10 Current Firehouse MW		Plume Core																									X	D	8/14/23
075-809	OU10 Fomer Firehouse MW		Plume Core																						X				4	7/10/23
075-810	OU10 Fomer Firehouse MW		Plume Core																						X				4	7/10/23
075-811	OU10 Fomer Firehouse MW		Plume Core																						X	X			4	7/10/23
075-87	OU10 Fomer Firehouse MW	OU III (BGRR/WCF Sr-90)	Plume Core																										D	7/21/23
085-350	OU10 Fomer Firehouse MW	OU III (Building 96)	Plume Core																										D	7/17/23
085-384	OU10 Fomer Firehouse MW		Plume Core																										D	7/21/23
085-404	OU10 Fomer Firehouse MW		Plume Core																							X			4	7/11/23
085-405	OU10 Fomer Firehouse MW		Plume Core																										4	7/10/23
085-406	OU10 Fomer Firehouse MW		Plume Core																										4	7/11/23
085-407	OU10 Fomer Firehouse MW		Plume Core																										4	7/11/23
085-408	OU10 Fomer Firehouse MW		Plume Core																										4	7/11/23
085-409	OU10 Fomer Firehouse MW		Plume Core																										4	7/11/23
085-410	OU10 Fomer Firehouse MW		Plume Core																										4	7/11/23
085-411	OU10 Fomer Firehouse MW		Plume Core																										D	7/13/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
085-412	OU10 Fomer Firehouse MW		Plume Core																										D	7/13/23
085-43	OU10 Fomer Firehouse MW		Plume Core																										D	07/21/23
086-123	OU10 Fomer Firehouse MW		Plume Core																										D	7/21/23
095-170	OU10 Fomer Firehouse MW	OU III (Building 96)	Plume Core																										D	07/25/23
095-171	OU10 Fomer Firehouse MW		Plume Core																										D	7/21/23
096-115	OU10 Fomer Firehouse MW		Plume Core																							X		X	D	7/21/23
096-117	OU10 Fomer Firehouse MW		Plume Core																									X	D	7/21/23
096-118	OU10 Fomer Firehouse MW		Plume Core																										D	7/20/23
096-122	OU10 Fomer Firehouse MW		Plume Core																										D	7/13/23
096-123	OU10 Fomer Firehouse MW		Plume Core																										D	7/13/23
096-124	OU10 Fomer Firehouse MW		Plume Core																										D	7/13/23
096-125	OU10 Fomer Firehouse MW		Plume Core																										D	7/13/23
096-126	OU10 Fomer Firehouse MW		Plume Core																										D	7/21/23
096-127	OU10 Fomer Firehouse MW		Plume Core																									X	D	7/21/23
096-128	OU10 Fomer Firehouse MW		Plume Core																										D	7/17/23
096-129	OU10 Fomer Firehouse MW		Plume Core																									X	D	7/17/23
096-130	OU10 Fomer Firehouse MW		Plume Core																										D	7/17/23
096-131	OU10 Fomer Firehouse MW		Plume Core																									X	D	7/17/23
096-84	OU10 Fomer Firehouse MW		Plume Core																										D	7/25/23
105-43	OU10 Fomer Firehouse MW		Plume Core																									X	D	7/20/23
105-44	OU10 Fomer Firehouse MW	OU III (Middle Rd)	Plume Core																										D	7/21/23
105-72	OU10 Fomer Firehouse MW		Bypass Detection																									X	D	7/18/23
105-73	OU10 Fomer Firehouse MW		Bypass Detection																									X	D	7/18/23
105-74	OU10 Fomer Firehouse MW		Plume Core																										D	7/20/23
105-75	OU10 Fomer Firehouse MW		Plume Core																										D	7/20/23
105-76	OU10 Fomer Firehouse MW		Plume Core																									X	D	7/20/23
105-77	OU10 Fomer Firehouse MW		Bypass Detection																									X	D	7/18/23
105-78	OU10 Fomer Firehouse MW		Bypass Detection																									X	D	7/18/23
017-01	Site Background		Background																								X			9/15/23
017-03	Site Background		Background																								X			9/15/23
017-04	Site Background		Background																								X			9/15/23
018-01	Site Background		Background																								X			9/15/23
018-02	Site Background		Background																								X			9/15/23
018-04	Site Background		Background																								X			9/15/23
018-05	Site Background		Background																								X			9/15/23
034-02	Site Background		Background																								X			9/15/23
034-03	Site Background		Background																								X			9/14/23
109-03	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	9/26/23
117-01	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	9/26/23
117-02	William Floyd Wellfield Sentinel		Sentinel																				X	X	X	X	X	X	4	9/26/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
117-04	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	9/26/23
117-05	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	9/26/23
117-06	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	9/26/23
			Fourth Quarter 2023																											
087-09	Current Landfill		Background						X	X	X	X	X	X	X	X			X								X			11/15/23
087-11	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			11/15/23
087-23	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X				X	X	X		X			11/15/23
087-24	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			11/15/23
087-26	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			11/15/23
087-27	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X				X	X	X		X			11/16/23
088-109	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X				X	X	X	X	X			11/14/23
088-110	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			11/15/23
088-21	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X				X	X	X		X			11/16/23
088-22	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			11/16/23
088-23	Current Landfill		Downgradient						X	X	X	X	X	X	X	X			X								X			11/16/23
098-99	Current Landfill	OU I South Boundary VOCs	Downgradient																								X			11/15/23
098-99	OU I South Boundary VOCs	Current Landfill	Plume Perimeter																							X	X			11/15/23
000-428	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			12/8/23
800-100	OU III (Airport)		Plume Core																								X			12/5/23
800-101	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Core																								X			12/5/23
800-102	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Core																								X			12/5/23
800-103	OU III (Airport)		Plume Core																							X	X			12/5/23
800-104	OU III (Airport)		Plume Perimeter																								X			12/5/23
800-105	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			12/5/23
800-106	OU III (Airport)		Plume Core																								X			12/6/23
800-108	OU III (Airport)		Bypass Detection																								X			12/5/23
800-126	OU III (Airport)		Bypass Detection																								X			12/4/23
800-127	OU III (Airport)		Bypass Detection																								X			12/6/23
800-128	OU III (Airport)		Bypass Detection																								X			12/1/23
800-129	OU III (Airport)		Plume Perimeter																								X			12/1/23
800-130	OU III (Airport)		Plume Perimeter																								X			12/4/23
800-131	OU III (Airport)		Bypass Detection																							X	X			12/1/23
800-133	OU III (Airport)		Bypass Detection																								X			12/7/23
800-138	OU III (Airport)		Plume Core																								X			12/6/23
800-43	OU III (Airport)		Plume Core																								X			12/7/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
800-44	OU III (Airport)		Plume Core																								X			12/7/23
800-50	OU III (Airport)		Plume Perimeter																								X			12/7/23
800-59	OU III (Airport)		Plume Core																								X			12/6/23
800-60	OU III (Airport)		Sentinel																								X			12/6/23
800-63	OU III (Airport)	OU III (North Street)	Plume Core																								X			12/7/23
800-90	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Core																								X			12/6/23
800-92	OU III (Airport)		Plume Core																								X			12/6/23
800-94	OU III (Airport)		Plume Core																								X			12/7/23
800-95	OU III (Airport)		Plume Core																							X	X			12/7/23
800-96	OU III (Airport)		Plume Perimeter																								X			12/1/23
800-97	OU III (Airport)		Plume Core																								X			12/1/23
800-98	OU III (Airport)		Plume Core																								X			10/26/23
800-99	OU III (Airport)	OU III (Magothy) Sampling Program	Plume Core																								X			10/26/23
075-11	OU III (AOC 29/HFBR Tritium)		Plume Perimeter																					X						10/05/23
075-288	OU III (AOC 29/HFBR Tritium)		Plume Perimeter																					X						10/05/23
075-40	OU III (AOC 29/HFBR Tritium)	OU III (BGRR/WCF Sr-90)	Plume Perimeter																					X						10/05/23
075-802	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						10/05/23
075-803	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						10/03/23
075-804	OU III (AOC 29/HFBR Tritium)		Plume Core																					X		X				10/03/23
075-805	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						10/03/23
075-806	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						10/03/23
075-807	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						10/03/23
075-808	OU III (AOC 29/HFBR Tritium)		Plume Core																					X						10/03/23
065-06	OU III (BGRR/WCF Sr-90)		Background																						X	X	X			11/27/23
065-160	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					*
065-162	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/17/23
065-163	OU III (BGRR/WCF Sr-90)		Background																						X					11/21/23
065-164	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/6/23
065-169	OU III (BGRR/WCF Sr-90)		Plume Perimeter																			X			X					11/14/23
065-170	OU III (BGRR/WCF Sr-90)		Plume Perimeter																			X			X	X				12/26/23
065-174	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/28/23
065-175	OU III (BGRR/WCF Sr-90)		Plume Core																						X	X				11/17/23
065-176	OU III (BGRR/WCF Sr-90)		Background																						X					11/8/23
065-178	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/3/23
065-325	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/13/23
065-360	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/2/23
065-361	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/2/23
065-362	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/3/23

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065-363	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/6/23
065-364	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/6/23
065-365	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/6/23
065-367	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/13/23
065-37	OU III (BGRR/WCF Sr-90)		Plume Perimeter																			X		X	X	X				11/27/23
065-38	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/3/23
065-39	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/3/23
065-401	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/27/23
065-402	OU III (BGRR/WCF Sr-90)		Background																						X					11/22/23
065-404	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/22/23
065-405	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/13/23
075-189	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/7/23
075-193	OU III (BGRR/WCF Sr-90)		Plume Core																						X					10/31/23
075-194	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					10/31/23
075-201	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/8/23
075-210	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X	X				11/15/23
075-39	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/6/23
075-40	OU III (BGRR/WCF Sr-90)	OU III (AOC 29/HFBR Tritium)	Plume Perimeter																					X						10/5/23
075-41	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/7/23
075-46	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/7/23
075-47	OU III (BGRR/WCF Sr-90)		Sentinel																						X					10/31/23
075-48	OU III (BGRR/WCF Sr-90)		Sentinel																						X					10/31/23
075-664	OU III (BGRR/WCF Sr-90)		Plume Core																						M					10/27/23
075-665	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/8/23
075-666	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/16/23
075-669	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/17/23
075-670	OU III (BGRR/WCF Sr-90)		Sentinel																						X					11/3/23
075-671	OU III (BGRR/WCF Sr-90)		Sentinel																						X					11/3/23
075-672	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/2/23
075-673	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/16/23
075-674	OU III (BGRR/WCF Sr-90)		Plume Core																						X					10/31/23
075-675	OU III (BGRR/WCF Sr-90)		Plume Core																						X					10/31/23
075-681	OU III (BGRR/WCF Sr-90)		Sentinel																						X					11/7/23
075-682	OU III (BGRR/WCF Sr-90)		Plume Core																						X	X				11/7/23
075-683	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/2/23
075-684	OU III (BGRR/WCF Sr-90)		Sentinel																						X					10/31/23
075-699	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/13/23
075-700	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/8/23
075-701	OU III (BGRR/WCF Sr-90)		Plume Core																						M					10/27/23
075-705	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/21/23
075-706	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/7/23
075-707	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/2/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
075-85	OU III (BGRR/WCF Sr-90)		Plume Core																						X					11/2/23
075-86	OU III (BGRR/WCF Sr-90)		Plume Perimeter																						X					11/7/23
075-87	OU III (BGRR/WCF Sr-90)	OU X Fomer Firehouse MW	Sentinel																						X					10/31/23
085-398	OU III (BGRR/WCF Sr-90)		Sentinel																						X					11/9/23
085-399	OU III (BGRR/WCF Sr-90)		Sentinel																						X	X				11/9/23
085-402	OU III (BGRR/WCF Sr-90)		Sentinel																						X					11/9/23
085-403	OU III (BGRR/WCF Sr-90)		Sentinel																						X					11/9/23
095-326	OU III (BGRR/WCF Sr-90)		None																						X					11/17/23
085-293	OU III (Building 96)		Plume Core																								X			10/18/23
085-335	OU III (Building 96)		Plume Core																							X	X			10/18/23
085-347	OU III (Building 96)		Plume Core																								X			*
085-348	OU III (Building 96)		Plume Core																								X			10/23/23
085-349	OU III (Building 96)		Plume Core																								X			*
085-350	OU III (Building 96)	OU X Fomer Firehouse MW	Plume Core																								X			10/16/23
085-351	OU III (Building 96)		Plume Core																								X			*
085-352	OU III (Building 96)		Plume Core																								X			10/18/23
085-354	OU III (Building 96)		Plume Core																								X			*
085-378	OU III (Building 96)		Background																								X			*
085-379	OU III (Building 96)		Plume Core																							X	X			10/23/23
085-382	OU III (Building 96)		None																								X			10/20/23
085-383	OU III (Building 96)		None																								X			10/20/23
085-386	OU III (Building 96)		None																								X			10/18/23
095-159	OU III (Building 96)		Plume Core																								X			10/16/23
095-162	OU III (Building 96)		Plume Core																								X			10/16/23
095-163	OU III (Building 96)		Bypass Detection																								X			10/17/23
095-165	OU III (Building 96)		Bypass Detection																							X	X			10/17/23
095-166	OU III (Building 96)		Bypass Detection																								X			10/17/23
095-168	OU III (Building 96)		Bypass Detection																								X			10/17/23
095-169	OU III (Building 96)		Bypass Detection																								X			10/17/23
095-170	OU III (Building 96)	OU X Fomer Firehouse MW	Bypass Detection																								X			10/17/23
095-172	OU III (Building 96)		Plume Core																								X			10/16/23
095-294	OU III (Building 96)		Plume Core																								X			10/19/23
095-305	OU III (Building 96)		Plume Core																								X			10/19/23
095-306	OU III (Building 96)		Plume Core																								X			10/19/23
095-307	OU III (Building 96)		Plume Core																								X			10/19/23
095-308	OU III (Building 96)		Plume Core																								X			10/19/23
095-312	OU III (Building 96)		Plume Core																								X			10/18/23
095-313	OU III (Building 96)		Plume Core																								X			10/19/23
095-318	OU III (Building 96)		Sentinel																								X			10/23/23
095-325	OU III (Building 96)		None																								X			10/19/23
095-84	OU III (Building 96)		Plume Core																								X			10/20/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
095-85	OU III (Building 96)		Plume Perimeter																								X			10/20/23
000-112	OU III (Industrial Park)		Plume Core																								X			10/19/23
000-114	OU III (Industrial Park)		Plume Perimeter																								X			10/19/23
000-245	OU III (Industrial Park)		Plume Perimeter																								X			10/23/23
000-248	OU III (Industrial Park)		Plume Perimeter																								X			10/12/23
000-249	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																							X	X			10/11/23
000-250	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			10/11/23
000-252	OU III (Industrial Park)		Plume Perimeter																								X			10/11/23
000-253	OU III (Industrial Park)		Plume Core																							X	X			10/11/23
000-255	OU III (Industrial Park)		Plume Perimeter																								X			10/12/23
000-256	OU III (Industrial Park)		Plume Core																							X	X			10/12/23
000-259	OU III (Industrial Park)		Plume Core																								X			10/13/23
000-261	OU III (Industrial Park)		Plume Perimeter																								X			10/17/23
000-262	OU III (Industrial Park)		Plume Core																								X			10/17/23
000-265	OU III (Industrial Park)		Plume Core																								X			*
000-267	OU III (Industrial Park)		Plume Perimeter																								X			10/16/23
000-268	OU III (Industrial Park)		Plume Core																								X			10/16/23
000-271	OU III (Industrial Park)		Plume Core																								X			10/16/23
000-272	OU III (Industrial Park)		Plume Perimeter																								X			10/16/23
000-273	OU III (Industrial Park)		Bypass Detection																								X			10/25/23
000-274	OU III (Industrial Park)		Bypass Detection																								X			10/25/23
000-275	OU III (Industrial Park)		Bypass Detection																								X			10/24/23
000-276	OU III (Industrial Park)		Bypass Detection																								X			10/24/23
000-277	OU III (Industrial Park)		Bypass Detection																								X			10/23/23
000-278	OU III (Industrial Park)		Bypass Detection																								X			10/23/23
000-279	OU III (Industrial Park)		Plume Core																							X	X			10/18/23
000-431	OU III (Industrial Park)		Bypass Detection																								X			10/24/23
000-432	OU III (Industrial Park)		Bypass Detection																								X			10/24/23
000-528	OU III (Industrial Park)		Plume Core																								X			10/18/23
000-529	OU III (Industrial Park)		Plume Core																								X			10/18/23
000-530	OU III (Industrial Park)		Plume Core																								X			10/12/23
000-531	OU III (Industrial Park)		Plume Core																								X			10/16/23
000-537	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			10/17/23
000-538	OU III (Industrial Park)		Plume Core																							X	X			10/17/23
000-541	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			10/19/23
000-542	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			10/13/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
000-543	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			10/17/23
000-544	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Bypass Detection																								X			10/24/23
000-548	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Bypass Detection																								X			10/19/23
127-08	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			10/10/23
127-09	OU III (Industrial Park)	OU III (Magothy) Sampling Program	Plume Core																								X			10/10/23
000-101	OU III (LIPA)		Plume Perimeter																								X			11/08/23
000-102	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			11/08/23
000-104	OU III (LIPA)		Plume Core																							X	X			11/07/23
000-105	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			11/30/23
000-130	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Core																								X			10/25/23
000-131	OU III (LIPA)		Bypass Detection																								X			11/07/23
000-425	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Core																								X			10/26/23
000-445	OU III (LIPA)		Plume Perimeter																								X			11/08/23
000-446	OU III (LIPA)		Plume Perimeter																								X			11/08/23
000-447	OU III (LIPA)		Plume Core																								X			10/27/23
000-448	OU III (LIPA)		Plume Core																								X			11/14/23
000-449	OU III (LIPA)		Plume Core																								X			11/07/23
000-450	OU III (LIPA)		Plume Perimeter																								X			11/14/23
000-451	OU III (LIPA)		Bypass Detection																								X			11/07/23
000-452	OU III (LIPA)		Bypass Detection																								X			11/01/23
000-458	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			10/27/23
000-459	OU III (LIPA)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			12/08/23
000-130	OU III (Magothy) Sampling Program	OU III (LIPA)	Magothy																								X			10/25/23
000-249	OU III (Magothy) Sampling Program	OU III (Industrial Park)	Magothy																							X	X			10/11/23
000-250	OU III (Magothy) Sampling Program	OU III (Industrial Park)	Magothy																								X			10/11/23
000-343	OU III (Magothy) Sampling Program	OU III (North Street)	None																								X			12/22/23
000-425	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			10/26/23
000-428	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			12/08/23
000-458	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			10/27/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
000-459	OU III (Magothy) Sampling Program	OU III (LIPA)	None																								X			*
113-09	OU III (Magothy) Sampling Program	OU III (Middle Rd)	None																								X			10/25/23
113-19	OU III (Magothy) Sampling Program	OU III (Middle Rd)	None																								X			11/3/23
113-22	OU III (Magothy) Sampling Program	OU III (Middle Rd)	None																								X			11/3/23
122-05	OU III (Magothy) Sampling Program	OU III (South Boundary)	None																								X			11/14/23
122-20	OU III (Magothy) Sampling Program	OU III (South Boundary)	None																								X			12/13/23
130-04	OU III (Magothy) Sampling Program	OU III (Western South Boundary)	None																								X			11/20/23
800-101	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			12/5/23
800-102	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			12/5/23
800-105	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			12/5/23
800-90	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			12/6/23
800-99	OU III (Magothy) Sampling Program	OU III (Airport)	None																								X			10/26/23
095-322	OU III (Middle Rd)		Plume Core																								X			10/23/23
095-323	OU III (Middle Rd)		Plume Core																								X			10/23/23
095-92	OU III (Middle Rd)		Sentinel																								X			10/23/23
104-11	OU III (Middle Rd)		Plume Perimeter																								X			10/24/23
104-36	OU III (Middle Rd)		Plume Perimeter																								X			10/25/23
104-37	OU III (Middle Rd)		Plume Core																							X	X			10/24/23
104-38	OU III (Middle Rd)		Plume Perimeter																								X			10/24/23
105-23	OU III (Middle Rd)		Plume Core																								X			10/24/23
105-25	OU III (Middle Rd)		Plume Core																								X			11/03/23
105-42	OU III (Middle Rd)		Plume Perimeter																								X			10/24/23
105-44	OU III (Middle Rd)	OU X Fomer Firehouse MW	Plume Core																							X	X			10/31/23
105-53	OU III (Middle Rd)		Plume Core																								X			10/26/23
105-66	OU III (Middle Rd)		Plume Core																								X			10/26/23
105-67	OU III (Middle Rd)		Plume Core																								X			10/26/23
105-68	OU III (Middle Rd)		Plume Core																								X			10/31/23
105-80	OU III (Middle Rd)																										X			*
105-81	OU III (Middle Rd)																										X			*
106-56	OU III (Middle Rd)		Plume Core																								X			101/30/23
106-58	OU III (Middle Rd)		Plume Core																								X			10/30/23
106-62	OU III (Middle Rd)		Plume Perimeter																								X			10/30/23
113-07	OU III (Middle Rd)		Plume Core																								X			10/25/23
113-08	OU III (Middle Rd)		Plume Core																								X			10/25/23
113-09	OU III (Middle Rd)	OU III (Magothy) Sampling Program	Plume Core																								X			10/25/23
113-11	OU III (Middle Rd)		Plume Core																								X			10/30/23
113-17	OU III (Middle Rd)		Bypass Detection																								X			10/30/23
113-18	OU III (Middle Rd)		Bypass Detection																								X			10/31/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
113-19	OU III (Middle Rd)	OU III (Magothy) Sampling Program	Bypass Detection																								X			11/03/23
113-22	OU III (Middle Rd)	OU III (Magothy) Sampling Program	Plume Core																								X			11/03/23
113-29	OU III (Middle Rd)		Plume Core																								X			10/25/23
113-30	OU III (Middle Rd)		Plume Perimeter																								X			10/30/23
113-31	OU III (Middle Rd)		Plume Perimeter																								X			10/25/23
114-12	OU III (Middle Rd)		Bypass Detection																							X	X			11/03/23
121-45	OU III (Middle Rd)	OU III (South Boundary)	Bypass Detection																							X	X			11/03/23
121-53	OU III (Middle Rd)	OU III (South Boundary)	Plume Core																								X			11/06/23
121-54	OU III (Middle Rd)	OU III (South Boundary)	Plume Core																								X			12/13/23
000-138	OU III (North Street East-EDB)		Plume Core		X																									12/8/23
000-394	OU III (North Street East-EDB)		Plume Core		X																						X			12/11/23
000-551	OU III (North Street East-EDB)		Plume Core		X																					X	X			12/11/23
000-552	OU III (North Street East-EDB)		Plume Core		X																						X			*
000-553	OU III (North Street East-EDB)		Plume Core		X																						X			*
000-554	OU III (North Street East-EDB)		Plume Core		X																						X			12/11/23
000-555	OU III (North Street East-EDB)		Sentinel		X																						X			12/11/23
000-563	OU III (North Street East-EDB)		Plume Core		X																						X			12/11/23
000-564	OU III (North Street East-EDB)		Plume Perimeter		X																						X			12/12/23
000-565	OU III (North Street East-EDB)		Bypass Detection		X																						X			12/12/23
000-566	OU III (North Street East-EDB)		Bypass Detection		X																						X			12/12/23
115-42	OU III (North Street East-EDB)		Plume Perimeter		X																									12/20/23
000-108	OU III (North Street)		Plume Core																							X	X			12/21/23
000-154	OU III (North Street)		Plume Core																								X			12/21/23
000-212	OU III (North Street)		Plume Core																								X			12/22/23
000-343	OU III (North Street)	OU III (Magothy) Sampling Program	Plume Core																								X			12/22/23
000-465	OU III (North Street)		Plume Core																								X			12/21/23
000-472	OU III (North Street)		Plume Core																								X			12/12/23
000-474	OU III (North Street)		Plume Core																								X			12/21/23
114-06	OU III (South Boundary)		Plume Perimeter																								X			11/15/23
114-07	OU III (South Boundary)		Plume Core																								X			11/15/23
121-08	OU III (South Boundary)		Plume Perimeter																								X			11/06/23
121-10	OU III (South Boundary)		Plume Core																								X			11/06/23
121-11	OU III (South Boundary)		Plume Core																								X			11/09/23
121-14	OU III (South Boundary)		Plume Core																								X			11/09/23
121-20	OU III (South Boundary)		Plume Core																								X			11/13/23
121-23	OU III (South Boundary)		Plume Core																								X			11/09/23

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Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
121-43	OU III (South Boundary)		Bypass Detection																								X			11/30/23
121-45	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																							X	X			11/3/23
121-47	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																								X			11/13/23
121-48	OU III (South Boundary)	OU III (Middle Rd)	None																								X			11/09/23
121-49	OU III (South Boundary)	OU III (Middle Rd)	Plume Perimeter																							X	X			11/13/23
121-53	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																								X			11/06/23
121-54	OU III (South Boundary)	OU III (Middle Rd)	Plume Core																							X	X			12/13/23
121-57	OU III (South Boundary)																										X			*
122-04	OU III (South Boundary)		Plume Core																								X			11/14/23
122-05	OU III (South Boundary)	OU III (Magothy) Sampling Program	Plume Core																								X			11/14/23
122-09	OU III (South Boundary)		Plume Perimeter																								X			12/13/23
122-17	OU III (South Boundary)		Plume Core																								X			12/13/23
122-19	OU III (South Boundary)		Plume Perimeter																								X			12/13/23
122-20	OU III (South Boundary)	OU III (Magothy) Sampling Program	Plume Core																								X			12/13/23
122-21	OU III (South Boundary)		Plume Core																								X			12/13/23
122-22	OU III (South Boundary)		Plume Core																								X			12/13/23
122-31	OU III (South Boundary)		Plume Perimeter																								X			12/18/23
122-32	OU III (South Boundary)		Plume Core																								X			12/18/23
122-33	OU III (South Boundary)		Plume Perimeter																								X			12/18/23
122-34	OU III (South Boundary)		Bypass Detection																								X			12/18/23
122-35	OU III (South Boundary)		Plume Core																								X			12/18/23
000-558	OU III (Western South Boundary)		Plume Core																								X			11/29/23
000-559	OU III (Western South Boundary)		Plume Core																								X			11/29/23
000-560	OU III (Western South Boundary)		Plume Core																								X			11/29/23
103-15	OU III (Western South Boundary)		Plume Core																								X			11/28/23
103-18	OU III (Western South Boundary)		Plume Core																								X			11/28/23
103-19	OU III (Western South Boundary)		Plume Core																								X			11/28/23
111-15	OU III (Western South Boundary)		Plume Core																								X			11/21/23
111-16	OU III (Western South Boundary)		Plume Core																								X			11/28/23
119-06	OU III (Western South Boundary)		Plume Core																								X			11/21/23
119-10	OU III (Western South Boundary)		Plume Core																								X			11/21/23
119-11	OU III (Western South Boundary)		Plume Core																								X			11/20/23
119-12	OU III (Western South Boundary)		Plume Core																							X	X			11/28/23
121-42	OU III (Western South Boundary)		Plume Core																								X			11/27/23
126-01	OU III (Western South Boundary)		Plume Perimeter																								X			11/20/23
126-11	OU III (Western South Boundary)		Plume Core																								X			11/21/23
126-13	OU III (Western South Boundary)		Plume Core																								X			11/21/23
126-14	OU III (Western South Boundary)		Plume Core																							X	X			11/20/23
126-15	OU III (Western South Boundary)		Plume Core																								X			11/27/23

Table 1-5
BNL CERCLA Groundwater Monitoring Schedule for 2022

2023 BNL Groundwater Status Report

Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
126-16	OU III (Western South Boundary)		Bypass Detection																								X			11/29/23
126-17	OU III (Western South Boundary)		Plume Core																								X			11/21/23
126-18	OU III (Western South Boundary)		Plume Core																								X			11/21/23
126-19	OU III (Western South Boundary)		Plume Core																								X			11/27/23
126-20	OU III (Western South Boundary)		Plume Core																								X			11/20/23
126-21	OU III (Western South Boundary)		Plume Core																								X			11/20/23
127-04	OU III (Western South Boundary)		Plume Core																								X			11/27/23
127-06	OU III (Western South Boundary)		Plume Core																								X			11/27/23
127-07	OU III (Western South Boundary)		Bypass Detection																								X			11/30/23
130-02	OU III (Western South Boundary)		Plume Perimeter																								X			11/20/23
130-03	OU III (Western South Boundary)		Plume Perimeter																								X			11/20/23
130-04	OU III (Western South Boundary)	OU III (Magothy) Sampling Program	Plume Perimeter																								X			11/20/23
130-08	OU III (Western South Boundary)		Bypass Detection																							X	X			11/30/23
130-09	OU III (Western South Boundary)		Plume Perimeter																								X			11/29/23
130-10	OU III (Western South Boundary)		Plume Core																								X			11/29/23
130-11	OU III (Western South Boundary)		Plume Core																								X			11/29/23
130-14	OU III (Western South Boundary)		Plume Core																								X			11/28/23
000-173	OU VI EDB		Plume Core		X																									12/15/23
000-175	OU VI EDB		Plume Core		X																									*
000-178	OU VI EDB		Plume Core		X																									12/14/23
000-209	OU VI EDB		Plume Core		X																									*
000-283	OU VI EDB		Plume Core		X																									12/14/23
000-284	OU VI EDB		Plume Core		X																									12/15/23
000-498	OU VI EDB		Plume Perimeter		X																									12/15/23
000-499	OU VI EDB		Plume Core		X																									12/14/23
000-500	OU VI EDB		Plume Core		X																					X				12/14/23
000-501	OU VI EDB		Plume Perimeter		X																									12/14/23
000-507	OU VI EDB		Plume Core		X																									12/15/23
000-508	OU VI EDB		Bypass Detection		X																									12/14/23
000-519	OU VI EDB		Bypass Detection		X																									12/14/23
000-520	OU VI EDB		Plume Core		X																									12/20/23
000-524	OU VI EDB		Plume Perimeter		X																									12/19/23
000-527	OU VI EDB		Bypass Detection		X																									12/14/23
000-549	OU VI EDB		Plume Core		X																									12/14/23
000-550	OU VI EDB		Plume Core		X																									12/14/23
000-567	OU VI EDB		Plume Core		X																									12/15/23
000-568	OU VI EDB		Plume Core		X																									12/15/23
000-570	OU VI EDB		Plume Core		X																									12/19/23
000-571	OU VI EDB		Plume Core		X																									12/20/23
000-572	OU VI EDB		Plume Core		X																									12/14/23

Table 1-5
BNL CERCLA Groundwater Monitoring Schedule for 2022

2023 BNL Groundwater Status Report

Well ID	Project 1	Project 2	Decision Subunit	EPA 524.2 VOCs	EPA 504 EDB	EPA 625 Semi-VOCs	Pesticides Method 608	PCBs Method 608	TSS/TDS	Sulfates/Chloride/Alkalinity	TK Nitrogen	Total Nitrogen	Nitrates	Nitrites	Ammonia	TAL Metals	Total Chromium	Hexavalent Chromium	Cyanide	Perchlorate	EPA 900 Gross Alpha/Beta	Isotopic Cs-137	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Blind Duplicate/MS/MSD	8260 Low Level	8270 SIM 1,4-dioxane	EPA 1633 PFAS/PFOA	Date Sampled
000-580	OU VI EDB				X																									12/19/23
000-581	OU VI EDB				X																									12/20/23
000-582	OU VI EDB				X																									12/20/23
073-26	OU X Current Firehouse MW		Plume Core																										4	10/11/23
073-27	OU X Current Firehouse MW		Plume Core																										4	10/11/23
073-28	OU X Current Firehouse MW		Plume Core																										4	10/11/23
073-29	OU X Current Firehouse MW		Plume Core																										4	10/03/23
073-30	OU X Current Firehouse MW		Plume Core																										4	10/10/23
073-31	OU X Current Firehouse MW		Plume Core																										4	10/03/23
073-32	OU X Current Firehouse MW		Plume Core																										4	10/03/23
073-33	OU X Current Firehouse MW		Plume Core																										4	10/03/23
074-135	OU X Current Firehouse MW		Plume Core																							X			4	10/03/23
093-04	OU X Current Firehouse MW		Plume Core																										4	10/05/23
093-93	OU X Current Firehouse MW		Plume Core																										4	10/05/23
093-94	OU X Current Firehouse MW		Plume Core																										4	10/05/23
093-95	OU X Current Firehouse MW		Plume Core																										4	10/05/23
075-809	OU X Fomer Firehouse MW		Plume Core																										4	10/13/23
075-810	OU X Fomer Firehouse MW		Plume Core																										4	10/13/23
075-811	OU X Fomer Firehouse MW		Plume Core																							X			4	10/13/23
085-404	OU X Fomer Firehouse MW		Plume Core																							X			4	10/12/23
085-405	OU X Fomer Firehouse MW		Plume Core																										4	10/12/23
085-406	OU X Fomer Firehouse MW		Plume Core																										4	10/12/23
085-407	OU X Fomer Firehouse MW		Plume Core																										4	10/12/23
085-408	OU X Fomer Firehouse MW		Plume Core																										4	10/12/23
085-409	OU X Fomer Firehouse MW		Plume Core																										4	10/12/23
085-410	OU X Fomer Firehouse MW		Plume Core																										4	10/12/23
109-03	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	12/28/23
117-01	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	12/27/23
117-02	William Floyd Wellfield Sentinel		Sentinel																				X	X	X	X	X	X	4	12/27/23
117-04	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	12/28/23
117-05	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	12/27/23
117-06	William Floyd Wellfield Sentinel		Sentinel																				X	X	X		X	X	4	12/28/23

NOTES:
X: Sampled.
4: Collect Quarterly.
M: Collect Monthly.
D: Collect in 1st and 3rd Quarters.
F: Collect in 2nd and 4th Quarters.
*: not sampled

Table 1-6
Summary of Environmental Surveillance Samples and Analytical Methods

2023 BNL Groundwater Status Report

Well ID	Area	Sub Area	Decision Subunit	EPA 524.2 VOCs	EPA 625 Semi-VOCs	EPA 608 Pest/PCBs	Sulfate/Chloride/Nitrate	Metals	EPA 900 Gross Alpha/Beta	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Floating Product	Frequency (events/year)
064-46	BLIP		Upgradient								X			1
064-47	BLIP		Downgradient								X			2
064-48	BLIP		Downgradient								X			2
064-67	BLIP		Downgradient								X			2
054-08	AGS	NSRL	Downgradient								X			1
054-191	AGS	NSRL	Downgradient								X			1
064-51	AGS	Booster Beam Stop	Downgradient								X			1
064-52	AGS	Booster Beam Stop	Downgradient								X			1
064-03	AGS	B-914	Downgradient								X			1
064-53	AGS	B-914	Downgradient								X			1
064-54	AGS	B-914	Downgradient								X			1
054-62	AGS	Bkgd. J-10 Beam Stop	Upgradient								X			1
054-63	AGS	J-10 Beam Stop	Downgradient								X			1
054-64	AGS	J-10 Beam Stop	Downgradient								X			1
054-65	AGS	g-2 Beam Stop/Plume Source	Upgradient								X			1
054-66	AGS	g-2 Beam Stop	Downgradient								X			1
054-67	AGS	g-2 Beam Stop	Downgradient								X			1
054-68	AGS	g-2 Beam Stop	Downgradient								X			1
054-125	AGS	g-2 Beam Stop	Downgradient								X			1
054-127	AGS	Fm. U-Line Target	Upgradient								X			1
054-128	AGS	Fm. U-Line Target	Downgradient								X			1
054-129	AGS	Fm. U-Line Target	Downgradient								X			1
054-130	AGS	Fm. U-Line Target	Downgradient								X			1
054-168	AGS	Fm. U-Line Stop	Downgradient								X			1
054-169	AGS	Fm. U-Line Stop	Downgradient								X			1
054-69	AGS	B-912	Upgradient								X			1
055-14	AGS	B-912	Upgradient								X			1
065-120	AGS	B-912	Downgradient								X			1
065-125	AGS	B-912	Downgradient								X			1
065-126	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
065-195	AGS	B-912	Downgradient								X			1
055-31	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
055-15	AGS	B-912	Downgradient								X			1
055-16	AGS	B-912	Downgradient								X			1
065-192	AGS	B-912	Downgradient								X			1
055-29	AGS	B-912	Downgradient								X			1
055-30	AGS	B-912	Downgradient								X			1
055-32	AGS	B-912	Downgradient								X			1
065-121	AGS	B912/g-2 Tritium Plume	Downgradient								X			1
065-122	AGS	B912/g-2 Tritium Plume	Downgradient								X			1

Table 1-6
Summary of Environmental Surveillance Samples and Analytical Methods

2023 BNL Groundwater Status Report

Well ID	Area	Sub Area	Decision Subunit	EPA 524.2 VOCs	EPA 625 Semi-VOCs	EPA 608 Pest/PCBs	Sulfate/Chloride/Nitrate	Metals	EPA 900 Gross Alpha/Beta	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Floating Product	Frequency (events/year)
065-193	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
065-123	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
065-124	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
065-194	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
065-321	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
065-322	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
065-323	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
065-324	AGS	B-912/g-2 Tritium Plume	Downgradient								X			1
064-55	AGS	E-20 Catcher	Downgradient								X			1
064-56	AGS	E-20 Catcher	Downgradient								X			1
064-80	AGS	E-20 Catcher	Downgradient								X			1
054-07	AGS/g-2	g-2 Tritium Plume Source	Downgradient								X			2
054-124	AGS/g-2	g-2 Source/Beam Stop	Downgradient								X			2
054-184	AGS/g-2	g-2 Tritium Plume Source	Downgradient								X			2
054-185	AGS/g-2	g-2 Tritium Plume Source	Downgradient								X			2
064-95	AGS/g-2	g-2 Tritium Plume Source	Downgradient								X			2
054-126	AGS/g-2	g-2 Tritium Plume Source	Downgradient								X			2
025-01	RHIC	B/Y Beam Stop Area	Upgradient								X			2
025-03	RHIC	B/Y Beam Stop Area	Downgradient								X			2
025-04	RHIC	B/Y Beam Stop Area	Downgradient								X			2
025-05	RHIC	B/Y Beam Stop Area	Downgradient								X			2
025-06	RHIC	B/Y Beam Stop Area	Downgradient								X			2
025-07	RHIC	B/Y Beam Stop Area	Downgradient								X			2
025-08	RHIC	B/Y Beam Stop Area	Downgradient								X			2
034-05	RHIC	B/Y Collimator Area	Downgradient								X			2
034-06	RHIC	B/Y Collimator Area	Downgradient								X			2
043-01	RHIC	B/Y Collimator Area	Downgradient								X			2
043-02	RHIC	B/Y Collimator Area	Downgradient								X			2
044-13	RHIC	B/Y Collimator Area	Downgradient								X			2
044-14	RHIC	B/Y Collimator Area	Downgradient								X			2
044-29	RHIC	W-Line Stop	Downgradient								X			2
084-12	BMRR		Downgradient											0(a)
084-13	BMRR		Downgradient											0(a)
084-27	BMRR		Downgradient											0(a)
084-28	BMRR		Upgradient											0(a)
102-05	Motor Pool	Gasoline USTs	Downgradient	X									X	1
102-06	Motor Pool	Gasoline USTs	Downgradient	X									X	1
055-03	WMF	Bkgd.	Upgradient	X			X(b)	X(b)	X	X	X	X(b)		2
055-10	WMF	Bkgd.	Upgradient	X			X(b)	X(b)	X	X	X	X(b)		2
056-21	WMF	RCRA Bldg.	Downgradient	X			X(b)	X(b)	X	X	X	X		2

Table 1-6
Summary of Environmental Surveillance Samples and Analytical Methods

2023 BNL Groundwater Status Report

Well ID	Area	Sub Area	Decision Subunit	EPA 524.2 VOCs	EPA 625 Semi-VOCs	EPA 608 Pest/PCBs	Sulfate/Chloride/Nitrate	Metals	EPA 900 Gross Alpha/Beta	EPA 901 Gamma Spec	EPA 906 Tritium	EPA 905 Sr-90	Floating Product	Frequency (events/year)
056-22	WMF	Rad. Bldg.	Downgradient	X			X(b)	X(b)	X	X	X	X		2
056-23	WMF	Rad. Bldg.	Downgradient	X			X(b)	X(b)	X	X	X	X(b)		2
066-84	WMF	Rad. Bldg.	Downgradient											0
066-220	WMF	RCRA Bldg.	Downgradient	X			X(b)	X(b)	X	X	X	X		2
066-221	WMF	RCRA Bldg.	Downgradient	X			X(b)	X(b)	X	X	X	X		2
066-222	WMF	Rad. Bldg.	Downgradient	X			X(b)	X(b)	X	X	X	X		2
066-223	WMF	Rad. Bldg.	Downgradient	X			X(b)	X(b)	X	X	X	X		2
066-224	WMF	Mixed Waste Bldg.	Downgradient											0(c)
076-16	MPF	Tank Area	Downgradient	X	X								X(d)	2
076-17	MPF	Tank Area	Downgradient	X	X								X(d)	2
076-18	MPF	Tank Area	Downgradient	X	X						X(e)		X(d)	2
076-19	MPF	Tank Area	Downgradient	X	X						X(e)		X(d)	2
076-25	MPF	Tank Area	Upgradient	X	X								X(d)	2
076-378	MPF	Tank Area	Downgradient	X	X								X(d)	2
076-379	MPF	Tank Area	Downgradient	X	X								X(d)	2
076-380	MPF	Tank Area	Downgradient	X	X								X(d)	2
039-87	STP	Recharge Basins - Upgrad	Downgradient					X						1
039-88	STP	Holding Ponds/Recharge B	Downgradient					X						1
039-89	STP	Holding Ponds/Recharge B	Downgradient					X						1
039-90	STP	Holding Ponds	Downgradient											0
039-115	STP	Recharge Basins	Downgradient					X						1
048-08	STP	Recharge Basins	Downgradient					X						1
048-09	STP	Recharge Basins	Downgradient					X						1
048-10	STP	Recharge Basins	Downgradient					X						1
086-123	NSLS-II	Linac	Downgradient								X			1
086-124	NSLS-II	Linac	Downgradient								X			1
086-125	NSLS-II	Linac	Downgradient								X			1
086-126	NSLS-II	Linac	Downgradient								X			1

Notes:

(a) BMRR monitoring program discontinued in 2023.

(b) Anions, metals, and Sr-90 analyzed annually.

(c) Well not routinely monitored following closure of Mixed Waste Building.

(d) MPF wells tested monthly for floating petroleum.

(e) Well sampled for tritium during planned MPF monitoring schedule (NSLS-II Background).

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
000-37	Water Levels	18-28	33	42.3	SG
000-38	Water Levels	29-39	41	56.4	SG
000-40	Water Levels	24-34	36	66.5	SG
000-97	OU III Off-site, Water Levels	284-304	310	101.3	MAG
000-98	OU III Off-site, Water Levels	190-210	215	100.1	DG
000-99	OU III Off-site, Water Levels	83-93	98	100.1	SG
000-100	Water Levels	79-89	94	100.9	SG
000-101	OU III LIPA, Water Levels	185-205	210	101.4	DG
000-102	OU III LIPA, Magothy, Water Levels	305-325	330	101.2	MAG
000-103	Water Levels	82-92	97	106.5	SG
000-104	OU III LIPA, Water Levels	195-215	220	106.2	DG
000-105	OU III LIPA, Magothy, Water Levels	275-295	300	105.5	MAG
000-106	Water Levels	90-100	105	115.2	SG
000-107	OU III Off-site, Water Levels	195-215	220	116.0	DG
000-108	OU III North Street, Water Levels	215-225	225	69.0	DG
000-109	Water Levels	50-60	65	68.7	SG
000-110	OU VI EDB, Water Levels	97-107	112	52.2	SD
000-111	Water Levels	35-45	50	55.3	SG
000-112	OU III Industrial Park, Water Levels	175-185	190	72.1	DG
000-113	Water Levels	69-79	84	72.1(a)	SG
000-114	OU III Industrial Park, Water Levels	130-140	145	72.5	MG
000-115	Water Levels	74-84	89	94.2	SD
000-117	Water Levels	55-65	70	86.1	SD
000-118	Water Levels	150-160	165	78.4	DG
000-119	Water Levels	110-120	125	78.4	DG
000-120	Water Levels	45-55	60	78.4	SG
000-121	Water Levels	51-61	66	87.6	SD
000-122	OU V, Water Levels	240-260	265	43.0	DG
000-123	OU V, Water Levels	150-170	175	43.0	MG
000-124	OU III North Street East, Water Levels	115-125	130	63.0	SD
000-130	OU III LIPA, Magothy, Water Levels	275-285	295	87.4	MAG
000-131	OU III LIPA, Water Levels	220-230	235	100.8	DG
000-137	OU III North Street East, Water Levels	98-118	123	60.9	SG
000-138	OU III North Street East, Water Levels	158-178	183	61.2	DG
000-141	OU V, Water Levels	37-57	62	48.1	SG
000-142	OU V, Water Levels	145-165	170	48.4	DG
000-143	OU V, Water Levels	240-260	265	48.7	MAG
000-144	OU V, Water Levels	25-45	50	41.0	SG
000-145	OU V, Water Levels	130-150	155	41.1	DG
000-146	OU V, Water Levels	239-259	264	41.3	MAG
000-147	OU V, Water Levels	34-54	59	43.0	SG
000-148	Water Levels	84-89	89	65.0	SG
000-150	Water Levels	28-32	32	77.6	SG
000-152	Water Levels	32-36	36	56.5	SG
000-153	OU III North Street, Water Levels	190-210	215	94.4	DG
000-154	OU III North Street, Water Levels	193-203	208	97.4	DG
000-173	OU VI EDB, Water Levels	106-116	121	54.8	DG
000-174	OU VI EDB, Water Levels	56-66	71	57.1	DG
000-175	OU VI EDB, Water Levels	100-110	115	50.4	DG
000-176	OU VI EDB, Water Levels	55-65	70	49.7	DG
000-177	OU VI EDB, Water Levels	106-116	121	60.1	DG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
000-178	OU VI EDB, Water Levels	128-138	143	58.0	DG
000-179	OU VI EDB, Water Levels	117-127	132	56.1	DG
000-180	OU VI EDB, Water Levels	140-155	160	51.8	DG
000-201	OU VI EDB, Water Levels	93-103	108	50.3	DG
000-209	OU VI EDB, Water Levels	94-104	109	50.7	DG
000-211	OU III Industrial Park East, North Street, Water Levels	212-232	232	73.4	DG
000-212	OU III North Street, Water Levels	200-210	215	74.0	DG
000-213	OU III North Street, Water Levels	185-205	210	86.1	DG
000-215	OU III North Street East, Water Levels	260-270	275	64.0	DG
000-245	OU III Industrial Park, Water Levels	202-222	227	80.7	DG
000-246	OU III Industrial Park, Water Levels	133-143	145	82.2	MG
000-247	OU III Industrial Park	178-183	184	82.2	DG
000-248	OU III Industrial Park, Water Levels	230-235	238	82.2	DG
000-249	OU III Industrial Park	259-269	270	82.5	MAG
000-249	OU III Magothy, Water Levels	259-269	270	82.5	MAG
000-250	OU III Industrial Park, Magothy, Water Levels	293-303	304	82.9	MAG
000-251	OU III Industrial Park	133-143	144	81.9	MG
000-252	OU III Industrial Park	169-174	175	81.9	MG
000-253	OU III Industrial Park, Water Levels	223-228	229	81.9	DG
000-254	OU III Industrial Park	128-138	139	79.9	MG
000-255	OU III Industrial Park	165-170	171	79.9	MG
000-256	OU III Industrial Park, Water Levels	220-225	226	79.9	DG
000-257	OU III Industrial Park	109-119	120	73.9	MG
000-258	OU III Industrial Park	145-150	151	73.9	MG
000-259	OU III (Industrial Park), Water Levels	200-205	206	73.9	DG
000-260	OU III Industrial Park	95-105	106	71.4	SG
000-261	OU III Industrial Park	130-135	136	71.4	MG
000-262	OU III Industrial Park, Water Levels	180-185	186	71.4	DG
000-263	OU III Industrial Park	118-128	129	83.4	MG
000-264	OU III Industrial Park, Water Levels	155-160	161	83.4	MG
000-265	OU III Industrial Park, Water Levels	210-215	216	83.4	DG
000-266	OU III Industrial Park, Water Levels	119-129	130	84.9	MG
000-267	OU III Industrial Park	158-163	164	84.9	MG
000-268	OU III Industrial Park	213-218	219	84.9	DG
000-269	OU III Industrial Park, Water Levels	116-126	127	83.7	MG
000-270	OU III Industrial Park	152-157	158	83.9	MG
000-271	OU III Industrial Park, Water Levels	213-218	219	83.7	DG
000-272	OU III Industrial Park, Water Levels	181-201	206	80.1	DG
000-273	OU III Industrial Park, Water Levels	175-195	196	86.8	DG
000-274	OU III Industrial Park, Water Levels	232-252	253	88.4	MAG
000-275	OU III Industrial Park	124-144	145	85.2	MG
000-276	OU III Industrial Park	154-174	175	85.3	MG
000-277	OU III Industrial Park	137-157	158	81.8	MG
000-278	OU III Industrial Park,Water Levels	184-204	205	82.5	DG
000-279	OU III Industrial Park	183-203	208	72.7	DG
000-283	OU VI EDB, Water Levels	102-112	117	52.6	DG
000-284	OU VI EDB, Water Levels	102-112	117	53.0	DG
000-285	OU VI EDB, Water Levels	145-155	160	103.6	DG
000-311	Water Levels	135-145	146	83.5	MG
000-343	OU III Magothy, Water Levels	320-340	345	61.0	MAG
000-394	OU I South Boundary	168-188	193	65.7	DG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
000-425	OU III LIPA, Magothy, Water Levels	305-325	325	109.2	MAG
000-426	OU III Magothy,Water Levels	290-310	315	77.8	MAG
000-427	OU III Magothy, Water Levels	265-285	290	75.7	MAG
000-428	OU III Magothy, Water Levels	293-303	308	99.3	MAG
000-429	OU III Magothy, Water Levels	290-310	315	75.7	MAG
000-431	OU III Industrial Park, Water Levels	250-270	275	99.9	DG
000-432	OU III Industrial Park, Water Levels	220-240	245	85.2	DG
000-445	OU III LIPA, Water Levels	209-229	232	108.8	DG
000-446	OU III LIPA	202-222	225	115.4	DG
000-447	OU III LIPA, Water Levels	209-229	232	102.9	DG
000-448	OU III LIPA	202-222	225	105.4	DG
000-449	OU III LIPA	183-203	208	112.8	DG
000-450	OU III LIPA, Water Levels	198-218	221	114.1	MAG
000-451	OU III LIPA	188-198	201	101.2	DG
000-452	OU III LIPA, Water Levels	212-222	225	105.7	MAG
000-453	OU III Airport (EW-1L)	217-237	240	105.9	DG
000-455	OU III Airport (EW-2L)	224-244	247	108.6	DG
000-457	OU III Airport (EW-3L)	216-236	239	112.2	DG
000-458	OU III Magothy, Water Levels	291-311	316	103.0	MAG
000-459	OU III Magothy, Water Levels	294-314	319	107.1	MAG
000-460	OU III LIPA, Magothy, Water Levels	290-310	315	108.8	MAG
000-461	OU III Airport (EW-4L)	304-324	327	111.8	MAG
000-463	OU III North Street	163-173	178	102.1	DG
000-464	OU III North Street	183-203	208	101.5	DG
000-465	OU III North Street	185-195	200	104.6	DG
000-466	OU III North Street	180-190	195	92.3	DG
000-467	OU III North Street	202-212	217	89.7	DG
000-468	OU III North Street	162-182	185	96.3	DG
000-469	OU III North Street	197-217	222	96.4	DG
000-470	OU III North Street	170-180	185	97.9	DG
000-471	OU III North Street (NS-1)	165-205	208	101.4	DG
000-472	OU III North Street	206-216	221	96.8	DG
000-473	OU III North Street (NS-2)	190-220	223	94.1	DG
000-474	OU III North Street	195-205	210	84.0	DG
000-475	OU III North Street	187-207	212	78.9	DG
000-476	OU III North Street	195-215	220	104.5	DG
000-477	OU III North Street East	165-175	180	95.0	DG
000-478	OU III North Street East, Water Levels	167-177	182	101.1	DG
000-479	OU III North Street East	165-175	180	98.2	DG
000-480	OU III North Street East, Water Levels	167-177	182	103.0	DG
000-481	OU III North Street East	169-179	184	94.2	DG
000-482	OU III North Street East	157-167	172	84.6	DG
000-483	OU III North Street East, Water Levels	159-169	174	86.1	DG
000-484	OU III North Street East	165-175	180	92.3	DG
000-485	OU III North Street East	160-170	175	88.0	DG
000-486	OU III North Street East, Water Levels	160-170	175	88.4	DG
000-487	OU III North Street East (NSE-1)	161-191	194	90.4	DG
000-488	OU III North Street East (NSE-2)	152-182	185	80.6	DG
000-489	OU III Industrial Park East	215-235	240	78.1	MAG
000-490	OU III Industrial Park East	245-265	270	77.7	MAG
000-491	OU III Industrial Park East	215-235	240	66.8	MAG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
000-492	OU III Industrial Park East	245-265	270	66.5	MAG
000-493	OU III Industrial Park East	240-260	265	75.6	MAG
000-494	OU III Industrial Park East	300-320	325	76.8	MAG
000-495	OU III Industrial Park East	235-255	260	82.5	MAG
000-497	OU VI EDB	100-120	125	81.9	MG
000-498	OU VI EDB, Water Levels	125-145	150	81.9	DG
000-499	OU VI EDB	100-120	125	67.6	DG
000-500	OU VI EDB, Water Levels	125-145	150	67.6	DG
000-501	OU VI EDB, Water Levels	115-135	140	74.7	DG
000-503	OU VI EDB (EW-1)	115-135	138	70.4	DG
000-504	OU VI EDB (EW-2)	115-135	138	69.9	DG
000-507	OU VI EDB, Water Levels	115-135	140	75.9	DG
000-508	OU VI EDB, Water Levels	110-130	135	71.6	DG
000-513	OU III Industrial Park East	235-255	260	68.1	DG
000-514	OU III Industrial Park East	225-245	250	72.7	DG
000-519	OU VI EDB	120-140	145	71.4	DG
000-520	OU VI EDB	135-145	150	66.4	DG
000-524	OU VI EDB	135-145	150	68.3	DG
000-525	OU III North Street East	155-165	170	69.8	DG
000-526	OU III Industrial Park East	330-350	355	113.0	MAG
000-527	OU VI EDB	140-150	155	71.2	DG
000-528	OU III Industrial Park	215-225	230	73.0	DG
000-529	OU III Industrial Park	210-220	225	71.4	DG
000-530	OU III Industrial Park	205-215	220	75.0	DG
000-531	OU III Industrial Park	200-210	215	76.2	DG
000-532	OU III Industrial Park (IP-EW-8)	230-250	253	75.0	MAG
000-533	OU III Industrial Park (IP-EW-9)	220-240	243	72.2	MAG
000-537	OU III Industrial Park	240-250	255	72.6	MAG
000-538	OU III Industrial Park	210-220	225	72.7	MAG
000-539	OU III Industrial Park	235-245	250	70.9	MAG
000-540	OU III Industrial Park	220-230	235	70.8	MAG
000-541	OU III Industrial Park	230-240	245	70.5	MAG
000-542	OU III Industrial Park	230-240	245	74.2	MAG
000-543	OU III Industrial Park	225-235	240	72.7	MAG
000-544	OU III Industrial Park	220-240	245	76.7	MAG
000-548	OU III Industrial Park	230-240	245	76.7	MAG
000-549	OUVI EDB	140-150	155	58.9	DG
000-550	OUVI EDB	125-135	140	64.2	DG
000-551	OU III North Street East	170-180	185	64.4	DG
000-552	OU III North Street East	150-160	165	64.7	DG
000-553	OU III North Street East	170-180	185	64.1	DG
000-554	OU III North Street East	190-200	205	82.4	DG
000-555	OU III North Street East	195-205	210	86.8	DG
000-558	OU III Western South Boundary	160-170	175	89.9	DG
000-559	OU III Western South Boundary	210-220	225	90.1	DG
000-560	OU III Western South Boundary	154-164	169	84.0	DG
000-561	OU III North Street East EW-03	196-215	218	83.8	DG
000-562	OU III North Street East EW-04	182-202	205	70.3	DG
000-563	OU III North Street East	192-202	207	82.6	DG
000-564	OU III North Street East	183-193	198	72.2	DG
000-565	OU III North Street East	200-220	225	90.6	DG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
000-566	OU III North Street East	200-220	225	90.6	DG
000-567	OU III North Street East	140-150	155	64.6	DG
000-568	OU III North Street East	155-165	170	64.5	DG
000-570	OU VI EDB	155-165	170	61.0	DG
000-571	OU VI EDB	170-180	185	69.9	DG
000-572	OU VI EDB	195-205	210	67.1	DG
000-578	OU VI EDB (EW-3E)	174-194	197	NM	DG
000-579	OU VI EDB (EW-4E)	170-190	193	NM	DG
000-580	OU VI EDB	180-190	195	NM	DG
000-581	OU VI EDB	175-185	790	NM	DG
000-582	OU VI EDB	180-190	195	NM	DG
007-02	Water Levels	252-257	262	62.0	MAG
007-03	Water Levels	--	23	55.3	SG
007-04	Water Levels	15-35	40	60.2	SG
007-05	Water Levels	200-205	210	60.3	DG
013-01	Water Levels	23-43	48	68.3	SD
017-01	Site Background, Water Levels	15-25	30	63.1	SG
017-02	Water Levels	85-95	100	63.5	SG
017-03	Site Background, Water Levels	115-125	130	63.7	DG
017-04	Site Background, Water Levels	162-167	172	64.4	MAG
018-01	Site Background, Water Levels	5-35	40	53.3	SG
018-02	Site Background, Water Levels	65-85	90	53.0	SG
018-04	Site Background, Water Levels	140-150	155	53.4	DG
018-05	Site Background, Water Levels	270-280	285	53.9	MAG
020-01	Water Levels	5-15	20	50.4	SG
021-01	Water Levels	18-28	33	60.5	SG
022-01	Water Levels	13-33	38	57.7	SG
025-02	Water Levels	29-39	39	75.5	SG
025-03	RHIC, Water Levels	38-53	58	93.0	SG
025-04	RHIC, Water Levels	38-53	58	92.6	SG
025-05	RHIC, Water Levels	4-19	24	55.9	SG
025-06	RHIC, Water Levels	5-20	25	56.1	SG
025-07	RHIC, Water Levels	6-21	26	58.3	SG
025-08	RHIC, Water Levels	5-20	24.8	57.2	SG
026-02	Water Levels	4-14	19	52.6	SG
027-01	Water Levels	13-23	28	58.4	SG
029-01	Water Levels	5-10	10	47.9	SG
030-01	Water Levels	24-27	27	51.7	SG
034-01	Water Levels	12-22	27	57.7	SG
034-02	Site Background, Water Levels	130-140	145	57.6	DG
034-03	Site Background, Water Levels	170-180	185	57.8	DG
034-04	Water Levels	249-254	259.9	57.5	MAG
034-05	RHIC, Water Levels	35-50	55	89.8	SG
034-06	RHIC	34-49	54	88.5	SG
034-06	Water Levels	34-49	54	88.5	SG
036-02	Water Levels	14-24	29	58.9	SG
037-01	Water Levels	20-40	45	63.6	SG
037-02	OU V, Water Levels	31-41	46	72.6	SG
037-03	OU V, Water Levels	90-100	105	73.6	SG
037-04	OU V, Water Levels	178-188	193	74.1	DG
038-01	Water Levels	5-25	30	54.1	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
038-02	STP, Water Levels	13-23	28	57.7	SG
038-03	STP, Water Levels	6-18	21	59.6	SG
038-04	Water Levels	19-29	32	66.9	SG
038-05	Water Levels	38-43	48	59.0	SG
038-06	Water Levels	39-44	49	59.3	SG
039-05	Water Levels	4-24	29	46.4	SG
039-06	Water Levels	5-10	10	47.4	SG
039-07	STP, Water Levels	15-25	30	56.6	SG
039-08	STP, Water Levels	17-27	32	58.7	SG
039-09	Water Levels	10-20	25	49.5	SG
039-10	Water Levels	188-193	198	49.0	DG
039-86	STP, Water Levels	15-25	30	57.2	SG
039-87	STP, Water Levels	14-24	29	61.0	SG
039-88	STP	16-31	36	48.1	SG
039-89	STP, Water Levels	15-30	35	49.3	SG
039-90	STP	15-30	35	47.1	SG
039-91	Water Levels	10-20	25	47.1	SG
039-92	Water Levels	10-20	25	47.7	SG
039-93	Water Levels	41-56	61	47.0	SG
039-115	STP	10-25	30	52.4	SG
040-01	Water Levels	12-15	15	44.1	SG
040-02	Water Levels	12-17	17	43.7	SG
040-03	Water Levels	9-14	14	44.2	SG
040-04	Water Levels	15-20	20	47.3	SG
040-05	Water Levels	13-18	18	48.4	SG
040-07	Water Levels	15-20	20	45.4	SG
040-08	Water Levels	10-25	30	42.6	SG
041-01	OU V, Water Levels	9-19	24	46.4	SG
041-02	OU V, Water Levels	90-100	105	46.4	MG
041-03	OU V, Water Levels	210-220	225	46.6	DG
042-01	Water Levels	25-35	41	74.5	SG
043-01	RHIC, Water Levels	34-49	54	87.3	SG
043-02	RHIC	59-69	74	87.2	SG
044-01	Water Levels	18-28	32	65.5	SG
044-13	RHIC, Water Levels	31-46	51	82.5	SG
044-14	RHIC	54-64	69	82.5	SG
044-29	RHIC	27-43	48	79.9	SG
046-01	Water Levels	46-56	61	89.4	SG
046-02	Water Levels	41-56	61	85.9	SG
046-03	Water Levels	39-54	59	83.9	SG
047-01	Water Levels	21-26	26	61.3	SG
047-02	Water Levels	14-19	19	57.8	SG
047-03	Water Levels	31-51	56	75.3	SG
047-04	Water Levels	35-45	45	60.4	SG
048-01	Water Levels	19-22	22	54.5	SG
048-02	Water Levels	13-23	28	52.9	SG
048-08	STP	10-25	30	54.8	SG
048-09	STP	10-25	30	52.6	SG
048-10	STP	10-25	30	48.8	SG
048-11	Water Levels	15-20	20	48.1	SG
049-02	Water Levels	15-20	20	49.7	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
049-04	Water Levels	9-19	24	47.3	SG
049-05	OU V	90-100	105	46.8	MG
049-06	OU V, Water Levels	175-185	190	45.4	DG
050-01	OU V, Water Levels	205-225	230	45.0	DG
050-02	OU V, Water Levels	140-160	160	45.0	MG
053-03	Water Levels	26-36	37	71.0	SG
053-05	Water Levels	32-42	47	73.3	SG
054-02	Water Levels	28-33	33	62.2	SG
054-03	Water Levels	28-31	31	64.2	SG
054-06	Water Levels	20-30	30	63.4	SG
054-07	AGS, Water Levels	69-79	79	70.9	SG
054-08	AGS	27-47	52	70.5	SG
054-09	Water Levels	23-33	38	67.4	SG
054-10	Water Levels	32-42	47	74.1	SG
054-124	AGS, Water Levels	25-40	45	73.2	SG
054-125	AGS	25-40	45	68.0	SG
054-126	AGS	25-40	45	67.9	SG
054-127	AGS, Water Levels	22-37	42	70.6	SG
054-128	AGS, Water Levels	22-37	42	69.9	SG
054-129	AGS	21-36	41	69.9	SG
054-130	AGS, Water Levels	22-37	42	69.7	SG
054-14	Water Levels	38-48	53	74.0	SG
054-16	Water Levels	149-159	164	72.5	DG
054-168	AGS	17-33	38	69.3	SG
054-169	AGS	17-33	38	69.6	SG
054-184	AGS	35-45	46	75.6	SG
054-185	AGS	29-39	40	71.3	SG
054-191	AGS	21-36	61	70.7	SG
054-61	BLIP	18-33	38	68.9	SG
054-62	AGS, Water Levels	18-33	38	69.8	SG
054-63	AGS	42-57	62	93.8	SG
054-64	AGS, Water Levels	42-57	62	92.8	SG
054-65	AGS, Water Levels	18-33	38	69.6	SG
054-66	AGS, Water Levels	18-33	38	70.0	SG
054-67	AGS, Water Levels	18-33	38	68.1	SG
054-68	AGS, Water Levels	17-32	37	68.2	SG
054-69	AGS, Water Levels	17-32	37	67.8	SG
055-01	Water Levels	136-139	139	89.1	SG
055-03	WMF, Water Levels	45-55	60	86.8	SG
055-04	Water Levels	44-54	59	87.8	SG
055-05	Water Levels	40-50	55	82.3	SG
055-06	Water Levels	162-172	177	79.9	DG
055-10	WMF	89-99	104	86.6	MG
055-14	AGS	17-32	37	67.9	SG
055-15	AGS, Water Levels	18-33	38	68.0	SG
055-16	AGS, Water Levels	18-33	38	68.0	SG
055-29	AGS	47-57	62	69.2	SG
055-30	AGS, Water Levels	20-35	40	68.8	SG
055-31	AGS, Water Levels	45-55	60	100.5	SG
055-32	AGS	40-55	60	68.0	SG
056-01	Water Levels	115-118	120	90.0	DG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
056-02	Water Levels	--	90	90.1	SG
056-03	Water Levels	--	122	85.5	DG
056-04	Water Levels	40-50	55	80.3	SG
056-05	Water Levels	45-55	60	85.8	SG
056-06	Water Levels	44-54	59	85.9	SG
056-07	Water Levels	214-229	234	80.2	MAG
056-21	WMF, Water Levels	41-61	66	86.3	SG
056-22	WMF Water Levels	41-61	66	87.4	SG
056-23	WMF	41-61	66	86.3	SG
057-01	Water Levels	--	23	51.2	SG
058-01	Water Levels	5-25	30	48.7	SG
058-02	OU VI EDB	60-70	75.25	49.3	SG
058-03	Water Levels	120-130	135	49.6	DG
060-01	Water Levels	5-15	20	42.6	SG
061-03	OU V, Water Levels	6-16	21	42.7	SG
061-04	OU V, Water Levels	90-100	105	42.3	MG
061-05	OU V, Water Levels	195-205	210	43.3	DG
061-07	Water Levels	--	--	38.1	SG
063-01	Water Levels	21-41	46	65.0	SG
063-02	Water Levels	27-47	52	69.8	SG
063-04	Water Levels	29-39	44	68.8	SG
063-05	Water Levels	22-32	37	63.1	SG
063-06	Water Levels	33-43	48	74.5	SG
063-07	Water Levels	29-39	44	71.7	SG
063-09	Site Background, Water Levels	207-212	217	69.1	MAG
064-01	Water Levels	39-59	64	83.5	SG
064-02	Water Levels	42-62	67	85.1	SG
064-03	AGS, OU III Central, Water Levels	38-58	63	80.8	SG
064-46	BLIP, Water Levels	47-62	67	98.7	SG
064-47	BLIP	48-63	68	100.4	SG
064-48	BLIP	48-63	68	100.2	SG
064-49	BLIP, Water Levels	34-49	53	84.2	SG
064-50	BLIP	33-48	53	83.0	SG
064-51	AGS, Water Levels	39-54	58	92.7	SG
064-53	AGS, Water Levels	32-47	52	83.6	SG
064-54	AGS	33-48	53	84.2	SG
064-55	AGS, Water Levels	23-38	43	73.4	SG
064-56	AGS	22-37	42	73.6	SG
064-67	BLIP, Water Levels	51-66	71	100.2	SG
064-80	AGS	22-37	42	73.4	SG
064-95	AGS	39-48	49	70(a)	SG
065-01	OU III AOC 29/HFBR Tritium, Water Levels	42-62	67	87.9	SG
065-02	AGS, OU III Central	55-65	70	83.3	SG
065-03	OU III BGRR/WCF Sr-90	55-65	70	83.4	SG
065-04	OU III BGRR/WCF Sr-90	55-65	70	84.2	SG
065-05	OU III Central, Water Levels	55-65	70	84.8	SG
065-06	OU III BGRR/WCF Sr-90	55-65	70	84.8	SG
065-11	OU III BGRR/WCF Sr-90	51-56	56	83.8	SG
065-120	AGS, Water Levels	22-37	42	73.2	SG
065-121	AGS, Water Levels	19-34	39	70.6	SG
065-122	AGS, Water Levels	19-34	39	69.2	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
065-123	AGS	18-33	38	68.7	SG
065-124	AGS, Water Levels	18-33	38	68.6	SG
065-125	AGS	18-33	38	68.5	SG
065-126	AGS	18-33	38	69.3	SG
065-160	OU III (BGRR/WCF Sr-90)	35-45	50	84.5	SG
065-161	OU III BGRR/WCF Sr-90, Water Levels	90-100	105	84.5	MG
065-162	OU III BGRR/WCF Sr-90, Water Levels	41-51	56	87.8	SG
065-163	OU III BGRR/WCF Sr-90, Water Levels	70-80	85	96.9	SG
065-164	OU III BGRR/WCF Sr-90, Water Levels	70-80	85	100.8	SG
065-165	OU III BGRR/WCF Sr-90, Water Levels	110-120	125	99.4	MG
065-166	OU III BGRR/WCF Sr-90, Water Levels	70-80	85	109.5	SG
065-167	OU III BGRR/WCF Sr-90, Water Levels	70-80	85	109.6	SG
065-168	OU III BGRR/WCF Sr-90	80-90	95	112.7	MG
065-169	OU III BGRR/WCF Sr-90, Water Levels	80-90	95	109.4	SG
065-170	OU III BGRR/WCF Sr-90	80-90	95	116.7	MG
065-171	OU III BGRR/WCF Sr-90, Water Levels	130-140	145	117.0	MG
065-172	OU III BGRR/WCF Sr-90, Water Levels	85-95	100	121.2	SG
065-173	AGS	35-45	50	83.6	SG
065-173	OU III BGRR/WCF Sr-90, Water Levels	35-45	50	83.6	SG
065-174	OU III BGRR/WCF Sr-90	35-45	50	83.4	SG
065-175	OU III BGRR/WCF Sr-90, Water Levels	35-45	50	83.8	SG
065-176	OU III BGRR/WCF Sr-90, Water Levels	35-45	50	84.0	SG
065-177	OU III BGRR/WCF Sr-90, Water Levels	35-45	50	85.4	SG
065-178	OU III BGRR/WCF Sr-90, Water Levels	75-85	90	94.0	SG
065-18	OU III BGRR/WCF Sr-90, Water Levels	50-60	65	84.5	SG
065-19	OU III BGRR/WCF Sr-90	90-100	105	85.9	MG
065-192	AGS	50-60	65	73.0	SG
065-193	AGS	50-60	65	70.7	SG
065-194	AGS	45-55	60	67.9	SG
065-195	AGS	45-55	60	68.5	SG
065-20	OU III BGRR/WCF Sr-90, Water Levels	170-180	185	84.8	DG
065-321	AGS	27-37	38	68.3	SG
065-322	AGS	27-37	38	68.1	SG
065-323	AGS	25-35	36	68.2	SG
065-324	AGS	23-33	34	69.0	SG
065-325	801	66-81	66	110.0	SG
065-360	OU III BGRR/WCF Sr-90	40-50	55	85.9	SG
065-361	OU III BGRR/WCF Sr-90	50-60	65	85.9	SG
065-362	OU III BGRR/WCF Sr-90	40-50	55	86.2	SG
065-363	OU III BGRR/WCF Sr-90	55-65	70	96.3	SG
065-364	OU III BGRR/WCF Sr-90	65-75	80	96.5	SG
065-365	OU III BGRR/WCF Sr-90	75-85	90	98.4	SG
065-366	OU III BGRR/WCF Sr-90	75-85	90	109.0	SG
065-367	OU III BGRR/WCF Sr-90	90-100	105	108.9	MG
065-368	OU III BGRR/WCF Sr-90 SR-1	33-53	56	80.1	SG
065-369	OU III BGRR/WCF Sr-90 SR-2	33-53	56	80.4	SG
065-37	OU III AOC 29/HFBR Tritium	68-78	83	115.5	SG
065-37	OU III BGRR/WCF Sr-90	68-78	83	115.5	SG
065-38	OU III AOC 29/HFBR Tritium	58-68	73	103.7	SG
065-38	OU III BGRR/WCF Sr-90, Water Levels	58-68	73	103.7	SG
065-384	OU III BGRR/WCF Sr-90	50-70	75	NM	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
065-385	OU III BGRR/WCF Sr-90	50-70	75	NM	SG
065-39	OU III AOC 29/HFBR Tritium	82-92	97	104.0	SG
065-39	OU III BGRR/WCF Sr-90	82-92	97	104.1	SG
065-401	OU III BGRR/WCF Sr-90	57-77	82	NM	SG
065-402	OU III BGRR/WCF Sr-90	37-57	62	91.25(a)	SG
065-403	OU III BGRR/WCF Sr-90 SR-6	85-105	108	123.7	SG
065-404	OU III BGRR/WCF Sr-90	57-77	82	117.8	SG
065-405	OU III BGRR/WCF Sr-90	75-85	90	109.1	SG
065-41	OU III AOC 29/HFBR Tritium, Water Levels	47-57	62	93.6	SG
065-42	OU III AOC 29/HFBR Tritium, Water Levels	47-57	62	92.8	SG
066-01	Water Levels	45-50	50	79.6	SG
066-07	WMF, Water Levels	65-85	90	87.5	SG
066-08	OU III Central, Water Levels	35-55	60	86.8	SG
066-09	OU III Central	75-95	100	86.9	SG
066-13	Water Levels	36-41	41	79.3	SG
066-14	Water Levels	36-41	41	77.0	SG
066-16	Water Levels	25-45	50	72.3	SG
066-17	OU IV AOC 6 Sr-90	34-54	59	79.6	SG
066-189	OU IV AOC 6 Sr-90, Water Levels	26-46	51	73.3	SG
066-190	OU IV AOC 6 Sr-90, Water Levels	27-47	52	74.6	SG
066-29	Water Levels	165-175	180	71.8	DG
066-83	WMF, Water Levels	41-61	66	84.7	SG
066-84	WMF, Water Levels	58.5-75	80	87.2	SG
066-85	Water Levels	34-44	44	80.8	SG
067-01	Water Levels	14-24	29	54.6	SG
069-10	Water Levels	15-25	30	53.2	SG
070-01	Water Levels	15-35	40	57.2	SG
072-01	Water Levels	37-57	62	80.5	SG
072-03	Water Levels	35-45	50	68.6	SG
072-04	Water Levels	163-173	178	68.3	SG
073-01	Water Levels	32-52	57	75.8	SG
073-26	Current Firehouse PFAS	35-50	55	84.4	SG
073-27	Current Firehouse PFAS	35-50	55	84.3	SG
073-28	Current Firehouse PFAS	35-50	55	84.4	SG
073-29	Current Firehouse PFAS	35-50	55	85.3	SG
073-30	Current Firehouse PFAS	35-50	55	84.2	SG
073-31	Current Firehouse PFAS	35-50	55	86.0	SG
073-32	Current Firehouse PFAS	55-65	70	86.3	SG
073-33	Current Firehouse PFAS	35-50	55	88.3	SG
073-34	Current Firehouse CF-RW-A	48-68	73	86.0	SG
073-35	Currenr Firehouse CF-RW-B	54-74	79	84.9	SG
074-135	Current Firehouse PFAS	55-65	70	88.8	SG
075-01	OU III (central)	40-60	65	86.0	SG
075-01	Water Levels	40-60	65	86.0	SG
075-02	OU III Central	40-60	65	82.0	SG
075-09	OU III BGRR/WCF Sr-90	60-70	75	77.0	SG
075-10	OU III BGRR/WCF Sr-90, Water Levels	120-130	130	76.8	DG
075-11	OU III AOC 29/HFBR Tritium, Water Levels	56-66	71	93.3	SG
075-188	OU III BGRR/WCF Sr-90, Water Levels	85-95	100	80.0	SG
075-189	OU III BGRR/WCF Sr-90	67-72	77	91.6	SG
075-190	OU III BGRR/WCF Sr-90, Water Levels	40-50	55	80.2	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
075-191	OU III BGRR/WCF Sr-90	85-95	100	80.2	SG
075-192	OU III BGRR/WCF Sr-90, Water Levels	140-150	155	80.3	MG
075-193	OU III BGRR/WCF Sr-90, Water Levels	80-90	95	81.4	SG
075-194	OU III BGRR/WCF Sr-90, Water Levels	140-150	155	81.4	MG
075-195	OU III BGRR/WCF Sr-90, Water Levels	70-80	85	76.1	SG
075-196	OU III BGRR/WCF Sr-90, Water Levels	85-95	100	76.2	SG
075-197	OU III BGRR/WCF Sr-90, Water Levels	120-130	135	76.1	MG
075-198	OU III BGRR/WCF Sr-90, Water Levels	70-80	85	74.8	SG
075-199	OU III BGRR/WCF Sr-90, Water Levels	85-95	100	74.7	SG
075-200	OU III BGRR/WCF Sr-90, Water Levels	120-130	135	74.8	MG
075-201	OU III BGRR/WCF Sr-90, Water Levels	120-130	135	111.0	SG
075-202	OU III BGRR/WCF Sr-90, Water Levels	63-73	78	77.0	SG
075-203	OU III BGRR/WCF Sr-90, Water Levels	70-80	85	78.2	SG
075-210	OU III AOC 29/HFBR Tritium	53-63	68	85.7	SG
075-286	OU III AOC 29/HFBR Tritium, Water Levels	48-52	53	85.8	SG
075-287	OU III AOC 29/HFBR Tritium, Water Levels	56-60	61	85.8	SG
075-288	OU III AOC 29/HFBR Tritium, Water Levels	52-56	57	87.6	SG
075-291	OU III AOC 29/HFBR Tritium, Water Levels	52-56	57	82.6	SG
075-296	OU III AOC 29/HFBR Tritium, Water Levels	62-66	67	79.2	SG
075-297	OU III AOC 29/HFBR Tritium, Water Levels	62-66	67	78.9	SG
075-298	OU III AOC 29/HFBR Tritium, Water Levels	56-60	61	78.4	SG
075-299	OU III AOC 29/HFBR Tritium, Water Levels	56-60	61	78.1	SG
075-39	OU III BGRR/WCF Sr-90, AOC29/HFBR, Water Levels	47-57	62	93.0	SG
075-40	OU III BGRR/WCF Sr-90, AOC 29/HFBR, Water Levels	120-125	130	92.6	MG
075-41	OU III BGRR/WCF Sr-90, AOC29/HFBR, Water Levels	193-198	198	92.6	DG
075-413	OU III AOC 29/HFBR Tritium, Water Levels	56-60	61	81.1	SG
075-414	OU III AOC 29/HFBR Tritium, Water Levels	60-64	65	79.4	SG
075-415	OU III AOC 29/HFBR Tritium, Water Levels	62-66	67	77.5	SG
075-416	OU III AOC 29/HFBR Tritium, Water Levels	60-64	65	77.6	SG
075-417	OU III AOC 29/HFBR Tritium, Water Levels	60-64	65	78.0	SG
075-418	OU III AOC 29/HFBR Tritium, Water Levels	56-60	61	78.1	SG
075-419	OU III AOC 29/HFBR Tritium, Water Levels	56-60	61	77.9	SG
075-46	OU III BGRR/WCF Sr-90, Water Levels	33-43	48	79.5	SG
075-47	OU III BGRR/WCF Sr-90, Water Levels	31-41	46	81.0	SG
075-48	OU III BGRR/WCF Sr-90	63-73	78	78.8	SG
075-49	Water Levels	40-50	56	84.6	SG
075-50	Water Levels	30-40	46	75.9	SG
075-51	Water Levels	33-43	48	79.2	SG
075-558	OU III AOC 29/HFBR Tritium	56-60	61	88.1	SG
075-558	Water Levels	56-60	61	88.1	SG
075-663	OU III BGRR/WCF Sr-90	113-123	128	123.6	MG
075-664	OU III BGRR/WCF Sr-90	65-75	80	103.1	SG
075-665	OU III BGRR/WCF Sr-90	77-87	93	102.7	SG
075-666	OU III BGRR/WCF Sr-90	46-56	61	80.2	SG
075-667	OU III BGRR/WCF Sr-90	61-71	76	79.8	SG
075-668	OU III BGRR/WCF Sr-90	76-86	91	80.0	SG
075-669	OU III BGRR/WCF Sr-90	55-65	70	78.0	SG
075-670	OU III BGRR/WCF Sr-90	89-99	104	73.0	SG
075-671	OU III BGRR/WCF Sr-90	104-114	119	72.9	MG
075-672	OU III BGRR/WCF Sr-90	107-117	122	79.8	MG
075-673	OU III BGRR/WCF Sr-90	36-46	51	80.5	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
075-674	OU III BGRR/WCF Sr-90	70-80	85	81.1	SG
075-675	OU III BGRR/WCF Sr-90	90-100	105	81.2	SG
075-676	OU III BGRR/WCF Sr-90 (SR-3)	51-71	74	97.4	SG
075-677	OU III BGRR/WCF Sr-90 (SR-4)	35-75	78	75.3	SG
075-678	OU III BGRR/WCF Sr-90 (SR-5)	35-75	78	74.2	SG
075-680	OU III BGRR/WCF Sr-90	90-100	105	124.2	SG
075-681	OU III BGRR/WCF Sr-90	54-64	69	83.0	SG
075-682	OU III BGRR/WCF Sr-90	76-86	91	89.8	SG
075-683	OU III BGRR/WCF Sr-90	76-86	91	78.8	SG
075-684	OU III BGRR/WCF Sr-90	74-84	89	78.7	SG
075-699	OU III BGRR/WCF Sr-90	65-85	90	122.7	SG
075-700	OU III BGRR/WCF Sr-90	50-70	75	106.6	SG
075-701	OU III BGRR/WCF Sr-90	48-68	73	103.7	SG
075-702	OU III BGRR/WCF Sr-90 (SR-7)	82-102	105	95.2	SG
075-703	OU III BGRR/WCF Sr-90 (SR-8)	77-97	100	92.1	SG
075-704	OU III BGRR/WCF Sr-90 (SR-9)	67-87	90	91.6	SG
075-705	OU III BGRR/WCF Sr-90	85-95	100	NM	SG
075-706	OU III BGRR/WCF Sr-90	90-100	105	NM	SG
075-707	OU III BGRR/WCF Sr-90	70-80	85	NM	SG
075-85	OU III BGRR/WCF Sr-90	65-70	75	81.33(a)	SG
075-86	OU III BGRR/WCF Sr-90, Water Levels	105-110	115	77.9	MG
075-87	OU III BGRR/WCF Sr-90	105-110	115	78.6	MG
075-802	OU III HFBR	42-62	67	93.4	SG
075-803	OU III HFBR	42-62	67	94.5	SG
075-804	OU III HFBR	42-62	67	94.5	SG
075-805	OU III HFBR	42-62	67	94.4	SG
075-806	OU III HFBR	42-62	67	93.8	SG
075-807	OU III HFBR	42-62	67	93.0	SG
075-808	OU III HFBR	42-62	67	91.7	SG
075-809	Former Firehouse PFAS	30-45	50	73.5	SG
075-810	Former Firehouse PFAS	30-45	50	73.6	SG
075-811	Former Firehouse PFAS	30-45	50	74.3	SG
076-04	OU IV AOC 5 AS/SVE, Water Levels	30-50	50	75.9	SG
076-05	OU IV AOC 6 Sr-90	30-50	50	73.6	SG
076-06	OU IV AOC 5 AS/SVE, Water Levels	30-50	50	78.5	SG
076-07	OU IV AOC 6 Sr-90, Water Levels	55-65	70	76.3	SG
076-09	OU IV AOC 6 Sr-90	55-65	70	74.5	SG
076-10	OU IV AOC 6 Sr-90, Water Levels	30-50	50	78.4	SG
076-122	Water Levels	5-45	47	73.3	SG
076-13	OU IV AOC 6 Sr-90, Water Levels	31-51	56	79.0	SG
076-16	MPF, Water Levels	27-47	53	79.4	SG
076-167	OU IV AOC 6 Sr-90, Water Levels	37-57	62	79.8	SG
076-168	OU IV AOC 6 Sr-90	36-56	61	78.6	SG
076-169	OU IV AOC 6 Sr-90	36-56	62	79.2	SG
076-17	MPF	27-47	53	78.4	SG
076-171	Water Levels	100-120	125	80.2	SD
076-172	OU III AOC 29/HFBR Tritium, Water Levels	110-130	135	87.9	DG
076-173	OU III AOC 29/HFBR Tritium, Water Levels	34-54	59	83.3	SG
076-174	OU III AOC 29/HFBR Tritium, Water Levels	102-122	127	83.2	MG
076-175	OU III AOC 29/HFBR Tritium, Water Levels	142-162	167	82.9	DG
076-176	Water Levels	50-60	60	69.0	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

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Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
076-18	MPF, Water Levels	23-43	48	74.0	SG
076-181	OU IV AOC 6 Sr-90	60-70	74.75	75.1	SG
076-182	OU IV AOC 6 Sr-90	80-90	94.8	75.0	SG
076-183	OU IV AOC 6 Sr-90, Water Levels	4.5-44.5	49.5	77.2	SG
076-184	OU IV AOC 6 Sr-90	60-70	75.5	77.0	SG
076-185	OU IV AOC 5 AS/SVE, Water Levels	4.5-44.5	49.6	74.1	SG
076-19	MPF, Water Levels	23-43	48	74.5	SG
076-20	OU IV AOC 6 Sr-90, Water Levels	24-44	49	76.4	SG
076-22	OU IV AOC 6 Sr-90, Water Levels	52-62	67	78.5	SG
076-24	OU IV AOC 6 Sr-90, Water Levels	30-50	55	75.6	SG
076-25	MFF, OU IV AOC 6 Sr-90, Water Levels	32-52	57	78.6	SG
076-258	Water Levels	47-48	48	79.6	SG
076-26	OU IV AOC 6 Sr-90	34-54	59	82.1	SG
076-262	OU IV AOC 6 Sr-90, Water Levels	70-80	85	76.0	SG
076-263	OU IV (AOC 6 Sr-90	70-80	85	73.3	SG
076-264	OU IV AOC 6 Sr-90, Water Levels	55-65	70	71.1	SG
076-265	OU IV AOC 6 Sr-90	70-80	85	78.6	SG
076-27	OU IV AOC 6 Sr-90, Water Levels	34-54	59	78.7	SG
076-28	OU IV Central, AOC 6 Sr-90, Water Levels	35-55	60	80.2	SG
076-29	Water Levels	19-39	44	69.0	SG
076-314	OU III Central, OUIV AOC 6 Sr-90, Water Levels	32-52	57	79.8	SG
076-317	OU III Central, OUIV AOC 6 Sr-90, Water Levels	31-51	56	78.8	SG
076-373	OU III Central, OUIV AOC 6 Sr-90, Water Levels	34-54	59	81(a)	SG
076-378	MPF, Water Levels	27-42	47	76.2	SG
076-379	MPF	28-43	48	75.7	SG
076-380	MPF, Water Levels	27-42	47	73.6	SG
076-415	OU IV AOC 6 Sr-90	50-60	65	75.78(a)	SG
076-416	OU IV AOC 6 Sr-90	50-60	65	75.49(a)	SG
076-417	OU IV AOC 6 Sr-90	50-60	65	75.05(a)	SG
076-418	OU IV AOC 6 Sr-90	47-57	62	76.0	SG
076-419	OU IV AOC 6 Sr-90	45-55	60	74.2	SG
076-420	OU IV AOC 6 Sr-90	32-52	57	78.7	SG
076-421	OU IV AOC 6 Sr-90	32-52	57	78.0	SG
077-02	Water Levels	26-46	51	74.4	SG
077-03	Water Levels	9-29	34	56.9	SG
077-10	OU III AOC 29/HFBR Tritium, Water Levels	94-114	119	75.1	SD
077-11	OU III AOC 29/HFBR Tritium, Water Levels	110-130	135	93.1	SD
078-01	Water Levels	15-25	30	46.9	SG
079-17	Water Levels	15-25	25	47.0	SG
080-02	Water Levels	35-55	60	49.0	SG
080-03	Water Levels	76-96	101	50.0	DG
080-04	Water Levels	12-32	37	54.4	SG
080-11	Water Levels	20-30	35	52.8	SG
082-01	Water Levels	40-50	55	82.3	SG
083-01	OU III Central, Water Levels	70-100	105	87.7	SG
083-02	OU III Central, Water Levels	120-150	155	91.9	MG
083-03	Water Levels	72-92	92	86.4	SG
083-05	Water Levels	65-75	80	107.8	SG
083-06	Water Levels	44-54	59	86.3	SG
083-33	Current Firehouse PFAS	50-60	65	90.1	SG
083-34	Current Firehouse PFAS	70-80	85	91.1	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

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Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
083-35	Current Firehouse PFAS	50-60	65	90.2	SG
083-36	Current Firehouse PFAS	70-80	85	90.3	SG
083-37	Current Firehouse PFAS	50-60	65	91.0	SG
083-38	Current Firehouse PFAS	70-80	85	92.8	SG
083-39	Current Firehouse PFAS	60-70	75	93.5	SG
083-40	Current Firehouse PFAS	100-110	115	93.7	MG
083-41	Current Firehouse PFAS	120-130	135	107.8	MG
083-42	Current Firehouse PFAS	90-100	105	106.4	MG
083-43	Current Firehouse PFAS	120-130	135	106.4	MG
083-44	Current Firehouse PFAS	70-80	85	107.5	SG
083-45	Current Firehouse CF-RW-C	117-137	142	99.5	MG
083-46	Current Firehouse CF-RW-D	70-90	95	101.4	SG
083-47	Building 170 PFAS	50-70	75	92.3	SG
084-01	Water Levels	65-85	90	105.7	SG
084-02	Water Levels	54-64	69	93.6	SG
084-03	Water Levels	100-110	114	94.3	MG
084-04	OU III Central	145-155	160	94.1	DG
084-05	OU III Central, Water Levels	179-189	194	94.2	DG
084-12	BMRR, Water Levels	55-70	75	101.2	SG
084-13	BMRR	53-68	73	101.6	SG
084-27	BMRR	50-65	70	100.0	SG
084-28	BMRR, Water Levels	48-63	68	99.2	SG
084-36	Water Levels	39-54	59	84.0	SG
084-37	Water Levels	39-54	59	84.2	SG
084-86	Current Firehouse PFAS	120-130	135	94.0	MG
084-87	Current Firehouse PFAS	60-70	75	95.2	SG
084-88	Current Firehouse PFAS	90-100	105	95.5	MG
084-89	Current Firehouse PFAS	120-130	135	96.4	MG
084-90	Current Firehouse PFAS	90-100	105	97.0	MG
084-91	Current Firehouse PFAS	120-130	135	96.9	MG
084-92	Current Firehouse PFAS	140-150	155	96.9	MG
084-93	Current Firehouse PFAS	90-100	105	110.1	MG
084-94	Current Firehouse PFAS	120-130	135	110.3	MG
084-95	Current Firehouse PFAS	140-150	155	110.1	MG
084-96	Current Firehouse PFAS	90-100	105	108.8	MG
084-97	Current Firehouse PFAS	120-130	135	108.9	MG
084-98	Current Firehouse PFAS	140-150	155	109.2	MG
084-102	Current Firehouse CF-RW-E	132-152	157	100.8	MG
085-01	OU III AOC 29/HFBR Tritium, Water Levels	60-90	95	73.9	MG
085-02	OU III AOC 29/HFBR Tritium	130-160	165	73.9	DG
085-07	OU III Carbon tet, Water Levels	140-145	150	81.6	DG
085-13	OU III Carbon tet, Water Levels	250-255	260	81.6	MAG
085-16	OU III Carbon tet, Gas Station, Water Levels	34-54	59	80.8	SG
085-17	OU III Carbon tet, Gas Station, Water Levels	34-54	59	80.6	SG
085-39	Water Levels	26-36	42	71.1	SG
085-41	Water Levels	187-192	192	72.1	DG
085-43	Water Levels	21-31	36	66.5	SG
085-65	Water Levels	85-90	95	78.1	MG
085-66	Water Levels	120-125	130	78.1	MG
085-67	Water Levels	85-90	95	68(a)	SG
085-68	Water Levels	120-125	130	68(a)	MG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
085-69	Water Levels	35-40	45	68(a)	SG
085-70	Water Levels	135-140	145	69.3	DG
085-72	Water Levels	135-140	145	68.2	DG
085-73	Water Levels	35-40	45	68(a)	SG
085-74	Water Levels	95-100	105	67(a)	MG
085-75	Water Levels	190-195	200	68(a)	DG
085-76	Water Levels	35-40	45	66(a)	SG
085-77	OU III AOC 29/HFBR Tritium, Water Levels	95-100	105	66(a)	MG
085-78	OU III AOC 29/HFBR Tritium, Water Levels	187-192	197	66(a)	DG
085-97	OU III Bldg 96, Water Levels	15-35	40	64.7	SG
085-98	OU III Carbon tet, Water Levels	39-49	54	81.3	SG
085-160	OU III Carbon tet, Water Levels	34-54	59	81.1	SG
085-161	OU III Carbon tet, Water Levels	33-53	58	81.5	SG
085-162	OU III Carbon tet, Water Levels	29-49	54	82.0	SG
085-163	OU III Carbon tet, Water Levels	29-49	54	81.8	SG
085-170	OU III AOC 29/HFBR Tritium	90-100	105	72.4	MG
085-171	OU III AOC 29/HFBR Tritium	125-135	140	72.4	MG
085-235	Gas Station, Water Levels	35-50	55	80.4	SG
085-236	OU III Carbon tet, Gas Station, Water Levels	35-50	55	80.8	SG
085-237	OU III Carbon tet, Gas Station, Water Levels	35-50	55	80.3	SG
085-238	OU III Carbon tet, Water Levels	25-45	50	71.9	SG
085-285	OU III AOC 29/HFBR Tritium, Water Levels	64-68	69	72.4	SG
085-286	OU III AOC 29/HFBR Tritium, Water Levels	64-68	69	72.6	SG
085-287	OU III AOC 29/HFBR Tritium, Water Levels	64-68	69	72.9	SG
085-288	OU III AOC 29/HFBR Tritium, Water Levels	64-68	69	72.9	SG
085-289	OU III AOC 29/HFBR Tritium, Water Levels	64-68	69	73.1	SG
085-290	OU III AOC 29/HFBR Tritium, Water Levels	61-71	72	74.0	SG
085-291	OU III AOC 29/HFBR Tritium, Water Levels	132-142	143	65.7	DG
085-292	Water Levels	132-142	143	67.8	DG
085-293	OU III Bldg 96, Water Levels	45-55	60	62.9	SG
085-335	OU III Bldg 96	30-40	45	62.8	SG
085-347	OU III Bldg 96	20-25	25	61.2	SG
085-348	OU III Bldg 96	32-37	37	61.1	SG
085-349	OU III Bldg 96	20-25	25	62.4	SG
085-350	OU III Bldg 96	32-37	37	62.4	SG
085-351	OU III Bldg 96	20-25	25	62.9	SG
085-352	OU III Bldg 96	32-37	37	62.8	SG
085-353	OU III Bldg 96	20-25	25	62.3	SG
085-354	OU III Bldg 96	20-25	25	62.7	SG
085-359	OU III Bldg 96	15-25	25	60.9	SG
085-378	OU III Bldg 96	10-30	35	65.7	SG
085-379	OU III Bldg 96	7-27	32	61.4	SG
085-380	OU III Bldg 452	22-42	47	73.3	SG
085-381	OU III Bldg 452	22-42	47	72.9	SG
085-382	OU III Bldg 452	30-45	50	67.7	SG
085-383	OU III Bldg 452	30-45	50	66.8	SG
085-384	OU III Bldg 452	30-45	50	65.7	SG
085-385	OU III Bldg 452	40-55	60	66.6	SG
085-386	OU III Bldg 96	40-55	60	65.2	SG
085-387	OU III Bldg 452	47-62	67	59.9	SG
085-388	OU III Bldg 452	50-65	70	62.7	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
085-389	OU III Bldg 452 (EW-18)	55-65	68	68.6	SG
085-398	OU III BGRR/WCF Sr-90	120-140	145	73.9	DG
085-399	OU III BGRR/WCF Sr-90	55-75	80	71.9	SG
085-400	OU III BGRR/WCF Sr-90	90-110	115	71.1	SG
085-402	OU III BGRR/WCF Sr-90	90-110	115	71.1	SG
085-403	OU III BGRR/WCF Sr-90	110-130	135	68.9	MG
085-404	Former Firehouse PFAS	30-45	50	71.1	SG
085-405	Former Firehouse PFAS	50-60	65	71.0	SG
085-406	Former Firehouse PFAS	30-45	50	70.9	SG
085-407	Former Firehouse PFAS	50-60	65	71.0	SG
085-408	Former Firehouse PFAS	60-70	75	71.3	SG
085-409	Former Firehouse PFAS	30-45	50	72.2	SG
085-410	Former Firehouse PFAS	50-60	65	72.4	SG
085-411	Former Firehouse PFAS	50-60	65	75.0	SG
085-412	Former Firehouse PFAS	90-100	105	74.5	MG
085-414	Former Firehouse FF-RW-A	44-64	69	73.4	SG
085-415	OU III BGRR/WCF Sr-90	123-130	135	NM	MG
085-416	OU III Bldg 96	15-35	40	NM	SG
086-05	OU III North Street, Water Levels	80-90	95	75.6	MG
086-06	Water Levels	120-140	145	75.8	DG
086-123	NSLS II	27-42	47	72.1	SG
086-124	NSLS II	42-52	57	72.1	SG
086-125	NSLS II	27-47	47	72.4	SG
086-126	NSLS II	29-44	49	74.4	SG
086-42	FLF, Water Levels	65-75	80	76.9	SG
086-43	OU III North Street, Water Levels	115-125	130	77.0	DG
086-68	Water Levels	250-255	260	73.1	MAG
086-70	OU III North Street	65-75	80	75.6	SG
086-72	FLF, Water Levels	42-57	62	25.6	SG
087-09	CLF, Water Levels	24-34	34	66.9	SG
087-11	CLF, Water Levels	11-21	21	52.8	SG
087-21	OU I South Boundary, Water Levels	125-135	140	67.8	DG
087-22	FLF, Water Levels	43-53	58	85.1	SG
087-23	CLF, Water Levels	25-40	45	70.3	SG
087-24	CLF	70-80	85	70.2	SG
087-25	Water Levels	148-158	163	70.6	DG
087-26	CLF	70-80	85	50.7	SG
087-27	CLF, Water Levels	5-20	25	50.8	SG
087-28	Water Levels	130-140	145	50.6	DG
088-03	Water Levels	10-20	20	49.9	SG
088-108	Water Levels	226-231	236	47.9	MAG
088-109	CLF, Water Levels	6-21	26	50.0	SG
088-110	CLF, Water Levels	10-25	30	50.0	SG
088-13	OU I South Boundary, Water Levels	8-18	23	48.7	SG
088-14	OU I South Boundary	75-85	90	47.4	SG
088-20	OU I South Boundary, Water Levels	120-130	135	48.4	DG
088-21	CLF, Water Levels	5-20	25	45.4	SG
088-22	CLF	70-80	85	45.4	SG
088-23	CLF, Water Levels	120-130	135	45.3	DG
088-26	OU I South Boundary	13-23	28	50.7	SG
088-27	Water Levels	33-43	48	50.6	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
089-13	OU VI EDB, Water Levels	15-25	30	43.8	SG
089-14	OU VI EDB, Water Levels	45-55	60	47.6	SG
090-02	Water Levels	16-26	31	51.1	SG
090-03	Water Levels	138-143	148	51.0	SG
090-10	Water Levels	8-18	23	47.2	SG
092-01	Water Levels	39-49	54	82.7	SG
092-02	Water Levels	46-56	61	89.0	SG
093-02	Water Levels	70-80	80	89.0	SG
093-04	Water Levels	44-54	59	88.0	SG
093-05	Water Levels	39-49	54	79.1	SG
093-06	Water Levels	250-255	260	108.7	MAG
093-88	Current Firehouse PFAS	120-130	135	90.9	MG
093-89	Current Firehouse PFAS	70-80	85	110-8	SG
093-90	Current Firehouse PFAS	100-110	115	111.5	MG
093-91	Current Firehouse PFAS	80-90	95	114-9	SG
093-92	Current Firehouse PFAS	100-110	115	114-8	MG
093-93	Building 170 PFAS	50-70	75	91.9	SG
093-94	Building 170 PFAS	40-60	65	83.6	SG
093-95	Building 170 PFAS	60-70	75	85.9	SG
093-96	Building 170 PFAS	55-65	70	87.0	SG
093-97	Building 170 PFAS	58-68	73	90.6	SG
093-98	Building 170 PFAS	60-70	75	89.3	SG
094-01	Water Levels	60-70	70	95.7	SG
094-11	Water Levels	26-36	36	72.0	SG
094-12	Water Levels	45-55	55	88.6	SG
094-13	Water Levels	51-61	61	98.4	SG
094-14	Water Levels	64-74	74	100.9	SG
094-275	Current Firehouse PFAS	80-90	95	116.3	SG
094-276	Current Firehouse PFAS	100-110	115	116.3	MG
094-277	Current Firehouse PFAS	70-80	85	113.4	SG
094-278	Current Firehouse PFAS	100-110	115	113.5	MG
095-04	Water Levels	36-56	61	84.4	SG
095-28	Water Levels	5-15	20	47.1	SG
095-29	Water Levels	30-40	45	73.4	SG
095-42	OU III Carbon tet, Water Levels	100-105	110	64.5	SG
095-43	OU III Carbon tet	108-113	118	71.8	MG
095-45	OU III Carbon tet	108-113	118	70.4	MG
095-47	OU III Carbon tet, Water Levels	195-200	205	71.7	DG
095-52	Water Levels	35-40	45	72.1	SG
095-53	OU III AOC 29/HFBR Tritium, Carbon tet, Water Levels	87-92	97	51(a)	MG
095-54	OU IIIAOC 29/HFBR Tritium, Water Levels	119-124	129	49.1	MG
095-55	OU III AOC 29/HFBR Tritium	135-140	145	62(a)	MG
095-84	OU III Bldg 96	15-35	40	62.9	SG
095-85	OU III Bldg 96	90-100	105	62.8	MG
095-87	Water Levels	135-140	145	71.6	SG
095-88	OU III Carbon tet, Water Levels	155-160	165	71.6	DG
095-89	OU III Carbon tet, Water Levels	155-160	165	76.0	DG
095-90	OU III Carbon tet, AOC 29/HFBR, Water Levels	98-108	113	48.1	SG
095-91	Water Levels	156-166	171	57.2	DG
095-92	OU III Carbon tet	116-126	131	67.1	MG
095-93	OU III AOC 29/HFBR Tritium, Water Levels	170-180	185	71.4	DG

Table 1-7
Summary of Monitoring Wells and Piezometers

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Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
095-139	OU III AOC 29/HFBR Tritium	90-100	105	63.7	MG
095-140	OU III AOC 29/HFBR Tritium	125-135	140	63.9	DG
095-159	OU III Bldg 96, Water Levels	45-55	60	62.2	SG
095-161	OU III Bldg 96, Water Levels	45-55	60	62.5	SG
095-162	OU III Bldg 96	45-55	60	62.4	SG
095-163	OU III Bldg 96	45-55	60	59.4	SG
095-164	OU III Bldg 96, Water Levels	24-34	39	60.0	SG
095-165	OU III Bldg 96	43-53	58	58.2	SG
095-166	OU III Bldg 96	45-55	60	59.7	SG
095-167	OU III Bldg 96	44-54	59	60.3	SG
095-168	OU III Bldg 96	44-54	59	60.3	SG
095-169	OU III Bldg 96	44-54	59	60.4	SG
095-170	OU III Bldg 96, Water Levels	45-55	60	60.6	SG
095-171	OU III Bldg 96, Water Levels	44-54	59	60.9	SG
095-172	OU III Bldg 96, Water Levels	45-55	60	61.1	SG
095-183	OU III Carbon tet, Water Levels	29-49	54	74.7	SG
095-185	OU III Carbon tet, Water Levels	32-62	67	83.9	SG
095-272	OU III AOC 29/HFBR Tritium, Water Levels	155-165	166	61.9	DG
095-273	OU III AOC 29/HFBR Tritium	130-140	141	61.7	MG
095-274	OU III AOC 29/HFBR Tritium, Water Levels	155-165	166	62.1	DG
095-275	OU III AOC 29/HFBR Tritium	125-135	136	61.0	MG
095-276	OU III AOC 29/HFBR Tritium, Water Levels	165-175	176	61.0	DG
095-277	OU III Carbon tet	47-57	62	72.4	SG
095-279	OU III Carbon tet	70-80	85	65.4	SG
095-280	OU III Carbon tet	85-95	100	56.7	SG
095-294	OU III Bldg 96	25-35	40	58.9	SG
095-295	OU III Bldg 96	45-55	60	67.3	SG
095-296	OU III Bldg 96	60-70	75	64.0	SG
095-296	OU III Carbon tet	60-70	75	64.0	SG
095-300	OU III Carbon tet	70-80	85	62.0	SG
095-301	OU III Carbon tet	70-80	85	69.3	SG
095-305	OU III Bldg 96	20-25	25	60.8	SG
095-306	OU III Bldg 96	32-37	37	60.9	SG
095-307	OU III Bldg 96	30-35	35	59.0	SG
095-308	OU III Bldg 96	35-40	40	58.9	SG
095-312	OU III Bldg 96	45-55	60	61.8	SG
095-313	OU III Bldg 96/452	45-60	65	58.3	SG
095-314	OU III Bldg 452	60-80	85	58.1	SG
095-315	OU III Bldg 452	60-80	85	62.6	SG
095-318	OU III Bldg 96	60-70	80	51.7	MG
095-322	OU III Middle Road	175-185	190	48.2	DG
095-323	OU III Middle Road	200-210	214	69.8	DG
095-325	OU III Bldg 96	40-50	55	60.3	SG
095-326	OU III BGRR/WCF Sr-90	110-130	135	63.9	MG
096-02	Water Levels	45-55	57	71.2	SG
096-115	OU III AOC 29/HFBR Tritium	85-95	100	66.6	SG
096-116	OU III AOC 29/HFBR Tritium	85-95	100	65.1	SG
096-117	OU III AOC 29/HFBR Tritium	85-95	100	64.8	SG
096-118	OU III AOC 29/HFBR Tritium	84-94	99	63.6	SG
096-119	OU III AOC 29/HFBR Tritium (EW-16)	80-120	123	65.6	SG
096-52	Water Levels	24-34	39	68.1	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
096-55	OU III AOC 29/HFBR Tritium	131-136	141	73(a)	MG
096-82	OU III AOC 29/HFBR Tritium	100-110	115	62.0	SG
096-83	OU III AOC 29/HFBR Tritium	22-32	37	68.3	SG
096-84	OU III AOC 29/HFBR Tritium	128-138	143	68.4	MG
096-88	OU III AOC 29/HFBR Tritium, Water Levels	135-145	146	61.5	DG
096-122	Former Firehouse PFAS	60-70	75	68.3	SG
096-123	Former Firehouse PFAS	120-130	135	68.4	MG
096-124	Former Firehouse PFAS	70-80	85	70.0	SG
096-125	Former Firehouse PFAS	120-130	135	70.1	MG
096-126	Former Firehouse PFAS	55-65	70	68.7	SG
096-127	Former Firehouse PFAS	110-120	125	68.6	MG
096-128	Former Firehouse PFAS	55-65	135	68.6	SG
096-129	Former Firehouse PFAS	110-120	125	68.6	MG
096-130	Former Firehouse PFAS	55-65	70	69.6	SG
096-131	Former Firehouse PFAS	110-120	125	69.7	MG
096-132	Former Firehouse FF-RW-B	83-103	108	68.5	MG
097-01	Water Levels	42-52	54	79.3	SG
097-08	Water Levels	37-42	42	72.0	SG
097-14	Water Levels	61-81	86	57.0	SG
097-17	FLF, Water Levels	29-39	44	69.2	SG
097-276	Water Levels	28-43	48	80.9	SG
097-277	FLF	40-55	60	81.0	SG
097-64	FLF	29-44	49	69.2	SG
097-313	Chemical/Animal Holes Sr-90	20-40	45	69.2	SG
097-314	Chemical/Animal Holes Sr-90	20-40	45	69.0	SG
097-315	Chemical/Animal Holes Sr-90	20-40	45	21.4	SG
098-01	Water Levels	18-48	50	45.9	SG
098-09	Water Levels	18-48	50	46.3	SG
098-19	Water Levels	40-50	50	53.5	SG
098-21	OU I South Boundary, Water Levels	24-34	36	54.9	SG
098-22	OU I (South Boundary), Water Levels	33-43	45	53.7	SG
098-30	OU I South Boundary, Water Levels	33-43	45	57.5	SG
098-33	OU I South Boundary	60-80	85	57.6	SG
098-36	Water Levels	20-25	25	54.7	SG
098-40	Water Levels	23-28	33	56.5	SG
098-41	Water Levels	18-23	28	55.3	SG
098-42	Water Levels	13-18	23	50.4	SG
098-58	OU I South Boundary	90-100	105	52.7	MG
098-59	OU I South Boundary, Water Levels	130-140	145	52.8	DG
098-61	OU I South Boundary, Water Levels	120-130	135	54.3	DG
098-63	Water Levels	135-145	150	53.5	DG
098-64	Water Levels	90-100	105	55.2	MG
098-99	Current Landfill	39-49	54	47.8	SG
098-100	OU I South Boundary	5-20	25	50.1	SG
098-103	OU I South Boundary	10-30	35	53.3	SG
098-104	OU I South Boundary	10-30	35	53.2	SG
099-01	Water Levels	19-24	24	48.8	SG
099-04	OU I South Boundary, Water Levels	110-130	135	57.8	DG
099-05	Water Levels	35-55	60	45.8	SG
099-06	OU VI EDB	75-95	100	45.9	SG
099-07	Water Levels	20-25	30	52.7	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
099-10	OU VI EDB	75-85	90	50.4	SG
099-11	OU VI EDB, Water Levels	110-120	125	50.3	DG
100-03	Water Levels	31-51	56	44.8	SG
100-04	Water Levels	155-160	160	45.8	MAG
100-10	Water Levels	15-25	30	47.9	SG
100-12	OU VI EDB, Water Levels	95-105	110	47.8	DG
100-13	OU VI EDB	64-74	79	48.8	SG
100-14	OU VI EDB	105-115	120	48.7	MG
101-01	Water Levels	45-65	70	88.2	SG
101-09	Water Levels	75-85	90	101.2	SG
101-10	Water Levels	60-70	75	84.3	SG
102-05	Motor Pool	47-67	72	93.9	SG
102-06	Motor Pool	46-66	71	94.2	SG
102-08	Motor Pool, Water Levels	45-60	65	93.1	SG
102-10	Motor Pool	44-59	64	93.3	SG
102-11	Motor Pool	44-59	64	93.6	SG
102-12	Motor Pool, Water Levels	44-59	64	93.8	SG
102-13	Motor Pool	45-60	65	94.1	SG
102-25	Water Levels	52-62	67	77.6	SG
102-26	Current Firehouse PFAS	90-100	105	91.9	MG
102-27	Current Firehouse PFAS	110-120	125	92.0	MG
102-28	Current Firehouse PFAS	140-150	155	91.8	MG
102-29	Current Firehouse PFAS	90-100	105	90.1	MG
102-30	Current Firehouse PFAS	110-120	125	90.2	MG
102-31	Current Firehouse PFAS	130-140	145	90.1	MG
102-32	Current Firehouse CF-RW-F	121-141	146	93.1	MG
102-33	Curent Firehouse CF-RW-G	88-108	113	95.1	MG
102-34	Current Firehouse CF-RW-H	98-118	123	104.4	MG
102-35	Building 170 CF-RW-I	70-90	95	91.8	SG
102-36	Building 170 PFAS	70-80	85	89.6	SG
102-37	Building 170 PFAS	65-75	80	92.2	SG
102-38	Building 170 PFAS	70-80	85	81.7	SG
102-39	Building 170 PFAS	70-80	85	83.1	SG
102-40	Current Firehouse PFAS	145-155	160	90.1	MG
103-01	Water Levels	--	49	81.4	SG
103-02	Current Firehouse PFAS, Water Levels	45-50	50	89.8	SG
103-10	Curent Firehouse PFAS	57-67	67	99.5	SG
103-15	OU III Western South Boundary	195-205	208	83.7	DG
103-18	OU III Western South Boundary	165-175	180	101.07(a)	DG
103-19	OU III Western South Boundary	165-175	180	83.7 (a)	DG
103-30	Current Firehouse PFAS	90-100	105	102.5	MG
103-31	Current Firehouse PFAS	110-120	125	103.2	MG
103-32	Current Firehouse PFAS	130-140	145	103.4	MG
103-33	Current Firehouse PFAS	90-100	105	100.9	MG
103-34	Current Firehouse PFAS	120-130	135	100.7	MG
104-01	Water Levels	45-65	70	64.1	SG
104-11	OU III Carbon tet, Water Levels	185-195	200	64.4	DG
104-25	Water Levels	125-130	135	72.8	SD
104-36	OU III Carbon tet	126-146	151	55.6	DG
104-37	OU III Middle Road	204-214	219	67.6	DG
104-38	OU III Middle Road	195-215	218	66.4	DG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
105-02	Water Levels	80-85	85	69.4	SG
105-05	OU III Central, Water Levels	20-30	35	58.6	SG
105-06	OU III Central	70-80	85	58.8	SG
105-21	Water Levels	37-47	52	67.6	SG
105-22	OU III AOC 29/HFBR Tritium	100-110	115	67.2	MG
105-23	OU III Carbon tet, Middle Road, AOC 29/HFBR, Water Levels	175-185	190	67.3	DG
105-24	Water Levels	180-190	195	59.1	DG
105-25	OU III Middle Road, Water Levels	145-150	155	69.7	DG
105-26	Water Levels	145-150	155	69.3	DG
105-27	Water Levels	28-38	43	69.3	SG
105-28	Water Levels	24-34	39	66.0	DG
105-29	OU III AOC 29/HFBR Tritium	170-190	195	65.9	DG
105-39	OU III AOC 29/HFBR Tritium (EW-10)	130-150	153	70.0	DG
105-40	OU III AOC 29/HFBR Tritium (EW-9)	130-150	153	70.0	DG
105-41	OU III AOC 29/HFBR Tritium (EW-11)	130-150	153	70.3	DG
105-42	OU III Carbon tet	145-150	155	67.3	DG
105-43	OU III AOC 29/HFBR Tritium, Water Levels	145-150	155	67(a)	DG
105-44	OU III Middle Road, AOC 29/HFBR, Water Levels	150-155	160	66(a)	DG
105-52	OU III Middle Road, Water Levels	100-110	112	74(a)	MG
105-53	OU III Middle Road, Water Levels	170-180	182	73(a)	DG
105-54	OU III Middle Road, Water Levels	110-120	122	55(a)	MG
105-65	OU III AOC 29/HFBR Tritium	90-100	105	68.8	MG
105-66	OU III Middle Road	179-189	194	67.6	DG
105-67	OU III Middle Road	180-190	195	69(a)	DG
105-68	OU III Middle Road	200-210	215	60.8	DG
105-72	Former Firehouse PFAS	100-110	115	62.3	MG
105-73	Former Firehouse PFAS	120-130	135	63.2	MG
105-74	Former Firehouse PFAS	90-100	105	65.0	SG
105-75	Former Firehouse PFAS	110-120	125	64.4	MG
105-76	Former Firehouse PFAS	130-140	145	63.9	MG
105-77	Former Firehouse PFAS	100-110	115	60.1	MG
105-78	Former Firehouse PFAS	120-130	135	60.9	MG
105-79	Former Firehouse FF-RW-C	104-124	129	64.3	MG
105-80	OU III Middle Road	175-185	190	NM	DG
105-81	OU III Middle Road	188-198	203	NM	DG
106-02	FLF, Water Levels	55-65	70	66.8	SG
106-04	Chemical/Animal Holes Sr-90, Water Levels	55-65	70	68.1	SG
106-13	Chemical/Animal Holes Sr-90	29-39	44	70.3	SG
106-14	Chemical/Animal Holes Sr-90	30-40	45	71.2	SG
106-15	Chemical/Animal Holes Sr-90	55-65	70	71.2	SG
106-16	Chemical/Animal Holes Sr-90, Water Levels	30-40	45	70.5	SG
106-17	Chemical/Animal Holes Sr-90, Water Levels	30-40	45	69.2	SG
106-19	Water Levels	250-255	260	66.9	MAG
106-20	Chemical/Animal Holes Sr-90, Water Levels	85-95	100	66.6	MG
106-21	Chemical/Animal Holes Sr-90, Water Levels	55-65	70	66.6	SG
106-22	Chemical/Animal Holes Sr-90, Water Levels	85-95	100	62.9	DG
106-23	Chemical/Animal Holes Sr-90, Water Levels	55-65	70	62.9	SG
106-24	Chemical/Animal Holes Sr-90	80-90	95	51.0	SG
106-25	Chemical/Animal Holes Sr-90, Water Levels	50-60	65	51.2	SG
106-30	FLF, Water Levels	29-44	49	20.7	SG
106-43	Chemical/Animal Holes Sr-90	43-53	58	64.9	SG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
106-44	Chemical/Animal Holes Sr-90	44-54	59	64.8	SG
106-45	Chemical/Animal Holes Sr-90	44-55	60	64.8	SG
106-46	Chemical/Animal Holes Sr-90	29-39	44	66.0	SG
106-47	Chemical/Animal Holes Sr-90	29-39	44	65.9	SG
106-48	Chemical/Animal Holes Sr-90	31-41	46	66.5	SG
106-49	Chemical/Animal Holes Sr-90	32-42	47	67.4	SG
106-50	Chemical/Animal Holes Sr-90	32-42	47	67.9	SG
106-53	OU III Middle Road, Water Levels	200-210	215	68.3	DG
106-54	OU III Middle Road	200-210	215	67.4	DG
106-55	OU III Middle Road	170-180	185	66.1	DG
106-56	OU III Middle Road	160-170	175	66.2	DG
106-58	OU III Middle Road	200-210	215	65.9	DG
106-62	OU III Middle Road, Chemical/Animal Holes Sr-90	67-77	82	62.4	SG
106-63	Chemical/Animal Holes Sr-90	65-75	80	60.3	SG
106-64	Chemical/Animal Holes Sr-90	30-40	45	64.7	SG
106-66	OU III Middle Road RW-6	188-218	218	64(a)	DG
106-92	Chemical/Animal Holes Sr-90 (EW-1)	23-38	40	64.1	SG
106-94	Chemical/Animal Holes Sr-90	27-42	42	70.8	SG
106-95	Chemical/Animal Holes Sr-90	27-42	42	70.6	SG
106-96	Chemical/Animal Holes Sr-90	27-42	42	70.0	SG
106-97	Chemical/Animal Holes Sr-90	27-42	42	70.1	SG
106-98	Chemical/Animal Holes Sr-90	22-37	37	65.9	SG
106-99	Chemical/Animal Holes Sr-90	23-38	38	65.8	SG
106-100	Chemical/Animal Holes Sr-90	23-38	39	65.3	SG
106-101	Chemical/Animal Holes Sr-90	26-41	42	67.0	SG
106-102	Chemical/Animal Holes Sr-90	25-40	41	67.0	SG
106-103	Chemical/Animal Holes Sr-90	21-36	37	65.0	SG
106-104	Chemical/Animal Holes Sr-90	21-36	37	64.8	SG
106-105	Chemical/Animal Holes Sr-90, Water Levels	21-36	37	64.6	SG
106-119	Chemical/Animal Holes Sr-90	35-45	50	64.4	SG
106-120	Chemical/Animal Holes Sr-90	35-45	50	59.1	SG
106-121	Chemical/Animal Holes Sr-90	35-45	50	59.1	SG
106-122	Chemical/Animal Holes Sr-90	35-45	50	59.4	SG
106-123	Chemical/Animal Holes Sr-90 (EW-2)	35-45	48	67.6	SG
106-124	Chemical/Animal Holes Sr-90 (EW-3)	35-45	48	62.6	SG
106-125	Chemical/Animal Holes Sr-90	35-45	50	68.2	SG
106-135	Chemical/Animal Holes Sr-90	30-40	45	66.0	SG
106-136	Chemical/Animal Holes Sr-90	25-45	50	66.9	SG
107-07	Water Levels	93-113	118	65.8	DG
107-10	OU I South Boundary, Water Levels	110-130	135	60.8	DG
107-11	Water Levels	95-115	120	67.4	DG
107-12	Water Levels	50-70	75	67.4	SG
107-14	Water Levels	60-80	85	67.4	SG
107-23	OU I South Boundary	115-125	130	47.2	MG
107-24	OU I South Boundary	73-83	88	48.3	SG
107-25	OU I South Boundary, Water Levels	113-123	128	48.7	DG
107-26	OU I South Boundary, Water Levels	135-145	150	55.0	DG
107-34	OU I South Boundary, Water Levels	50-60	65	66.8	SG
107-35	OU I South Boundary, Water Levels	60-70	75	66.9	SG
107-40	OU I South Boundary	140-150	155	66.9	DG
107-41	OU I South Boundary	128-138	143	68.0	MG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
107-42	OU I South Boundary	63-73	78	67(a)	SG
108-01	Water Levels	52-72	72	57.4	SG
108-05	Water Levels	50-70	70	61.0	SG
108-08	OU I South Boundary, Water Levels	51-71	71	62.9	SG
108-12	OU I South Boundary	58-78	78	65.8	SG
108-13	OU I South Boundary, Water Levels	45-65	70	65.9	SG
108-14	OU I South Boundary	85-105	110	65.6	MG
108-15	Water Levels	26-31	36	58.1	SG
108-16	Water Levels	25-30	35	58.2	SG
108-17	OU I South Boundary	65-85	90	63.9	SG
108-18	OU I South Boundary, Water Levels	95-115	120	64.0	DG
108-30	Water Levels	95-105	110	61.2	DG
108-31	Water Levels	124-134	139	65.4	DG
108-43	OU I South Boundary, Water Levels	60-70	75	66.0	SG
108-44	OU I South Boundary, Water Levels	50-60	65	66.0	SG
108-45	OU I South Boundary	63-73	78	67(a)	SG
108-55	OU I South Boundary	54-64	69	59.4	SG
108-56	OU I South Boundary	54-64	69	59.5	SG
108-57	OU I South Boundary	65-75	80	64.9	MG
108-58	OU I South Boundary	65-75	80	64.2	MG
108-59	OU I South Boundary	90-100	105	64.2	MG
109-03	Wm. Floyd Well Field/Water Levels	120-140	145	115.8	MG
109-04	Wm. Floyd Well Field/Water Levels	205-220	225	115.7	DG
109-12	OU III Magothy, Water Levels	255-275	280	115.6	MAG
109-13	OU III Magothy, Water Levels	228-248	253	115.7	MAG
109-29	Water Levels	99-109	114	122.6	SG
110-26	Water Levels	66-76	81	88.6	SG
110-27	Water Levels	70-80	85	93.3	SG
111-01	Water Levels	35-45	50	75.2	SG
111-15	OU III Western South Boundary	170-180	185	75(a)	DG
111-16	OU III Western South Boundary	168-178	183	67(a)	DG
111-17	OU III Western South Boundary (WSB-3)	168-188	191	73.4	DG
113-06	OU III Middle Road, Water Levels	44-54	59	73.2	SG
113-07	OU III Middle Road	94-104	109	73.2	MG
113-08	OU III Middle Road, Water Levels	137-147	147	73.5	MG
113-09	OU III Middle Road, Water Levels	217-227	232	73.3	DG
113-10	Water Levels	90-100	105	71.2	DG
113-11	OU III Middle Road, Water Levels	196-206	211	70.9	DG
113-16	OU III Middle Road, Water Levels	100-120	125	72(a)	MG
113-17	OU III Middle Road, Water Levels	167-187	192	72(a)	DG
113-18	OU III Middle Road	142-162	167	71(a)	DG
113-19	OU III Middle Road, Water Levels	220-240	245	71(a)	DG
113-20	OU III Middle Road	158-178	183	63(a)	DG
113-21	OU III Middle Road, Water Levels	180-190	192	71(a)	DG
113-22	OU III Middle Road, Water Levels	235-245	247	72(a)	DG
113-23	OU III Middle Road (RW-1)	90-130	140	72(a)	MG
113-24	OU III Middle Road (RW-2)	170-200	200	70(a)	DG
113-25	OU III Middle Road (RW-3)	228-268	268	68(a)	MAG
113-26	OU III Middle Road (RW-4)	150-180	180	51(a)	DG
113-27	OU III Middle Road (RW-5)	150-180	180	58(a)	DG
113-29	OU III Middle Road	180-200	205	63.2	DG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
113-30	OU III Middle Road	185-195	200	73(a)	DG
113-31	OU III Middle Road	185-195	200	58.5	DG
114-01	Chemical/Animal Holes Sr-90	70-80	85	62.1	SG
114-02	Water Levels	26-36	41	61.9	SG
114-06	OU III South Boundary	180-190	195	52.2	DG
114-07	OU III South Boundary, Water Levels	200-210	215	52.2	DG
114-12	OU III Middle Road, Water Levels	145-165	170	60(a)	DG
115-01	Water Levels	40-60	65	52.8	SG
115-03	OU I South Boundary, Water Levels	110-130	136	52.7	DG
115-04	Water Levels	65-85	90	61.2	SG
115-05	Water Levels	95-115	120	60.9	DG
115-13	OU I South Boundary, Water Levels	140-150	155	61.6	DG
115-14	OU I South Boundary, Water Levels	180-190	195	59.4	DG
115-15	OU I South Boundary, Water Levels	180-190	195	55.0	DG
115-16	OU I South Boundary, Water Levels	125-135	140	55.1	SG
115-27	OU I South Boundary (EW-1)	150-190	193	59.7	DG
115-28	OU I South Boundary, Water Levels	202-212	217	59.7	DG
115-29	OU I South Boundary, Water Levels	200-210	215	55.8	DG
115-30	OU I South Boundary, Water Levels	158-168	173	53.7	DG
115-31	OU I South Boundary, Water Levels	167-177	182	61.6	DG
115-32	OU III North Street, Water Levels	80-90	95	65.5	SG
115-33	OU III North Street, Water Levels	179-189	194	65.6	DG
115-34	OU III North Street	110-120	125	65.2	MG
115-35	OU III North Street, Water Levels	150-160	165	64.8	DG
115-36	OU I South Boundary, Water Levels	129-134	139	52.9	DG
115-41	OU I South Boundary, Water Levels	98-118	123	53.3	SG
115-42	OU I South Boundary, Water Levels	158-178	183	53.2	DG
115-43	OU I South Boundary (EW-2)	104-124	129	60.0	DG
115-50	OU III Magothy, Water Levels	256-276	281	52.4	MAG
115-51	OU I South Boundary	125-145	150	62(a)	MG
116-05	OU I South Boundary	100-110	115	65.3	DG
116-06	OU I South Boundary, Water Levels	130-140	145	65.6	DG
116-14	Water Levels	65-75	75	69.0	SG
117-01	Wm. Floyd Well Field/Water Levels	75-85	90	113.8	SG
117-02	Wm. Floyd Well Field/Water Levels	74-84	89	109.9	SG
117-04	Wm. Floyd Well Field/Water Levels	130-140	145	110.5	MG
117-05	Wm. Floyd Well Field/Water Levels	130-140	145	109.6	MG
117-06	Wm. Floyd Well Field/Water Levels	130-140	145	109.4	MG
117-07	Water Levels	83-93	98	101.9	SG
118-01	Water Levels	70-90	95	81.9	SG
118-02	Water Levels	110-130	135	81.5	DG
118-04	Water Levels	88-98	103	109.6	SG
119-01	Water Levels	44-54	59	79.8	SG
119-03	OU III Western South Boundary, Water Levels	40-50	55	80.5	SG
119-06	OU III Western South Boundary	125-135	140	80.9	DG
119-10	OU III Western South Boundary	195-205	210	77.5	DG
119-11	OU III Western South Boundary	175-185	190	78(a)	DG
119-12	OU III Western South Boundary	174-184	189	81(a)	DG
119-13	OU III Western South Boundary (WSB-4)	170-190	193	80.0	DG
121-06	OU III South Boundary, Water Levels	40-50	55	67.6	SG
121-07	OU III South Boundary	89-99	104	67.8	MG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
121-08	OU III South Boundary, Water Levels	180-190	195	68.0	DG
121-09	OU III South Boundary	90-100	105	73.6	MG
121-10	OU III South Boundary, Water Levels	160-170	175	73.5	DG
121-11	OU III South Boundary, Water Levels	200-210	215	72.5	DG
121-12	OU III South Boundary, Water Levels	45-55	60	71.7	SG
121-13	OU III South Boundary	120-130	135	71.8	MG
121-14	OU III South Boundary, Water Levels	190-200	205	71.6	DG
121-15	OU III South Boundary (EW-5)	160-200	203	68.8	DG
121-16	OU III South Boundary (EW-4)	160-200	205	71.8	DG
121-17	OU III South Boundary (EW-3)	150-190	193	70.9	DG
121-18	OU III South Boundary, Water Levels	60-80	85	72.0	SG
121-19	OU III South Boundary	90-110	115	72.3	MG
121-20	OU III South Boundary, Water Levels	180-200	205	72.1	DG
121-21	OU III South Boundary, Water Levels	60-80	85	68.1	SG
121-22	OU III South Boundary	120-140	145	68.3	MG
121-23	OU III South Boundary, Water Levels	180-200	205	67.8	DG
121-40	OU III Magothy, Water Levels	281-301	306	72.5	MAG
121-42	OU III Western South Boundary, Water Levels	150-160	165	67.4	DG
121-43	OU III South Boundary, Water Levels	185-205	210	68.3	DG
121-44	OU III Magothy, Water Levels	260-280	285	71.8	MAG
121-45	OU III Middle Road, South Boundary	189-209	214	69.7	DG
121-47	OU III South Boundary	224-234	239	71.0	DG
121-48	OU III South Boundary	223-233	238	68.2	DG
121-49	OU III South Boundary	210-220	225	73.6	DG
121-53	OU III Middle Road	224-234	239	76.7	DG
121-54	OU III Middle Road	215-225	230	72.6	DG
121-57	OU III South Boundary	212-222	227	NM	DG
122-01	Water Levels	46-66	71	59.2	SG
122-02	OU III South Boundary	85-105	110	59.4	DG
122-04	OU III South Boundary, Water Levels	200-205	210	58.5	DG
122-05	OU III South Boundary, Water Levels	269-274	279	61.8	MAG
122-09	OU III South Boundary	110-120	125	51.1	MG
122-10	OU III South Boundary, Water Levels	149-159	164	50.8	DG
122-12	OU III South Boundary (EW-8)	190-250	253	59.2	DG/MAG
122-13	OU III (South Boundary (EW-7)	170-210	213	55.2	DG
122-14	OU III South Boundary (EW-6)	160-200	203	55.1	DG
122-15	OU III South Boundary, Water Levels	50-70	75	54.0	SG
122-16	OU III South Boundary	140-160	165	53.5	DG
122-17	OU III South Boundary, Water Levels	200-220	225	53.4	DG
122-18	OU III South Boundary, Water Levels	130-150	155	61.9	SG
122-19	OU III South Boundary	190-210	215	61.8	DG
122-20	OU III South Boundary, Water Levels	250-270	275	61.9	DG
122-21	OU III South Boundary	180-190	195	58.6	DG
122-22	OU III South Boundary, Water Levels	200-210	215	58.9	DG
122-30	OU III South Boundary (EW-12)	180-220	220	52.5	DG
122-31	OU III South Boundary	150-160	165	53.3	DG
122-32	OU III South Boundary, Water Levels	200-210	215	54.1	DG
122-33	OU III South Boundary, Water Levels	165-195	200	56.1	DG
122-34	OU III South Boundary, Water Levels	190-210	215	61.8	DG
122-35	OU III South Boundary, Water Levels	190-210	215	59.7	DG
122-41	OU III Magothy, Water Levels	315-335	340	52.3	MAG

Table 1-7
Summary of Monitoring Wells and Piezometers

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Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
124-01	Water Levels	63-73	78	97.0	SG
124-02	OU III Western South Boundary, Water Levels	190-200	205	97.3	DG
124-04	Water Levels	80-90	85	114.5	SG
125-01	OU III Western South Boundary, Water Levels	40-50	55	82.0	SG
125-02	Water Levels	40-50	55	80.3	SG
126-01	OU III Western South Boundary, Water Levels	60-80	85	80.8	SG
126-11	OU III Western South Boundary, Water Levels	150-160	165	80.1	DG
126-12	OU III Western South Boundary (WSB-1)	140-160	165	79.5	DG
126-13	OU III Western South Boundary, Water Levels	150-160	165	80.7	DG
126-14	OU III Western South Boundary, Water Levels	150-160	165	81.4	DG
126-15	OU III Western South Boundary, Water Levels	150-160	165	66.2	DG
126-16	OU III Western South Boundary, Water Levels	130-140	145	76.0	DG
126-17	OU III Western South Boundary	135-145	150	83.4	DG
126-18	OU III Western South Boundary	160-170	175	83.4	DG
126-19	OU III Western South Boundary	190-200	205	84(a)	DG
126-20	OU III Western South Boundary	135-145	150	81(a)	DG
126-21	OU III Western South Boundary	199-209	214	80(a)	DG
126-22	OU III Western South Boundary	203-213	218	82(a)	DG
127-04	OU III Western South Boundary, Water Levels	150-160	165	69.5	DG
127-05	OU III Western South Boundary (WSB-2)	150-170	175	70.0	DG
127-06	OU III Western South Boundary, Water Levels	150-160	165	70.4	DG
127-07	OU III Western South Boundary, Water Levels	146-156	161	74.0	DG
127-08	OU III Industrial Park	235-245	250	70.9	MAG
127-09	OU III Industrial Park	220-230	235	70.9	MAG
130-02	OU III Western South Boundary	105-125	130	80.3	MG
130-03	OU III Western South Boundary, Water Levels	160-165	170	80.1	DG
130-04	OU III Western South Boundary, Water Levels	285-290	295	80.8	MAG
130-06	Water Levels (S-54883)	--	66	79.9	SG
130-08	OU III Western South Boundary, Water Levels	145-155	160	72.7	DG
130-09	OU III Western South Boundary	135-145	150	77(a)	DG
130-10	OU III Western South Boundary	150-160	165	77(a)	DG
130-11	OU III Western South Boundary	195-205	210	77(a)	DG
130-12	OU III Western South Boundary (WSB-5)	160-190	193	73(a)	DG
130-13	OU III Western South Boundary WSB-6	196-216	219	72.7	DG
300-06	Water Levels	50-60	65	84(a)	SG
600-02	Water Levels	91-101	103	41.8	DG
600-15	OU V, Water Levels	240-260	265	48(a)	DG
600-16	OU V, Water Levels	160-180	185	48(a)	MG
600-18	OU V, Water Levels	35-55	60	48.1	SG
600-19	OU V, Water Levels	50-70	75	43.6	SG
600-20	OU V, Water Levels	150-170	175	43.6	SG
600-21	OU V, Water Levels	240-260	265	43.7	MAG
600-22	OU V, Water Levels	60-80	85	50.0	SG
600-23	OU V, Water Levels	150-170	175	50.0	DG
600-24	OU V, Water Levels	228-248	253	50.0	MAG
600-25	OU V, Water Levels	52-72	77	44.0	SG
600-26	OU V, Water Levels	150-170	175	44.0	DG
600-27	OU V, Water Levels	240-260	265	43.7	MAG
600-28	Water Levels	--	45	50.0	SG
800-100	OU III Airport, Water Levels	204-224	227	83.5	DG
800-101	OU III Airport, Water Levels	270-290	293	83.6	MAG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
800-102	OU III Airport	294-314	317	83.5	MAG
800-103	OU III Airport	215-235	238	86.0	MAG
800-104	OU III Airport, Water Levels	160-180	183	82.5	DG
800-105	OU III Airport, Water Levels	222-242	245	82.5	MAG
800-106	OU III Airport	207-227	230	90.7	DG
800-107	Water Levels	194-214	217	77.6	DG
800-108	OU III Airport, Water Levels	206-226	229	76.6	MAG
800-109	OU III LIPA (RTW-1A)	55-95/188-208	211	80.1	DG
800-110	OU III LIPA (RTW-2A)	55-95/188-208	211	79.2	DG
800-111	OU III LIPA (RTW-3A)	55-95/210-230	235	80.1	MAG
800-112	OU III LIPA (RTW-4A)	60-100/268-288	291	83.8	MAG
800-113	OU III LIPA (RTW-5A)	65-105/220-240	243	87.1	MAG
800-115	OU III North Street	210-220	225	92.4	MAG
800-126	OU III Airport	165-185	190	74.3	DG
800-127	OU III Airport	165-185	190	75.5	DG
800-128	OU III Airport	170-190	195	77.4	DG
800-129	OU III Airport	170-190	195	78.8	DG
800-130	OU III Airport	175-195	200	78.8	DG
800-131	OU III Airport	184-204	209	78.0	DG
800-132	OU III LIPA (RTW-6A)	165-185	188	78.8	DG
800-133	OU III Airport	215-235	240	79.3	DG/MAG
800-138	OU III Airport	245-255	260	90.4	MAG
800-14	Water Levels	83-93	95	95.5	SG
800-16	Water Levels	331-336	339	95(a)	MAG
800-21	OU III Off-site, Water Levels	202-222	227	35.6	MAG
800-22	OU III Off-site, Water Levels	105-125	130	35.5	DG
800-23	OU III Off-site, Water Levels	35.5-45.5	50.5	35.6	SD
800-24	Water Levels	230-240	245	44.1	MAG
800-25	Water Levels	165-175	180	44.7	DG
800-26	Water Levels	35-45	50	42.2	SG
800-27	Water Levels	170-180	185	56.7	DG
800-28	Water Levels	262-272	277	56.4	MAG
800-29	Water Levels	50-60	65	56.2	SG
800-30	Water Levels	20-30	35	24.7	SG
800-39	Water Levels	61.5-71.5	76.5	80.9	SG
800-40	OU III Off-site, Water Levels	166-186	191	81.2	DG
800-41	OU III Off-site, Water Levels	203-223	228	80.9	MAG
800-42	Water Levels	60-70	75	79.5	SG
800-43	OU III Airport, Water Levels	147-167	172	79.5	MG
800-44	OU III Airport, Water Levels	202-222	227	79.3	DG
800-50	OU III Airport, Water Levels	195-215	220	87.3	MAG
800-51	OU III Off-site, Water Levels	70-80	85	84.8	SG
800-52	OU III Off-site, Water Levels	140-160	165	85.2	DG
800-53	OU III Off-site, Water Levels	190-210	215	85.4	MG
800-54	OU III North Street East, Water Levels	145-165	170	83.3	DG
800-55	Water Levels	25-28	28	26.0	SG
800-56	Water Levels	--	8	18.0	SG
800-59	OU III Airport, Water Levels	198-218	223	90.1	DG
800-60	OU III Airport, Water Levels	200-220	225	91.3	DG
800-63	OU III Airport, North Street, Water Levels	196-216	221	96.3	DG
800-90	OU III Airport	250-260	265	95.4	MAG

Table 1-7
Summary of Monitoring Wells and Piezometers

2023 BNL Groundwater Status Report

Well ID	Project(s)	Screen Interval (Feet BLS)	Total Depth (Feet BLS)	Land Surface Elevation (Feet Above MSL)	Aquifer
800-90	OU III Magothy, Water Levels	250-260	265	95.4	MAG
800-92	OU III Airport, Water Levels	195-205	210	95.4	MAG
800-94	OU III Airport, Water Levels	175-195	198	85.2	DG
800-95	OU III Airport	177-197	200	85.1	DG
800-96	OU III Airport, Water Levels	179-199	202	78.7	DG
800-97	OU III Airport	189-209	212	79.4	DG
800-98	OU III Airport, Water Levels	174-194	197	91.4	DG
800-99	OU III Airport, Water Levels	236-256	261	91.3	MAG
127-08	OU3 EM-50	235-245	250	70.9	MAG
127-09	OU3 EM-50	220-230	235	70.8	MAG

a: Estimated land surface elevation

SG Shallow Glacial

SD Shallow-Deep Glacial

MG Mid Glacial

DG Deep Glacial

MAG Magothy

UG Upper Glacial

BLS Below Land Surface

MSL Mean Sea Level

Table 2-1
2023 Water Pumpage Report for Potable Supply Wells

2023 BNL Groundwater Status Report

Potable Water Supply Wells Groundwater Withdrawal (1,000 gallons per month)						
BNL Well No.	4	6	7	10	11	12
LI Well Permit	W-1656	W-2210	W-2210	W-3156	W-3156	W-3389
Well No	S-17836	S-22151	S-22150	S-66944	S-72038	S-85965
Building No.	614	618	619	634	635	637
Screen Interval						
elevation (ft. msl)	-5 to -57	-8 to -60	-19 to -70	-6 to -55	-3 to -52	-7 to -52
depth (feet)	95 to 147	98 to 150	99 to 150	91 to 140	93 to 142	92 to 137
Capacity (kgal/month)*	52,000	52,000	52,000	52,000	52,000	52,000
Capacity (gpm)	1,200	1,200	1,200	1,200	1,200	1,200
January	0	0	1,307	4,274	8,484	4,666
February	0	0	1,203	2,513	3,822	11,904
March	0	0	1,320	599	3,865	16,721
April	0	0	2,470	4,724	8,426	21,414
May	0	0	1,072	3,989	4,471	22,925
June	0	0	2,302	5,955	7,388	21,980
July	0	0	1,903	5,460	6,216	29,605
August	0	0	2,413	5,185	6,493	24,071
September	0	0	1,555	2,500	5,659	18,259
October	0	0	1,365	2,878	4,213	13,615
November	0	0	648	2,095	3,376	10,911
December	0	0	796	2,121	3,059	13,175
Annual average (K gallons per month)	0	0	1,530	3,530	5,461	17,475

Notes:

Source: BNL Facility and Operations Directorate.

ft. msl = Elevation in feet referenced to mean sea level.

kgal/month = 1,000 gallons per month

* approximate

gpm = gallons per minute

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

	Operable Unit 1			HFBR-Tritium Remediation Project				
	Groundwater Withdrawal (1,000 gallons per month)							
BNL Well No.	115-27	115-43	RA V	105-040	105-039	105-041	096-119	Tritium
Extraction Well	EW-1	EW-2		EW-9	EW-10	EW-11	EW-16	Remediation
Screen Int.								
elevation (ft. msl)	-90 to -130	-40 to -80		-61 to -81	-60 to -80	-60 to -80	-14 to -54	
depth (feet)	150 to 190	100 to 140	Monthly	130 to 150	130 to 150	130 to 150	80 to 120	Monthly
			Total					Total
January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
February	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
March	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
April	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
August	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
September	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
October	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual Average (K gal/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

HFBR = High Flux Beam Reactor

Elevations rounded to nearest foot

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat MIDDLE ROAD SYSTEM - Groundwater Withdrawal (1,000 gallons per month)								
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	113-23 RW-1 -17 to -57 90 to 130	113-24 RW-2 -99 to -129 170 to 200	113-25 RW-3 -159 to -199 228 to 268	113-26 RW-4 -98 to -128 150 to 180	113-27 RW-5 -91 to -121 150 to 180	106-66 RW-6 -124 to -154 188 to 218	113-33 RW-7 202 to 222	MIDDLE ROAD Monthly Total
January	0.00	5,112.86	5,254.30	0.00	0.00	0.00	3,384.90	13,752.06
February	0.00	4,278.59	3,629.58	0.00	0.00	0.00	4,096.65	12,004.82
March	0.00	5,944.89	6,700.00	0.00	0.00	0.00	5,663.17	18,308.06
April	0.00	5,820.58	5,793.47	0.00	0.00	0.00	5,706.44	17,320.49
May	0.00	5,230.36	5,341.60	0.00	0.00	0.00	5,943.61	16,515.57
June	0.00	6,871.60	6,997.52	0.00	0.00	0.00	7,142.62	21,011.74
July	0.00	3,409.29	4,861.71	0.00	0.00	0.00	5,185.27	13,456.27
August	0.00	4,647.73	6,817.09	0.00	0.00	0.00	7,604.34	19,069.16
September	0.00	3,775.79	4,050.34	0.00	0.00	0.00	5,893.84	13,719.97
October	0.00	2,011.54	5,568.38	0.00	0.00	0.00	5,801.46	13,381.38
November	0.00	209.49	6,546.74	0.00	0.00	0.00	5,977.93	12,734.16
December	0.00	5,977.78	5,460.29	0.00	0.00	0.00	4,529.13	15,967.20
Annual Average (K gal/month)	0.00	4,445.18	5,598.29	0.00	0.00	0.00	5,583.01	15,626.48

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat SOUTH BOUNDARY SYSTEM - Groundwater Withdrawal (1,000 gallons per month)								
BNL Well No.	121-17	121-16	121-15	122-14	122-13	122-12	121-46	SOUTH
Extraction Well	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8	EW-17	BOUNDARY
Screen Int. elevation (ft. msl)	-79 to -119	-88 to -108 -118 to -128	-91 to -131	-105 to -145	-115 to -155	-131 to -151 -171 to -191		
depth (feet)	150 to 190	160 to 180 190 to 200	160 to 200	160 to 200	170 to 210	190 to 210 230 to 250	207 to 237	Monthly Total
January	0.00	0.00	0.00	0.00	0.00	0.00	5,378.85	5,378.85
February	0.00	0.00	0.00	0.00	0.00	0.00	3,697.10	3,697.10
March	0.00	0.00	0.00	0.00	0.00	0.00	2,116.88	2,116.88
April	0.00	0.00	0.00	0.00	0.00	0.00	4,407.16	4,407.16
May	0.00	0.00	0.00	0.00	0.00	0.00	6,312.34	6,312.34
June	0.00	0.00	0.00	0.00	0.00	0.00	7,973.15	7,973.15
July	0.00	0.00	0.00	0.00	0.00	0.00	5,736.70	5,736.70
August	0.00	0.00	0.00	0.00	0.00	0.00	8,026.81	8,026.81
September	0.00	0.00	0.00	0.00	0.00	0.00	6,939.28	6,939.28
October	0.00	0.00	0.00	0.00	0.00	0.00	5,600.00	5,600.00
November	0.00	0.00	0.00	0.00	0.00	0.00	6,571.89	6,571.89
December	0.00	0.00	0.00	0.00	0.00	0.00	6,404.48	6,404.48
Annual Average (K gal/month)	0.00	0.00	0.00	0.00	0.00	0.00	5,772.93	5,772.93

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat OFFSITE INDUSTRIAL PARK SYSTEM - Groundwater Withdrawal (1,000 gallons per month)										
BNL Well No.	000-231	000-233	000-235	000-237	000-239	000-241	000-243	000-532	000-533	OFFSITE
Extraction Well	UVB-1	UVB-2	UVB-3	UVB-4	UVB-5	UVB-6	UVB-7	IP-EW-8	IP-EW-9	INDUSTRIAL
Screen Int.										PARK
Influent										
elevation	-137 to -157	-115.5 to -135.5	-123 to -143	-98 to -118	-109 to -129	-110 to -130	-123 to -143	-155 to -175	-148 to -168	
(ft. msl)										
depth (feet)	220 to 240	195 to 215	194 to 214	170 to 190	180 to 200	190 to 210	205 to 225	230 to 250	220 to 240	
Effluent										
elevation										
(ft. msl)	-82 to -102	-60.5 to -80.5	-68 to -88	-53 to -73	-54 to -74	-58 to -78	-68 to -88			Monthly
depth (feet)	165 to 185	140 to 160	139 to 159	125 to 145	125 to 145	140 to 160	150 to 170			Total
January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
February	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
March	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
April	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
August	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
September	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
October	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual Average (K gal/month)	stand-by	stand-by	stand-by	stand-by	stand-by	stand-by	stand-by	stand-by	stand-by	stand-by

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat **BUILDING 96 SYSTEM - Groundwater Withdrawal and Reinjection (1,000 gallons per month)**					
BNL Well No.	095-151	095-153	095-155	095-157	BUILDING
Extraction Well	RTW-1	RTW-2	RTW-3	RTW-4	96
Screen Int.					
Influent					
elevation (ft. msl)	+34 to+24	+26 to +16	+26 to +16	+23 to +13	
depth (feet)	48 to 58	48 to 58	48 to 58	48 to 58	
Effluent					
elevation (ft. msl)	+57 to +47	+49 to +39	+49 to +39	+46 to +36	Monthly
depth (feet)	25 to 35	25 to 35	25 to 35	25 to 35	Total
January	0.00	0.00	0.00	0.00	0.00
February	2,159.00	0.00	0.00	0.00	2,159.00
March	0.00	0.00	0.00	0.00	0.00
April	2,097.00	0.00	0.00	0.00	2,097.00
May	0.00	0.00	0.00	0.00	0.00
June	2,330.00	0.00	0.00	0.00	2,330.00
July	0.00	0.00	0.00	0.00	0.00
August	1,888.00	0.00	0.00	0.00	1,888.00
September	0.00	0.00	0.00	0.00	0.00
October	2,324.00	0.00	0.00	0.00	2,324.00
November	0.00	0.00	0.00	0.00	0.00
December	1,322.00	0.00	0.00	0.00	1,322.00
Annual Average (K gal/month)	1,010	stand-by	stand-by	stand-by	1,010

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Annual average based on actual pumping durations

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat WESTERN SOUTH BOUNDARY SYSTEM (1,000 gallons per month)							
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	126-12 WSB-1 -60 to -80 140 to 160	127-05 WSB-2 -80 to -100 150 to 170	111-17 WSB-3 -97.2 to -117.2 168 to 188	119-13 WSB-4 -91.7 to 111.7 170 to 190	130-12 WSB-5 -84.5 to -114.50 160 to 190	130-13 WSB-6 -120.6 to 140.6 196 to 216	WESTERN SOUTH BOUNDARY Monthly Total
January	3,840.00	0.00	2,583.00	1,395.00	3,708.00	4,263.00	15,789.00
February	2,530.00	0.00	3,871.00	2,650.00	2,308.00	3,543.00	14,902.00
March	3,266.00	0.00	4,515.00	3,766.00	3,564.00	4,074.00	19,185.00
April	3,506.00	0.00	1,897.00	4,205.00	2,567.00	4,539.00	16,714.00
May	2,967.00	0.00	2,748.00	4,132.00	3,229.00	4,118.00	17,194.00
June	3,124.00	0.00	3,948.00	4,128.00	4,075.00	4,986.00	20,261.00
July	2,942.00	0.00	1,442.00	2,873.00	2,879.00	3,486.00	13,622.00
August	4,904.00	0.00	1,209.00	3,721.00	4,121.00	5,040.00	18,995.00
September	4,046.00	0.00	1,767.00	24.00	2,678.00	29.00	8,544.00
October	0.00	0.00	0.00	1,473.00	0.00	1,844.00	3,317.00
November	6,238.00	0.00	5,314.00	0.00	4,018.00	0.00	15,570.00
December	32.00	0.00	1.00	3,521.00	5.00	3,990.00	7,549.00
Annual Average (K gal/month)	3,108.88	0.00	2,420.84	2,663.62	2,760.14	3,334.49	14,287.96

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat CHEM HOLES STRONTIUM 90 SYSTEM (1,000 gallons per month)				
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	106-92 SR-90 EW-1 +40.5 to +25.5 23.5 to 38.5	106-23 SR-90 EW-2 +32.6 to 22.6 35 to 45	106-24 SR-90 EW-3 +27.6 to +17.6 35 to 45	Chem Holes Monthly Total
January	0.00	0.00	0.00	0.00
February	0.00	0.00	0.00	0.00
March	0.00	0.00	0.00	0.00
April	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00
June	0.00	0.00	0.00	0.00
July	0.00	0.00	0.00	0.00
August	0.00	0.00	0.00	0.00
September	0.00	0.00	0.00	0.00
October	0.00	0.00	0.00	0.00
November	0.00	0.00	0.00	0.00
December	0.00	0.00	0.00	0.00
Annual Average (K gal/month)	stand-by	stand-by	stand-by	0.00

Notes:

Differences in averages due to rounding

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat LIPA SYSTEM - Groundwater Withdrawal (1,000 gallons per month)					
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	000-453 EW-1L -111 to -131 217 to 237	000-455 EW-2L -115 to -135 224 to 244	000-457 EW-3L -104 to -124 216 to 236	000-461 EW-4L -192 to -212 304 to 324	LIPA Monthly Total
January	0.00	0.00	0.00	0.00	0.00
February	0.00	0.00	0.00	0.00	0.00
March	0.00	0.00	0.00	0.00	0.00
April	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00
June	0.00	0.00	0.00	0.00	0.00
July	0.00	0.00	0.00	0.00	0.00
August	0.00	0.00	0.00	0.00	0.00
September	0.00	0.00	0.00	0.00	0.00
October	0.00	0.00	0.00	0.00	0.00
November	0.00	0.00	0.00	0.00	0.00
December	0.00	0.00	0.00	0.00	0.00
Annual Average (K gal/month)*	0.00	0.00	0.00	0.00	0.00

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

* Annual average is based on actual pumping timeframe

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat AIRPORT SYSTEM - Groundwater Withdrawal (1,000 gallons per month)							
BNL Well No.	800-109	800-110	800-111	800-112	800-113	800-132	AIRPORT
Extraction Well	RTW-1A	RTW-2A	RTW-3A	RTW-4A	RTW-5A	RW-6A	
Screen Int.							
Influent							
	-108 to -128	-109 to -129	-130 to -150	-184 to -204	-133 to -153		
depth (feet)	188 to 208	188 to 208	210 to 230	268 to 288	220 to 240	165 to 185	
Effluent							
elevation (ft. msl)	+25 to -15	+24 to -16	+25 to -15	+24 to -16	+22 to -18		Monthly
depth (feet)	55 to 95	55 to 95	55 to 95	60 to 100	65 to 105		Total
January	4,040.84	0.00	0.00	6,482.89	0.00	6,061.26	16,584.99
February	4,255.24	0.00	0.00	6,217.15	0.00	6,382.86	16,855.25
March	4,075.60	0.00	0.00	5,817.62	0.00	6,113.40	16,006.62
April	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	1,475.24	0.00	0.00	2,743.60	0.00	2,212.86	6,431.70
June	4,162.12	0.00	0.00	7,555.16	0.00	6,243.18	17,960.46
July	3,738.44	0.00	0.00	5,316.39	0.00	5,607.66	14,662.49
August	5,461.44	0.00	0.00	7,913.87	0.00	8,192.16	21,567.47
September	3,425.16	0.00	0.00	4,942.94	0.00	5,137.74	13,505.84
October	4,408.12	0.00	0.00	2,969.52	0.00	6,612.18	13,989.82
November	4,490.96	0.00	0.00	5,465.58	0.00	6,736.44	16,692.98
December	4,670.92	0.00	0.00	7,152.16	0.00	7,006.38	18,829.46
Annual Average (K gal/month)*	3,686.25	0.00	0.00	5,214.43	0.00	5,529.38	14,430.07

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

RTW-1A, RTW-6A and RTW-2A flow estimated. Wells share a common flow meter, individial well pumpage estimated of actual flow meter reading.

* Annual average is based on actual pumping timeframe

Table 2-2

2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat **NORTH STREET SYSTEM - Groundwater Withdrawal (1,000 gallons per month)**			
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	000-471 NS-1 -64 to-104 165 to 205	000-473 NS-2 -96 to -126 190 to 220	NORTH STREET Monthly Total
January	0.00	0.00	0.00
February	0.00	0.00	0.00
March	0.00	0.00	0.00
April	0.00	0.00	0.00
May	0.00	0.00	0.00
June	0.00	0.00	0.00
July	0.00	0.00	0.00
August	0.00	0.00	0.00
September	0.00	0.00	0.00
October	0.00	0.00	0.00
November	0.00	0.00	0.00
December	0.00	0.00	0.00
Annual Average (K gal/month)	0.00	0.00	0.00

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 2-2

2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat NORTH STREET EAST SYSTEM - Groundwater Withdrawal (1,000 gallons per month)					
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	000-487 NSE-1 -71 to -101 161 to 191	000-488 NSE-2 -71 to -101 152 to 182	000-561 NSE-EDB-EW-3 -111 to -131 195 to 215	000-562 NSE-EDB-EW-4 -112 to -132 182 to 202	NORTH STREET EAST Monthly Total
January	0.00	0.00	4,185.00	4,492.00	8,677.00
February	0.00	0.00	4,343.00	4,230.00	8,573.00
March	0.00	0.00	4,369.00	4,459.00	8,828.00
April	0.00	0.00	3,921.00	4,006.00	7,927.00
May	0.00	0.00	4,755.00	4,816.00	9,571.00
June	0.00	0.00	5,649.00	5,810.00	11,459.00
July	0.00	0.00	3,959.00	4,044.00	8,003.00
August	0.00	0.00	5,610.00	5,854.00	11,464.00
September	0.00	0.00	3,633.00	3,722.00	7,355.00
October	0.00	0.00	5,164.00	5,262.00	10,426.00
November	0.00	0.00	4,845.00	4,859.00	9,704.00
December	0.00	0.00	4,879.00	4,980.00	9,859.00
Annual Average (K gal/month)	0.00	0.00	4,612.59	4,716.35	9,328.94

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat BGRR/WCF STRONTIUM-90 SYSTEM - Groundwater Withdrawal (1,000 gallons per month)										
BNL Well No.	065-368	065-369	075-676	075-677	075-678	065-403	075-702	075-703	075-704	BGRR
Extraction Well	SR-1	SR-2	SR-3	SR-4	SR-5	SR-6	SR-7	SR-8	SR-9	
Screen Int.										
elevation (ft. msl)	51.5-31.5	51.5-31.5	50-30	46-6	46-6	38.7 to 18.7	13.2 to -6.8	15.1 to -4.9	24.6 to 4.6	Monthly
depth (feet)	33-53	33.5-53.5	51-71	35-75	35-75	85-105	82-102	77-97	67-87	Total
January	297.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	529.00
February	232.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	420.00	884.00
March	232.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	464.00
April	232.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	420.00	884.00
May	232.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	464.00
June	232.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	464.00
July	347.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	579.00
August	102.00	102.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	204.00
September	45.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00
October	362.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	594.00
November	76.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	308.00
December	299.00	232.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	531.00
Annual Average (K gal/month)	224	206	stand-by	stand-by	stand-by	stand-by	stand by	stand-by	70	500

Notes:

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Source: Groundwater Protection Group Field Engineer

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit VI - Pump and Treat EDB SYSTEM- Groundwater Withdrawal (1,000 gallons per month)			
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	000-503 EW-1E -41 to -61 115 to 135	000-504 EW-2E -45 to -65 115 to 135	OU VI EDB Monthly Total
January	7,245.00	8,265.00	15,510.00
February	5,901.00	6,605.00	12,506.00
March	6,657.00	8,336.00	14,993.00
April	7,024.00	7,878.00	14,902.00
May	7,058.00	7,889.00	14,947.00
June	5,840.00	6,061.00	11,901.00
July	120.00	104.00	224.00
August	4,011.00	4,162.00	8,173.00
September	6,817.00	7,943.00	14,760.00
October	6,896.00	5,560.00	12,456.00
November	6,651.00	0.00	6,651.00
December	3,569.00	0.00	3,569.00
Annual Average (K gal/month)	5,649	5,234	10,883

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Flow per well estimated, average combined flow 155 gallons per minute

Table 2-2

2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat **BUILDING 452 FREON SYSTEM - Groundwater Withdrawal (1,000 gallons per month)**		
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	085-839 EW-18 55-65	Building 452 Freon Monthly Total
January	0.00	0.00
February	0.00	0.00
March	0.00	0.00
April	0.00	0.00
May	0.00	0.00
June	0.00	0.00
July	0.00	0.00
August	0.00	0.00
September	0.00	0.00
October	0.00	0.00
November	0.00	0.00
December	0.00	0.00
Annual Average (K gal/month)	stand-by	stand-by

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit X - Pump and Treat CURRENT FIREHOUSE SYSTEM - Groundwater Withdrawal (1,000 gallons per month)										
BNL Well No.	073-34	073-35	083-45	083-46	084-102	102-32	102-33	102-34	102-35	CURRENT
Extraction Well	CF-RW-A	CF-RW-B	CF-RW-C	CF-RW-D	CF-RW-E	CF-RW-F	CF-RW-G	CF-RW-H	CF-RW-I	FIREHOUSE
Screen Int.										
elevation										
(ft. msl)	38 to 18	30.9 to 10.9	-17.5 to -37.5	31 to 11.4	-31.2 to -51.2	-27.9 to -47.9	7.1 to -12.9	6.4 to -13.6	21.8 to 1.8	Monthly
depth (feet)	48 to 68	54 to 74	117 to 137	70 to 90	132 to 152	121 to 141	88 to 108	98 to 118	70 to 90	Total
January	2,948.00	2,630.00	23.00	1,891.00	3,167.00	23.00	2,226.00	2,315.00	4,250.00	19,473.00
February	1599.00	1579.00	427.00	962.00	1922.00	368.00	1396.00	1,352.00	2,815.00	12,420.00
March	2249.00	2285.00	778.00	1448.00	2951.00	2045.00	2363.00	1,780.00	4,183.00	20,082.00
April	1885.00	1940.00	31.00	1447.00	3066.00	54.00	2439.00	1,984.00	3,983.00	16,829.00
May	1710.00	1757.00	536.00	1299.00	2694.00	905.00	2083.00	2,119.00	3,657.00	16,760.00
June	1796.00	1845.00	585.00	1396.00	2869.00	3.00	2147.00	2,292.00	3,921.00	16,854.00
July	1724.00	1773.00	2.00	1330.00	2932.00	0.00	2430.00	2,785.00	2,990.00	15,966.00
August	1835.00	1872.00	70.00	1415.00	3272.00	454.00	2639.00	2,325.00	2,248.00	16,130.00
September	1536.00	1574.00	0.00	1171.00	2831.00	1.00	2285.00	2,327.00	3,497.00	15,222.00
October	2283.00	2349.00	23.00	1406.00	3602.00	23.00	2441.00	2279.00	4,232.00	18,638.00
November	2,157.00	2,121.00	40.00	1,662.00	3,162.00	41.00	2,072.00	2,300.00	3,796.00	17,351.00
December	2,404.00	2,362.00	20.00	1,862.00	3,462.00	19.00	2,317.00	2,625.00	4,348.00	19,419.00
Annual										
Average	2,010.50	2,007.25	211.25	1,440.75	2,994.17	328.00	2,236.50	2,206.92	3,660.00	17,095.33
(K gal/month)										

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

CFH began operating October 2022.

Table 2-2
2023 Remediation Well Pumpage Report

2023 BNL Groundwater Status Report

Operable Unit X - Pump and Treat FORMER FIREHOUSE SYSTEM - Groundwater Withdrawal (1,000 gallons per month)				
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	085-414 FF-RW-A 29.4 to 9.4 44 to 64	096-132 FF-RW-B -14.5 to -34.5 83 to 103	105-79 FF-RW-C -39.7 to -59.7 104 to 124	FORMER FIREHOUSE Monthly Total
January	703.00	665.00	878.00	2,246.00
February	3044.00	2865.00	3759.00	9,668.00
March	3467.00	3258.00	4302.00	11,027.00
April	2200.00	3386.00	4533.00	10,119.00
May	2281.00	3249.00	4381.00	9,911.00
June	2274.00	3243.00	4404.00	9,921.00
July	2371.00	3354.00	4600.00	10,325.00
August	2443.00	3437.00	4750.00	10,630.00
September	2175.00	2575.00	3412.00	8,162.00
October	2644.00	3251.00	855.00	6,750.00
November	2,281.00	3,241.00	4,419.00	9,941.00
December	2,151.00	3,108.00	4,245.00	9,504.00
Annual Average (K gal/month)	2,336.17	2,969.33	3,711.50	9,017.00

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

FFH began operating January 2023.

Table 2-3
2023 Recharge Basin Flow Report

2023 BNL Groundwater Status Report

Monthly Water Recharge (in 1,000 gallons/month)											
BNL Basin No.	HN	HO	HS	HT-W	HT-E	HX	RA V	OU III	HP	HZ	WSB
January	4,991	3,691	10,106	6,324	1,395	1,240	30,572	6,545	19,473	1,142	0
February	5,162	3,334	3,973	5,742	1,073	1,120	32,457	8,570	12,420	227	0
March	12,214	3,877	8,246	7,843	992	1,240	39,506	8,335	20,082	85	0
April	8,310	7,110	11,790	6,600	330	1,200	41,257	8,592	16,829	243	0
May	10,013	6,646	4,464	8,122	651	1,240	39,093	8,986	16,760	155	0
June	11,250	7,676	3,090	7,500	60	1,200	43,416	8,800	16,854	150	0
July	14,787	8,316	9,672	9,672	2,418	1,240	33,099	5,619	15,966	155	0
August	14,012	6,954	8,556	10,850	310	2,480	44,400	7,787	16,130	251	0
September	12,180	4,616	4,530	12,810	1,080	2,400	28,856	2,505	15,222	150	0
October	10,075	3,327	4,929	5,177	434	1,240	9,997	13,406	18,638	123	0
November	6,420	2,985	2,580	7,410	480	1,200	33,952	7,703	17,351	125	0
December	16,523	3,093	14,601	8,742	4,340	1,240	18,752	14,840	19,419	155	0
Basin Average	10,495	5,135	7,211	8,066	1,130	1,420	32,946	8,474	17,095	247	0

Notes:

- Sources: BNL Environmental Protection Division (HN, HO, HS, HT, HX, HZ)
  BNL Groundwater Protection Division (RA V, WSB, OU III, New HP pair)
- Monthly recharge values reported in 1,000s gallons per month.
- Values for basins HN, HO, HS, HT, HX are based on flow meter readings which include surface- water run-off, as applicable.
- Values for basin HZ were calculated and based on the average measured flow from readings collected on a weekly basis.
- Values for RA V basin and OU III basin estimated based on flow readings from corresponding RA V basin flow meter minus the total flow from the OU III SB, Middle Road and WSB systems. RAV began receiving water with Former Firehouse Groundwater Treatment System January 2023.
- HP basins became operational with the Current Firehouse Groundwater Treatment System in October 2022.
- WSB basin stopped receiving water during WSB system modification in November of 2018.

Table 2-4
BNL Monthly Precipitation Summary (1949–2023)

2023 BNL Groundwater Status Report

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1949	5.55	4.71	2.88	3.63	3.32	trace	3.07	5.21	3.49	1.74	2.96	3.36	39.92
1950	2.80	4.28	3.98	2.41	5.23	2.72	3.22	4.26	1.38	1.69	4.34	4.36	40.67
1951	3.75	4.99	5.02	3.42	3.68	2.64	2.08	4.50	1.06	5.48	6.01	6.17	48.80
1952	7.10	3.54	5.44	3.61	7.64	2.78	1.00	7.61	1.35	0.31	3.56	4.45	48.39
1953	6.73	4.16	10.36	5.59	3.34	1.66	2.76	2.40	0.90	3.17	5.03	6.43	52.53
1954	2.74	2.18	4.21	5.36	4.08	1.69	0.94	11.98	10.47	2.44	5.42	6.39	57.90
1955	0.62	3.26	4.79	4.28	0.95	2.53	1.65	9.04	3.96	11.43	7.19	0.82	50.52
1956	3.52	6.32	5.47	2.97	2.63	3.00	5.79	1.50	3.64	2.95	4.63	6.03	48.45
1957	2.36	2.53	3.20	4.44	1.46	0.42	2.84	4.25	3.57	3.86	4.41	8.45	41.79
1958	7.96	4.58	6.65	6.34	5.81	2.28	3.42	5.37	4.24	7.39	2.88	2.68	59.60
1959	2.60	2.06	6.71	3.93	1.75	5.35	6.85	3.72	1.36	3.13	4.46	5.12	47.04
1960	3.59	5.48	3.38	3.27	2.54	2.13	6.03	1.79	7.49	3.94	2.62	4.31	46.57
1961	3.56	4.10	4.60	5.70	6.17	2.30	5.61	4.23	6.23	3.06	2.89	3.70	52.15
1962	4.38	5.77	3.63	3.31	1.12	3.55	1.64	7.64	4.07	4.62	5.04	2.83	47.60
1963	3.27	3.88	4.27	2.56	3.08	5.51	2.65	2.10	3.66	0.18	6.89	2.78	40.83
1964	5.89	4.76	3.56	8.37	0.63	1.41	4.40	1.16	3.02	4.29	3.07	6.63	47.19
1965	4.88	3.03	2.74	4.20	1.63	1.69	3.43	5.15	1.51	2.15	1.83	2.11	34.35
1966	4.57	5.18	1.73	2.13	6.55	1.40	1.12	3.23	6.53	4.45	2.89	4.15	43.93
1967	1.65	3.98	8.18	4.14	7.98	5.30	6.01	5.43	2.24	2.11	4.00	7.60	58.62
1968	3.00	2.21	7.54	2.00	4.95	4.24	0.50	3.10	2.08	3.01	8.09	8.22	48.94
1969	1.04	4.03	3.62	5.15	2.44	2.06	8.62	5.51	3.60	3.69	4.48	7.83	52.07
1970	0.81	4.37	5.44	4.57	3.44	1.77	3.10	6.08	2.42	1.41	6.52	3.73	43.66
1971	2.95	6.45	3.55	3.30	3.80	0.92	5.03	3.86	2.12	3.41	6.86	2.57	44.82
1972	2.41	6.12	5.40	4.53	6.10	7.30	1.03	1.29	3.08	7.64	7.51	6.22	58.63
1973	4.44	4.36	4.38	7.77	5.46	3.25	4.45	3.11	2.51	2.79	2.22	8.00	52.74
1974	4.96	2.82	5.06	3.49	3.13	2.50	0.81	2.55	5.10	2.66	1.94	6.78	41.80
1975	6.50	4.06	4.27	3.89	3.45	5.37	3.33	2.01	5.58	3.61	5.89	4.92	52.88
1976	5.98	3.57	3.30	2.27	3.89	3.27	4.32	7.57	2.07	5.42	0.54	2.96	45.16
1977	3.09	2.46	5.47	4.28	2.04	4.31	1.51	5.49	5.73	6.12	6.39	6.93	53.82
1978	10.72	2.60	3.33	2.39	6.47	0.81	4.63	5.22	4.26	4.11	2.79	6.12	53.45
1979	13.01	5.27	3.53	4.96	4.09	2.15	0.61	7.76	3.20	4.57	3.95	3.02	56.12
1980	2.02	1.18	7.20	6.16	1.52	3.60	1.92	1.56	0.98	3.59	4.20	1.06	34.99
1981	1.15	5.16	1.80	4.59	2.17	3.14	2.69	0.96	5.17	4.49	3.16	5.55	40.03
1982	7.20	2.90	3.38	5.44	1.71	12.85	1.77	3.45	1.40	2.07	3.87	2.38	48.42
1983	4.07	4.36	8.68	11.09	4.22	2.63	4.20	4.48	2.09	3.67	8.68	5.67	63.84
1984	2.87	6.38	6.92	5.41	8.08	6.68	7.06	1.02	4.16	3.20	2.40	2.98	57.16
1985	1.07	1.82	2.62	1.56	4.87	6.38	2.30	4.89	1.54	1.53	6.85	1.10	36.53
1986	3.96	3.46	3.17	2.35	1.09	1.66	5.02	5.69	0.86	2.25	6.72	7.50	43.73
1987	6.74	1.21	5.95	4.32	1.83	1.86	1.48	4.38	4.05	2.22	3.55	3.20	40.79
1988	3.59	4.81	4.22	2.17	2.58	1.43	3.93	1.36	3.52	3.87	9.05	2.52	43.05
1989	2.23	4.09	5.20	4.66	10.47	7.24	5.84	9.17	4.45	8.90	5.16	1.25	68.66
1990	5.24	2.92	2.14	4.96	6.52	3.95	2.64	6.75	3.04	7.17	1.78	5.90	53.01
1991	4.41	1.86	5.45	4.30	2.78	1.87	2.11	9.19	4.45	2.61	1.80	4.30	45.13
1992	2.40	2.18	3.34	1.78	3.05	4.90	4.76	5.61	3.51	1.07	5.96	6.60	45.16
1993	2.47	4.10	7.11	3.81	1.71	1.37	1.84	1.61	4.36	4.69	3.72	6.11	42.90
1994	5.78	4.04	6.55	2.26	2.93	0.51	0.91	5.04	4.41	1.09	6.34	4.30	44.16
1995	2.93	3.74	1.53	2.52	2.79	3.12	1.78	0.54	4.91	5.97	5.83	3.74	39.40
1996	5.22	3.51	3.58	6.40	3.39	4.41	4.94	2.68	6.08	8.24	3.11	8.66	60.22
1997	3.82	2.64	5.10	4.21	2.67	2.16	2.21	3.33	1.27	2.55	5.42	4.66	40.04
1998	7.01	5.66	8.08	6.55	8.58	8.43	0.94	3.68	2.50	1.91	2.05	1.22	56.61
1999	8.85	4.81	5.32	2.35	2.41	1.04	2.12	8.71	5.90	4.78	2.58	2.85	51.72
2000	3.75	2.58	5.49	6.29	4.28	5.18	8.37	3.38	6.86	0.31	3.79	4.09	54.37
2001	3.28	2.63	10.37	2.03	4.22	6.46	3.47	4.68	4.04	1.04	0.74	2.59	45.55
2002	3.07	1.16	5.05	4.58	4.48	4.37	1.37	3.94	5.84	6.40	6.18	5.63	52.07
2003	2.48	5.74	5.99	5.11	6.07	12.28	2.38	5.19	5.22	4.80	3.63	4.22	63.11

Table 2-4
BNL Monthly Precipitation Summary (1949–2023)

2023 BNL Groundwater Status Report

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2004	2.15	3.14	3.47	4.94	2.59	1.34	3.05	4.30	5.14	1.62	2.16	1.96	35.86
2005	3.32	2.10	2.47	2.53	2.36	1.48	2.16	0.87	1.09	22.14	5.00	4.60	50.12
2006	5.52	2.87	0.89	7.17	6.73	6.73	5.73	6.44	3.21	7.22	6.61	2.47	61.59
2007	4.32	2.00	5.58	6.87	2.06	3.18	7.58	2.78	1.69	1.71	3.31	4.25	45.33
2008	2.36	5.57	4.67	4.01	3.61	2.28	1.97	3.07	9.31	4.02	3.82	4.37	49.06
2009	1.27	1.74	1.79	5.39	6.05	7.99	7.19	1.15	3.18	6.13	4.65	7.64	54.17
2010	2.15	6.01	11.98	0.74	3.88	1.64	6.7	2.21	4.56	3.08	2.91	4.08	49.94
2011	3.23	3.61	3	4.34	3.37	4.33	2.34	9.81	4.74	5.75	3.52	3.16	51.2
2012	3.01	1.27	1.11	3.81	4.53	7.74	8.26	4.57	3.49	3.24	2.49	7.3	50.82
2013	2.35	5.84	3.82	1.67	3.04	8.37	4.14	2.05	2.39	0.26	3.13	6.17	43.23
2014	2.9	5.63	6.73	4.86	4.82	2.35	2.58	3.67	2.66	5.23	5.79	7.03	54.25
2015	5.15	2.98	5.87	1.81	0.53	4.38	1.69	1.54	3.53	4.23	2.41	5.25	39.37
2016	3.08	5.4	3.41	2.65	3.84	1.17	3.42	2.19	3.35	3.42	3.3	3.7	38.93
2017	5.19	2.37	6.82	4.79	4.83	4.12	3.11	4.77	3.24	6.52	2.26	2.33	50.35
2018	4.25	6.71	8.04	4.39	3.73	2.43	3.74	7.67	4.81	6.5	9.16	7.1	68.53
2019	4.74	3.62	3.37	6.95	6.19	3.95	2.62	2.15	1.18	6.84	2.05	8.44	52.1
2020	1.95	3.33	3.97	5.62	1.52	1.39	5.33	3.64	2.49	5.22	5.66	5.29	45.41
2021	1.98	4.94	3.99	3.98	6.17	1.26	6.19	5.24	5.27	7.46	0.94	1.85	49.27
2022	4.08	4.51	4.26	3.41	4.35	3.45	2.27	1.9	4.29	5.38	2.81	5.53	46.24
2023	6.02	1.94	4.72	4.01	4.45	1.96	6.98	4.91	6.17	1.92	2.08	8.24	50.4
Average*	4.03	3.81	4.80	4.23	3.85	3.61	3.55	4.32	3.71	4.18	4.24	4.73	49.02
Maximum	13.01	6.71	11.98	11.09	10.47	12.85	8.62	11.98	10.47	22.14	9.16	8.66	68.66
Minimum	0.62	1.16	0.89	0.74	0.53	0.42	0.50	0.54	0.86	0.18	0.54	0.82	34.35

Notes: Precipitation is given in inches. Source: BNL Meteorological Services, Environmental & Climate Sciences Department * Long Term Average

Table 3.1-1
OU I South Boundary
Summary of Strontium-90 Results From Vertical Profile Wells,
November 2023 Through March 2024

2023 BNL Groundwater Status Report

Sample Interval (bls)	Geoprobe ID: / Sample Date: / Analysis:	Units	OU1-SR-90-GP-69 03/29/24	OU1-SR-90-GP-70 3/14-15/2024	OU1-SR-90-GP-71 03/13/24	OU1-SR-90-GP-72 2/14-15/2024	OU1-SR-90-GP-73 02/04/24	OU1-SR-90-GP-74 1/24-25/2024
24'-28'	Strontium-90	pCi/L	<MDC	<MDC	2.24	<MDC	<MDC	2.57
28'-32'	Strontium-90	pCi/L	<MDC	<MDC	2.35	<MDC	1.21N2	0.951N2
32'-36'	Strontium-90	pCi/L	1N2	2.26	7.19	1.05	1.25N2	4.76
36'-40'	Strontium-90	pCi/L	10.9	10.4	59.2	5.94	3.32	20.9
40'-44'	Strontium-90	pCi/L	3.34	11.5	181	8.92	0.909N2	13
44'-48'	Strontium-90	pCi/L	<MDC	5.72	80	6.44	4.64	10.9
48'-52'	Strontium-90	pCi/L	<MDC	<MDC	51.4	4.26	3.64	3.1
52'-56'	Strontium-90	pCi/L	1.37	<MDC	2.21	1.61	3	1.64
56'-60'	Strontium-90	pCi/L	<MDC	1.01	<MDC	0.695JN2	<MDC	2.28
60'-64'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC	<MDC
64-68'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	0.936	<MDC	<MDC
68'-72'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	0.486J	<MDC	<MDC
72'-76'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC	<MDC
76'-80'	Strontium-90	pCi/L	0.895N2	<MDC	<MDC	<MDC	<MDC	0.902N2

<MDC: Minimum Detectable Concentration

J: denotes analyte detected above MDC but below the reporting limit, result estimated.

N2: Not usable based on the results that are not distinguishable from background. The reported activity value is less than or equal to the sum of the MDC and the uncertainty.

NS: No sample

Table 3.1-1
OU I South Boundary
Summary of Strontium-90 Results From Vertical Profile Wells,
November 2023 Through March 2024

2023 BNL Groundwater Status Report

Sample Interval (bls)	Geoprobe ID: / Sample Date: / Analysis:	Units	OU1-SR-90-GP-88 3/26-27-2024	OU1-SR-90-GP-89 1/19-23/2024	OU1-SR-90-GP-90 3/21-22/2024	OU1-SR-90-GP-97 1/27-30/2024	OU1-SR-90-GP-98 12/30-1/18/2024
24'-28'	Strontium-90	pCi/L	NS	NS	<MDC	NS	NS
28'-32'	Strontium-90	pCi/L	NS	NS	<MDC	NS	NS
32'-36'	Strontium-90	pCi/L	NS	<MDC	1.07N2	<MDC	<MDC
36'-40'	Strontium-90	pCi/L	NS	<MDC	<MDC	1.43J	<MDC
40'-44'	Strontium-90	pCi/L	<MDC	0.382	0.900N2	1.43J	<MDC
44'-48'	Strontium-90	pCi/L	<MDC	<MDC	0.995N2	1.83J	1.38
48'-52'	Strontium-90	pCi/L	3.07	<MDC	3.2	1.14JN2	0.983N2
52'-56'	Strontium-90	pCi/L	1.37	4.66	2.27	2.92J	2.62
56'-60'	Strontium-90	pCi/L	2.27	1.19N2	1.7	<MDC	1.66
60'-64'	Strontium-90	pCi/L	1.69	1.21N2	0.896	1.41J	<MDC
64'-68'	Strontium-90	pCi/L	0.888N2	<MDC	<MDC	<MDC	<MDC
68'-72'	Strontium-90	pCi/L	1.39	<MDC	1.73	<MDC	<MDC
72'-76'	Strontium-90	pCi/L	<MDC	<MDC	1.72	<MDC	<MDC
76'-80'	Strontium-90	pCi/L	0.779JN2	<MDC	1.42	<MDC	<MDC
80'-84'	Strontium-90	pCi/L	1.98	<MDC	<MDC	1.29	<MDC
84'-88'	Strontium-90	pCi/L	0.955N2	<MDC	<MDC	<MDC	<MDC
88'-92'	Strontium-90	pCi/L	1.31	<MDC	<MDC	1.56	1.37
92'-96'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	1.18N2	1.35
96'-100'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	1.51	<MDC
100'-104'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC
104'-108'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC
108'-112'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC
112'-116'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC
116'-120'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC

<MDC: Minimum Detectable Concentration

J: denotes analyte detected above MDC but below the reporting limit, result estimated.

N2: Not usable based on the results that are not distinguishable from background. The reported activity value is less than or equal to the sum of the MDC and the uncertainty.

NS: No sample

Table 3.1-1
OU I South Boundary
Summary of Strontium-90 Results From Vertical Profile Wells,
November 2023 Through March 2024

2023 BNL Groundwater Status Report

Sample Interval (bls)	Geoprobe ID: / Sample Date: / Analysis:	Units	OU1-SR-90-GP-99 12/11-13/2023	OU1-SR-90-GP-100 11/28-30/2023	OU1-SR-90-GP-101 2/19-20/2023	OU1-SR-90-GP-102 11/17-22/2023	OU1-SR-90-GP-103 11/9-15/2023
24'-28'	Strontium-90	pCi/L	NS	NS	NS	NS	NS
28'-32'	Strontium-90	pCi/L	NS	<MDC	3.66	NS	NS
32'-36'	Strontium-90	pCi/L	<MDC	1.18N2	<MDC	0.962	NS
36'-40'	Strontium-90	pCi/L	<MDC	<MDC	0.881N2	<MDC	1.86
40'-44'	Strontium-90	pCi/L	0.752N2	<MDC	1.51	<MDC	1.23
44'-48'	Strontium-90	pCi/L	<MDC	1.38	<MDC	0.897	0.848N2
48'-52'	Strontium-90	pCi/L	1.8	2.09	3.18	2.1	1.24
52'-56'	Strontium-90	pCi/L	8	3.82	4.75	1.55	3.66
56'-60'	Strontium-90	pCi/L	1.4	1.84	3.35	1.55	7.49
60'-64'	Strontium-90	pCi/L	0.174U	0.875N2	1.3 N2	3.1	7.03
64'-68'	Strontium-90	pCi/L	0.955N2	1.37	1.08	1.67	1.66
68'-72'	Strontium-90	pCi/L	<MDC	0.832N2	<MDC	0.978	<MDC
72'-76'	Strontium-90	pCi/L	<MDC	1.78	<MDC	<MDC	0.726J N2
76'-80'	Strontium-90	pCi/L	<MDC	1.36	<MDC	<MDC	1.46
80'-84'	Strontium-90	pCi/L	0.738N2	<MDC	1N2	<MDC	1.77
84'-88'	Strontium-90	pCi/L	0.866N2	<MDC	<MDC	<MDC	0.62U
88'-92'	Strontium-90	pCi/L	<MDC	<MDC	1.43	<MDC	<MDC
92'-96'	Strontium-90	pCi/L	<MDC	<MDC	1.46	<MDC	<MDC
96'-100'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC
100'-104'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC
104'-108'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC
108'-112'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC
112'-116'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	1.52
116'-120'	Strontium-90	pCi/L	<MDC	<MDC	<MDC	<MDC	<MDC

<MDA: Minimum Detectable Concentration

J: denotes analyte detected above MDC but below the reporting limit, result estimated.

U: denotes the analyte was not detected above the MDC.

N2: Not usable based on the results that are not distinguishable from background. The reported activity value is less than or equal to the sum of the MDC and the uncertainty.

DL: Failed required detection limit.

NS: No sample

Table 3.2.1-3
OU III Building 96 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat BUILDING 96 SYSTEM - Groundwater Withdrawal and Reinjection (gpm)					
BNL Well No.	095-151	095-153	095-155	095-157	BUILDING
Extraction Well	RTW-1	RTW-2	RTW-3	RTW-4	96
Screen Int.					
Influent					
elevation (ft. msl)	+34 to+24	+26 to +16	+26 to +16	+23 to +13	
depth (feet)	48 to 58	48 to 58	48 to 58	48 to 58	
Effluent					
elevation (ft. msl)	+57 to +47 *	+49 to +39	+49 to +39	+46 to +36	Monthly
depth (feet)	25 to 35	25 to 35	25 to 35	25 to 35	Total
January	0	0	0	0	0
February	58	0	0	0	58
March	0	0	0	0	0
April	56	0	0	0	56
May	0	0	0	0	0
June	54	0	0	0	54
July	0	0	0	0	0
August	44	0	0	0	44
September	0	0	0	0	0
October	54	0	0	0	54
November	0	0	0	0	0
December	31	0	0	0	31
Annual Average (gpm)	25	0	0	0	25

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

gpm - gallons per minute

* - The upper screen on RTW-1 has not been used since 2008

Table 3.2.2-3
OU III Middle Road 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat MIDDLE ROAD SYSTEM - Groundwater Withdrawal (GPM)								
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	113-23 RW-1 -17 to -57 90 to 130	113-24 RW-2 -99 to -129 170 to 200	113-25 RW-3 -159 to -199 228 to 268	113-26 RW-4 -98 to -128 150 to 180	113-27 RW-5 -91 to -121 150 to 180	106-66 RW-6 -124 to -154 188 to 218	113-33 RW-7 202 to 222	MIDDLE ROAD Monthly Total
January	0	118	122	0	0	0	78	318
February	0	99	84	0	0	0	95	278
March	0	138	155	0	0	0	131	424
April	0	135	134	0	0	0	132	401
May	0	121	124	0	0	0	138	382
June	0	159	162	0	0	0	165	486
July	0	79	113	0	0	0	120	311
August	0	108	158	0	0	0	176	441
September	0	87	94	0	0	0	136	318
October	0	47	129	0	0	0	134	310
November	0	5	152	0	0	0	138	295
December	0	138	126	0	0	0	105	370
Annual Average (gpm)	0	103	129	0	0	0	129	361

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 3.2.3-3
OU III South Boundary 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat SOUTH BOUNDARY SYSTEM - Groundwater Withdrawal (gpm)								
BNL Well No.	121-017	121-016	121-015	122-014	122-013	122-012	121-46	SOUTH
Extraction Well	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8	EW-17	BOUNDARY
Screen Int.								
elevation	-79 to -119	-88 to -108	-91 to -131	-105 to -145	-115 to -155	-131 to -151		
(ft. msl)		-118 to -128				-171 to -191		
depth (feet)	150 to 190	160 to 180	160 to 200	160 to 200	170 to 210	190 to 210	207 to 237	Monthly
		190 to 200				230 to 250		Total
January	0	0	0	0	0	0	125	125
February	0	0	0	0	0	0	86	86
March	0	0	0	0	0	0	49	49
April	0	0	0	0	0	0	102	102
May	0	0	0	0	0	0	146	146
June	0	0	0	0	0	0	185	185
July	0	0	0	0	0	0	133	133
August	0	0	0	0	0	0	186	186
September	0	0	0	0	0	0	161	161
October	0	0	0	0	0	0	130	130
November	0	0	0	0	0	0	152	152
December	0	0	0	0	0	0	148	148
Annual Average (gpm)	0	0	0	0	0	0	133	133

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

Table 3.2.4-2
OU III Western South Boundary 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat WESTERN SOUTH BOUNDARY System (gpm)							
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	126-12 WSB-1 -60 to -80 140 to 160	127-05 WSB-2 -80 to -100 150 to 170	111-17 WSB-3 -97.2 to -117.2 168 to 188	119-13 WSB-4 -91.7 to 111.7 170 to 190	130-12 WSB-5 -84.5 to -114.50 160 to 190	130-13 WSB-6 -120.6 to 140.6 196 to 216	Western South Boundary Monthly Total
January	89	0	60	32	86	99	365
February	59	0	90	61	53	82	345
March	76	0	105	87	83	94	444
April	81	0	44	97	59	105	387
May	69	0	64	96	75	95	398
June	72	0	91	96	94	115	469
July	68	0	33	67	67	81	315
August	114	0	28	86	95	117	440
September	94	0	41	1	62	1	198
October	0	0	0	34	0	43	77
November	144	0	123	0	93	0	360
December	1	0	0	82	0	92	175
Annual Average (gpm)	72	0	57	62	64	77	331

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

gpm - gallons per minute

Table 3.2.5-1
OU III Industrial Park 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat										
OFFSITE INDUSTRIAL PARK SYSTEM - Groundwater Withdrawal (gpm)										
BNL Well No.	000-231	000-233	000-235	000-237	000-239	000-241	000-243	000-532	000-533	OFFSITE
Extraction Well	UVB-1	UVB-2	UVB-3	UVB-4	UVB-5	UVB-6	UVB-7	IP-EW-8	IP-EW-9	INDUSTRIAL
Screen Int.										PARK
Influent										
elevation	-137 to -157	-115.5 to -135.5	-123 to -143	-98 to -118	-109 to -129	-110 to -130	-123 to -143	-155 to -175	-148 to -168	
(ft. msl)										
depth (feet)	220 to 240	195 to 215	194 to 214	170 to 190	180 to 200	190 to 210	205 to 225	230 to 250	220 to 240	
Effluent										
elevation										
(ft. msl)	-82 to -102	-60.5 to -80.5	-68 to -88	-53 to -73	-54 to -74	-58 to -78	-68 to -88			Monthly
depth (feet)	165 to 185	140 to 160	139 to 159	125 to 145	125 to 145	140 to 160	150 to 170			Total
January	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0	0	0	0
October	0	0	0	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0	0
Annual Average (gpm)	0	0	0	0	0	0	0	0	0	0

Notes:

System was in standby mode

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

gpm - gallons per minute

Table 3.2.7-2
OU III North Street East 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat NORTH STREET EAST- Groundwater Withdrawal (gpm)					
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	000-487 NSE-1 -71 to -101 161 to 191	000-488 NSE-2 -71 to -101 152 to 182	000-561 NSE-EDB-EW-3 -111 to -131 195 to 215	000-562 NSE-EDB-EW-4 -112 to -132 182 to 202	NORTH STREET EAST Monthly Total
January	0	0	97	104	201
February	0	0	101	98	198
March	0	0	101	103	204
April	0	0	91	93	183
May	0	0	110	111	222
June	0	0	131	134	265
July	0	0	92	94	185
August	0	0	130	136	265
September	0	0	84	86	170
October	0	0	120	122	241
November	0	0	112	112	225
December	0	0	113	115	228
Annual Average (gpm)	0	0	107	109	216

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

gpm - gallons per minute

Table 3.2.8-2
OU III LIPA/Airport 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat LIPA SYSTEM - Groundwater Withdrawal (gpm)					
Extraction Well Screen Int. elevation (ft. msl) depth (feet)	000-453 EW-1L -111 to -131 217 to 237	000-455 EW-2L -115 to -135 224 to 244	000-457 EW-3L -104 to -124 216 to 236	000-461 EW-4L -192 to -212 304 to 324	LIPA Monthly Total
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Annual Average (gpm)*	0	0	0	0	0

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

* Annual average is based on actual pumping timeframe

gpm - gallons per minute

Table 3.2.8-2
OU III LIPA/Airport 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat AIRPORT SYSTEM - Groundwater Withdrawal (gpm)							
BNL Well No.	800-109	800-110	800-111	800-112	800-113	800-132	Airport
Extraction Well	RTW-1A	RTW-2A	RTW-3A	RTW-4A	RTW-5A	RW-6A	
Screen Int.							
Influent							
elevation (ft. msl)	-108 to -128	-109 to -129	-130 to -150	-184 to -204	-133 to -153		Monthly
depth (feet)	188 to 208	188 to 208	210 to 230	268 to 288	220 to 240	165 to 185	Total
Effluent							
elevation (ft. msl)	+25 to -15	+24 to -16	+25 to -15	+24 to -16	+22 to -18		Monthly
depth (feet)	55 to 95	55 to 95	55 to 95	60 to 100	65 to 105		Total
January	94	0	0	150	0	140	384
February	99	0	0	144	0	148	390
March	94	0	0	135	0	142	371
April	0	0	0	0	0	0	0
May	34	0	0	64	0	51	149
June	96	0	0	175	0	145	416
July	87	0	0	123	0	130	339
August	126	0	0	183	0	190	499
September	79	0	0	114	0	119	313
October	102	0	0	69	0	153	324
November	104	0	0	127	0	156	386
December	108	0	0	166	0	162	436
Annual Average (gpm)*	85	0	0	121	0	128	334

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

RTW-1A, RTW-6A and RTW-2A flow estimated. All three wells share a common flow meter, individial well pumpage estimated of actual flow meter reading.

gpm - gallons per minute

Table 3.2.11-1
OU III BGRR
Strontium-90 Results from Geoprobe Temporary wells

2023 BNL Groundwater Status Report

Sample Interval (bls)	Geoprobe ID: / Sample Date: / Analysis:	BGRR-GP-173 08/25/23	BGRR-GP-174 08/30/23
76-80	Strontium-90	<MDC	2.2
80-84	Strontium-90	1.63	2.5
84-88	Strontium-90	<MDC	<MDC
88-92	Strontium-90	1.73	<MDC
92-96	Strontium-90	2.38	<MDC
96-100	Strontium-90	1.87	<MDC
100-104	Strontium-90	1.57	<MDC
104-108	Strontium-90	2.96	<MDC
108-112	Strontium-90	3.46	<MDC
112-116	Strontium-90	3.39	<MDC
116-120	Strontium-90	2.22	<MDC
120-124	Strontium-90	8.91	<MDC
124-128	Strontium-90	9.45	<MDC
128-132	Strontium-90	<MDC	
132-136	Strontium-90	1.03	
136-140	Strontium-90	1.35	

<MDC: Minimum Detectable Concentration
J: Value is estimated.
N2: Not usable based on the results that are not distinguishable from background. The reported activity value is less than or equal to the sum of the MDC and the uncertainty.

Table 3.2.11-2
BGRR Sr-90 Treatment System 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat										
BGRR/WCF Strontium-90 - Groundwater Withdrawal (gpm)										
BNL Well No.	065-368	065-369	075-676	075-677	075-678	065-403	075-702	075-703	075-704	BGRR
Extraction Well	SR-1	SR-2	SR-3	SR-4	SR-5	SR-6	SR-7	SR-8	SR-9	
Screen Int. elevation (ft. msl)	51.5 to 31.5	51.5 to 31.5	50 to 30	46 to 6	46 to 6	38.7 to 18.7	13.2 to -6.8	15.1 to -4.9	24.6 to 4.6	Monthly
depth (feet)	33-53	33.5-53.5	51-71	35-75	35-75	85-105	82-102	77-97	67-87	Total
January	6.9	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3
February	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	10.0	20.8
March	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
April	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	10.0	20.8
May	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
June	5.4	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
July	7.8	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2
August	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
September	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
October	8.1	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5
November	7.1	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5
December	6.9	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3
Annual Average (gpm)	5.6	4.8	0.0	0.0	0.0	0.0	0.0	0.0	1.7	12.0

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

gpm - gallons per minute

Table 3.2.12-2
OU III Chemical/Animal Holes Sr-90 Remediation System 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat Chem/Animal Holes Strontium-90 Remediation System (gpm)				
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	106-92 SR-90 EW-1 +40.5 to +25.5 23.5 to 38.5	106-123 SR-90 EW-2 +32.6 to +22.6 35 to 45	106-124 SR-90 EW-3 +27.6 to +17.6 35 to 45	Chemical/Animal Holes Monthly Total
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Annual Average (gpm)	0	0	0	0

Notes: System in stand-by mode 2023

Differences in averages due to rounding

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

gpm - gallons per minute

Table 3.4-2
OU VI EDB Pump & Treat System 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit VI - Pump and Treat EDB SYSTEM- Groundwater Withdrawal (gpm)			
BNL Well No. Extraction Well Screen Int. elevation (ft. msl) depth (feet)	000-503 EW-1E -41 to -61 115 to 135	000-504 EW-2E -45 to -65 115 to 135	OU VI EDB Monthly Total
January	162	185	347
February	158	176	334
March	154	187	341
April	163	177	340
May	163	183	346
June	135	140	275
July	0	0	0
August	93	96	189
September	158	184	342
October	160	129	289
November	154	0	154
December	83	0	83
Annual Average (gpm)	132	121	253

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

gpm - gallons per minute

Table 3.5.1-2
Current Firehouse Treatment System 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat Current Firehouse - Groundwater Withdrawal (gpm)										
BNL Well No.	073-34	073-35	083-45	083-46	084-102	102-32	102-33	102-34	102-35	CFH
Extraction Well	CF-RW-A	CF-RW-B	CF-RW-C	CF-RW-D	CF-RW-E	CF-RW-F	CF-RW-G	CF-RW-H	CF-RW-I	
Screen Int.										
elevation (ft. msl)	38 to 18	30.9 to 10.9	-17.5 to -37.5	31 to 11.4	-31.2 to -51.2	-27.9 to -47.9	7.1 to -12.9	6.4 to -13.6	21.8 to 1.8	Monthly
depth (feet)	48-68	54-74	117-137	70-90	132-152	121-141	88-108	98-118	70-90	Total
January	66	59	1	42	71	1	50	52	95	437
February	40	39	11	24	48	9	35	34	70	310
March	52	53	18	34	68	47	55	41	97	465
April	44	45	1	34	71	1	56	46	92	390
May	40	41	12	30	62	21	48	49	85	388
June	42	43	14	32	66	0	50	53	91	391
July	41	40	0	31	68	0	56	64	69	369
August	42	43	2	33	76	11	61	54	52	374
September	37	38	0	27	66	0	53	54	81	356
October	55	56	1	34	86	1	58	55	95	441
November	52	51	1	40	76	1	50	55	91	417
December	58	57	0	45	83	0	55	53	104	455
Annual Average (gpm)	47	47	5	34	70	8	52	51	85	399

Notes:

Source: Groundwater Protection Group Field Engineer

ft. msl = Elevation in feet referenced to mean sea level.

Elevations rounded to nearest foot

gpm - gallons per minute

Table 3.5.2-2
Former Firehouse Treatment System 2023 Extraction Well Pumping Rates

2023 BNL Groundwater Status Report

Operable Unit III - Pump and Treat Former Firehouse - Groundwater Withdrawal (gpm)				
BNL Well No.	085-414	096-132	105-79	FFH
Extraction Well	FF-RW-A	FF-RW-B	FF-RW-C	
Screen Int.				
elevation (ft. msl)	38 to 18	30.9 to 10.9	-17.5 to -37.5	Monthly
depth (feet)	44-64	83-103	104-124	Total
January	16	15	20	51
February	76	71	93	240
March	78	73	96	247
April	49	76	102	227
May	51	73	99	223
June	51	73	99	223
July	53	75	103	231
August	5	77	106	188
September	49	62	76	187
October	59	73	19	151
November	51	73	99	223
December	52	74	102	228
Annual Average (gpm)	49	68	85	202

Notes:
Source: Groundwater Protection Group Field Engineer
ft. msl = Elevation in feet referenced to mean sea level.
Elevations rounded to nearest foot
gpm - gallons per minute

Table 3.5-1

Treatment System Monitoring for PFAS and 1,4-Dioxane
2017 through 2023

2023 Groundwater Status Report

Well/Sample ID	Screen Interval (ft. bls.)	Aquifer Seqment	Treatment System Extraction Well/Influent/Effluent	2017-2020			June - July 2023			October 2023		
				1,4-Dioxane	PFOS	PFOA	1,4-Dioxane	PFOS	PFOA	1,4-Dioxane	PFOS	PFOA
				0.35 µg/L	2.7 ng/L	6.7 ng/L	0.35 ug/L	2.7 ng/L	6.7 ng/L	0.35 ug/L	2.7 ng/L	6.7 ng/L
OU III Western South Boundary, Middle Road, and South Boundary Treatment Systems (Status: Active)												
Western South Boundary												
126-12	140-160	DG	WSB-1	**2.99**	**5.66**	3.17	**3.9**	**3.58**	2.64	NS	NS	NS
127-05	150-170	DG	WSB-2	**5.38**	1.53J	1.76U	**3.9**	2.37	2.07	NS	NS	NS
111-17	168-188	DG	WSB-3	**3.81**	1.1J	1.48	**2**	**8.7**	3.57	NS	NS	NS
119-13	170-190	DG	WSB-4	**7.64**	1.80U	1.80U	**3.9**	**3.9**	2.7	NS	NS	NS
130-12	160-190	DG	WSB-5	**6.04**	1.77U	1.77U	**3.4**	**3.38**	2.53	NS	NS	NS
130-13	196-216	DG	WSB-6	**4.05**	1.80U	1.80U	**5.9**	1.79U	1.93U	NS	NS	NS
121-55	---	---	WSB Influent to System	NA	NA	NA	**4.4**	2.27	1.63J	**4.4**	**4.38**	1.74J
Middle Road												
113-23	90-130	MG	Middle Road RW-1	NA	**10.3**	**9.6**	0.2U	**10.2**	4.47	NS	NS	NS
113-24	170-200	DG	Middle Road RW-2	NA	**11.2**	**10.9**	**0.6B J+**	**11.6**	6.68	NS	NS	NS
113-25	228-268	MAG	Middle Road RW-3	NA	**3**	5.82	**1.4B J+**	2.18	2.67	NS	NS	NS
113-26	150-180	DG	Middle Road RW-4	NA	**7.14**	**8.79**	**2.2B J+**	**4.89**	4.49	NS	NS	NS
113-27	150-180	DG	Middle Road RW-5	NA	**7.19**	5.83	**1.4B J+**	**4.43**	3.14J	NS	NS	NS
106-66	188-218	DG	Middle Road RW-6	NA	**4.48**	1.65J	**3.3B J+**	**4.51**	2.29	NS	NS	NS
113-33	202-222	DG	Middle Road RW-7	NA	2.15	5.35	**2B J+**	**3.27**	4.36	NS	NS	NS
113-34	---	---	Middle Road Influent to System	NA	**5.93**	**7.01**	**1.2B J+**	**5.82**	4.54	**1.7**	2.55	4.35
South Boundary												
121-17	150-190	DG	OU III South Boundary EW-3	NA	**3.51**	2.46	**0.59**	**2.8**	2.6	NS	NS	NS
121-16	160-200	DG	OU III South Boundary EW-4	NA	**17.6**	**10.9**	**0.35**	**13**	6.5	NS	NS	NS
121-15	160-200	DG	OU III South Boundary EW-5	NA	**18.9**	**12.5**	**1.1**	**8.1**	4.9	NS	NS	NS
122-14	160-200	DG	OU III South Boundary EW-6	NA	**11.7**	5.37	**0.6**	**14**	5.6	NS	NS	NS
122-13	170-210	DG	OU III South Boundary EW-7	NA	**11.8**	**16.4**	**1.1**	**16**	4.5	NS	NS	NS
122-12	190-250	DG/MAG	OU III South Boundary EW-8	NA	**3.73**	3.51	0.19J	**21**	6.1	NS	NS	NS
121-46	207-237	DG	OU III South Boundary EW-17	NA	**10**	5.55	**1.2**	**8.2**	**6.9**	NS	NS	NS
121-41	---	---	South Boundary Influent to System	NA	**14.4**	**10.3**	**0.82**	**8.4**	5.7	**1.7**	**8.29**	**7.15**
WSB/MR/SB Combined System Effluent*												
095-270	---	---	OUIII Combined System Effluent	NA	NA	NA	**2.1B J+**	5.24	4.11	**2.8**	**2.76**	2.13
095-126	---	---	OUIII Combined System Effluent	**4.33**	**4.83**	5.82	NS	NS	NS	NS	NS	NS
OU III LIPA/Airport VOC Treatment System (Status: LIPA in Standby, AP Active)												
000-453	217-237	DG	LIPA EW-1L	**3.27**	**4.78**	2.31	**2.7**	**3.97**	1.64J	NS	NS	NS
000-455	224-244	DG	LIPA EW-2L	**2.7**	**6.32**	3.74	**0.36**	2.4	0.898J	NS	NS	NS
000-457	216-236	DG	LIPA EW-3L	**0.43**	**9.43**	**9.45**	0.2U	**3.48**	1.03J	NS	NS	NS
000-461	304-324	MAG	LIPA EW-4L	0.26	1.82U	1.3J	0.18J	2.1	1.81J	NS	NS	NS
800-109	188-208	DG	AP RTW-1A	0.28	1.59J	3.59	**0.36**	1.30J	2.8	NS	NS	NS
800-110	188-208	DG	AP RTW-2A	**0.51**	1.80U	1.80U	**0.89**	1.64U	1.77U	NS	NS	NS
800-111	210-230	MAG	AP RTW-3A	0.12J	1.98	3.79	**0.45**	0.872J	2.43	NS	NS	NS
800-112	268-288	MAG	AP RTW-4A	**2.12**	1.81U	0.7J	**2.4**	1.72U	0.641J	NS	NS	NS
800-113	220-240	MAG	AP RTW-5A	**3.15**	1.80U	1.80U	**3**	1.86U	2.01U	NS	NS	NS
800-132	165-185	DG	AP RTW-6A	**0.82**	1.47	3.24	**0.85**	1.84	3.36	NS	NS	NS
800-122	---	---	LIPA/AP System Influent	**1.39**	1.79U	1.47J	**0.62**	1.61J	3.3	**1.2**	1.28J	2.47
800-124	---	---	LIPA/AP System Effluent	**1.61**	NA	NA	**1.3D**	1.68U	1.81U	**1.2**	1.69U	1.82U

Table 3.5-1

Treatment System Monitoring for PFAS and 1,4-Dioxane
2017 through 2023

2023 Groundwater Status Report

Well/Sample ID	Screen Interval (ft. bls.)	Aquifer Seqment	Treatment System Extraction Well/Influent/Effluent	2017-2020			June - July 2023			October 2023		
				1,4-Dioxane	PFOS	PFOA	1,4-Dioxane	PFOS	PFOA	1,4-Dioxane	PFOS	PFOA
				0.35 µg/L	2.7 ng/L	6.7 ng/L	0.35 ug/L	2.7 ng/L	6.7 ng/L	0.35 ug/L	2.7 ng/L	6.7 ng/L
OU III North Street East VOC/EDB Treatment System (Status: Active)												
000-561	195-215	DG	NSE-EDB-EW3	**3.88**	1.84U	4.32	**1.2**	0.615J	1.88J	NS	NS	NS
000-562	182-202	DG	NSE-EDB-EW4	**0.86**	0.681J	**7.56**	**0.52**	1.34J	2.13	NS	NS	NS
000-441	---	---	NSE System Influent	**2.52**	1.71U	4.71	**0.81**	0.967J	1.84J	**0.76 HJ**	1.04J	1.84J
000-444	---	---	NSE System Effluent	0.2U	1.78U	1.78U	**0.92**	1.73U	1.87U	**0.68 HJ**	1.87U	2.02U
OU VI EDB Treatment System (Status: Active)												
000-503	115-135	DG	EW-1E	0.15J	1.84U	1.84U	0.2U	NS	NS	NS	NS	NS
000-504	115-135	DG	EW-2E	0.13J	1.82U	1.82U	0.2U	NS	NS	NS	NS	NS
000-578	174-194	DG	EW-3E	--	--	--	--	--	--	--	--	--
000-579	170-190	DG	EW-4E	--	--	--	--	--	--	--	--	--
000-512	---	---	EDB System Influent	0.12J	1.75U	1.75U	0.2U	NS	NS	0.17 HJ	NA	NA
000-510	---	---	EDB System Effluent	0.17J	1.80U	1.80U	0.2U	NS	NS	0.18 HJ	NA	NA
BGRR/WCF Sr-90 Treatment System (Status: Active)												
065-368	33-53	SG	BGRR/WCF SR-1	0.2U	**5.32**	5.45	0.2U	**11.9**	4.98	NS	NS	NS
065-369	33-53	SG	BGRR/WCF SR-2	0.2U	**3.6**	2.57	0.2U	**10.1**	3.12	NS	NS	NS
075-676	51-71	SG	BGRR/WCF SR-3**	0.2U	2.44	6.22	0.2U	**5.51**	3.65	NS	NS	NS
075-677	35-75	SG	BGRR/WCF SR-4	0.2U	**8.74**	5.53	0.2U	**6.82**	3.25	NS	NS	NS
075-678	35-75	SG	BGRR/WCF SR-5	0.2U	**7.02**	3.27	0.2U	**5.45**	3.17	NS	NS	NS
065-403	85-105	SG	BGRR/WCF SR-6	0.2U	**12.3**	4.12	0.2U	**6.28**	3.84	NS	NS	NS
075-702	82-102	SG	BGRR/WCF SR-7	0.21	**10.8**	4.33	0.2U	**7.33**	4.17	NS	NS	NS
075-703	77-97	SG	BGRR/WCF SR-8	0.12J	**8.12**	3.72	0.2U	**5.74**	3.86	NS	NS	NS
075-704	67-87	SG	BGRR/WCF SR-9	0.11J	**7.01**	3.1	0.2U	**4.79**	2.03	NS	NS	NS
066-216	---	---	BGRR/WCF System Influent	NA	**6.46**	3.75	0.2U	**10.4**	3.73	0.12J	**11.9**	4.12
Carbon Midpoint	--	--	BGRR/WCF System Midpoint	NA	NA	NA	0.2U	**4.43**	3.83	NS	NS	NS
066-219	---	---	BGRR/WCF System Effluent	NA	**3.69**	4.22	0.2U	0.94J	2.43	0.13J	0.815J	3.24

Notes:

Active extraction well
Standby/Off extraction well
System Influent/Midpoint (sampled during current operation)
System Effluent (sampled during current operation)
Denotes 1,4-dioxane result exceeds NYSDEC AWQGV
Denotes PFOS/PFOA result exceeds NYSDEC AWQGV

PFOS and PFOA analyzed by EPA Method 1633. The results are reported in ng/L.
1,4-dioxane analyzed by EPA Method 8270 SIM. The results are reported in µg/L.

U - Analyte not detected above the method detection limit (MDL).
J - Analyte detected above MDL but below reporting limit, result estimated.
+ - Denotes an estimated result is biased high.
B - Analyte detected in laboratory QA/QC blank sample.
D - Results are reported from a sample that required a dilution.
H - Sample analyzed outside of method holding time.
BNL review qualifers, where present, are separated by a space.

NA - Not Analyzed
NS - Not Sampled
* - OUIII running on Bldg 517 air stripper only, effluent sample point 095-270.
** - BGRR/WCF SR-3 operated as needed
SG=Shallow Upper Glacial, MG=Middle Upper Glacial, DG=Deep Upper Glacial
Mag=Magothy

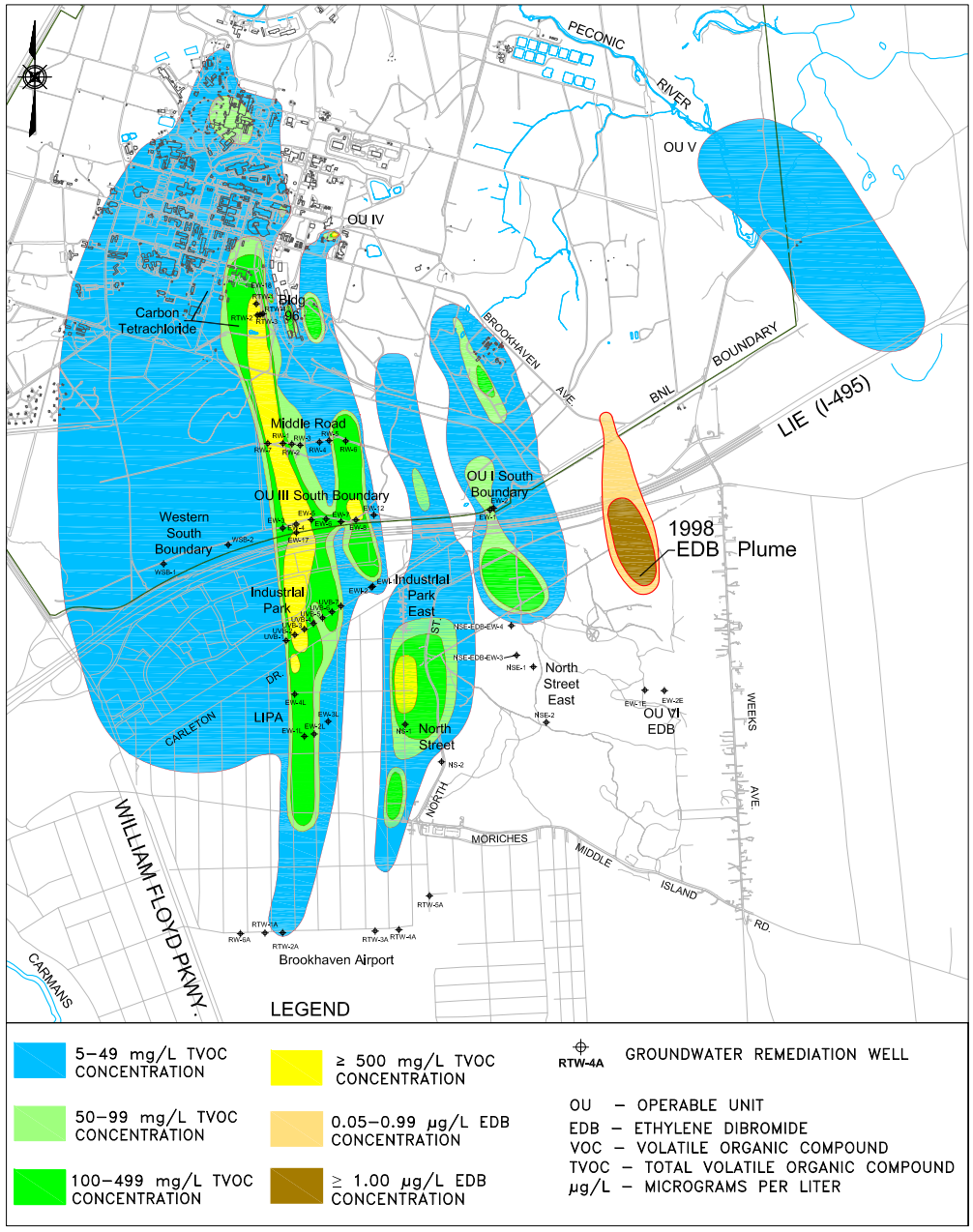
Table 5-1

Proposed Groundwater Monitoring Well Sampling Frequency Changes

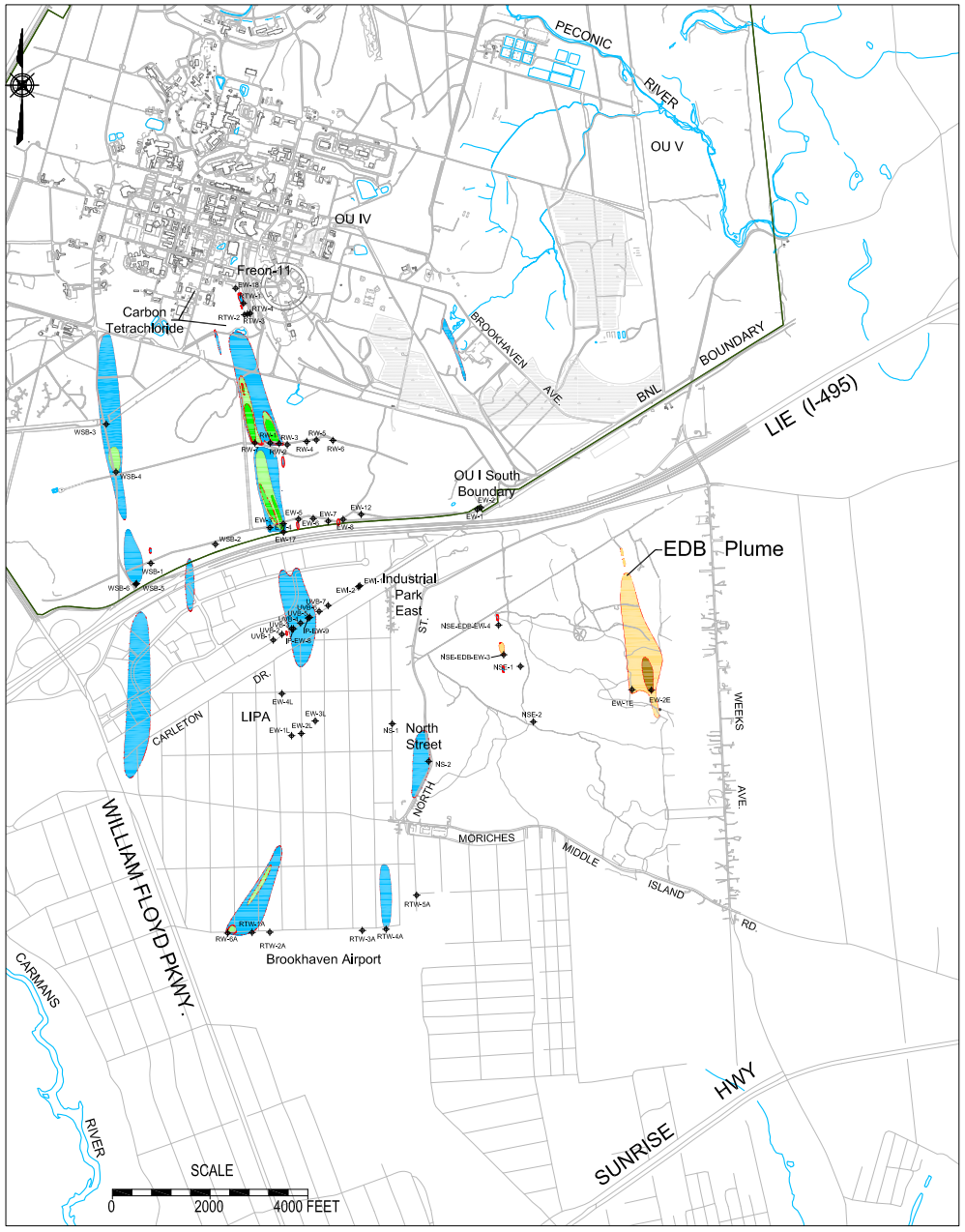
2023 Groundwater Status Report

Well ID	Current Project	Current Frequency	Proposed Frequency	Affected Parameters
106-56	OU III Middle Road	Semi-Annual	Discontinue	Low Level VOCs
114-06	OU III South Boundary	Annual	Discontinue	Low Level VOCs
121-18	OU III South Boundary	Annual	Discontinue	
121-21	OU III South Boundary	Annual	Discontinue	
122-09	OU III South Boundary	Annual	Discontinue	
122-10	OU III South Boundary	Annual	Discontinue	
122-31	OU III South Boundary	Annual	Discontinue	
075-415	BGRR/WCF	Event	Discontinue	
075-417	BGRR/WCF	Event	Discontinue	
075-419	BGRR/WCF	Event	Discontinue	
075-809	BGRR/WCF	Event	Discontinue	
075-810	BGRR/WCF	Event	Discontinue	
075-811	BGRR/WCF	Event	Discontinue	
085-01	BGRR/WCF	Event	Discontinue	Sr-90
085-171	BGRR/WCF	Event	Discontinue	
085-285	BGRR/WCF	Event	Discontinue	
085-286	BGRR/WCF	Event	Discontinue	
085-287	BGRR/WCF	Event	Discontinue	
085-290	BGRR/WCF	Event	Discontinue	
085-406	BGRR/WCF	Event	Discontinue	
085-407	BGRR/WCF	Event	Discontinue	
087-09	Current Landfill	None	Annual	
087-11	Current Landfill	None	Annual	
087-23	Current Landfill	None	Annual	
087-24	Current Landfill	None	Annual	
087-26	Current Landfill	None	Annual	
087-27	Current Landfill	None	Annual	
088-109	Current Landfill	None	Annual	PFAS & 1,4-DIOXANE
088-110	Current Landfill	None	Annual	
088-21	Current Landfill	None	Annual	
088-22	Current Landfill	None	Annual	
088-23	Current Landfill	None	Annual	
098-99	Current Landfill	None	Annual	

1997 VOC PLUME DISTRIBUTION



2023 VOC PLUME DISTRIBUTION



LEGEND

- 5–49 mg/L TVOC CONCENTRATION
- 50–99 mg/L TVOC CONCENTRATION
- 100–499 mg/L TVOC CONCENTRATION
- ≥ 500 mg/L TVOC CONCENTRATION
- 0.05–0.99 µg/L EDB CONCENTRATION
- ≥ 1.00 µg/L EDB CONCENTRATION
- RTW-4A GROUNDWATER REMEDIATION WELL

OU – OPERABLE UNIT
EDB – ETHYLENE DIBROMIDE
VOC – VOLATILE ORGANIC COMPOUND
TVOC – TOTAL VOLATILE ORGANIC COMPOUND
µg/L – MICROGRAMS PER LITER

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

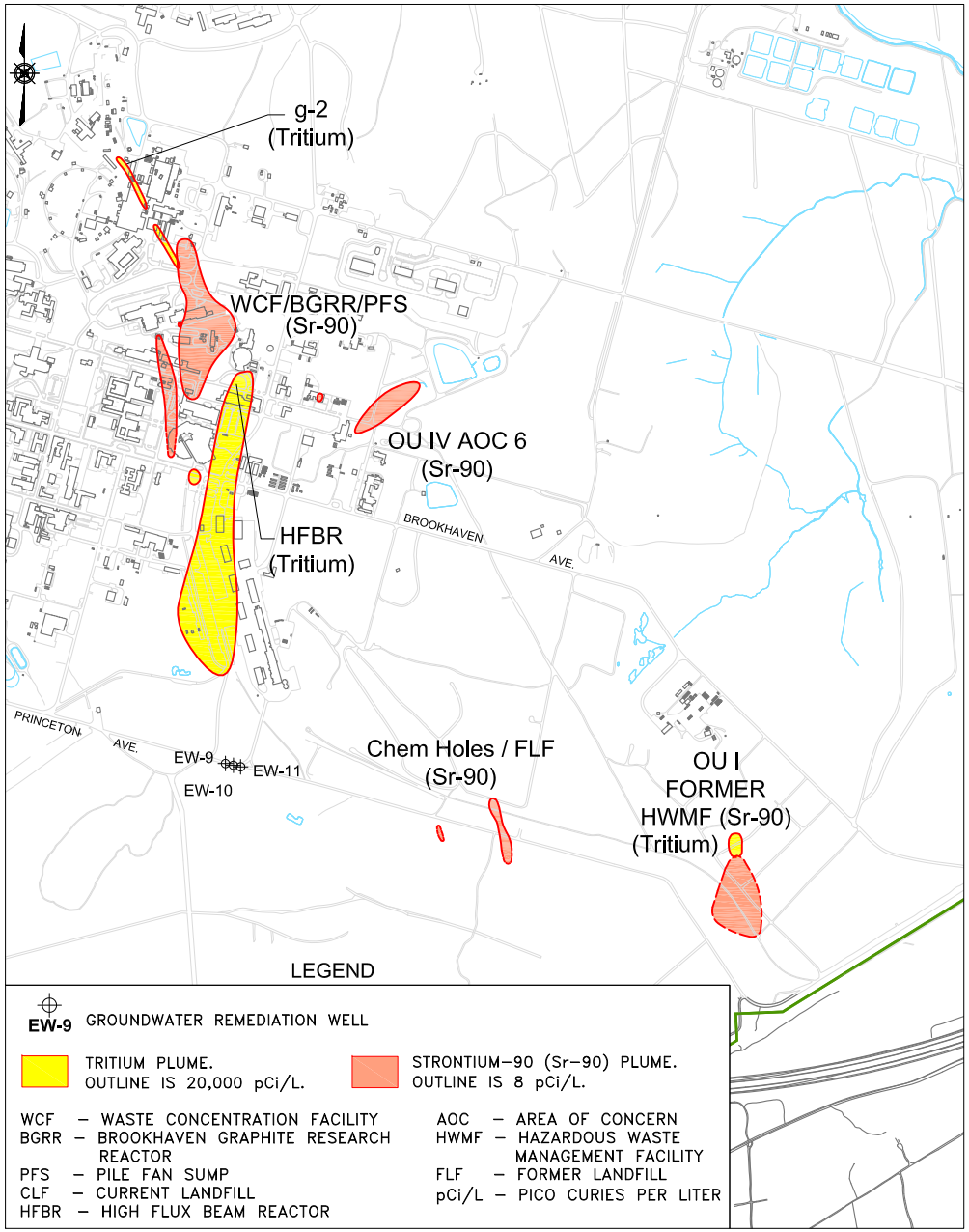
PRIMARY BNL VOC PLUMES COMPARISON 1997 – 2023

2023 BNL GROUNDWATER STATUS REPORT

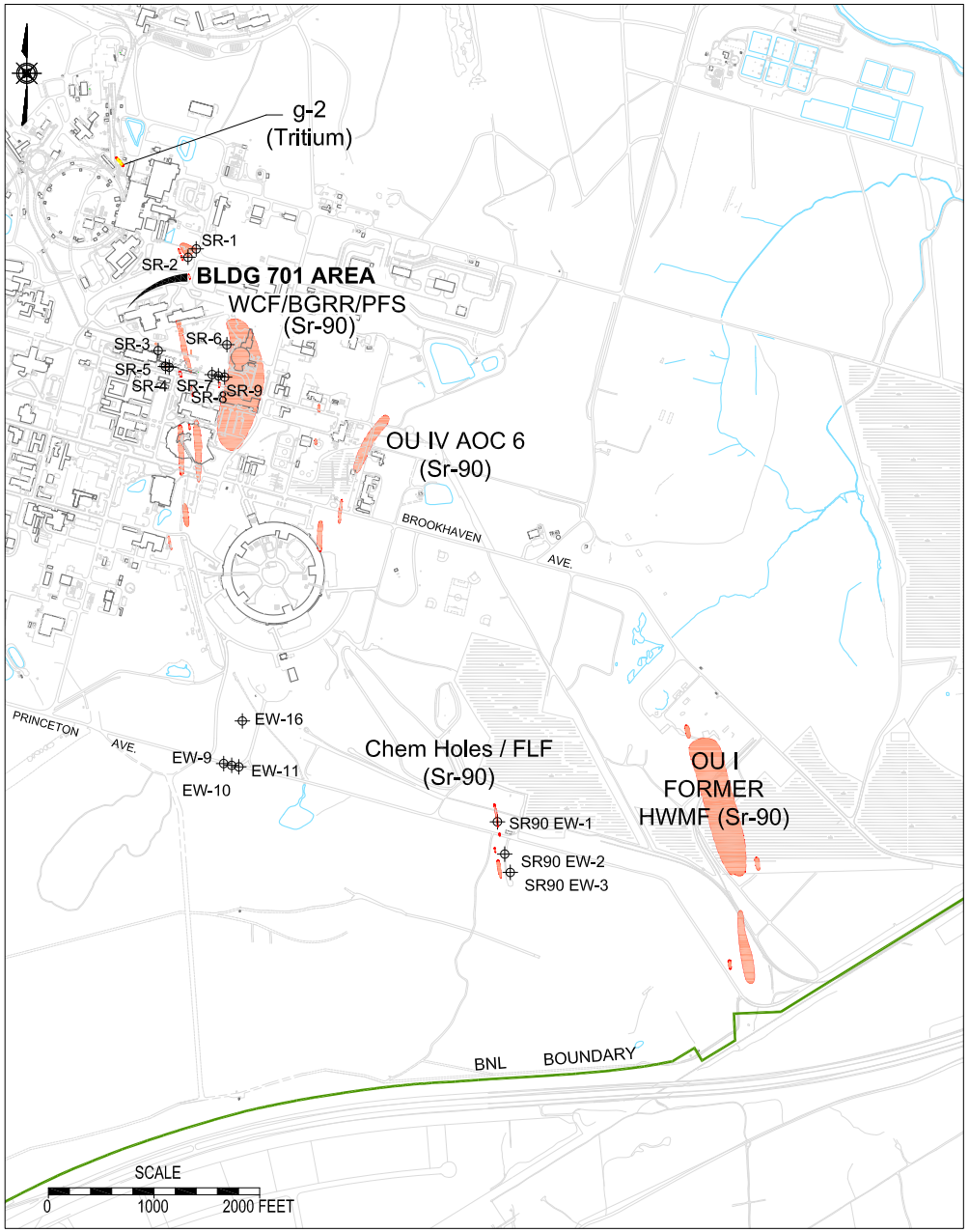
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	06/07/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: E–1

2002 RAD PLUME DISTRIBUTION



2023 RAD PLUME DISTRIBUTION



LEGEND

EW-9 GROUNDWATER REMEDIATION WELL

TRITIUM PLUME.
OUTLINE IS 20,000 pCi/L.

STRONTIUM-90 (Sr-90) PLUME.
OUTLINE IS 8 pCi/L.

WCF – WASTE CONCENTRATION FACILITY
BGRR – BROOKHAVEN GRAPHITE RESEARCH REACTOR
PFS – PILE FAN SUMP
CLF – CURRENT LANDFILL
HFBR – HIGH FLUX BEAM REACTOR
AOC – AREA OF CONCERN
HWMF – HAZARDOUS WASTE MANAGEMENT FACILITY
FLF – FORMER LANDFILL
pCi/L – PICO CURIES PER LITER

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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

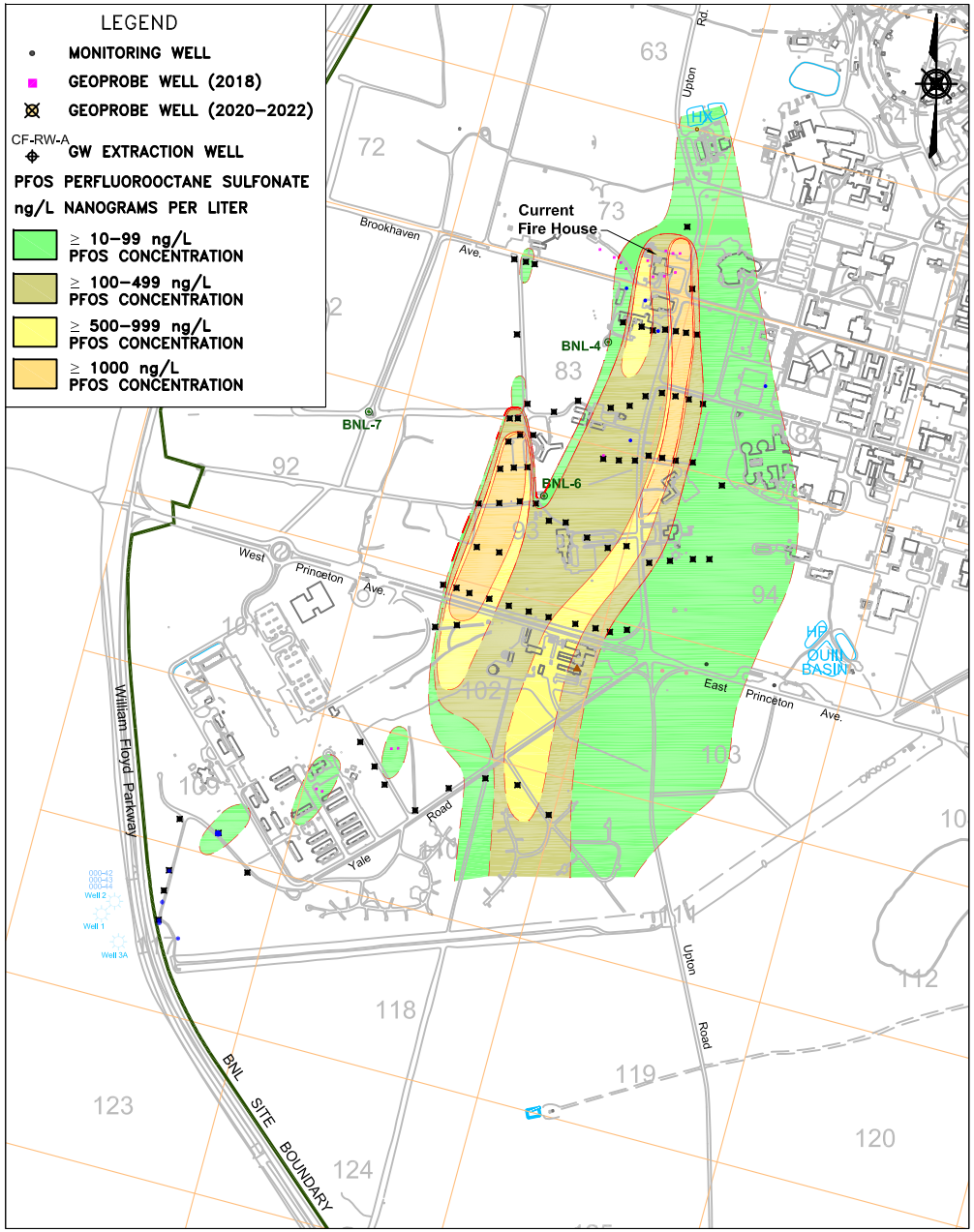
PRIMARY BNL RADIONUCLIDE PLUMES COMPARISON 2002 – 2023

2023 BNL GROUNDWATER STATUS REPORT

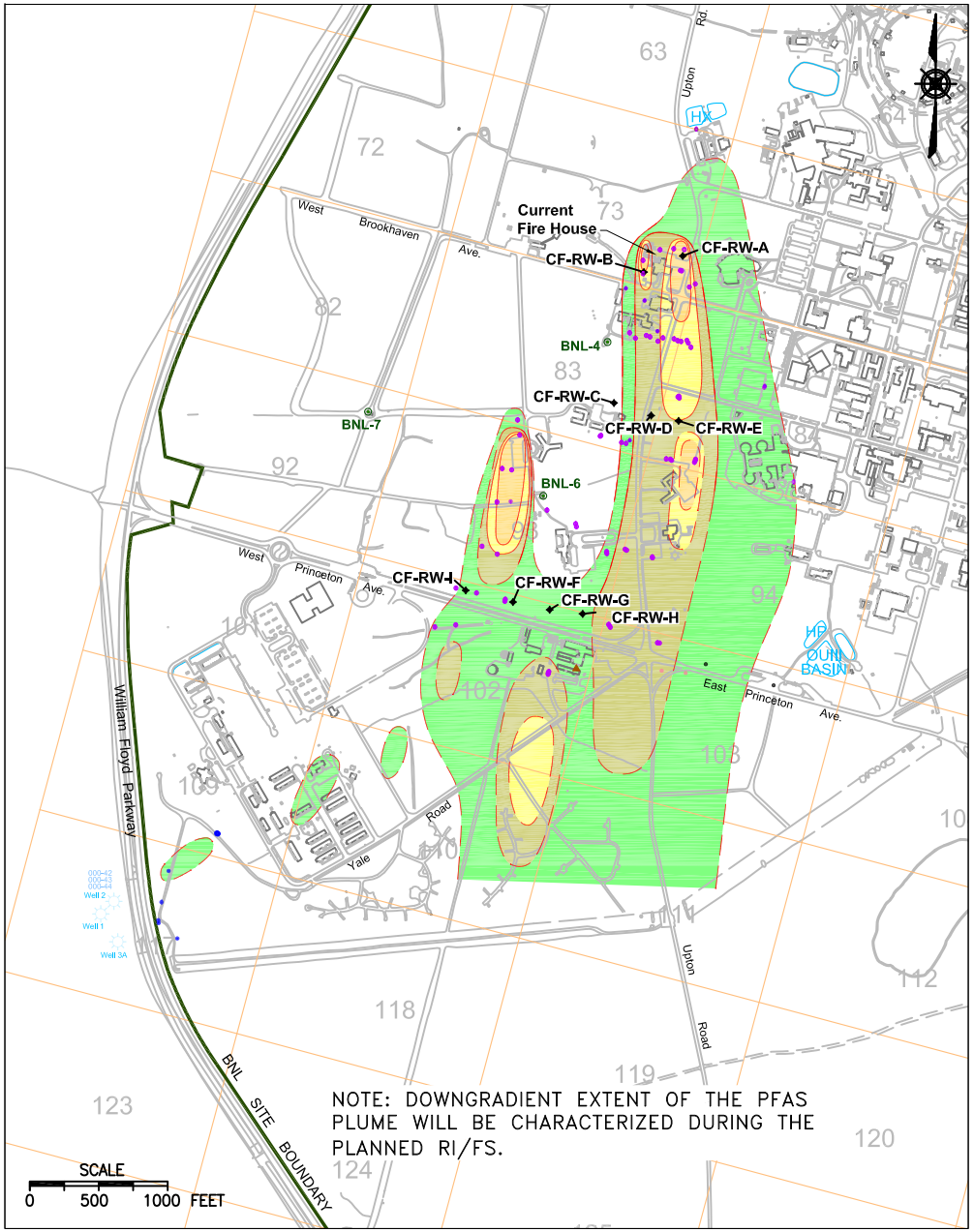
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	06/07/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: E-2

2020–2021 PFOS PLUME DISTRIBUTION



2023 PFOS PLUME DISTRIBUTION



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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

CURRENT FIREHOUSE AND BUILDING 170 PFOS PLUME COMPARISON 2020 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	06/07/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: E–3

2020 PFOS PLUME DISTRIBUTION

2023 PFOS PLUME DISTRIBUTION

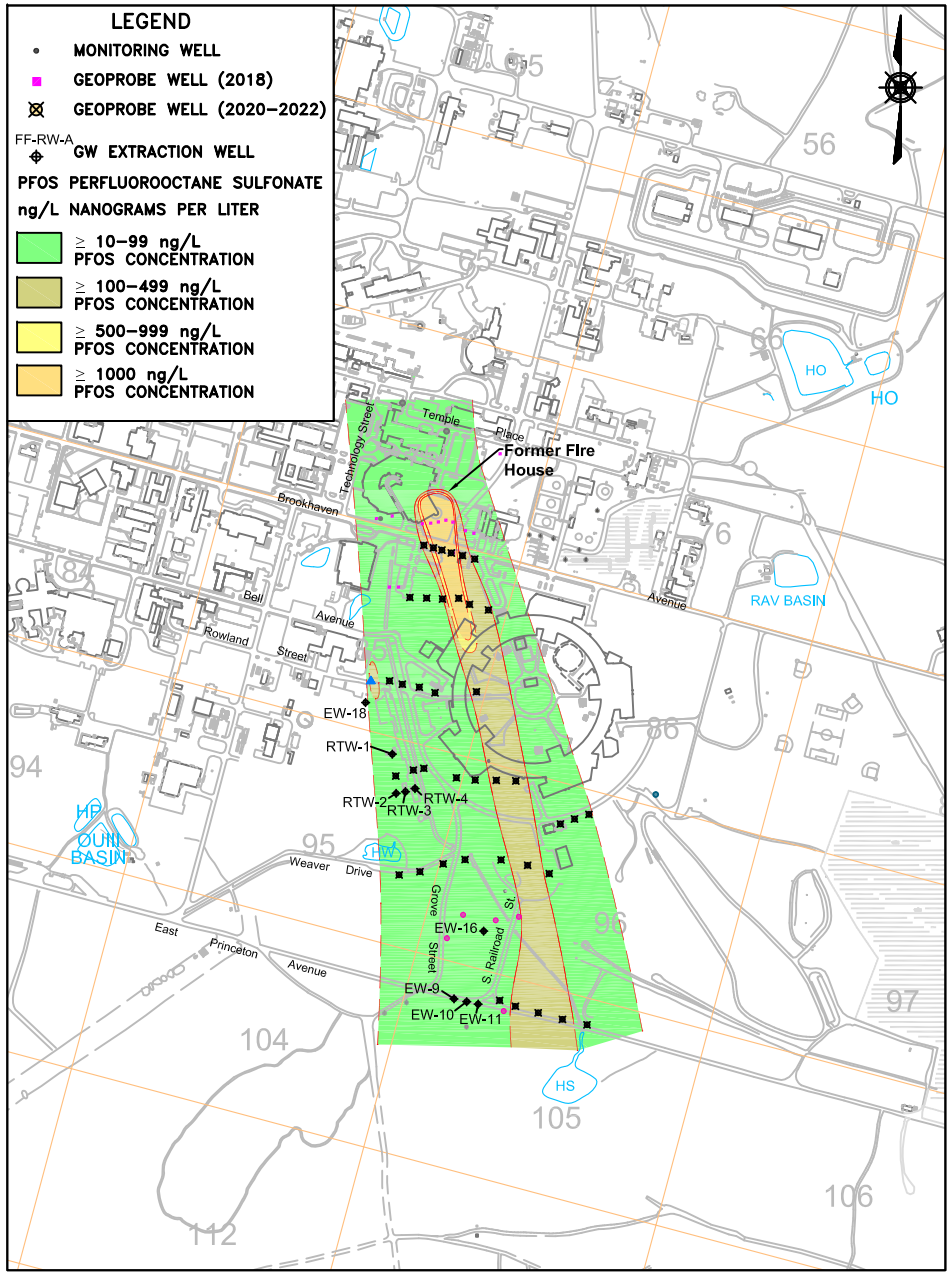
LEGEND

- MONITORING WELL
- GEOPROBE WELL (2018)
- GEOPROBE WELL (2020–2022)
- FF-RW-A GW EXTRACTION WELL

PFOS PERFLUOROOCTANE SULFONATE

ng/L NANOGRAMS PER LITER

- ≥ 10–99 ng/L PFOS CONCENTRATION
- ≥ 100–499 ng/L PFOS CONCENTRATION
- ≥ 500–999 ng/L PFOS CONCENTRATION
- ≥ 1000 ng/L PFOS CONCENTRATION



NOTE: DOWNGRADIENT EXTENT OF THE PFAS PLUME WILL BE CHARACTERIZED DURING THE PLANNED RI/FS.

SCALE
0 500 1000 FEET

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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FORMER FIREHOUSE PFOS PLUME COMPARISON 2020 – 2023

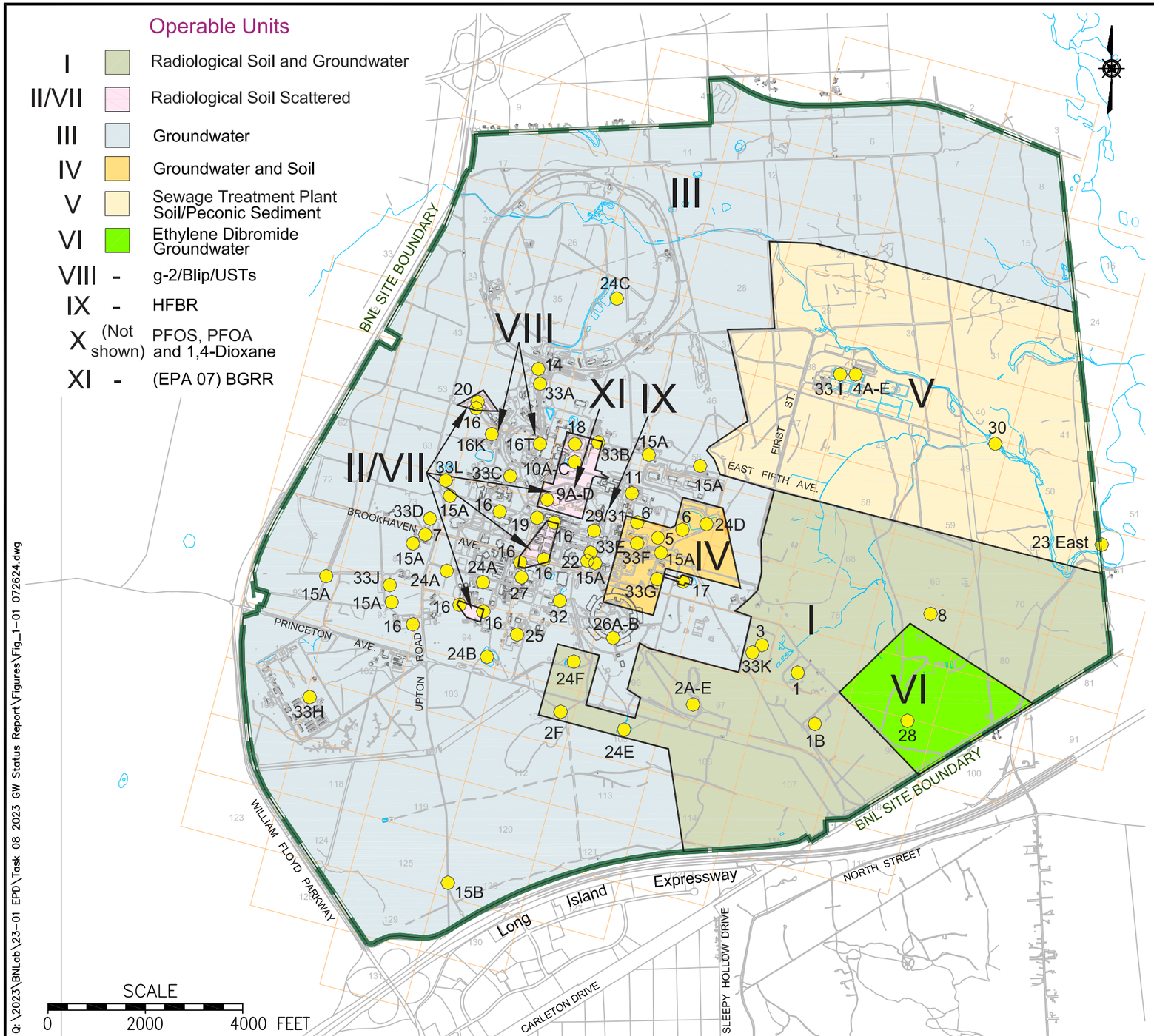
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	06/10/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: E–4

Operable Units

I		Radiological Soil and Groundwater
II/VII		Radiological Soil Scattered
III		Groundwater
IV		Groundwater and Soil
V		Sewage Treatment Plant Soil/Peconic Sediment
VI		Ethylene Dibromide Groundwater
VIII	-	g-2/Blip/USTs
IX	-	HFBR
X	(Not shown)	PFOS, PFOA and 1,4-Dioxane
XI	-	(EPA 07) BGRR



Operable Units and Areas of Concern

Areas of Concern

1	Hazardous Waste Management Facility
1B	Groundwater
2A-E	Former/Interim Landfills, Slit Trench, and Chemical/Animal/Glass Holes
2F	Ash Pit
3	Current Landfill
4A-E	Sewage Treatment Plant (A - Sludge Drying Beds; B - Sand Filter Beds; C - Imhoff Tanks; D - Hold-Up Ponds; E - Satellite Disposal Area)
5	Central Steam Facility
6	Building 650 Sump and Sump Outfall Area
7	Paint Shop
8	Upland Recharge/Meadow Marsh
9A-D	Brookhaven Graphite Research Reactor (A - BGRR Canal; B - Underground Ductwork; C - Spill Sites; D- Pile Fan Sump)
10A-C	(A - Tanks D1, D2, D3; B – Underground Pipelines; C- Six A/B USTs)
11	Building 830 Pipe Leak
12	Underground Storage Tanks (not shown)
13	Cesspools and Septic Tanks (not shown)
14	Bubble Chamber Spill Area
15A	Potable/Supply Wells
15B	Monitoring Well 130-02
16A-S	Aerial Radioactive Monitoring System Results
16T	g-2 Source Area and Tritium Groundwater Plume
17	Area Adjacent to Former Low-Mass Criticality Facility
18	AGS Storage Yards
19	TCE Spill Area
20	Particle Beam Dump, North End of Linear Accelerator
21	Leaking Sewer Pipes (not shown)
22	Old Firehouse
23 East	Eastern Tritium Plume
24A	Process Supply Wells 104, 105
24B	Recharge Basin HP
24C	Recharge Basin HN
24D	Recharge Basin HO
24E	Recharge Basin HS
24F	Weaver Drive Basin HW
25	Heavy Machine Shop (Building 479)
26A-B	Warehouse Area (A - Building 208; B - Former Scrapyard/Drum Storage Area South of Building 96)
27	Building 464 Mercury Contaminated Soil
28	EDB Plume
29	HFBR Spent Fuel Pool and Tritium Plume
30	Peconic River
31	HFBR
32	Building 452 Freon-11
33A-L	PFOS and PFOA Groundwater and Soil Contamination
34	1,4- Dioxane Groundwater Contamination (Not Shown)

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OPERABLE UNITS AND AREAS OF CONCERN

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/28/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–
FIGURE NO.:			
1–1			

Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

2023 BNL GROUNDWATER STATUS REPORT

07/26/24

FIGURE: 1-2

MONITORING WELL LOCATIONS

LEGEND

CERCLA MONITORING PROJECTS

- OU III (North Street)
- OU III (South Boundary)
- OU III (WF Wellfield Sentinel)
- OU III (Middle Road)
- OU III (BGRR / WCF Sr-90)
- OU III AOC 29 (HFBR)
- OU III (Industrial Park)
- OU III (Building 96)
- OU III (Western South Boundary)
- OU III (Magothy)
- OU III (LIPA)
- OU III (Airport)
- OU III (North Street East-EDB)
- OU IV (AOC 6 Sr-90)
- OU I (South Boundary)
- OU VI EDB
- Site Background
- Current Landfill
- Chemical / Animal Holes Sr-90
- OU X (Current Firehouse/Bldg. 170 & Former Firehouse)

FACILITY MONITORING PROJECTS (ES)

- AGS Research Areas
- BLIP Facility
- RHIC Facility
- STP and Peconic River
- Major Petroleum Facility
- Motor Pool Area
- New Waste Management Facility
- National Synchrotron Light Source II

- BNL Site Boundary
- Surface Water
- Solar Farm Panels

NOTE: Wells monitored under multiple programs are duplicated on the figure for each program under which they are monitored. Latest revision 03/26/24

SCALE
0 1000 2000 FEET

* Enlarged views are not to scale

PECONIC RIVER
SCHULTZ ROAD
LONG ISLAND EXPRESSWAY
NORTH STREET
WEEKS AVENUE
ASTOR DRIVE
SLEEPY HOLLOW DRIVE
STRATLER DRIVE
WALDORF DRIVE
BIRCH HOLLOW DRIVE
WILLIAM FLOYD PARKWAY
CARLETON DRIVE
GLEN DRIVE
FREESTATE DRIVE
WELLWOOD DRIVE
CARNATION DRIVE
AVONDALE DRIVE
LOCKWOOD DRIVE
ROWLINSON DRIVE
PURITAN DRIVE
STARLIGHT DRIVE
BOXWOOD DRIVE
MORICHES MIDDLE ISLAND ROAD
FLOWER HILL DRIVE
CARMANS RIVER

BNL SITE BOUNDARY

BNL SITE BOUNDARY

WILLIAM FLOYD PARKWAY

Long Island Expressway

NORTH STREET

SOUTH STREET

WADING RIVER RD.

NORTH STREET

CARLETON DRIVE

SLEEPY HOLLOW DRIVE

WEEKS AVENUE

MORICHES MIDDLE ISLAND ROAD

FLOWER HILL DRIVE

Sunrise Highway

SCWA WILLIAM FLOYD PKY WELL FIELD

SCWA COUNTRY CLUB DR WELL FIELD

SCWA LAMBERT AVE WELL FIELD

SCALE
0 1000 2000 FEET

BNL WATER USAGE SUMMARY AUGUST 2023 (K GAL)	
POTABLE SUPPLY WELL PUMPAGE	
WESTERN WELL FIELD	
BNL-4	0
BNL-6	0
BNL-7	2413
EASTERN WELL FIELD	
BNL-10	5185
BNL-11	6493
BNL-12	24071
REMEDIATION SYSTEM PUMPAGE	
OU I SOUTH BOUNDARY	
EW-1	0
EW-2	0
OU III SOUTH BOUNDARY	
EW-3	0
EW-4	0
EW-5	0
EW-6	0
EW-8	0
EW-17	8027
OU III HFBR	
EW-9	0
EW-10	0
EW-11	0
EW-16	0
OU III MIDDLE ROAD	
RW-1	0
RW-2	4648
RW-3	6817
RW-4	0
RW-5	0
RW-6	0
RW-7	7604
OU III INDUSTRIAL PARK	
UVB-1	0
UVB-2	0
UVB-3	0
UVB-4	0
UVB-5	0
UVB-6	0
UVB-7	0
IP-EW-8	0
IP-EW-9	0
OU III BUILDING 96	
RTW-1	1888
RTW-2	0
RTW-3	0
RTW-4	0

OU III BUILDING 452 FREON-11	
EW-18	0
OU III WESTERN SOUTH BOUNDARY	
WSB-1	4904
WSB-2	0
WSB-3	1209
WSB-4	3721
WSB-5	4121
WSB-6	5040
OU III CHEM HOLES SR-90	
SR-90 EW-1	0
SR-90 EW-2	0
SR-90 EW-3	0
OU III BGRR/WCF SR-90 TREATMENT	
SR-1	102
SR-2	102
SR-3	0
SR-4	0
SR-5	0
SR-6	0
SR-7	0
SR-8	0
SR-9	0
OU III LIPA	
EW-1L	0
EW-2L	0
EW-3L	0
EW-4L	0
OU III AIRPORT	
RTW-1A	5461
RTW-2A	0
RTW-3A	0
RTW-4A	7914
RTW-5A	0
RW-6A	8192
OU III NORTH STREET	
NS-1	0
NS-2	0
OU III NORTH STREET EAST	
NSE-1	0
NSE-2	0
NSE-EDB-3	5610
NSE-EDB-4	5854
OU VI EDB	
EW-1E	4011
EW-2E	4162

OU X CURRENT FIREHOUSE PFAS	
CF-RW-A	1835
CF-RW-B	1872
CF-RW-C	70
CF-RW-D	1415
CF-RW-E	3272
CF-RW-F	454
CF-RW-G	2639
CF-RW-H	2325
CF-RW-I	2248
OU X FORMER FIREHOUSE PFAS	
FF-RW-A	2443
FF-RW-B	3437
FF-RW-C	4750

LEGEND

- 121-06 / 32.35 — BNL MONITORING WELL / PIEZOMETER, POTENTIOMETRIC SURFACE ELEVATION, IN FEET ABOVE MEAN SEA LEVEL
- 37 — POTENTIOMETRIC SURFACE CONTOUR ELEVATION, IN FEET ABOVE MEAN SEA LEVEL (DASHED WHERE INFERRED)
- 32 — BNL GRID NUMBER
- EW-12 — BNL REMEDIATION WELL
- BNL-12 — BNL SUPPLY / PROCESS WELL
- S-47226 — USGS MONITORING WELL / PIEZOMETER
- 800-19 — SCWA SUPPLY WELL
- NS — NO SAMPLE/MEASUREMENT

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
WATER-TABLE CONTOURS
OF THE SHALLOW GLACIAL ZONE
AUGUST 21 – AUGUST 25, 2023
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VS:HS.:	DATE:	PROJECT NO.:
AJZ	–	03/14/24	–
CHKD:	APPD:	REV.:	NOTES:
DEP	WRD	07/26/24	–

FIGURE NO.: 2-2

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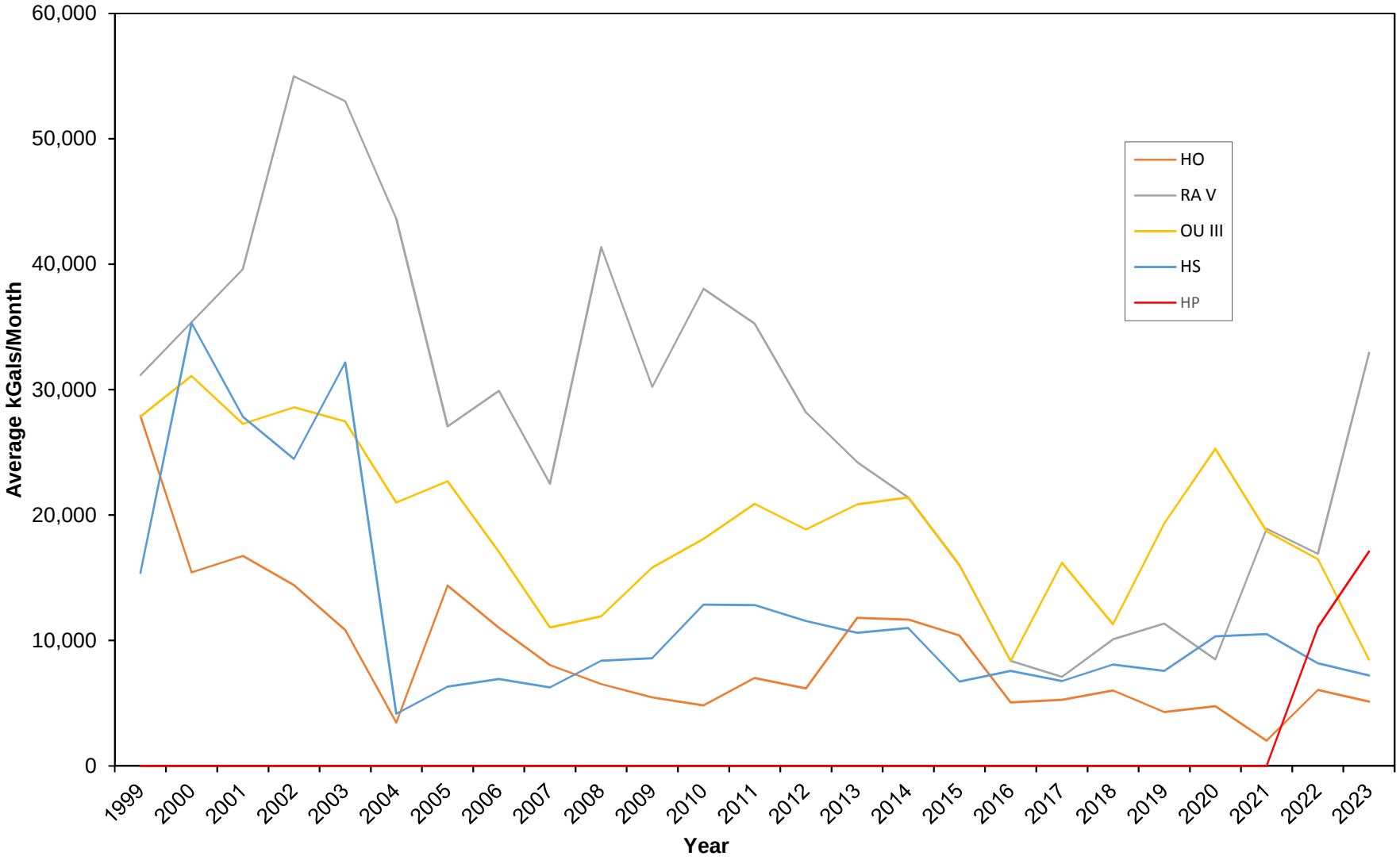
Figure 2-5
Select Recharge Basin Flow Trends

2023 BNL Groundwater Status Report



BGRR
WCF
Sr-90

Bldg 452
Freon-11

Carbon
Tetrachloride

Bldg
96
HFBR
Tritium

Current
Firehouse
and Bldg 170
(PFAS)

Former
Firehouse
(PFAS)

OU IV
AOC 6

Chem
Holes
Sr-90

Waste
Management
Area - AOC 1

Middle Road

OU III South Boundary

OU I South
Boundary

Western South
Boundary

Industrial
Park
East

Industrial Park

North
Street
East EDB

North
Street
East

OU VI
EDB

LIPA

North
Street

Brookhaven Airport

OU V

SHOTGUN
RANGE

RA V BASIN

SCALE
0 500 1000 FEET

LEGEND

- 32 — BNL GRID NUMBER
- EW-12 — BNL REMEDIATION WELL
- BNL-12 — BNL SUPPLY / PROCESS WELL
- OPERATING REMEDIATION SYSTEMS
- REMEDIATION SYSTEM PLACED IN SHUTDOWN MODE
- DECOMMISSIONED REMEDIATION SYSTEM

REMEDIATION WELL STATUS

- RTW-4A — ON-FULL TIME
- SR-9 — PULSED PUMPING
- RTW-5A — STAND BY-OFF

- 2023 TVOC PLUME UNLESS SPECIFIED. CONCENTRATION AS INDICATED. (DASHED WHERE INFERRED)
- 2023 TRITIUM PLUME. OUTLINE IS 20,000 pCi/L.
- 2023 STRONTIUM 90 PLUME. OUTLINE IS 8 pCi/L.
- 2023 NORTH STREET EAST AND OU VI EDB PLUMES. OUTLINE IS 0.05 µg/L.
- EXTENT OF PFOS PLUME OUTLINES BASED UPON 2023 MONITORING RESULTS. OUTLINE IS 10 ng/L.

07/26/24 FIGURE: 3.0 -1
GROUNDWATER REMEDIATION SYSTEMS

Brookhaven National Laboratory

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2023 BNL GROUNDWATER STATUS REPORT

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RA V BASIN

A

A'

CURRENT LANDFILL

FORMER LANDFILL

FORMER HWMF

09 <1.0

109 52.8

110 ND

11 3.7

10 5 50

23 1.8

24 <1.0

27 2.0

26 3.8

22 4.4

23 ND

21 ND

10 5

99 99 2.5

41 ND

40 1.5

51 ND

EW-1

EW-2

16 2.2

13 1.5

NSE-1

NSE-2

NSE-EDB-EW-3

NSE-EDB-EW-4

394 5 9.8

551 2.3

552 NS

553 NS

554 3.4

563 5.0

564 2.1

555 1.6

565 5 9.5

566 3.0

77 78 79 80 86 87 88 89 90 96 97 98 99 100 106 107 108 114 115 116 122

PRINCETON AVE.

BROOKHAVEN AVE.

BNL SITE BOUNDARY

I 495 (L.I.E.)

NORTH STREET

LIPA R.O.W.

MORICHES MIDDLE ISLAND ROAD

SCALE

0 500 1000 FEET

000

800

LEGEND

- 99 / 2.5 — MONITORING WELL ID WITH DETECTED TVOC CONCENTRATION IN µg/L
- 5 — ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL TVOC CONCENTRATION IN µg/L (DASHED WHERE INFERRED)
- LOCATION OF TVOC HYDROGEOLOGIC CROSS SECTION
- 116 — BNL GRID NUMBER
- NSE-1 — BNL REMEDIATION WELL
- RA V — BNL RECHARGE BASIN
- SOLAR FARM PANELS
- TVOC– TOTAL VOLATILE ORGANIC COMPOUND
- µg/L– MICROGRAMS PER LITER

NOTES:

CONTOUR INTERVAL AS SHOWN.

IN WELL CLUSTERS THE HIGHEST TVOC VALUE WAS USED IN CONTOURING AND DETERMINING EXTENTS.

PLUME DISTRIBUTION BASED ON FOURTH QUARTER 2023 SAMPLING EVENTS.

"ND" INDICATES NOT DETECTED AT OR ABOVE LABORATORY METHOD DETECTION LIMITS.

"HWMF" INDICATES FORMER HAZARDOUS WASTE MANAGEMENT FACILITY.

MONITORING WELL COLOR CORRESPONDS TO LONG–TERM MONITORING PROGRAM WELL LOCATION MAP.

BNL MONITORING WELL DESIGNATION CONSISTS OF BNL GRID NUMBER AND MONITORING WELL ID.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU I SOUTH BOUNDARY/ NORTH STREET EAST TVOC PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/28/24	–
CHKD:	APPD:	REV.:	NOTES:
VJR	WRD	07/26/24	–

FIGURE NO.: 3.1–1

LEGEND

Upper Glacial aquifer

- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay

- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer

- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undifferentiated)
- MO Magothy – OTHER

098–99 BNL Well ID

ND Indicates not detected at or above laboratory method detection limits

7.54 TVOC Concentration (µg/L)

— 5 — TVOC Contour (µg/L) (Dashed Where Inferred)

TVOC– Total Volatile Organic Compound

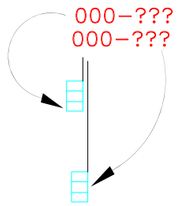
µg/L– Micrograms Per Liter

Water Table As Of Aug 21 – Aug 25, 2023

Monitoring Well Screen

Extraction Well Screen

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep



NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS AND THE 2002 PREDESIGN CHARACTERIZATION.

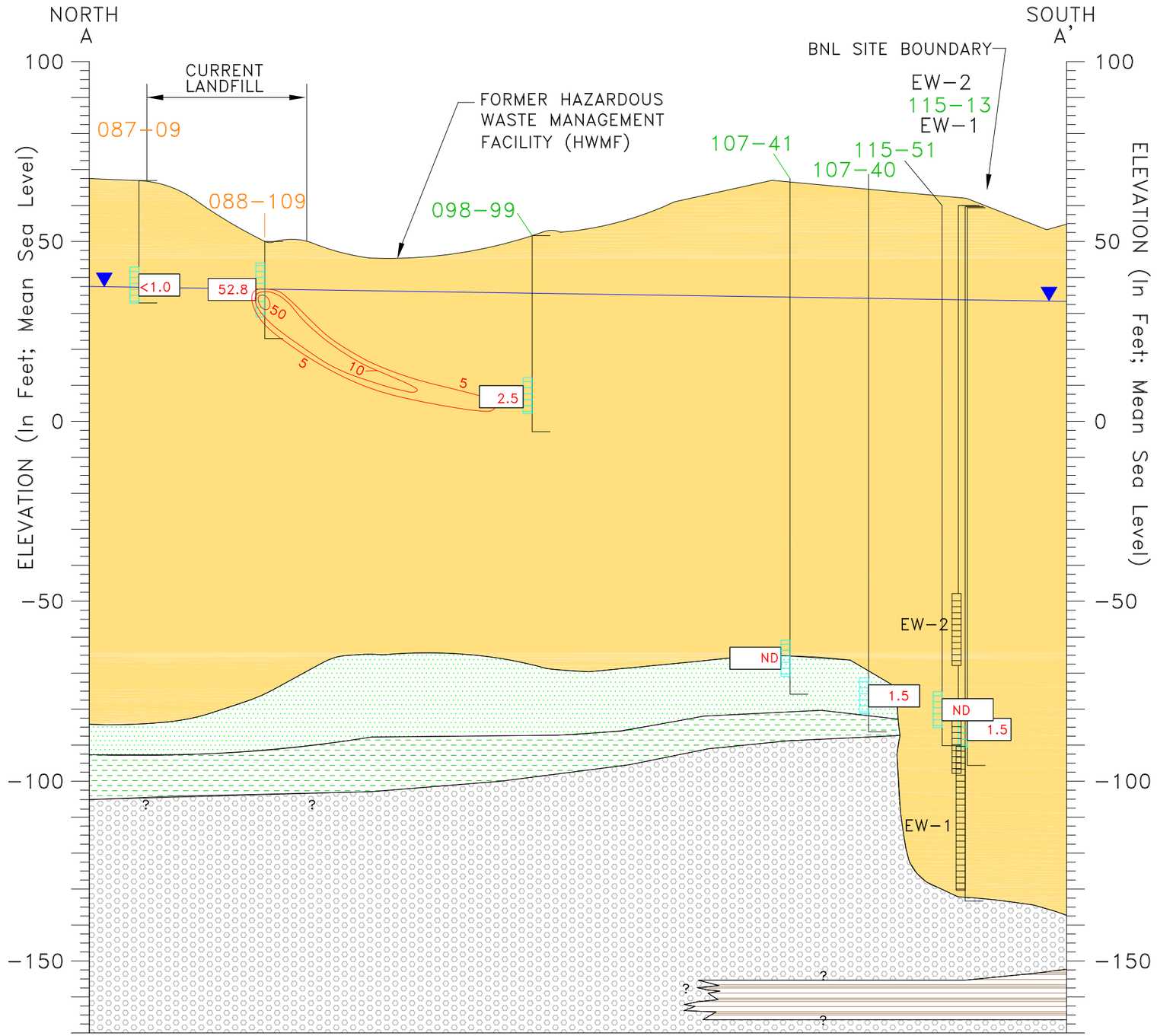
2) PLUME DISTRIBUTION BASED ON FOURTH QUARTER 2023 SOUTH BOUNDARY / NORTH STREET EAST SAMPLING EVENT.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG–TERM MONITORING PROGRAM WELL LOCATION MAP.

HORIZONTAL SCALE

0 500 1000 FEET



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU I SOUTH BOUNDARY
TVOC HYDROGEOLOGIC CROSS SECTION (A–A')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	20:1	02/28/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–
FIGURE NO.:			
3.1–2			

CURRENT LANDFILL

FORMER HWMF

99

41

40

51

EW–1

EW–2

NSE–1

NSE–2

5

5

5

AVE.

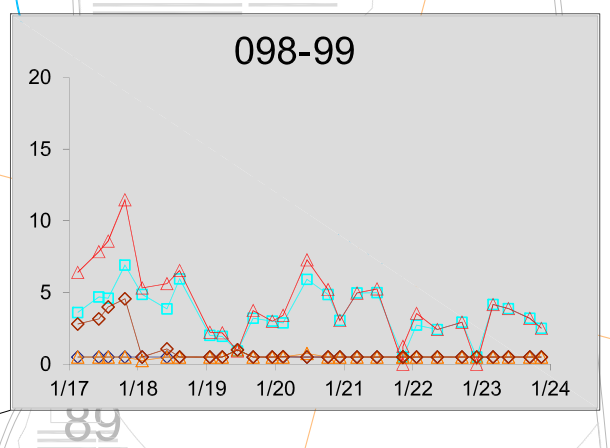
BROOKHAVEN

I 495 (L.I.E.)

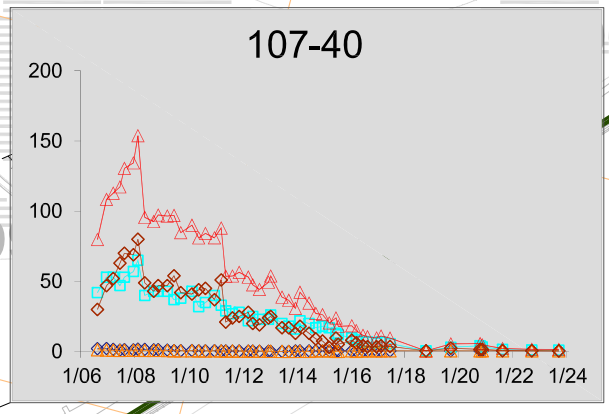
NORTH STREET

77 78 87 88 89 97 98 106 107 108 115 116 122 000

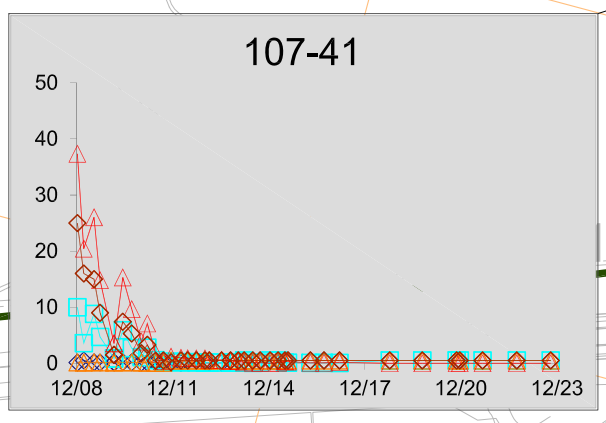
098-99



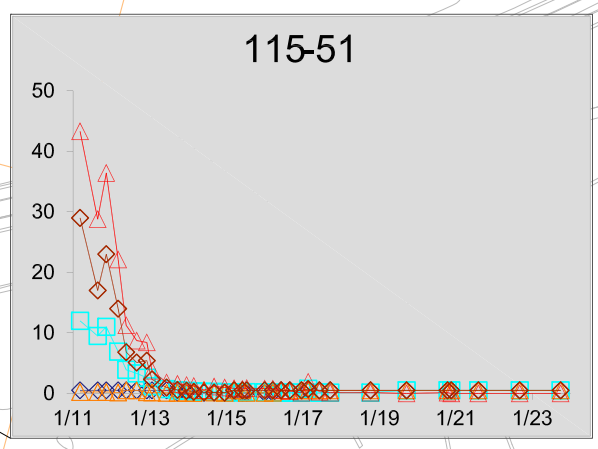
107-40



107-41



115-51



LEGEND

- 40 MONITORING WELL ID
- TEMPORARY WELL
- EXTENT OF TVOC PLUME BASED ON 5 µg/L ISOCONTOUR (DASHED WHERE INFERRED)
- 107 BNL GRID NUMBER
- EW–1 BNL REMEDIATION WELL
- RA V BNL RECHARGE BASIN
- SOLAR FARM PANELS
- TVOC– TOTAL VOLATILE ORGANIC COMPOUND

µg/L– MICROGRAMS PER LITER

- TVOC
- 1,1,1–TRICHLOROETHANE
- 1,1–DICHLOROETHANE
- 1,1–DICHLOROETHYLENE
- CHLOROETHANE
- ETHYLENE DIBROMIDE

CONCENTRATION (IN µg/L)

DATE (MONTH/YEAR)

SCALE

0 500 1000 FEET

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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU I /CURRENT LANDFILL/ SOUTH BOUNDARY/ NORTH STREET EAST HISTORICAL VOC TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/28/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.1–3

CURRENT LANDFILL

109 0.7

27 0.5

21 0.7

BROOKHAVEN AVE.

88

FORMER HWMF

89

8

26 1.7

100 65.1

50

50

100

50

103 26.6

104 224.0

21 1.6

100

8

50

100

50

GP-71 181.0

GP-70 11.5

GP-74 20.9

GP-69 10.9

GP-73 4.6

30 49.5

GP-72 8.9

50

8

04 <MDC

PRINCETON AVE.

23 (*)

GP-101 4.8

GP-97 2.9

GP-98 2.6

GP-88 3.1

8

GP-102 3.1

GP-100 3.8

GP-99 8.0

GP-90 3.2

GP-89 4.7

GP-103 7.5

55 12.1

56 6.0

107

34 2.3

35 4.4

8

8

43 3.5

44 <MDC

42 <MDC

45 1.3

57 7.3

58 7.0

59 <MDC

36 (*)

13 <MDC

12 <MDC

14 <MDC

17 <MDC

18 <MDC

08 <MDC

51 <MDC

EW-1

EW-2

115

I 495 (L.I.E.)

BNL SITE BOUNDARY

116

SCALE

0 200 400 FEET

LEGEND

26 2.3	MONITORING WELL ID WITH DETECTED Sr-90 CONCENTRATION IN pCi/L
GP-100 3.8	TEMPORARY WELL ID WITH DETECTED Sr-90 CONCENTRATION (IN pCi/L) NOVEMBER 2023 THROUGH MARCH 2024 SAMPLING EVENT. COMPLETE ID IS OUI-SR-90-GP100. ALL TEMP WELL IDS HAVE BEEN ABBREVIATED.
23 (*)	MONITORING WELL ANALYZED FOR TRITIUM
8	Sr-90 ISOCONCENTRATION pCi/L (DASHED WHERE INFERRED)
108	BNL GRID NUMBER
EW-1	BNL REMEDIATION WELL
	SOLAR FARM PANELS
<MDC	Sr-90 LESS THAN MINIMUM DETECTABLE CONCENTRATION
Sr-90	STRONTIUM-90

NOTES:

Sr-90 RESULTS BASED ON THIRD AND FOURTH QUARTER 2023 SAMPLING EVENTS.

"HWMF" INDICATES FORMER HAZARDOUS WASTE MANAGEMENT FACILITY.

MONITORING WELL COLOR CORRESPONDS TO LONG-TERM MONITORING PROGRAM WELL LOCATION MAP.

BNL MONITORING WELL DESIGNATION CONSISTS OF BNL GRID NUMBER AND MONITORING WELL ID.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

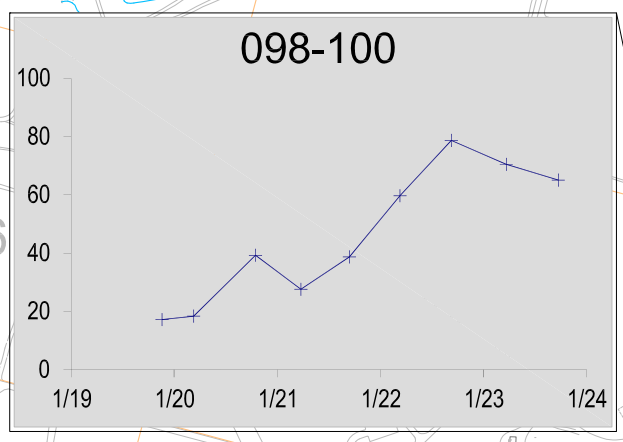
TITLE:

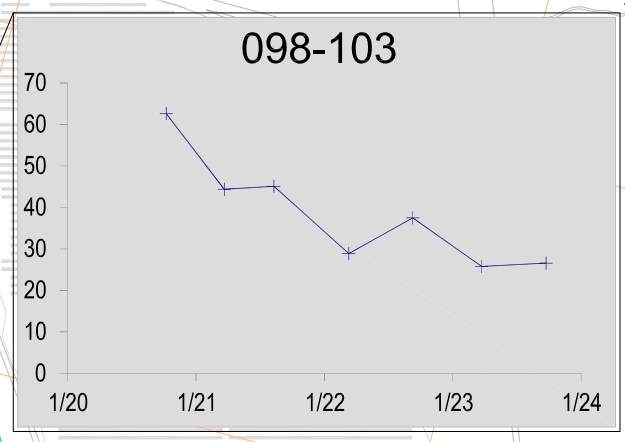
OU I SOUTH BOUNDARY Sr-90 PLUME DISTRIBUTION

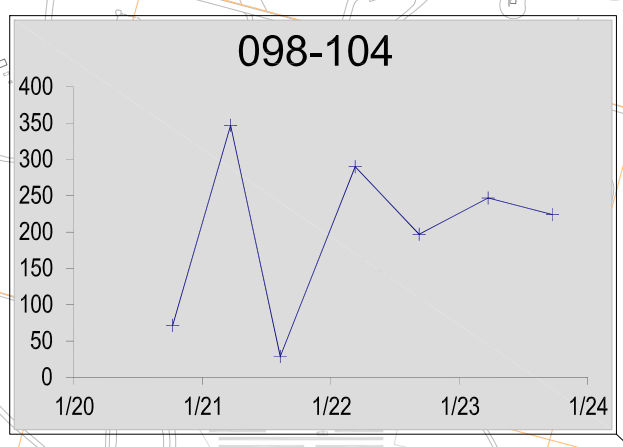
2023 BNL GROUNDWATER STATUS REPORT

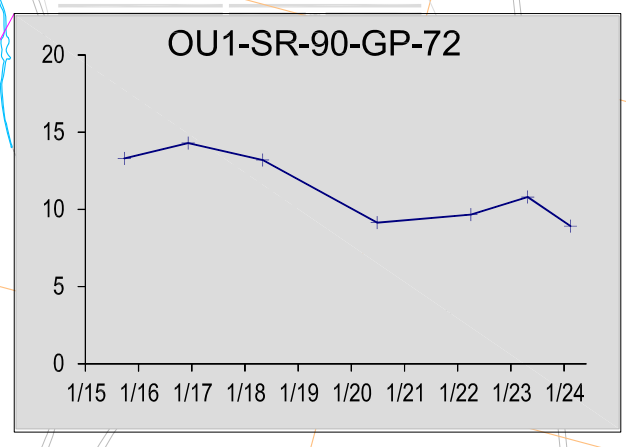
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/27/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

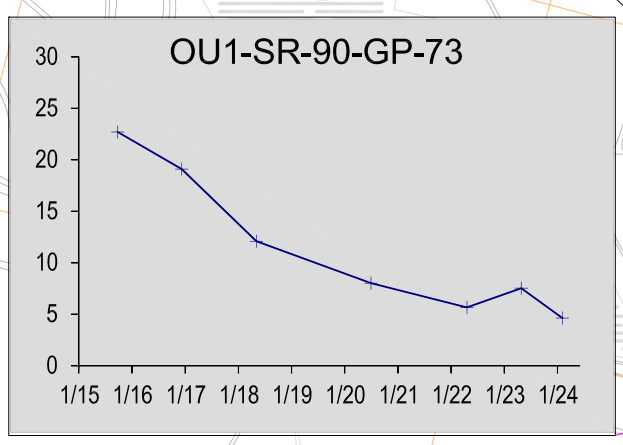
FIGURE NO.: 3.1-4

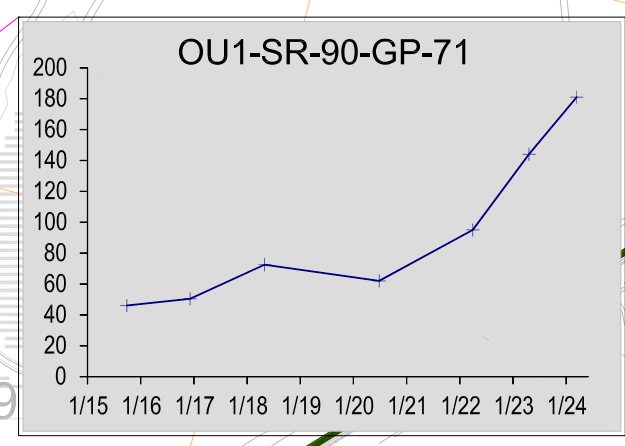


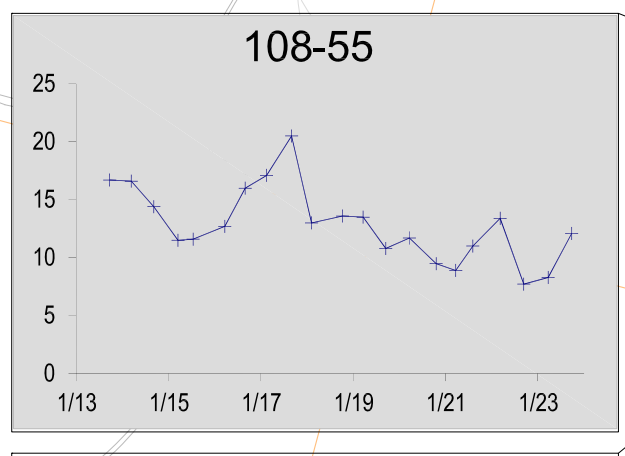


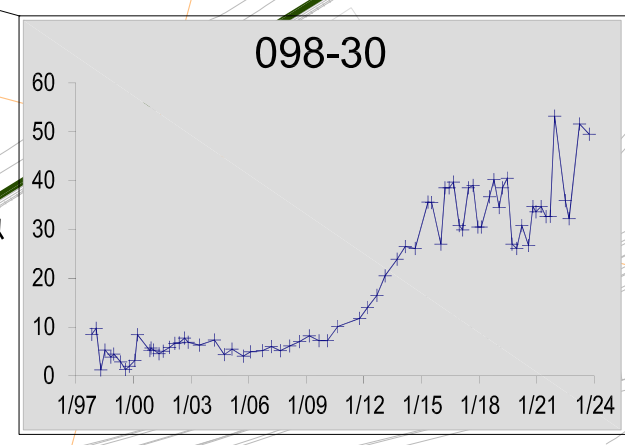


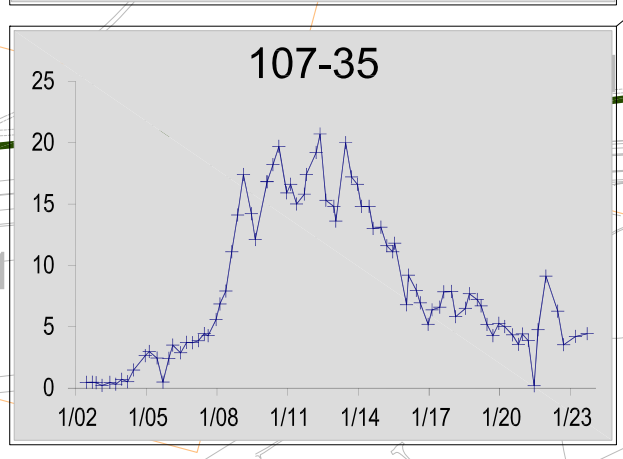


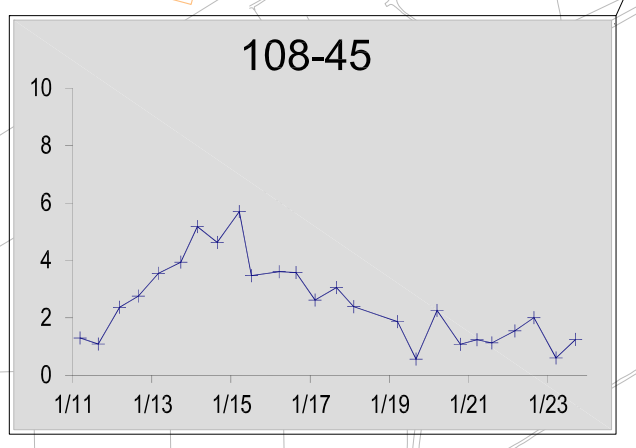


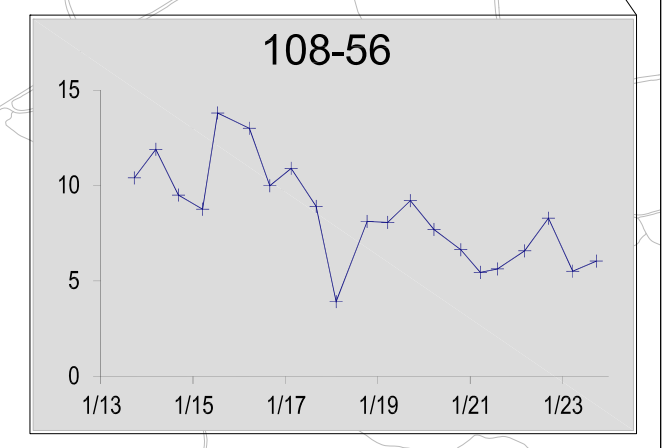












SCALE
0 500 1000 FEET

LEGEND

- 45 MONITORING WELL ID
- 108 BNL GRID NUMBER
- EW-1 EXTRACTION WELL LOCATION
- RA V BNL RECHARGE BASIN
- SOLAR FARM PANELS
- Sr-90 (pCi/L)
- EXTENT OF Sr-90 PLUME BASED ON 8 pCi/L (DASHED WHERE INFERRED)
- Sr-90 STRONTIUM-90

CONCENTRATION (IN pCi/L)
DATE (MONTH/YEAR)

NOTES:

"HWMF" INDICATES FORMER HAZARDOUS WASTE MANAGEMENT FACILITY.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU I SOUTH BOUNDARY HISTORICAL Sr-90 TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/29/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–
FIGURE NO.:		3.1-5	

Figure 3.1-6
OU I South Boundary Groundwater Remediation System
Historic Total Volatile Organic Compound Trends in Extraction Wells

2023 BNL Groundwater Status Report

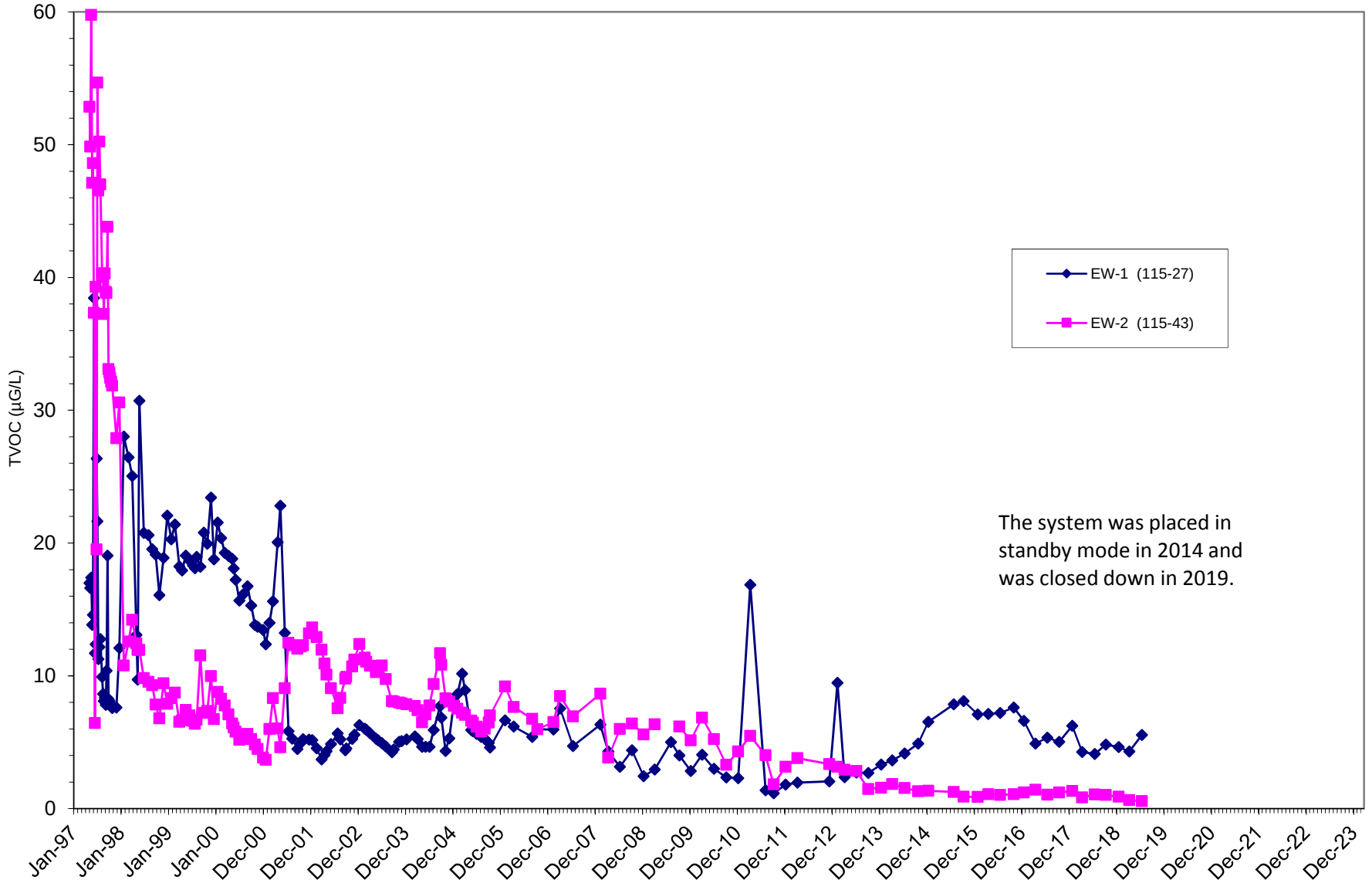
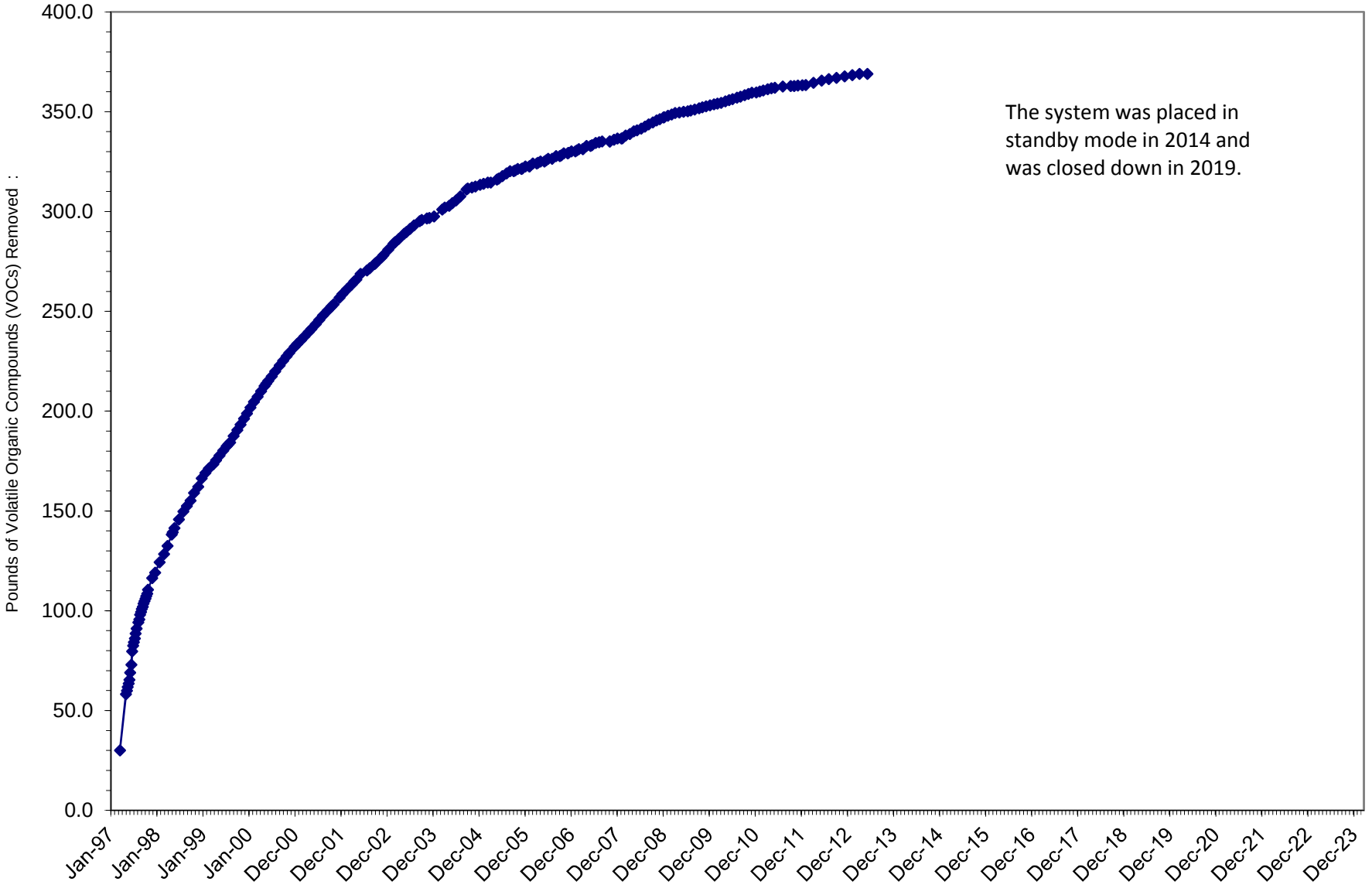


Figure 3.1-7
OU I South Boundary Groundwater Remediation System
Cumulative VOC Mass Removed

2023 BNL Groundwater Status Report



1997

2002

2007

2023

CURRENT LANDFILL
CAPPED NOVEMBER 1995

PRINCETON AVE.

BROOKHAVEN AVE.

BNL SITE BOUNDARY

OU I SOUTH BOUNDARY
TREATMENT SYSTEM

EW-1

EW-2

I 495 (L.I.E.)

NORTH STREET

SLEEPY HOLLOW DR.

NSE-1

NSE-2

LEGEND

- MONITORING WELL
- KEY TEMPORARY WELL
- EW-2 GW REMEDIATION WELL
- 5 – 49 µg/L TVOC CONCENTRATION
- 50 – 99 µg/L TVOC CONCENTRATION
- 100 – 499 µg/L TVOC CONCENTRATION
- SOLAR FARM PANELS

TVOC – TOTAL VOLATILE ORGANIC COMPOUND
µg/L – MICROGRAMS PER LITER

SCALE
0 500 1000 FEET

Q:\2023\BNLab\23-01 EPD\Task 08 2023 GW Status Report\Figures\Fig_3-01-08 072624.dwg

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

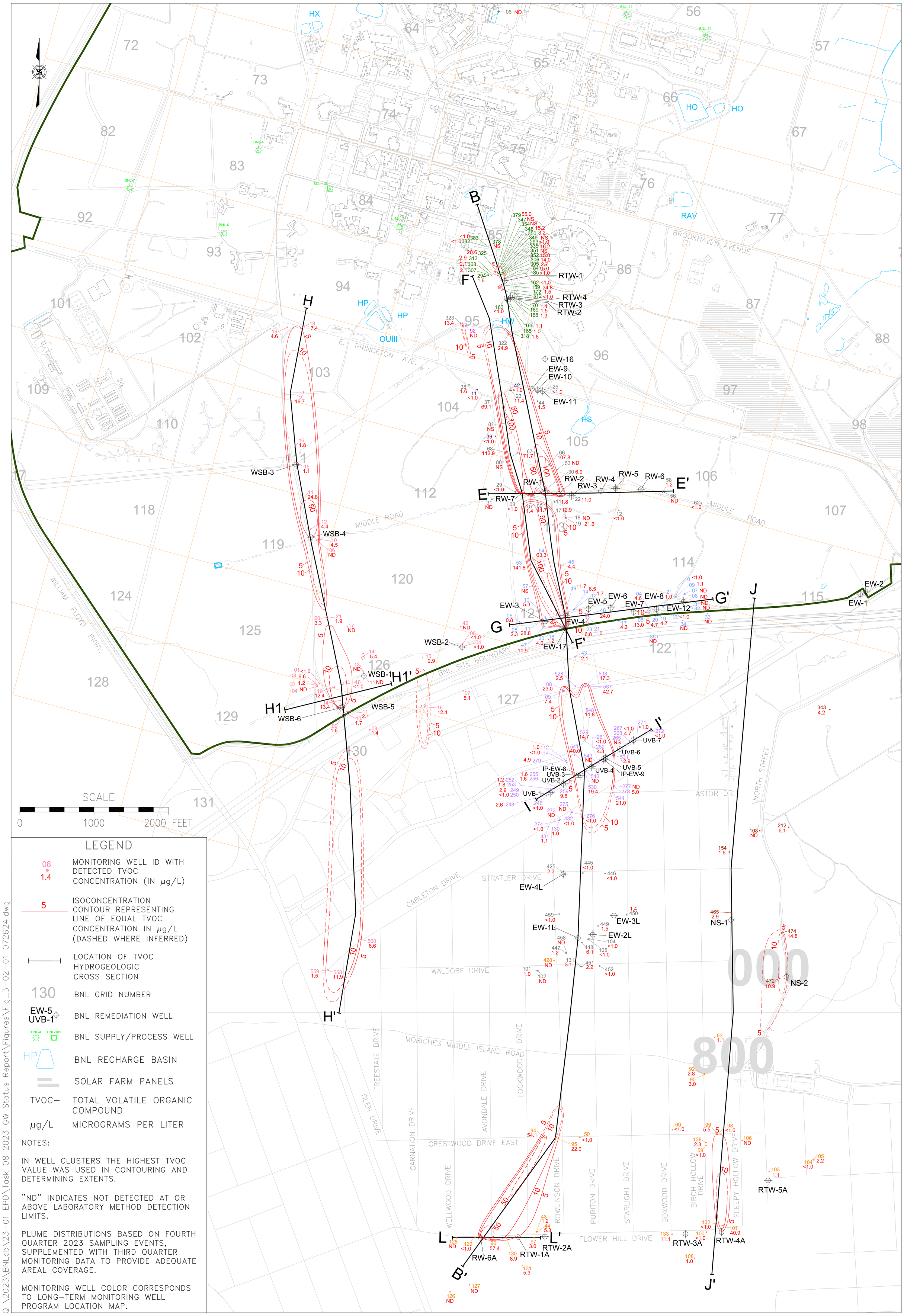
TITLE:

OU I SOUTH BOUNDARY/NORTH STREET EAST
TVOC PLUME COMPARISON
1997 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/29/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.1–8



LEGEND

- 08 / 1.4 — MONITORING WELL ID WITH DETECTED TVOC CONCENTRATION (IN µg/L)
- 5 — ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL TVOC CONCENTRATION IN µg/L (DASHED WHERE INFERRED)
- LOCATION OF TVOC HYDROGEOLOGIC CROSS SECTION
- 130 — BNL GRID NUMBER
- EW-5 / UVB-1 — BNL REMEDIATION WELL
- BNL-4 BNL-105 — BNL SUPPLY/PROCESS WELL
- HP — BNL RECHARGE BASIN
- SOLAR FARM PANELS
- TVOC — TOTAL VOLATILE ORGANIC COMPOUND
- µg/L — MICROGRAMS PER LITER

NOTES:

IN WELL CLUSTERS THE HIGHEST TVOC VALUE WAS USED IN CONTOURING AND DETERMINING EXTENTS.

"ND" INDICATES NOT DETECTED AT OR ABOVE LABORATORY METHOD DETECTION LIMITS.

PLUME DISTRIBUTIONS BASED ON FOURTH QUARTER 2023 SAMPLING EVENTS, SUPPLEMENTED WITH THIRD QUARTER MONITORING DATA TO PROVIDE ADEQUATE AREAL COVERAGE.

MONITORING WELL COLOR CORRESPONDS TO LONG-TERM MONITORING WELL PROGRAM LOCATION MAP.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

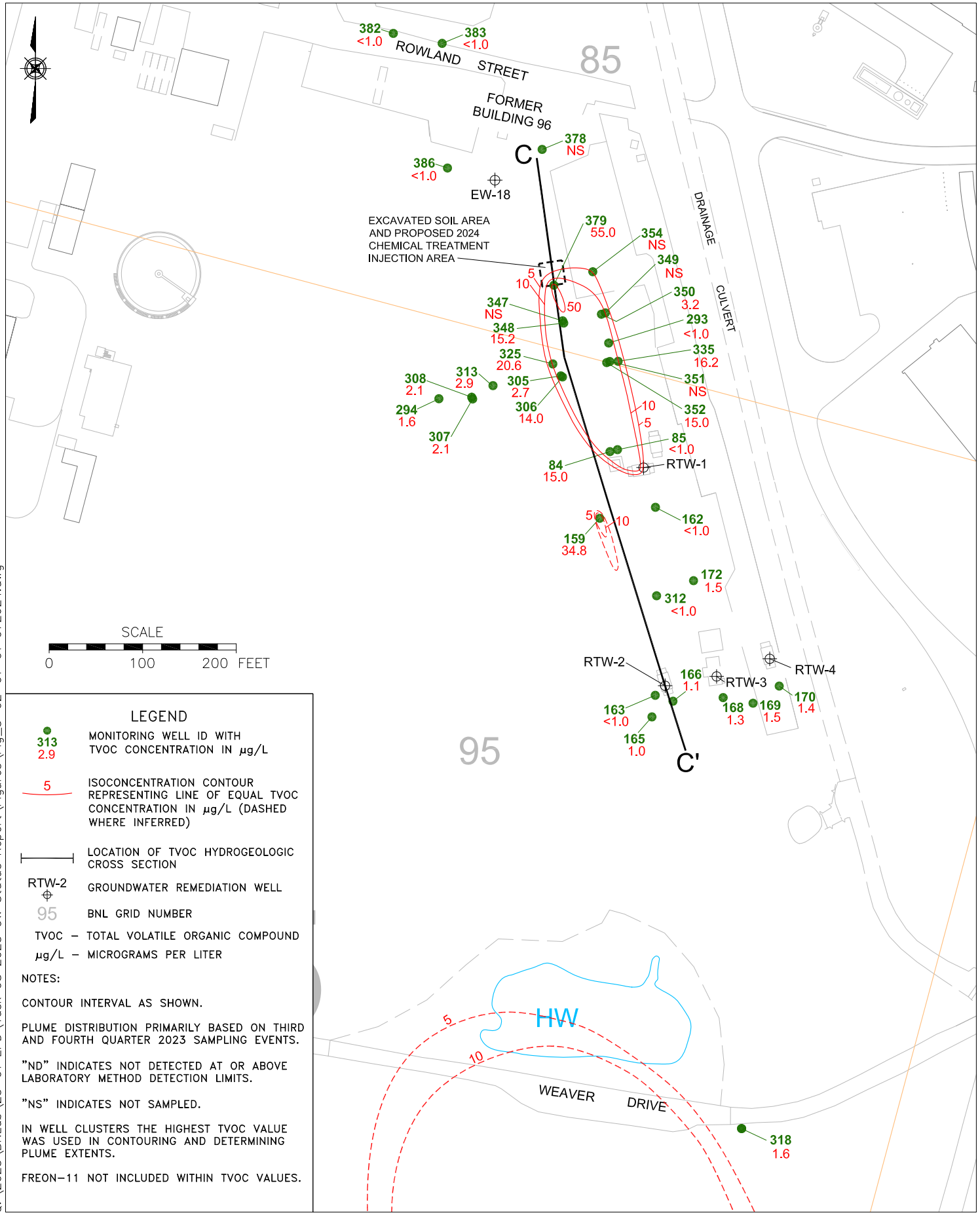
TITLE:

OU III/ OU IV/ NORTH STREET TVOC PLUME DISTRIBUTIONS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/27/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	

FIGURE NO.: 3.2-1



LEGEND

313 / 2.9 — MONITORING WELL ID WITH TVOC CONCENTRATION IN µg/L

5 — ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL TVOC CONCENTRATION IN µg/L (DASHED WHERE INFERRED)

LOCATION OF TVOC HYDROGEOLOGIC CROSS SECTION

RTW-2 — GROUNDWATER REMEDIATION WELL

95 — BNL GRID NUMBER

TVOC – TOTAL VOLATILE ORGANIC COMPOUND

µg/L – MICROGRAMS PER LITER

NOTES:

CONTOUR INTERVAL AS SHOWN.

PLUME DISTRIBUTION PRIMARILY BASED ON THIRD AND FOURTH QUARTER 2023 SAMPLING EVENTS.

"ND" INDICATES NOT DETECTED AT OR ABOVE LABORATORY METHOD DETECTION LIMITS.

"NS" INDICATES NOT SAMPLED.

IN WELL CLUSTERS THE HIGHEST TVOC VALUE WAS USED IN CONTOURING AND DETERMINING PLUME EXTENTS.

FREON-11 NOT INCLUDED WITHIN TVOC VALUES.

Q:\2023\BNLab\23-01 EPD\Task 08 2023 GW Status Report\Figures\Fig_3-02-01-01 072624.dwg

Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

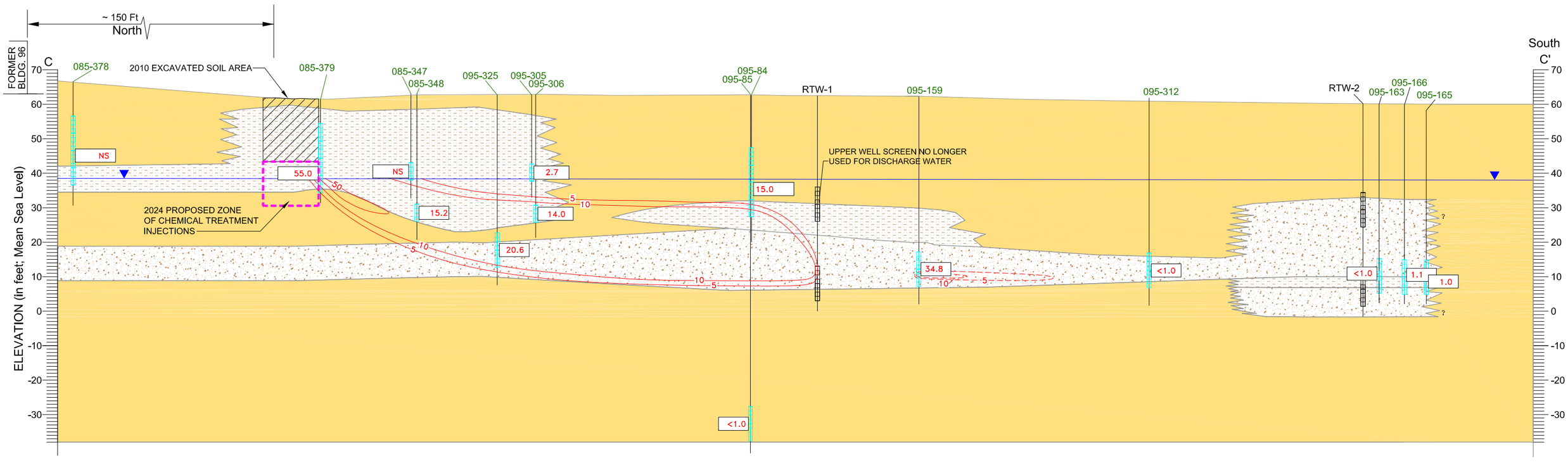
TITLE:

OU III BUILDING 96 AREA TVOC PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/29/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.1-1



LEGEND

Upper Glacial aquifer

Fine to coarse sand, trace to little silt and/or fine to medium gravel.

Very fine sand and/or silt, with silt and sand lenses interbedded.

Coarse to very coarse sand, with or without gravel or gravel with sand.

095-85 — BNL Monitoring Well ID

10.2 — TVOC Concentration (µg/L)

NS — Not Sampled

50 — TVOC Contour (µg/L) (Dashed Where Inferred)

RTW–1 — Recirculation Well

Monitoring Well Screen

Extraction Well Screen

Water Table As Of Aug 21 – Aug 25, 2023

TVOC – Total Volatile Organic Compound

µg/L – Micrograms Per Liter

PCE – Tetrachloroethylene

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep

095–84
095–85

NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON GEOLOGIC DATA FROM 1999, SUPPLEMENTED WITH LITHOLOGIC DATA COLLECTED JUNE AND NOV. 2004.

2) PLUME DISTRIBUTION BASED ON FOURTH QUARTER 2023 BLDG 96 SAMPLING EVENTS.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG–TERM MONITORING PROGRAM WELL LOCATION MAP.

HORIZONTAL SCALE
0 30 60
FEET

Q:\2023\BNLab\23-01 EPD\Task 08 2023 GW Status Report\Figures\Fig_3-02-01-02 072624.dwg

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

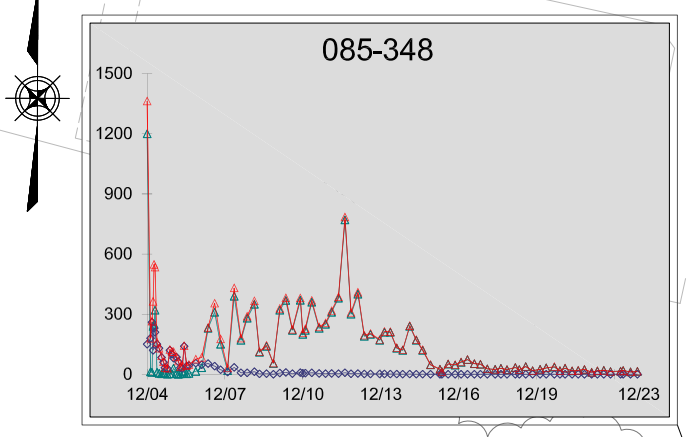
TITLE:

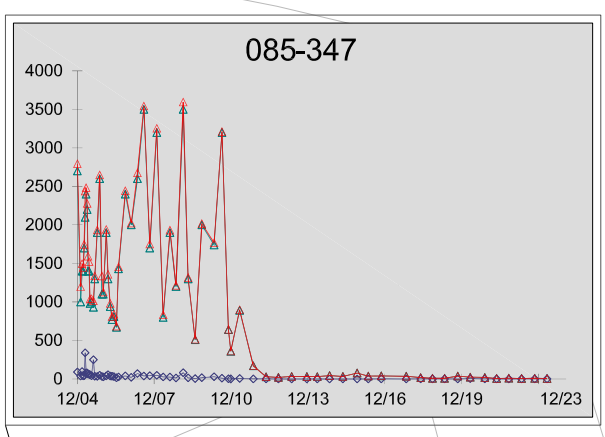
OU III BUILDING 96 AREA
TVOC HYDROGEOLOGIC CROSS SECTION (C–C')

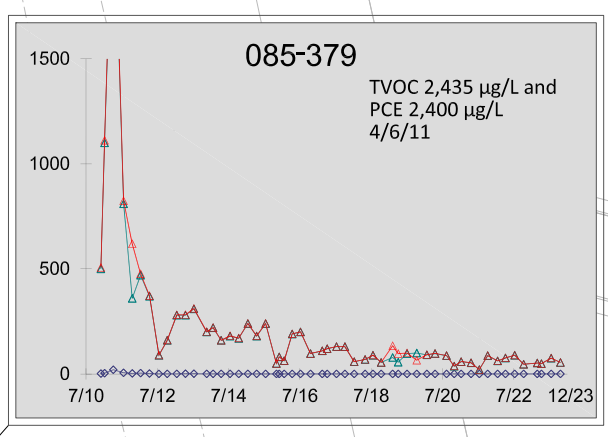
2023 BNL GROUNDWATER STATUS REPORT

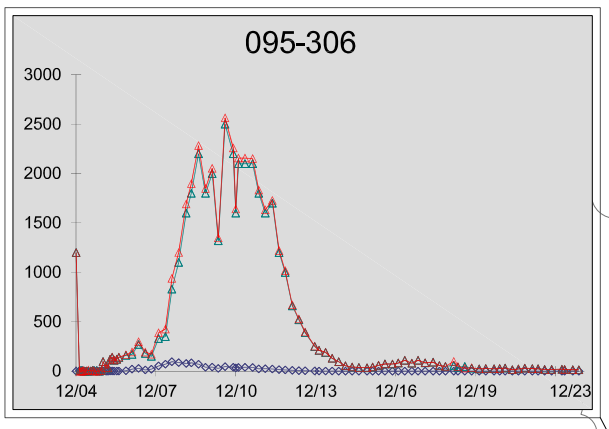
DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	1.5:1	02/29/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

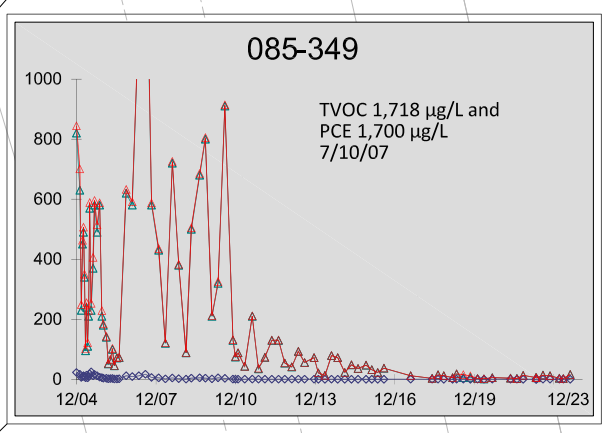
FIGURE NO.: 3.2.1–2











WOODED AREA

EXCAVATED SOIL AREA AND PROPOSED 2024 CHEMICAL TREATMENT INJECTION AREA

85

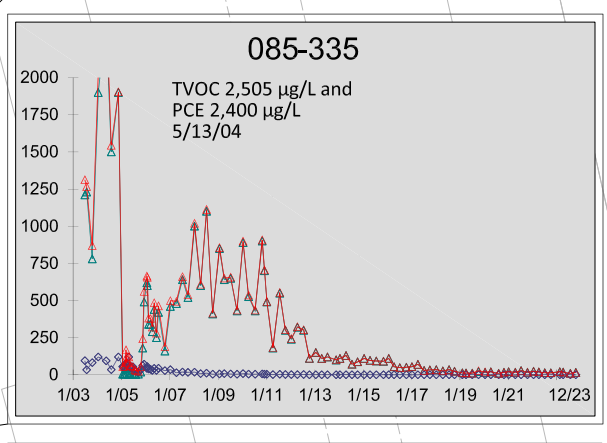
379

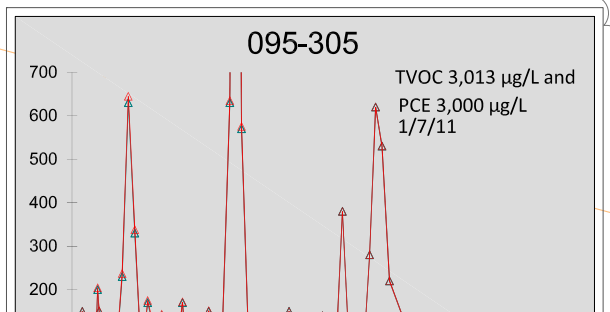
50

347

348

349





95

WOODED AREA

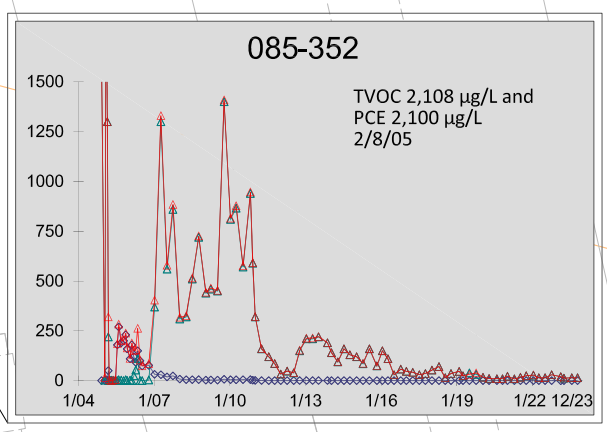
335

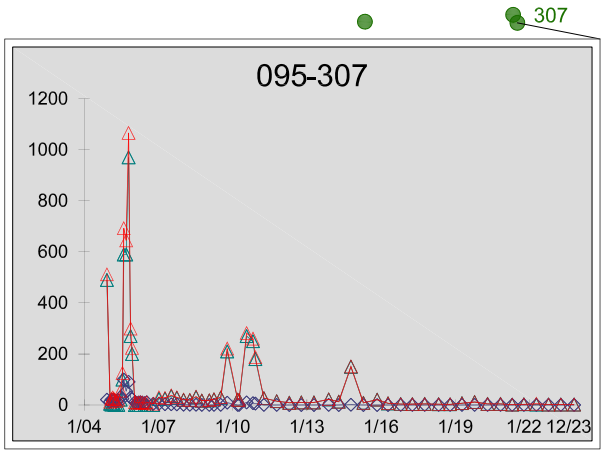
352

306

305

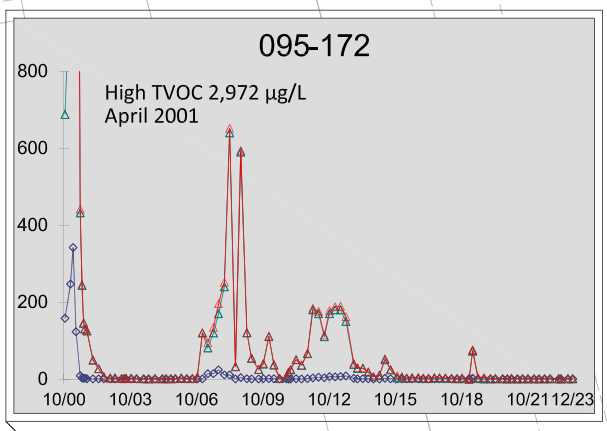
307





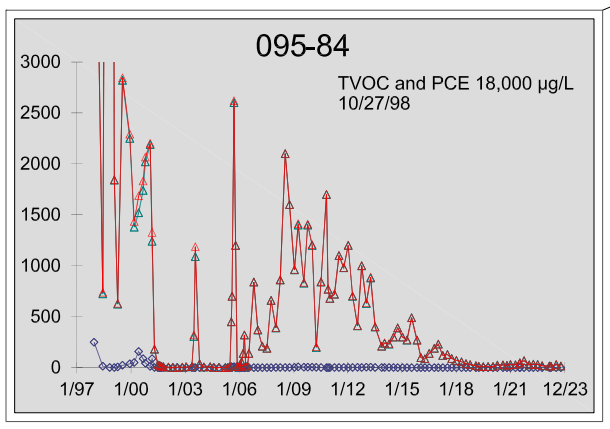
84

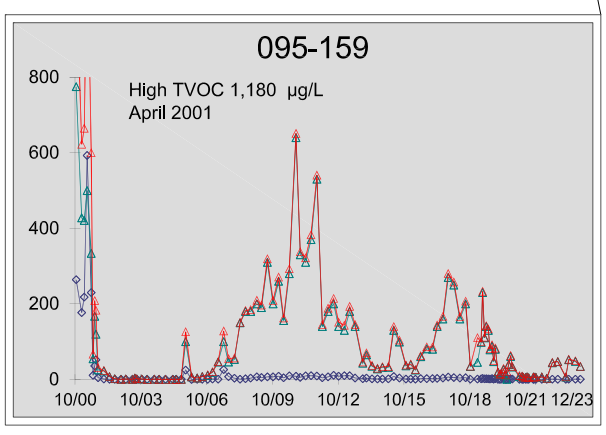
RTW-1
TREATMENT BUILDING FOR RTW-1



159

172





RTW-2

RTW-3

RTW-4

SCALE IN FEET
0 30 60

LEGEND

84 MONITORING WELL ID

50 EXTENT OF TVOC PLUME BASED ON 50 µg/L (DASHED WHERE INFERRED)

95 BNL GRID NUMBER

TVOC – TOTAL VOLATILE ORGANIC COMPOUND

µg/L – MICROGRAMS PER LITER

TVOC

TETRACHLOROETHYLENE (PCE)

1,1,1–TRICHLOROETHANE

CONCENTRATION (IN µg/L)

DATE (MONTH/YEAR)

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III BUILDING 96 AREA HISTORICAL VOC TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VS: HS.:	DATE:	PROJECT NO.:
AJZ	–	02/29/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.1–3

Figure 3.2.1-4
OU III Building 96 Area
Extraction Well TVOC Concentrations

2023 BNL Groundwater Status Report

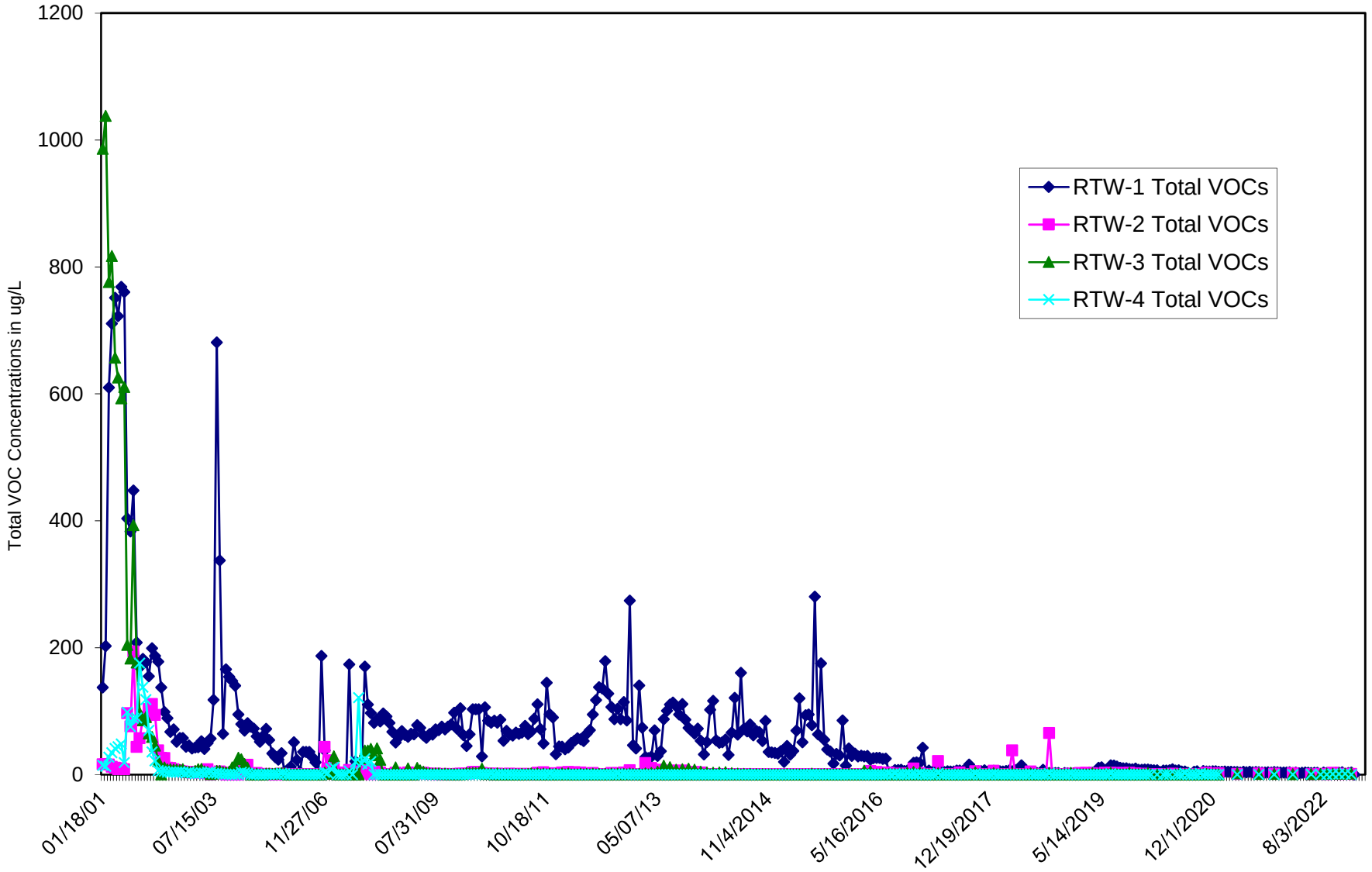
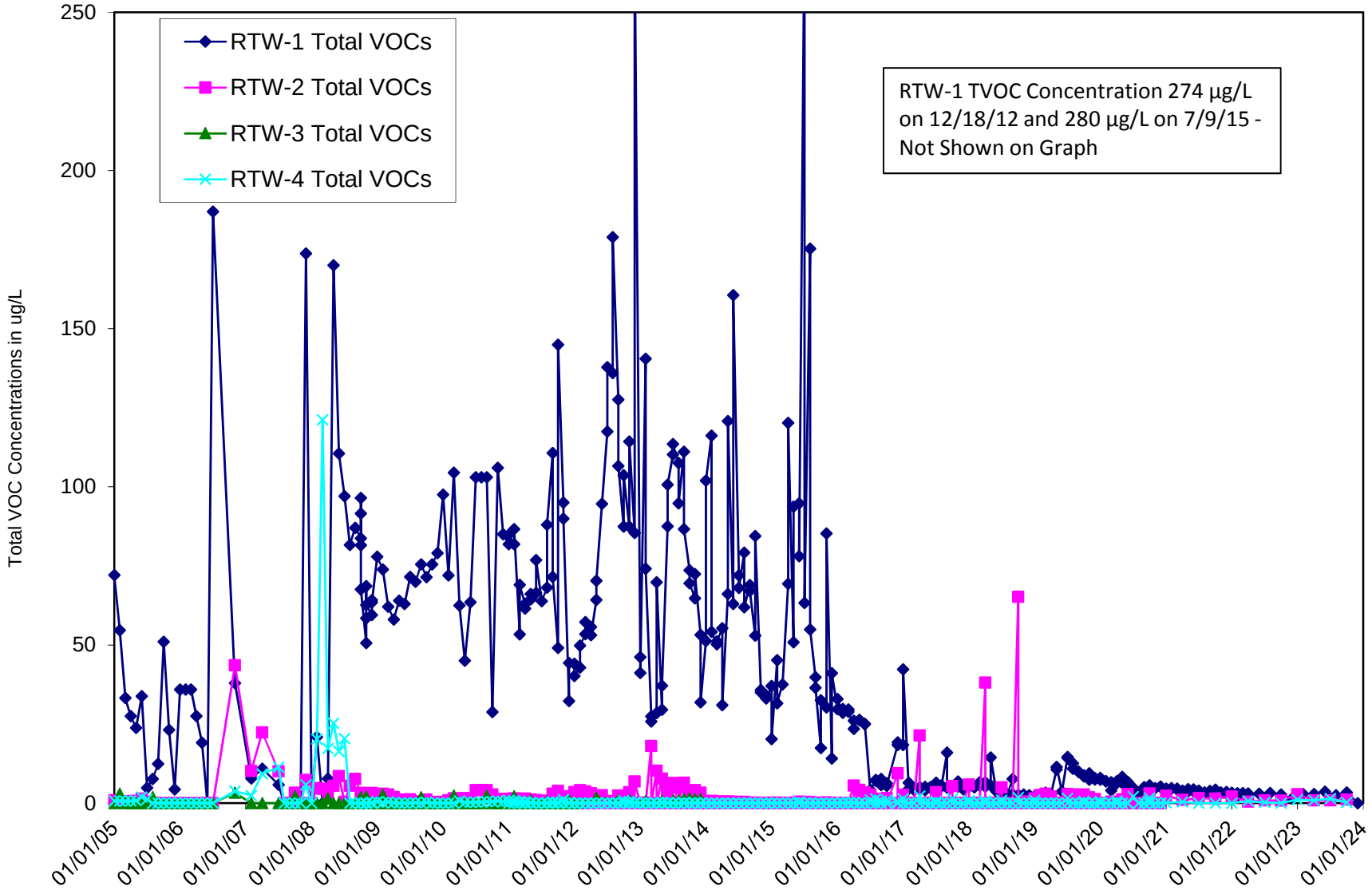


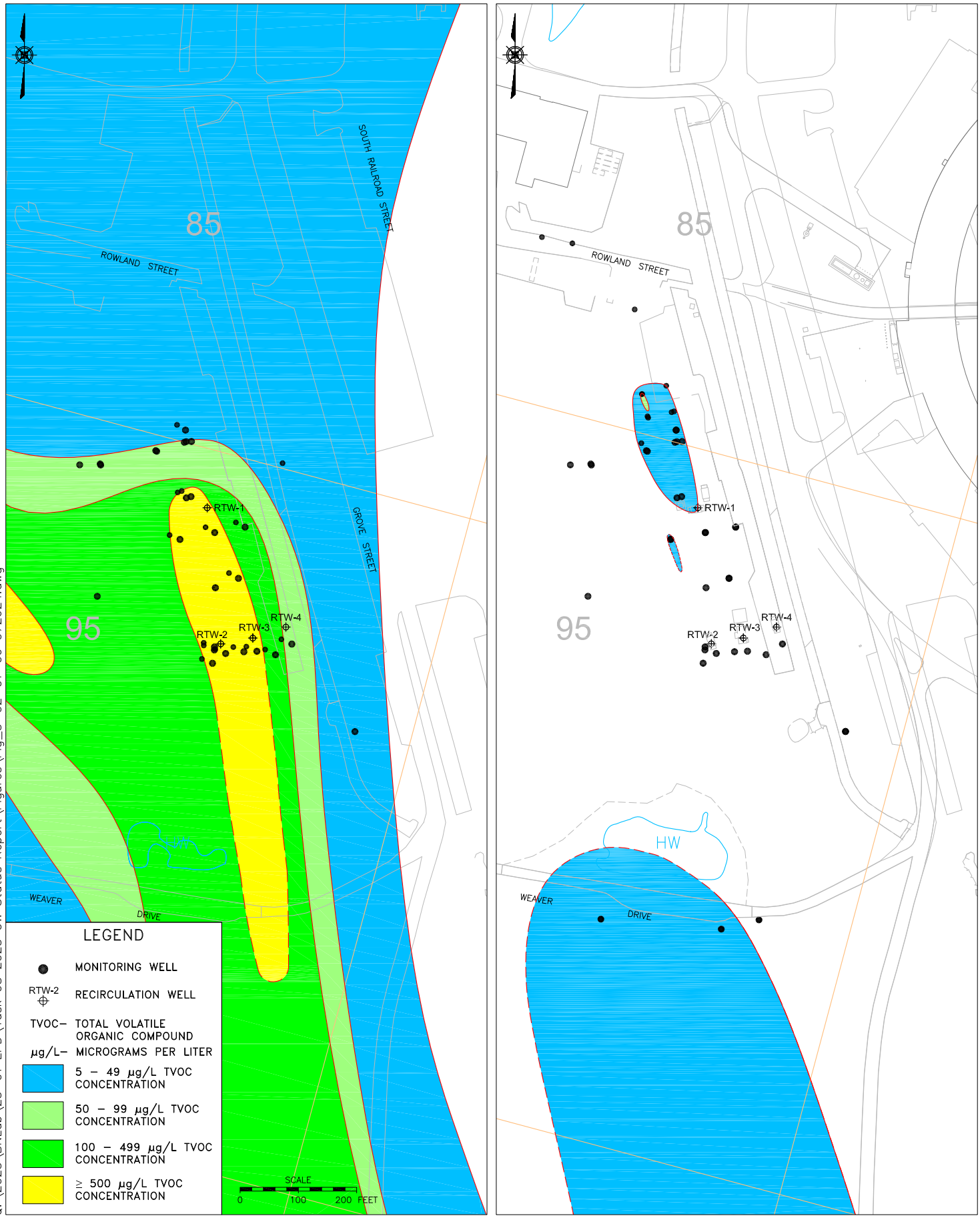
Figure 3.2.1-5
OU III Building 96 Area
Extraction Well TVOC Concentrations From January 1, 2005

2023 BNL Groundwater Status Report



2000 TVOC PLUME DISTRICTION

2023 TVOC PLUME DISTRICTION



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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III BUILDING 96 AREA TVOC PLUME COMPARISON 2000–2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/29/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.1–6

NORTH
B

BROOKHAVEN AVENUE

BUILDING 96

WEAVER DRIVE

MIDDLE ROAD

PRINCETON AVENUE

BNL SITE BOUNDARY

CARLETON DRIVE

WALDORF DRIVE

MORICHES/MIDDLE ISLAND ROAD

FLOWER HILL DRIVE

SOUTH
B'

085-347
085-351
095-84
RTW-3
095-166
095-318
095-322
105-42
105-23
105-67
RW-1
RW-2
RW-3
113-07
113-09
113-30
113-17
121-14
121-49
121-54
EW-4
121-20
EW-17
121-43
000-528
127-09
127-08
000-529
000-275
000-276
000-432
UVB-3
IP-EW-8
000-530
000-542
000-541
000-273
000-274
000-130
000-445
EW-4L
000-459
EW-1L
000-447
000-458
WALDORF DRIVE
000-451
000-131
800-95
800-94
RW-6A
800-129
800-96

NS NS 15.0 1.1 1.6 1.4 <1.0 11.4 24.9 71.7 6.9 41.7 12.9 63.3 11.7 6.5 4.0 2.1 2.5 7.4 23.0 14.7 40.0 19.4 ND <1.0 ND <1.0 1.0 2.2 1.2 3.1 <1.0 ND 22.0 54.1 57.4 <1.0

ELEVATION (In Feet; Mean Sea Level)

100
50
0
−50
−100
−150
−200
−250

LEGEND

Upper Glacial aquifer
- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay
- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer
- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undiff)
- MO Magothy – OTHER

HORIZONTAL SCALE
0 500 1000 FEET

- 000-114 BNL Well ID
- 1.84 TVOC Concentration (µg/L)
- ND Not detected at or above laboratory method detection limits
- NS Not Sampled
- 50 TVOC Contour (µg/L) (Dashed Where Inferred)
- Monitoring Well Screen
- Extraction Well Screen
- Water Table As Of Aug 21 – Aug 25, 2023

TVOC – Total Volatile Organic Compound

µg/L – Micrograms Per Liter

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep

121-13
121-14
121-49

NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS, 2001 PREDESIGN CHARACTERIZATION, AND WELL 105-22 SAMPLING EVENT APRIL 2005.

2) PLUME DISTRIBUTION IS BASED ON FOURTH QUARTER 2023 OU III SAMPLING EVENT. THIS DATA IS SUPPLEMENTED WITH SAMPLING EVENTS FOR BGRR, BUILDING 96, INDUSTRIAL PARK, MIDDLE ROAD, AND OFFSITE CHARACTERIZATION DATA.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG-TERM MONITORING WELL LOCATION MAP.

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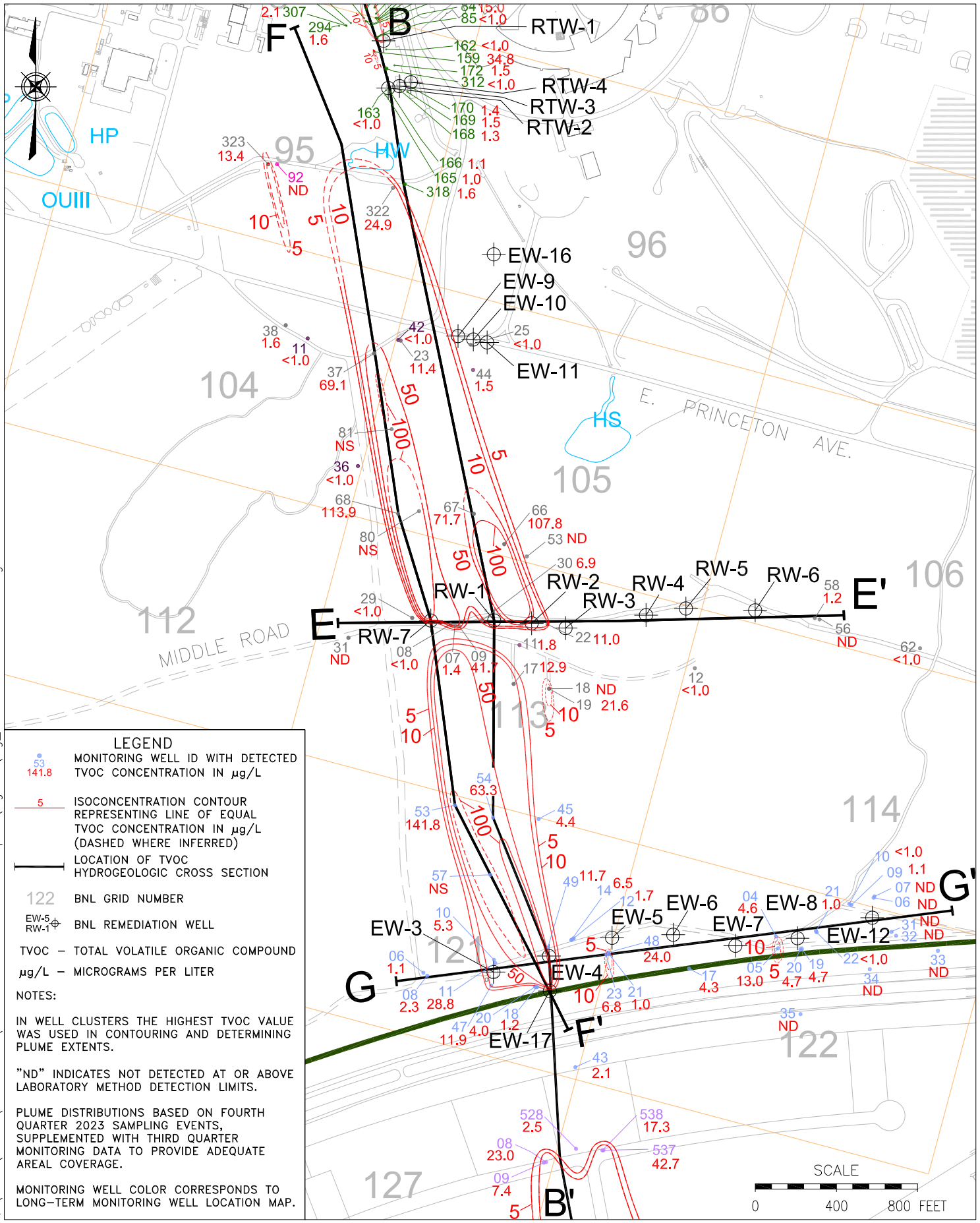
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III
TVOC HYDROGEOLOGIC CROSS SECTION (B–B')
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	20:1	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2-2



LEGEND

- MONITORING WELL ID WITH DETECTED TVOC CONCENTRATION IN µg/L
- ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL TVOC CONCENTRATION IN µg/L (DASHED WHERE INFERRED)
- LOCATION OF TVOC HYDROGEOLOGIC CROSS SECTION
- BNL GRID NUMBER
- BNL REMEDIATION WELL
- TVOC – TOTAL VOLATILE ORGANIC COMPOUND
- µg/L – MICROGRAMS PER LITER

NOTES:

IN WELL CLUSTERS THE HIGHEST TVOC VALUE WAS USED IN CONTOURING AND DETERMINING PLUME EXTENTS.

"ND" INDICATES NOT DETECTED AT OR ABOVE LABORATORY METHOD DETECTION LIMITS.

PLUME DISTRIBUTIONS BASED ON FOURTH QUARTER 2023 SAMPLING EVENTS, SUPPLEMENTED WITH THIRD QUARTER MONITORING DATA TO PROVIDE ADEQUATE AREAL COVERAGE.

MONITORING WELL COLOR CORRESPONDS TO LONG-TERM MONITORING WELL LOCATION MAP.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

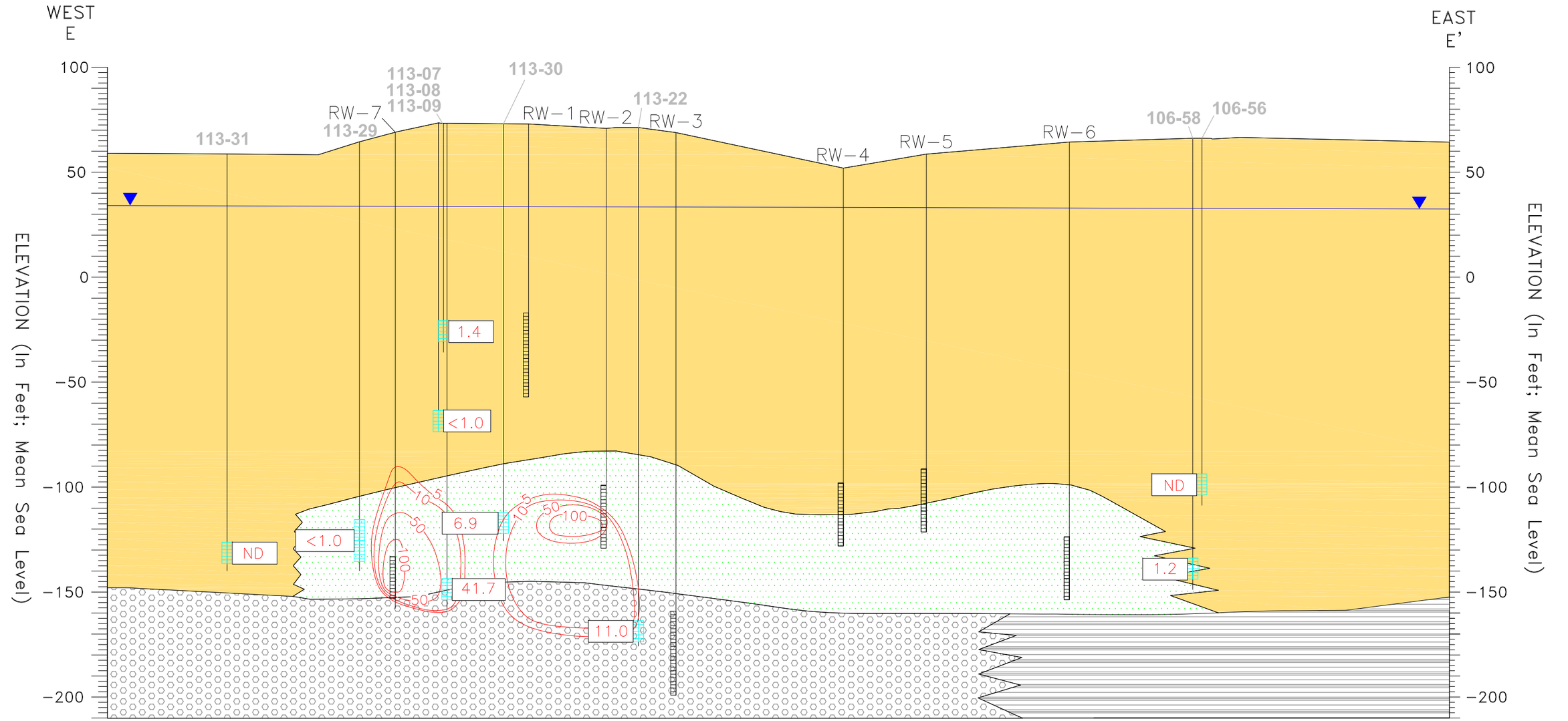
TITLE:

OU III MIDDLE ROAD AREA, TVOC PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/22/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.2-1



LEGEND

Upper Glacial aquifer

- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay

- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer

- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undifferentiated)
- MO Magothy – OTHER

HORIZONTAL SCALE
0 100 200 FEET

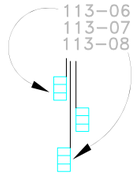
RW−1	Extraction Well
113−06	BNL Well ID
ND	Indicates not detected at or above laboratory method detection limits
NS	not sampled
1.84	TVOC Concentration (µg/L)
5	TVOC Contour (µg/L) (Dashed Where Inferred)

Water Table As Of Aug 21 – Aug 25, 2023

Monitoring Well Screen

Extraction Well Screen

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep



NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS.

2) PLUME DISTRIBUTION BASED ON FOURTH QUARTER 2023 OU III SAMPLING EVENTS.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG−TERM MONITORING PROGRAM WELL LOCATION MAP.

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III MIDDLE ROAD AREA
TVOC HYDROGEOLOGIC CROSS SECTION (E−E')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	5:1	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–
FIGURE NO.:			
3.2.2−2			

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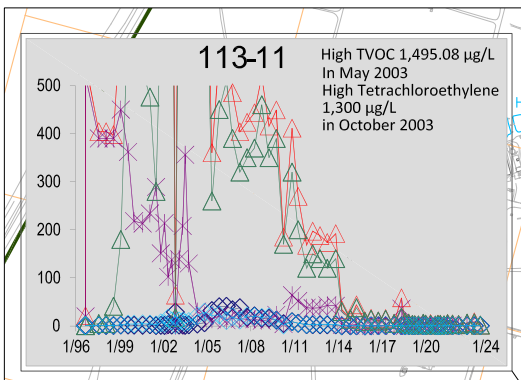

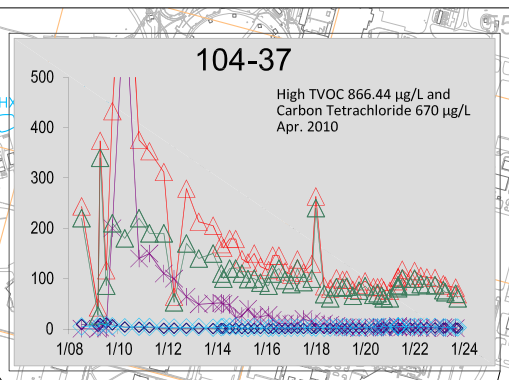

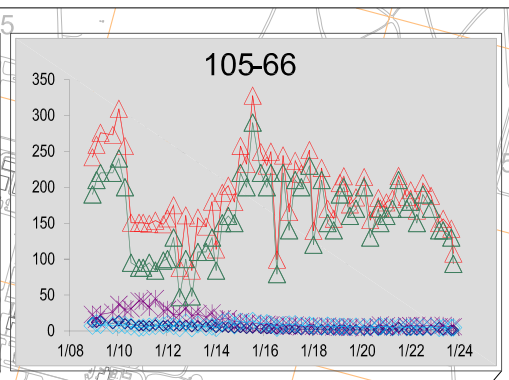

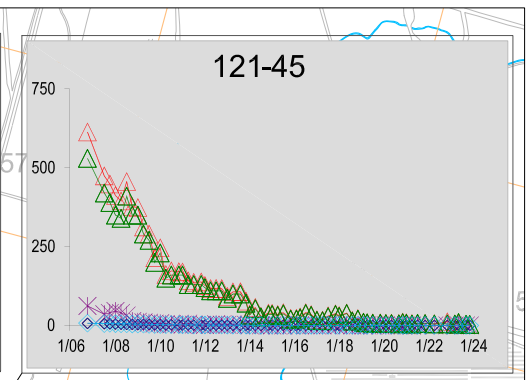

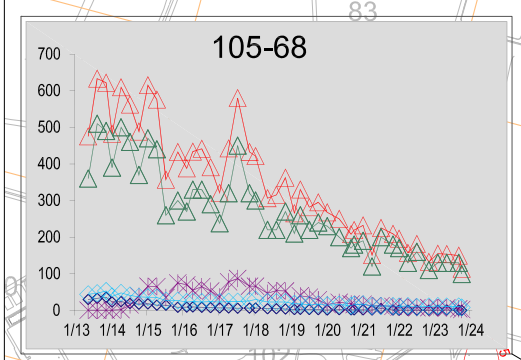

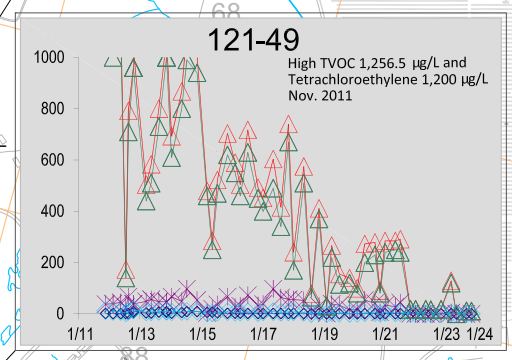

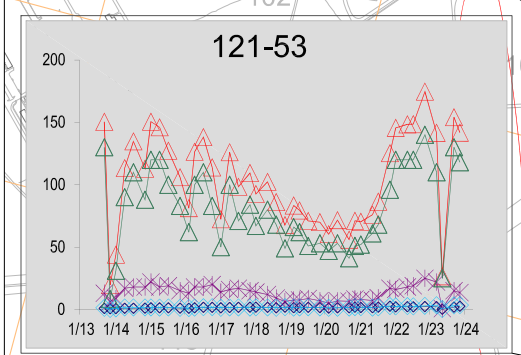

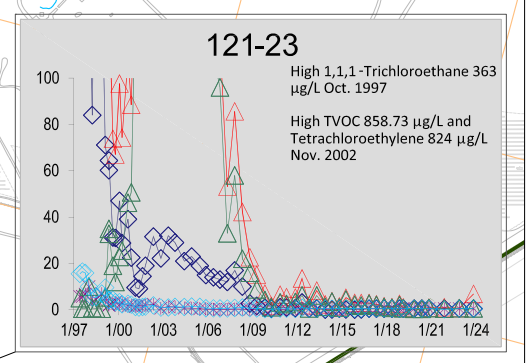

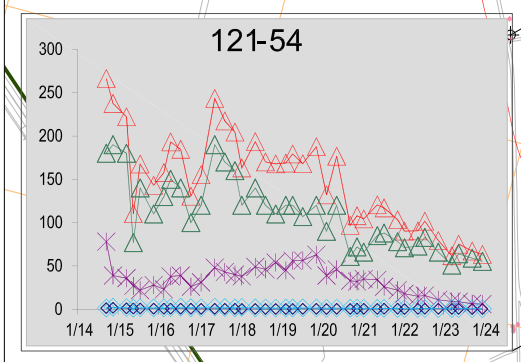

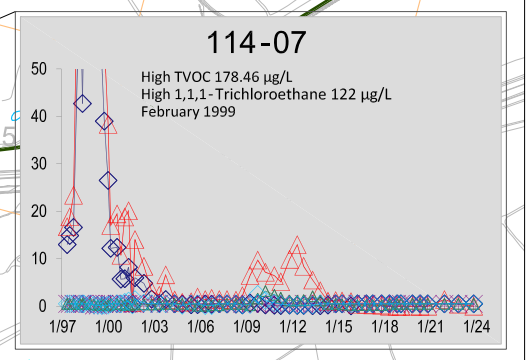

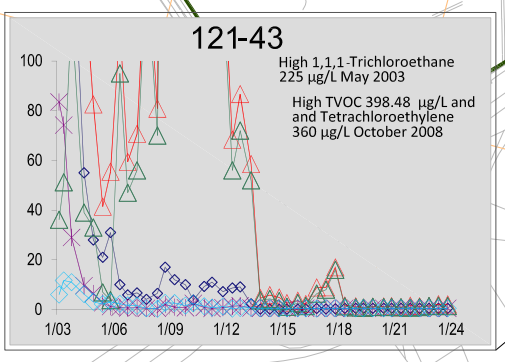

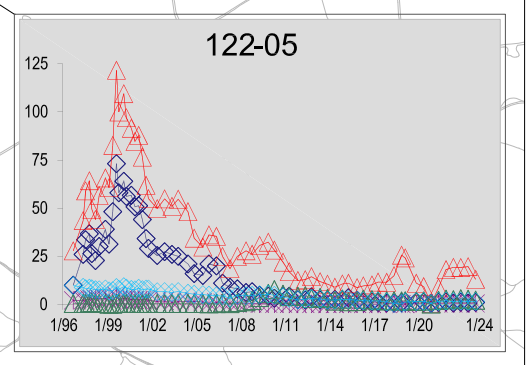

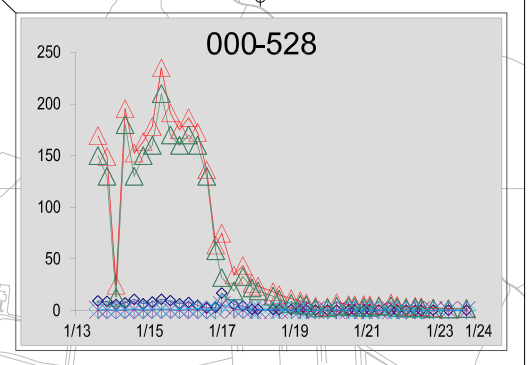

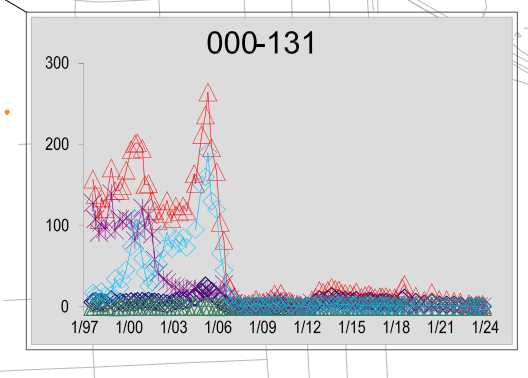

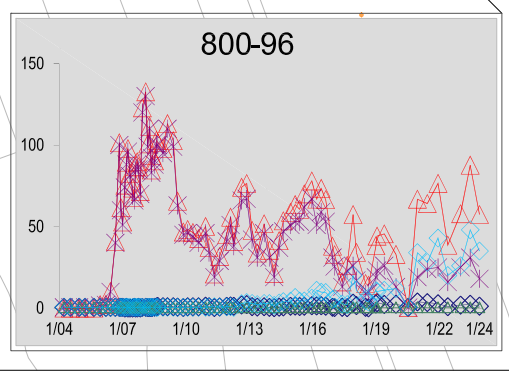

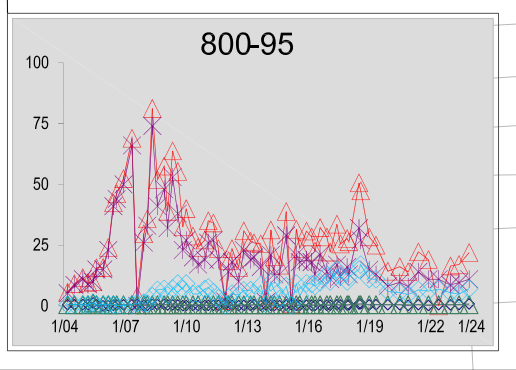

EW-18
RTW-1
RTW-4
RTW-3
RTW-2
EW-16
EW-9
EW-10
EW-11
RW-7
RW-2
RW-1
RW-3
RW-4
RW-5
RW-6
EW-4
EW-5
EW-6
EW-7
EW-8
EW-12
EW-3
EW-17
WSB-4
WSB-2
WSB-1
WSB-5
WSB-6
UVB-7
UVB-6
UVB-5
UVB-4
UVB-3
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UVB-1
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EW-3L
EW-1L
EW-2L
NS-1
NS-2
NSE-2
RTW-5A
RW-6A
RTW-1A
RTW-2A
RTW-3A
RTW-4A
RA V BASIN
OU III BASIN
HP
HW
HX
BROOKHAVEN AVENUE
E. PRINCETON AVE.
MIDDLE ROAD
CARLETON DRIVE
I 495 (L.I.E.)
FLOWER HILL DRIVE
MORICHES MIDDLE ISLAND ROAD

SCALE
0 750 1500 FEET

LEGEND

- 06 — MONITORING WELL ID
- 5 — EXTENT OF TVOC PLUME BASED ON 5 µg/L ISOCONTOUR
- 105 — BNL GRID NUMBER
- EW-5 — BNL REMEDIATION WELL
- RA V — BNL RECHARGE BASIN
- SOLAR FARM PANELS

TVOC – TOTAL VOLATILE ORGANIC COMPOUND

µg/L – MICROGRAM PER LITER

- TVOC
- 1,1,1–TRICHLOROETHANE
- CARBON TETRACHLORIDE
- TETRACHLOROETHYLENE
- TRICHLOROETHYLENE

CONCENTRATION (IN µg/L)
DATE (MONTH/YEAR)

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III AND OU IV PLUME(S) HISTORICAL VOC TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/22/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.2-3

NORTH
F

SOUTH
F'

WEAVER DRIVE
BROOKHAVEN AVENUE
PRINCETON AVENUE
MIDDLE ROAD
BNL SITE BOUNDARY
RW-7
EW-17
104–37
105–81
105–80
105–68
113–07
113–09
121–57
121–53

ELEVATION (In Feet; Mean Sea Level)

100
50
0
−50
−100
−150
−200

1.4
NS
69.1
113.9
41.7
141.8
5
10
50
100

LEGEND

Upper Glacial aquifer
- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay
- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer
- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undiff)
- MO Magothy – OTHER

- 121–53 BNL Well ID
- 1.84 TVOC Concentration (µg/L)
- ND Not detected at or above laboratory method detection limits
- NS Not Sampled
- —50— TVOC Contour (µg/L) (Dashed Where Inferred)
- Monitoring Well Screen
- Extraction Well Screen
- Water Table As Of Aug 21 – Aug 25, 2023

TVOC – Total Volatile Organic Compound

µg/L – Micrograms Per Liter

HORIZONTAL SCALE
0 500 1000 FEET

NOTES:
1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS, 2001 PREDESIGN CHARACTERIZATION, AND WELL 105–22 SAMPLING EVENT APRIL 2005.

2) PLUME DISTRIBUTION IS BASED ON FOURTH QUARTER 2023 OU III SAMPLING EVENT.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG–TERM MONITORING WELL LOCATION MAP.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III MIDDLE ROAD AREA
TVOC HYDROGEOLOGIC CROSS SECTION (F–F')
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	5:1	02/29/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.2–4

Figure 3.2.2-5
OU III Middle Road Groundwater Remediation System
Cumulative VOC Mass Removed

2023 BNL Groundwater Status Report

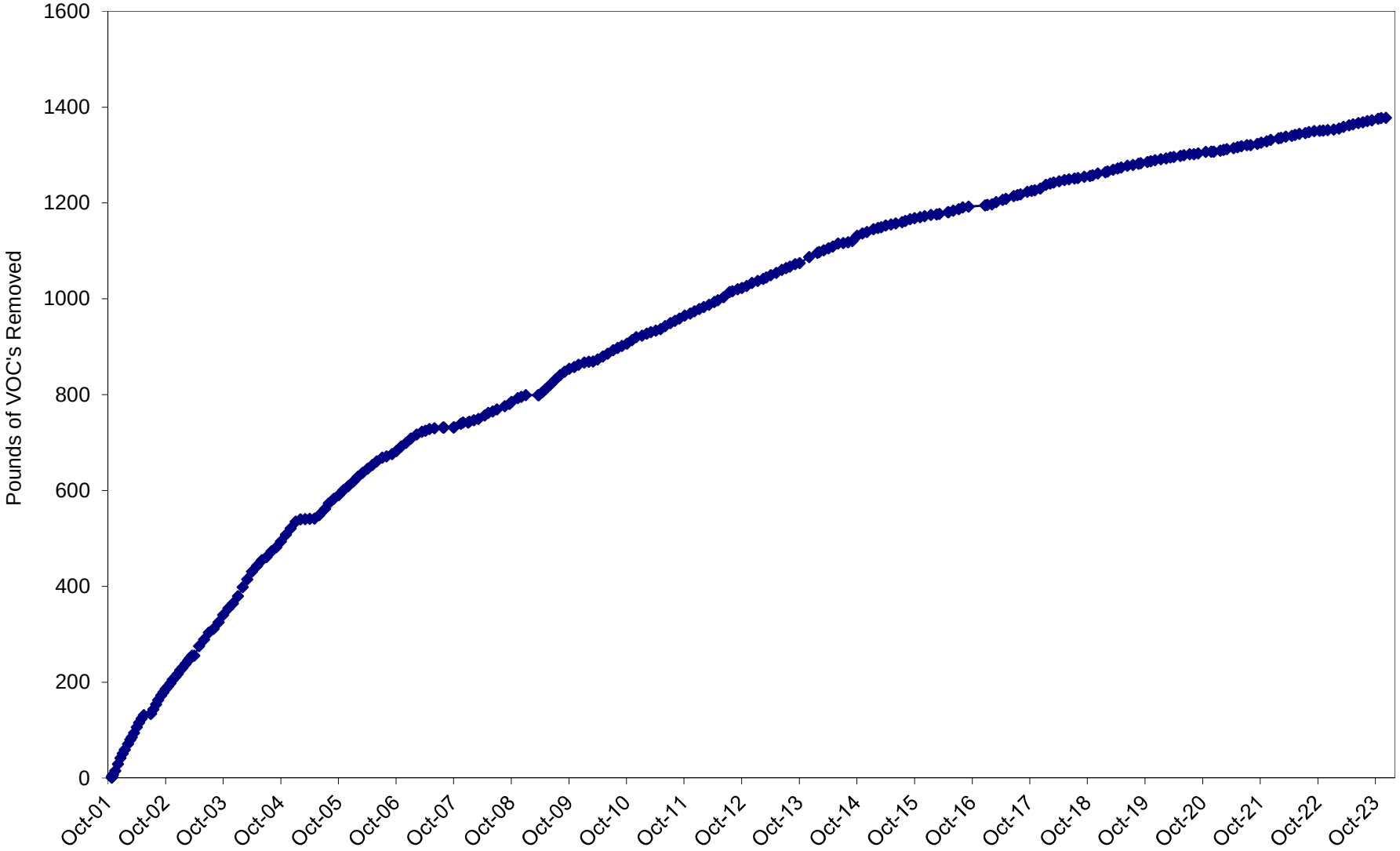
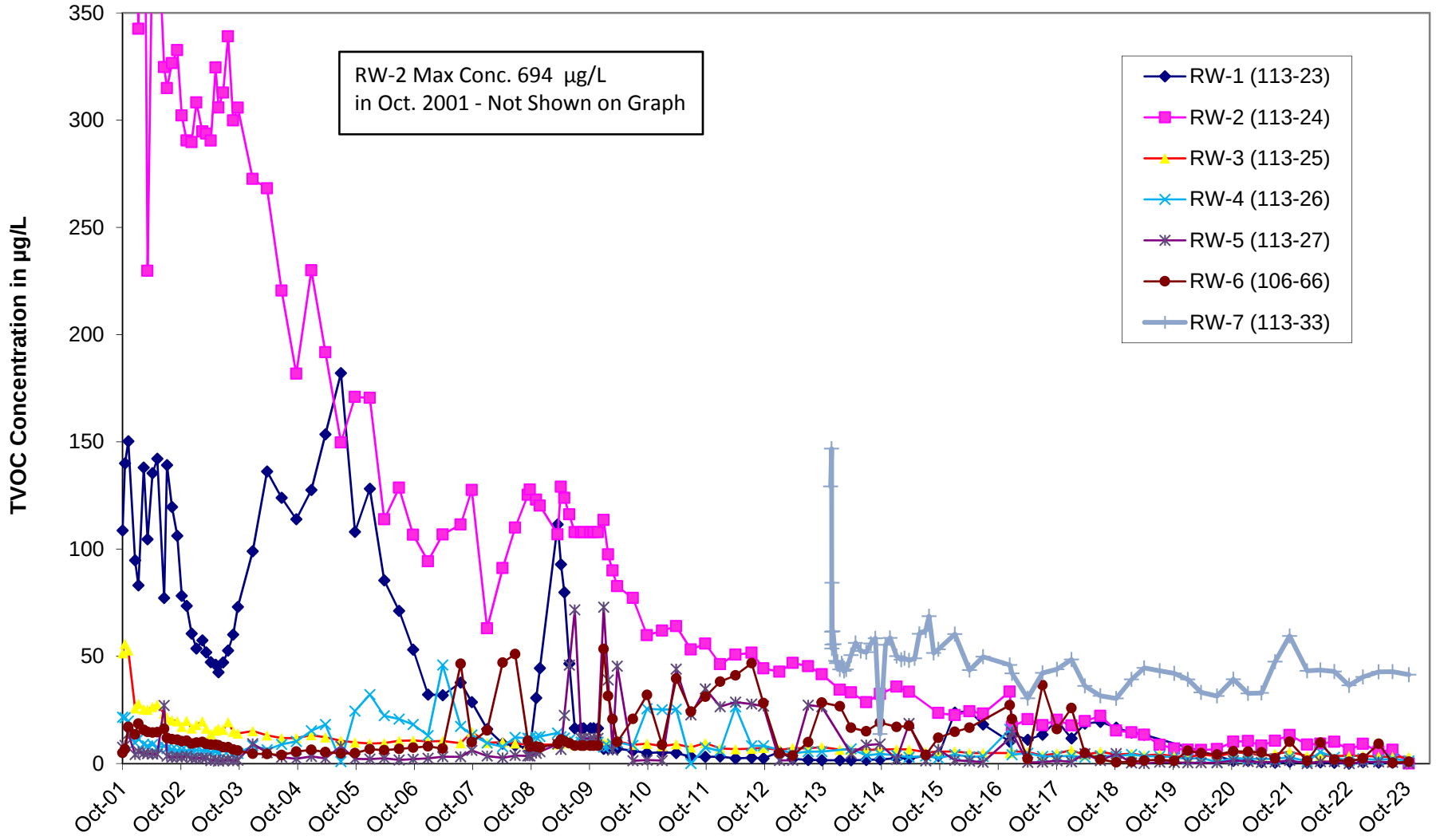


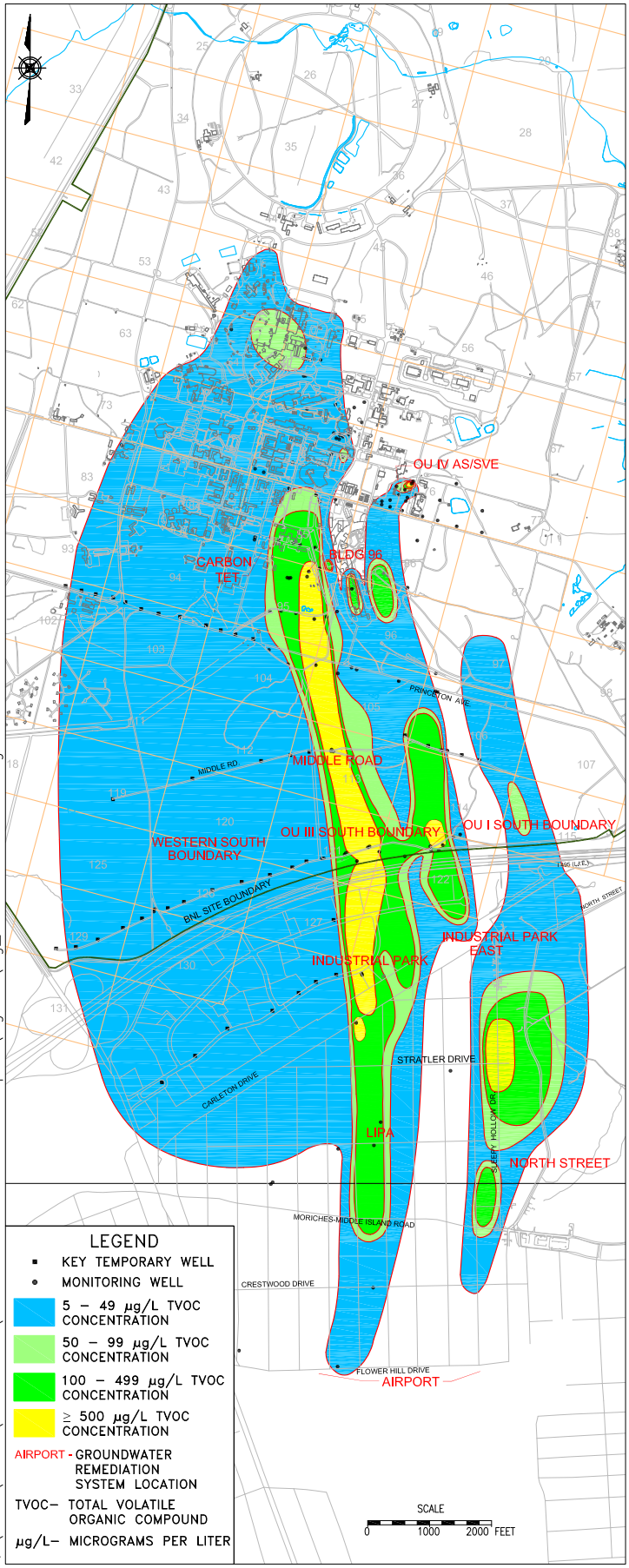
Figure 3.2.2-6
OU III Middle Road Groundwater Remediation System
Total Volatile Organic Compounds in Recovery Wells

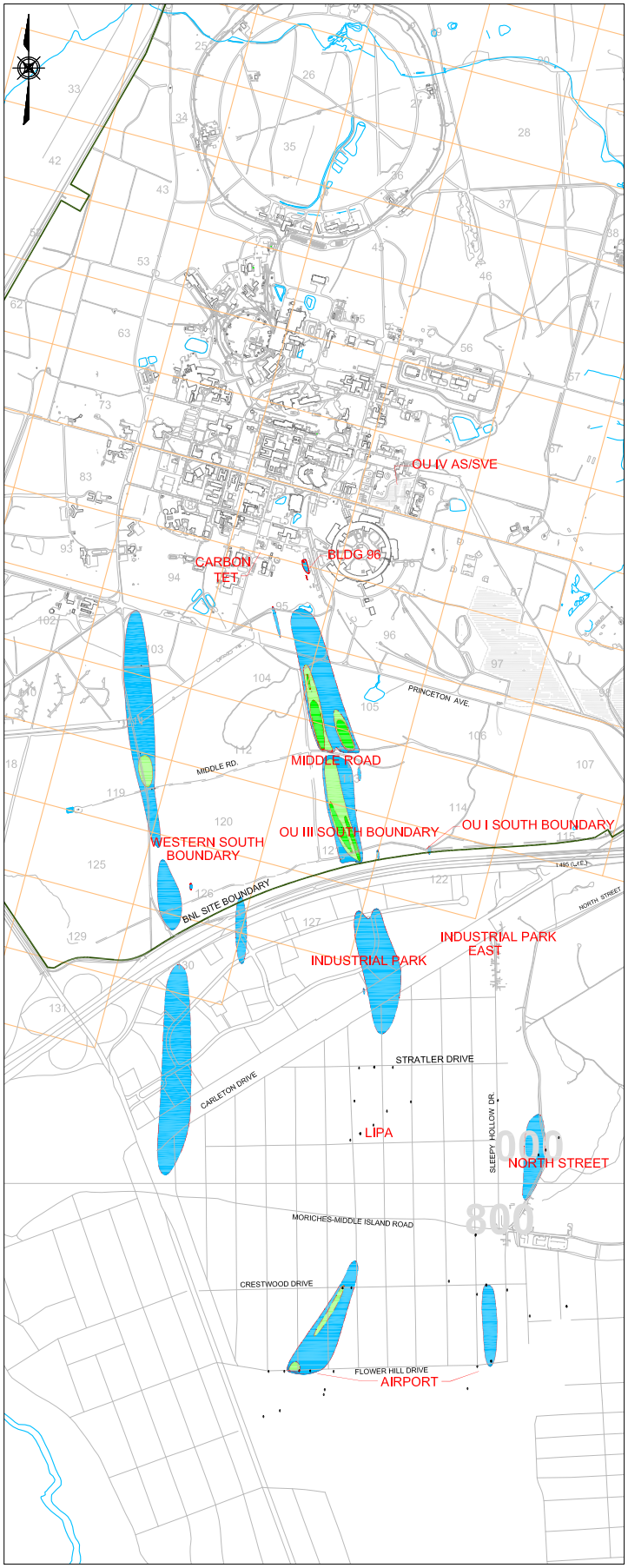
2023 BNL Groundwater Status Report



1997 TVOC PLUME DISTRIBUTION

2023 TVOC PLUME DISTRIBUTION





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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

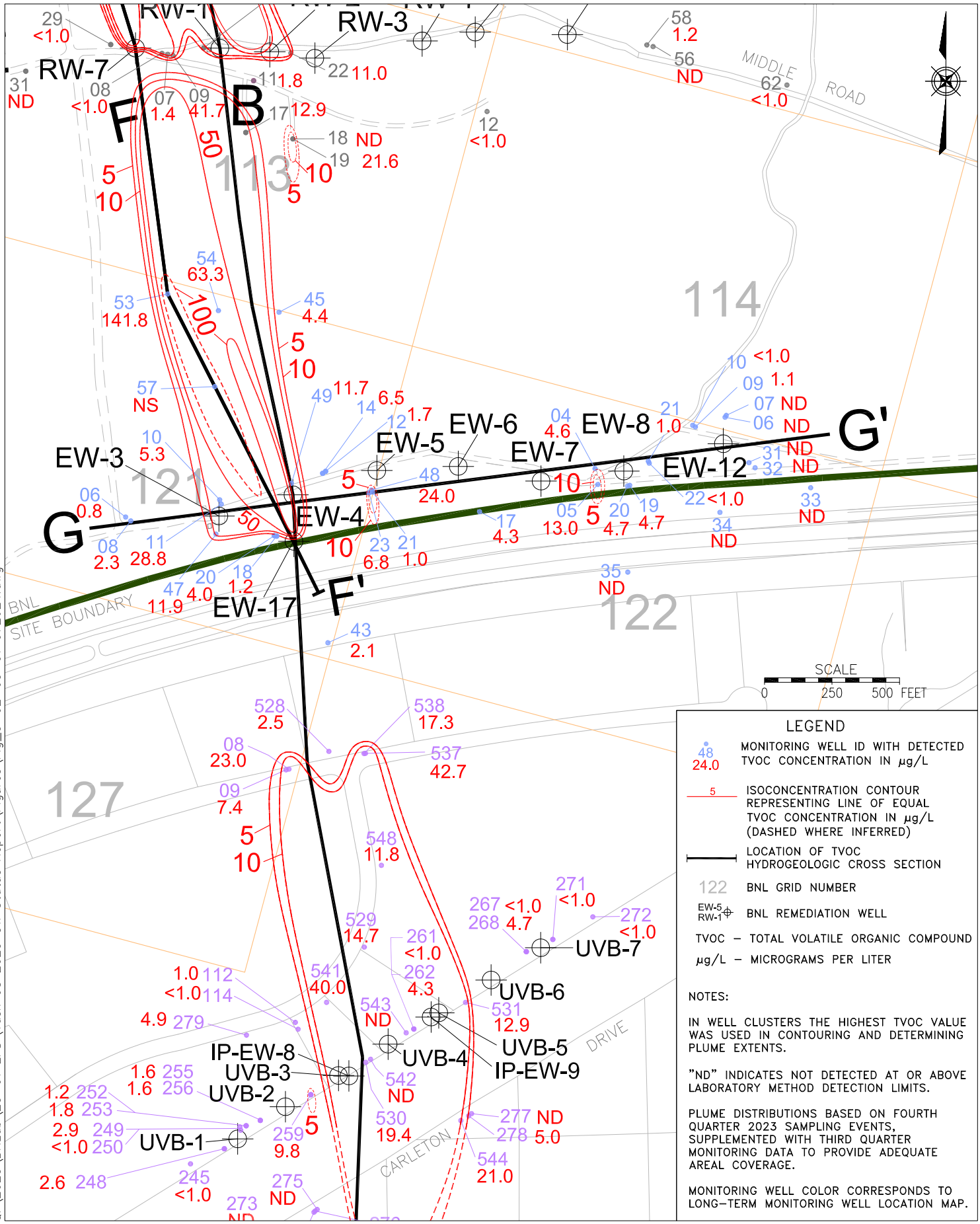
TITLE:

OU III / OU IV / NORTH STREET TVOC PLUME COMPARISON 1997 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2-3



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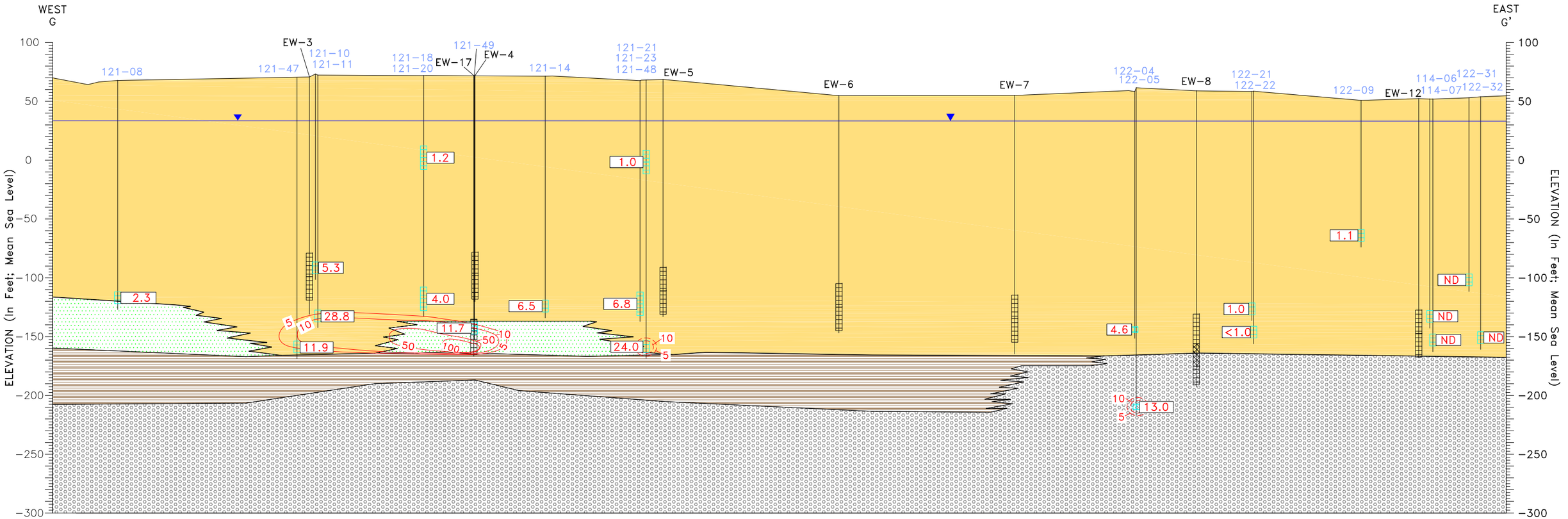
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
OU III AND OU IV SOUTH BOUNDARY/ INDUSTRIAL PARK AREAS, TVOC PLUME DISTRIBUTION
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.3-1



LEGEND

Upper Glacial aquifer

- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay

- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer

- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undiff)
- MO Magothy – OTHER

121−07 — BNL Well ID

21.62 — TVOC Concentration (µg/L)

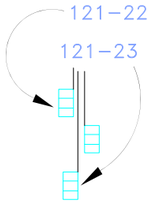
50 — TVOC Contour (µg/L) (Dashed Where Inferred)

ND — Indicates not detected at or above laboratory method detection limits

Monitoring Well Screen

Extraction Well Screen

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep



Water Table As Of Aug 21 – Aug 25, 2023

TVOC – Total Volatile Organic Compound

µg/L – Micrograms Per Liter

HORIZONTAL SCALE
0 50 100 FEET

NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS.

2) PLUME DISTRIBUTION IS BASED ON FOURTH QUARTER 2023, SUPPLEMENTED BY THIRD QUARTER OU III SAMPLING EVENTS.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG−TERM MONITORING PROGRAM COLOR CODE.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III SOUTH BOUNDARY AREA
TVOC HYDROGEOLOGIC CROSS SECTION (G−G')
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	2:1	03/27/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.3−2

Figure 3.2.3-3
OU III South Boundary Groundwater Remediation System
Total Volatile Organic Compounds in Extraction Wells

2023 BNL Groundwater Status Report

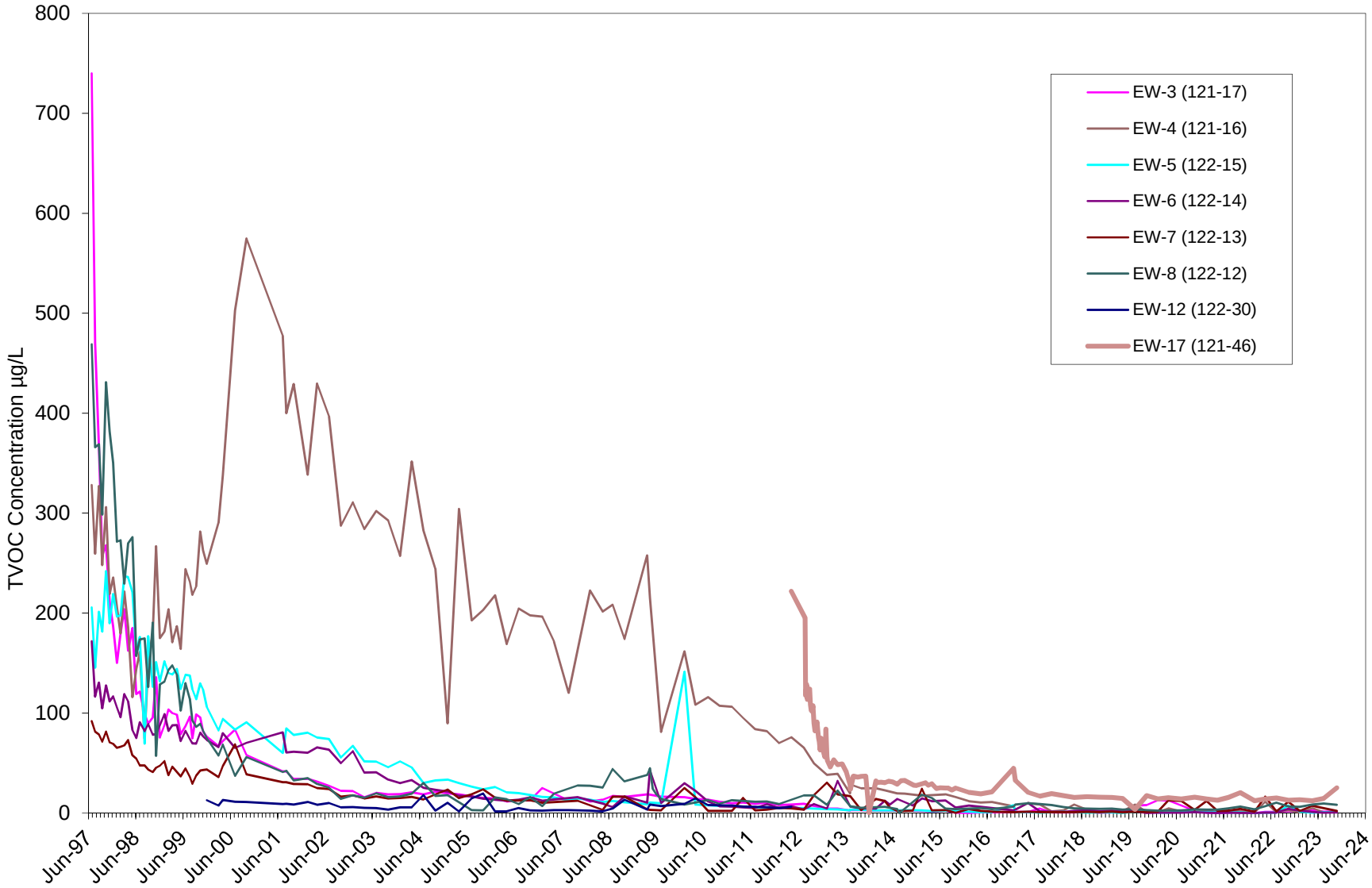


Figure 3.2.3-4
OU III South Boundary Groundwater Remediation System
Total Volatile Organic Compounds in Extraction Wells
2010 through 2023

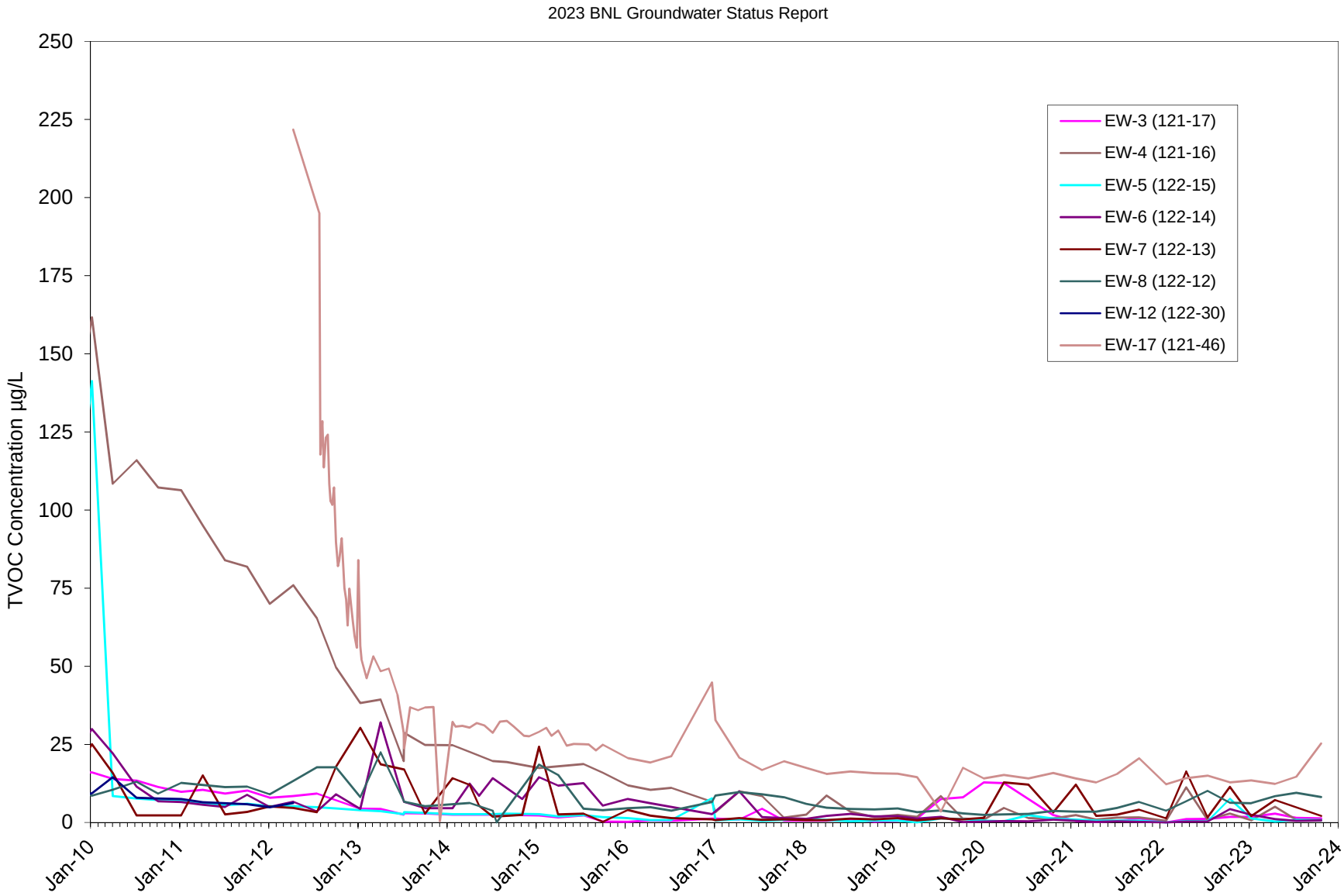
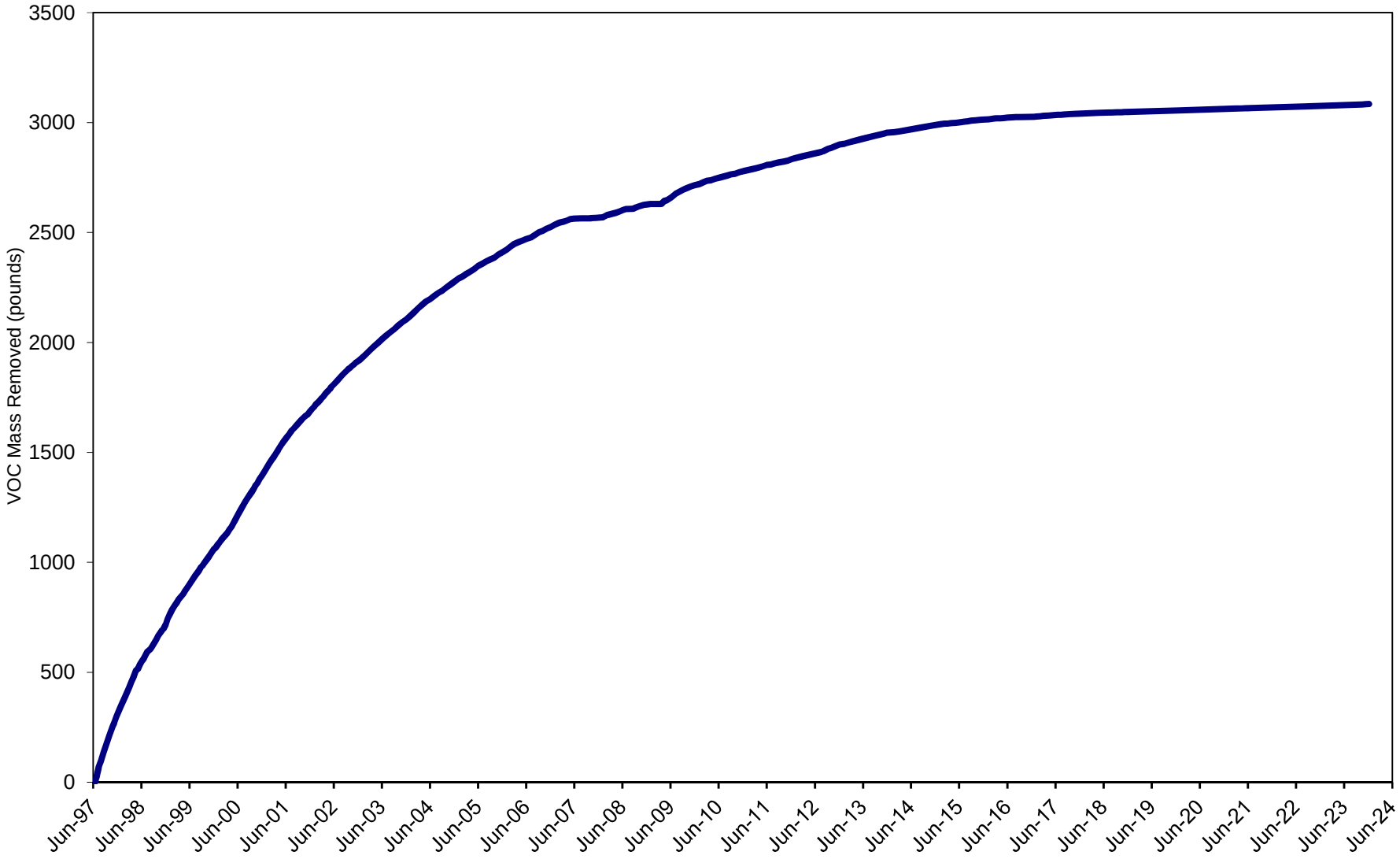
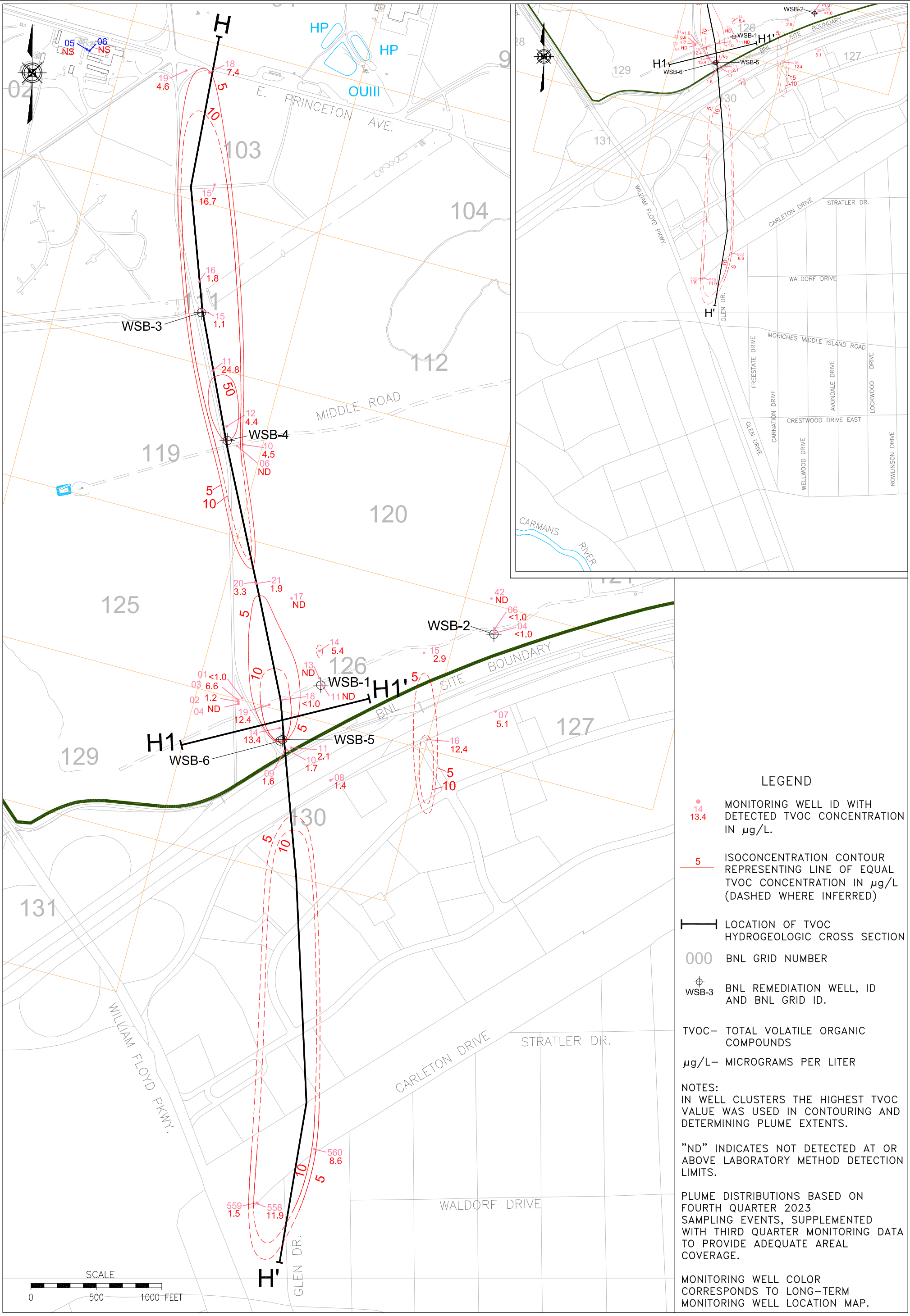


Figure 3.2.3-5
OU III South Boundary Groundwater Remediation System
Cumulative VOC Mass Removed

2023 BNL Groundwater Status Report





LEGEND

- 14 / 13.4 — MONITORING WELL ID WITH DETECTED TVOC CONCENTRATION IN µg/L.
- 5 — ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL TVOC CONCENTRATION IN µg/L (DASHED WHERE INFERRED)
- LOCATION OF TVOC HYDROGEOLOGIC CROSS SECTION
- 000 — BNL GRID NUMBER
- WSB-3 — BNL REMEDIATION WELL, ID AND BNL GRID ID.

TVOC– TOTAL VOLATILE ORGANIC COMPOUNDS

µg/L– MICROGRAMS PER LITER

NOTES:
IN WELL CLUSTERS THE HIGHEST TVOC VALUE WAS USED IN CONTOURING AND DETERMINING PLUME EXTENTS.

"ND" INDICATES NOT DETECTED AT OR ABOVE LABORATORY METHOD DETECTION LIMITS.

PLUME DISTRIBUTIONS BASED ON FOURTH QUARTER 2023 SAMPLING EVENTS, SUPPLEMENTED WITH THIRD QUARTER MONITORING DATA TO PROVIDE ADEQUATE AREAL COVERAGE.

MONITORING WELL COLOR CORRESPONDS TO LONG-TERM MONITORING WELL LOCATION MAP.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

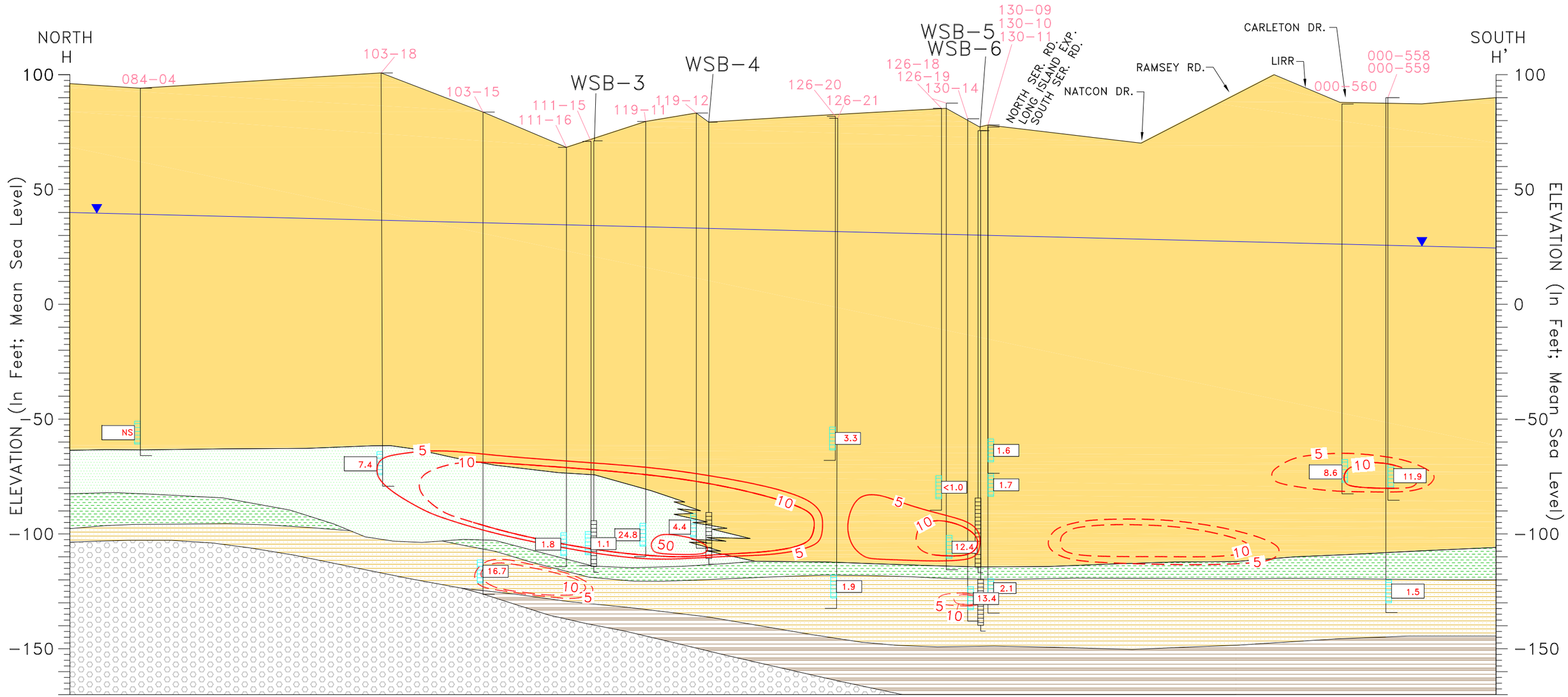
TITLE:

OU III WESTERN SOUTH BOUNDARY TVOC PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/01/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.4-1



LEGEND

Upper Glacial aquifer

- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay

- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer

- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undifferentiated)
- MO Magothy – OTHER

126–20 BNL Well ID

ND Indicates not detected at or above laboratory method detection limits

7.54 TVOC Concentration (µg/L)

— 5 — TVOC Contour (µg/L) (Dashed Where Inferred)

Monitoring Well Screen

Extraction Well Screen

Water Table As Of Aug 21 – Aug 25, 2023

TVOC– Total Volatile Organic Compound

µg/L– Micrograms Per Liter

HORIZONTAL SCALE

0 500 1000 FEET

NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, CHARACTERIZATION REPORTS.

2) PLUME DISTRIBUTIONS BASED ON FOURTH QUARTER 2023 SAMPLING EVENTS, AND VERTICAL PROFILE DATA.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG-TERM MONITORING PROGRAM WELL LOCATION MAP.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

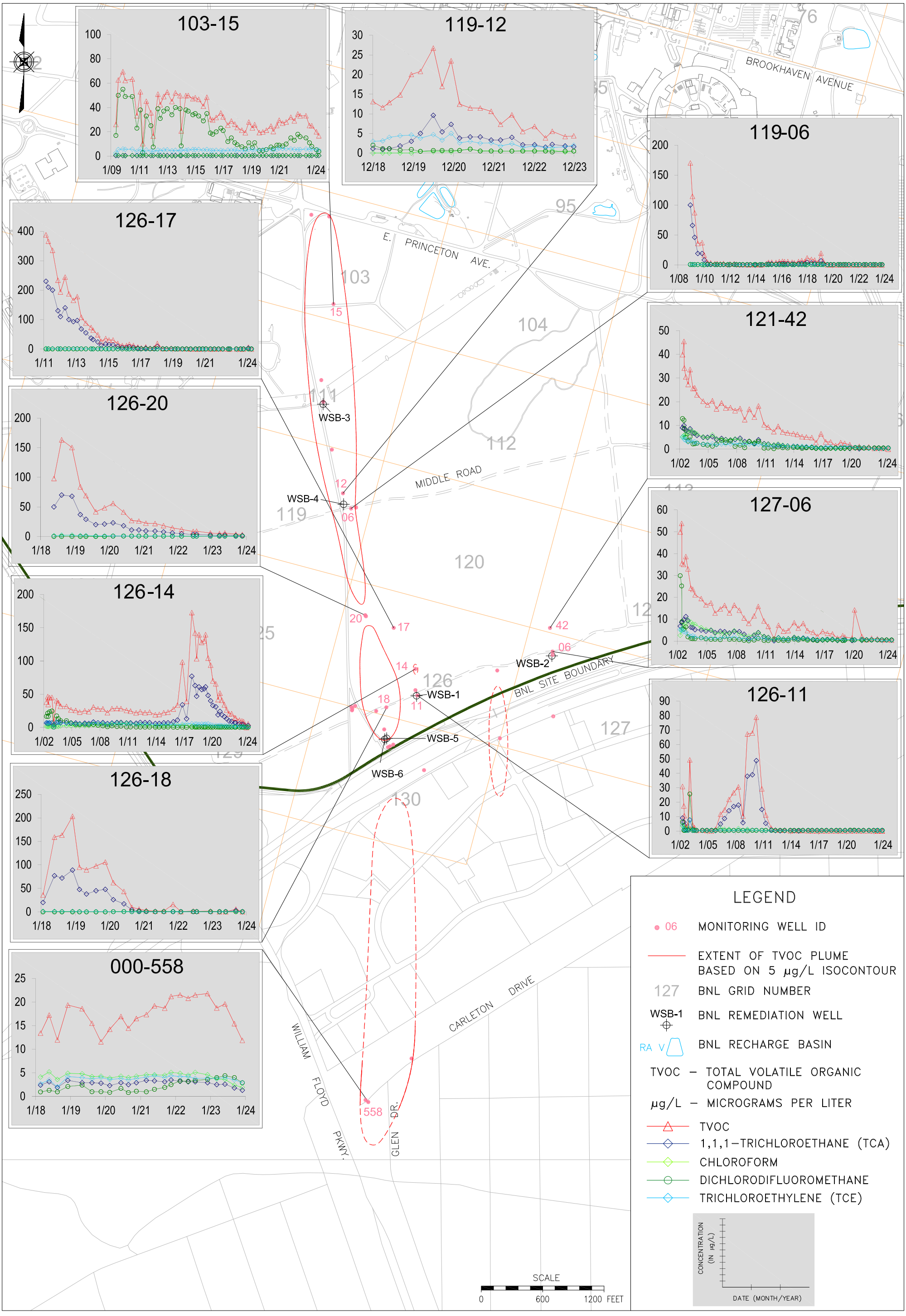
TITLE:

OU III WESTERN SOUTH BOUNDARY TVOC HYDROGEOLOGIC CROSS SECTION (H–H')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	20:1	02/28/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.4-2



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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III WESTERN SOUTH BOUNDARY HISTORICAL VOC TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/01/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.4-3

Figure 3.2.4-4
OU III Western South Boundary Groundwater Remediation System
Historic Extraction Well Total Volatile Organic Compound Concentrations

2023 BNL Groundwater Status Report

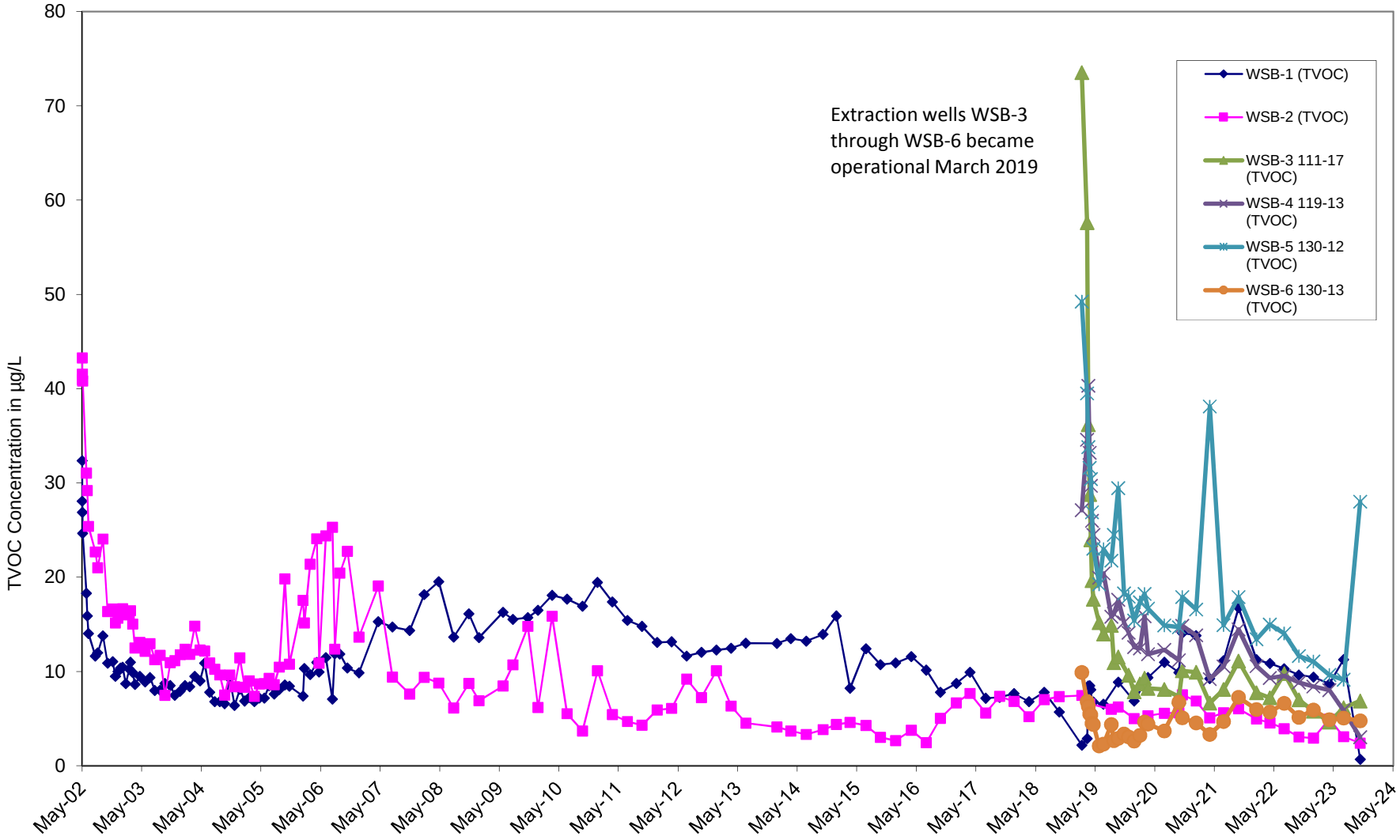
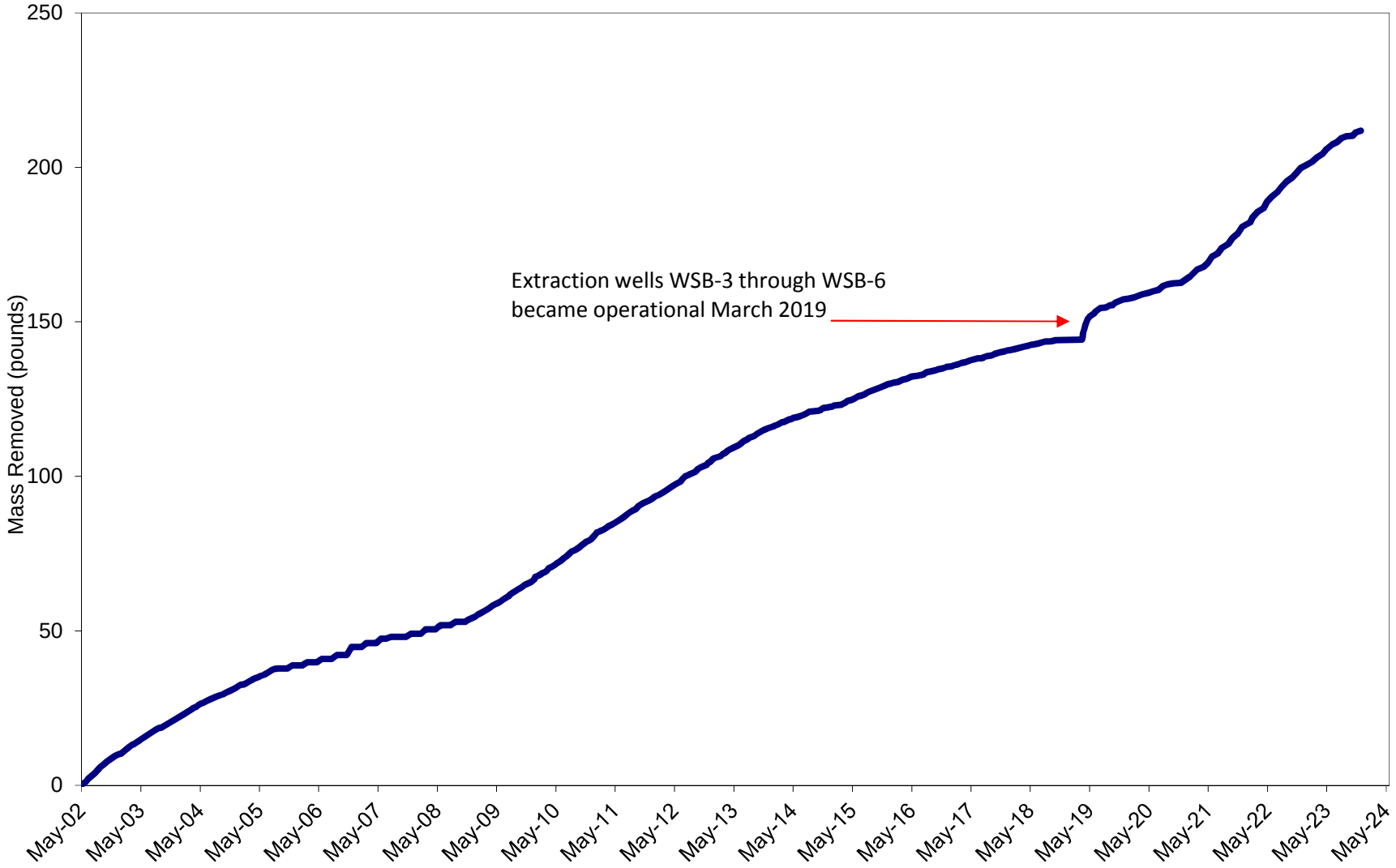


Figure 3.2.4-5
OU III Western South Boundary Groundwater Remediation System
Cumulative VOC Mass Removed

2023 BNL Groundwater Status Report



LEGEND

Upper Glacial aquifer

- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay

- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer

- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undifferentiated)
- MO Magothy – OTHER

- 126-01 BNL Well ID
- ND Indicates not detected at or above laboratory method detection limits
- 7.54 TVOC Concentration (µg/L)
- — 5 — TVOC Contour (µg/L) (Dashed Where Inferred)
- Monitoring Well Screen
- Extraction Well Screen

▼ Water Table As Of Aug 21 – Aug 25, 2023

TVOC– Total Volatile Organic Compound

µg/L– Micrograms Per Liter

NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, CHARACTERIZATION REPORTS.

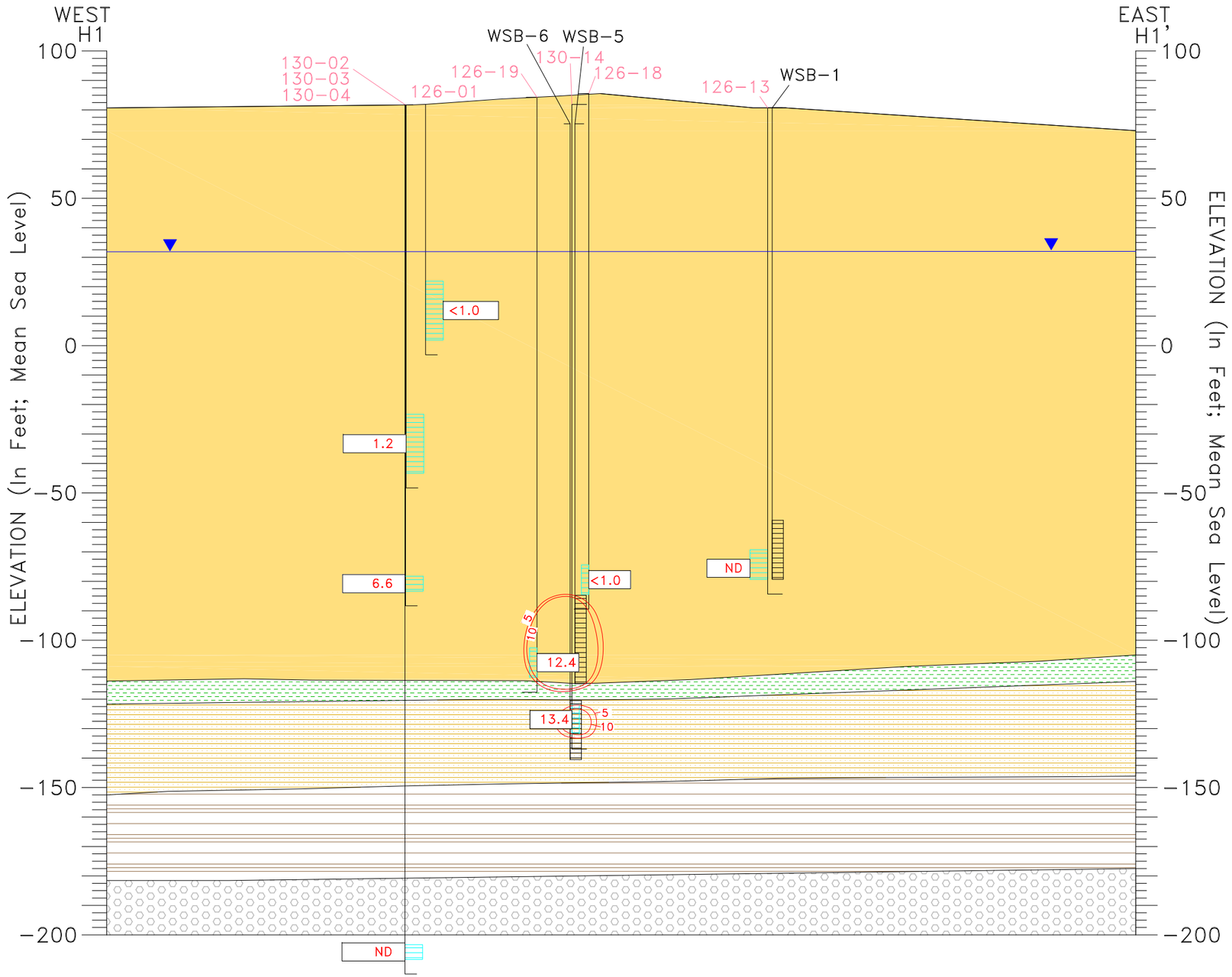
2) PLUME DISTRIBUTIONS BASED ON FOURTH QUARTER 2023 SAMPLING EVENTS, SUPPLEMENTED WITH THIRD QUARTER MONITORING DATA TO PROVIDE ADEQUATE AREAL COVERAGE.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG-TERM MONITORING PROGRAM WELL LOCATION MAP.

HORIZONTAL SCALE

0 500 FEET



Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III WESTERN SOUTH BOUNDARY TVOC HYDROGEOLOGIC CROSS SECTION (H1–H1')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	20:1	03/01/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–
FIGURE NO.:			
3.2.4-6			

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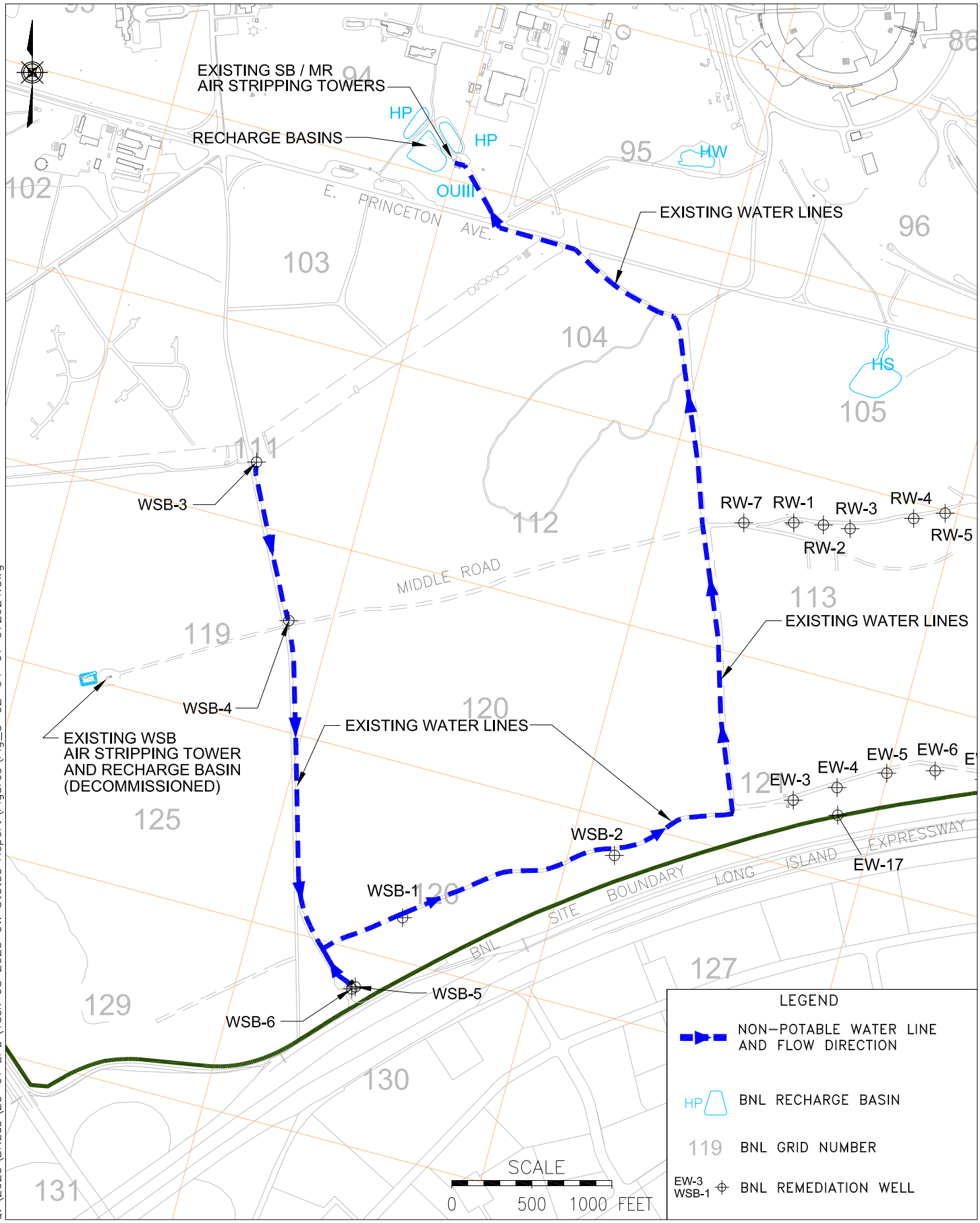

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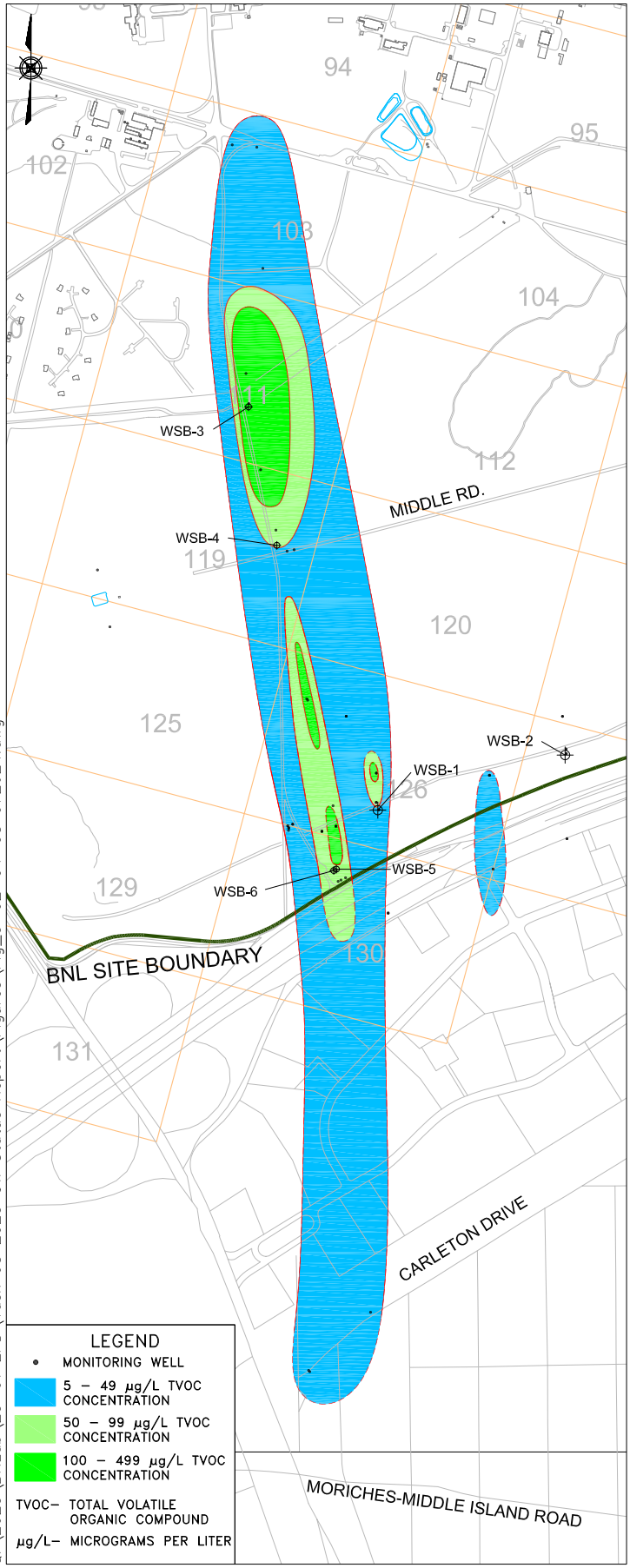
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
OU III WESTERN SOUTH BOUNDARY EXTRACTION WELLS AND PIPING LAYOUT
2023 BNL GROUNDWATER STATUS REPORT

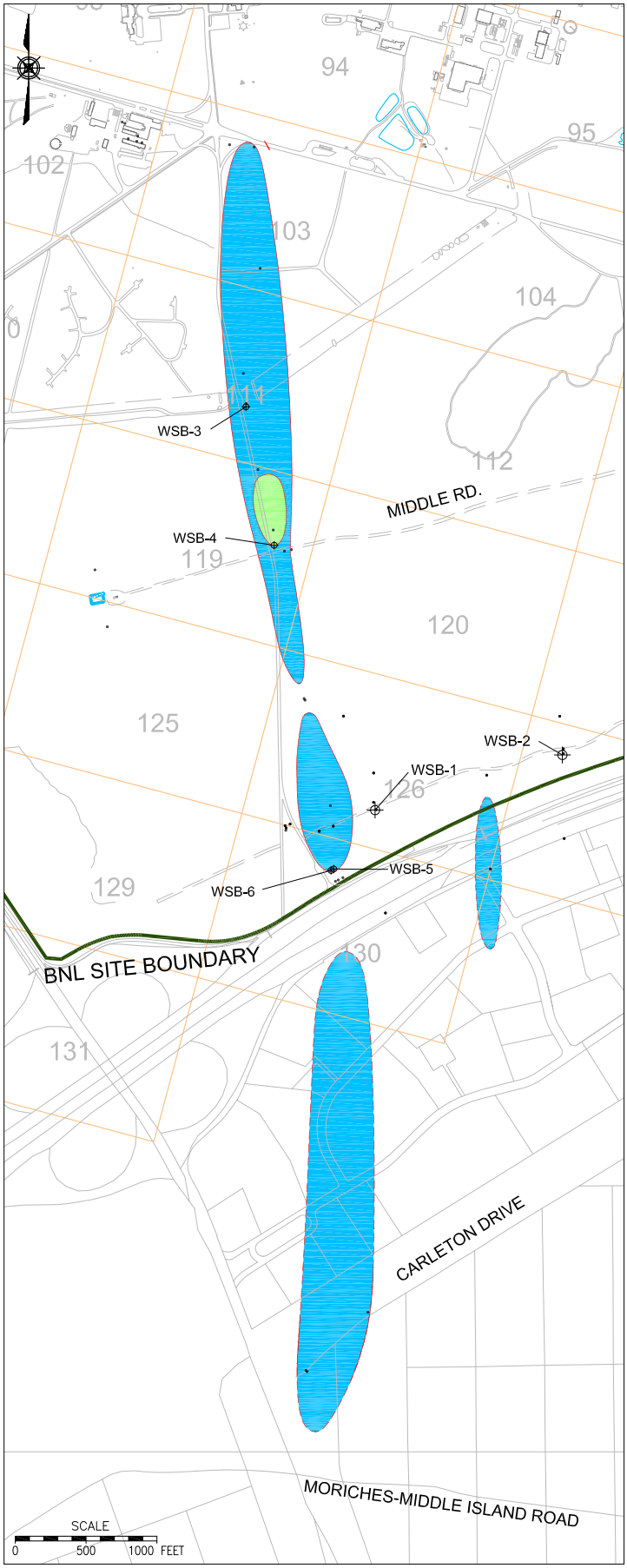
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/01/24	–
CHKD:	APPD:	REV.:	NOTES:
VJR	WRD	07/26/24	–

FIGURE NO.: 3.2.4-7

2018 WSB TVOC PLUME DISTRIBUTION



2023 WSB TVOC PLUME DISTRIBUTION



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

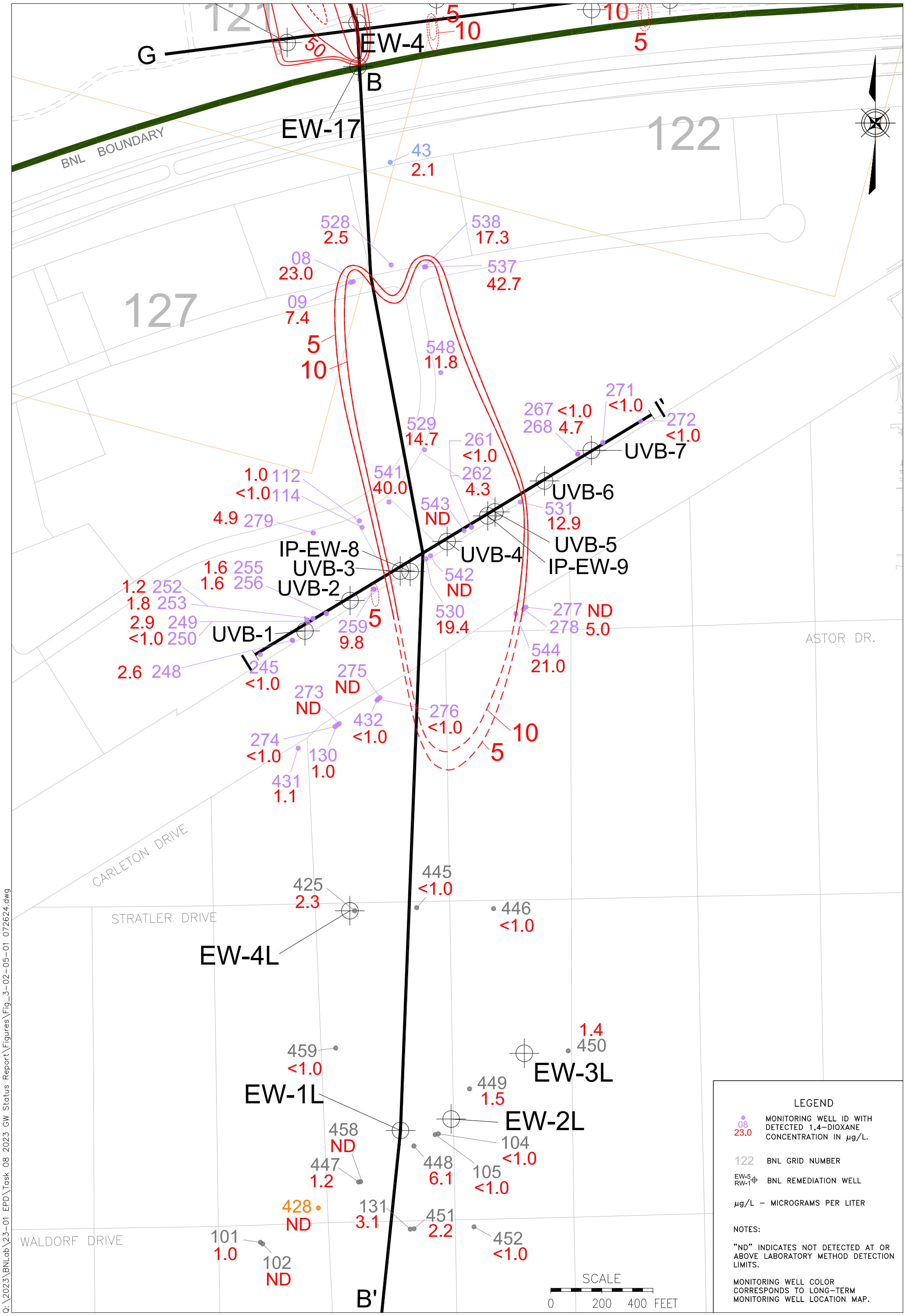
TITLE:

OU III WESTERN SOUTH BOUNDARY TVOC PLUME COMPARISON 2018 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/01/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.4-8



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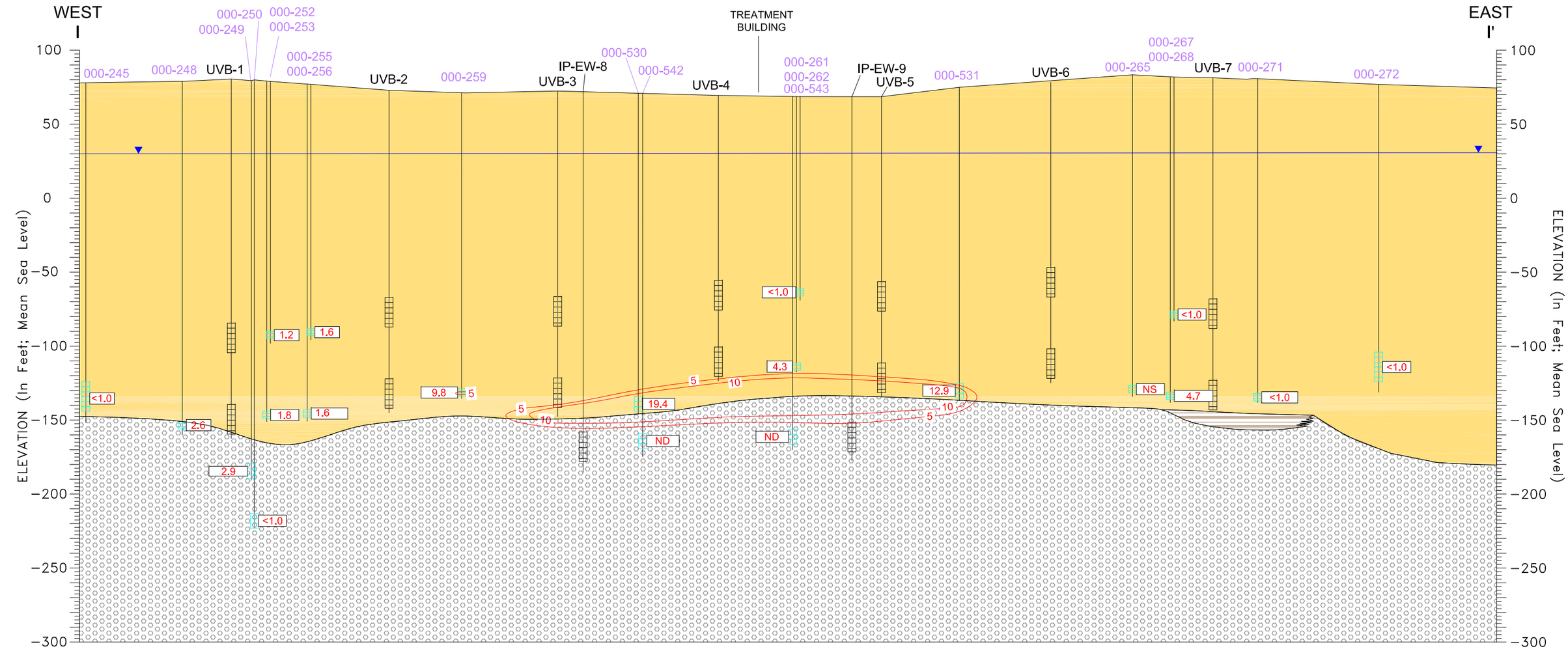
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
OU III INDUSTRIAL PARK AREA,
TVOC PLUME DISTRIBUTION
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/01/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–
FIGURE NO.:		3.2.5-1	



LEGEND

Upper Glacial aquifer

- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay

- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer

- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undiff)
- MO Magothy – OTHER

000–530 BNL Well ID

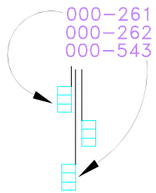
1.14 TVOC Concentration (µg/L)

10 TVOC Contour (µg/L) (Dashed Where Inferred)

Monitoring Well Screen

Extraction Well Screen

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep



Water Table As Of Aug 21 – Aug 25, 2023

TVOC – Total Volatile Organic Compound

µg/L – Micrograms Per Liter

HORIZONTAL SCALE
0 50 100 FEET

NOTES:
1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS.

2) PLUME DISTRIBUTION IS BASED ON FOURTH QUARTER 2023 OU III SAMPLING EVENT.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG–TERM MONITORING PROGRAM COLOR CODE.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

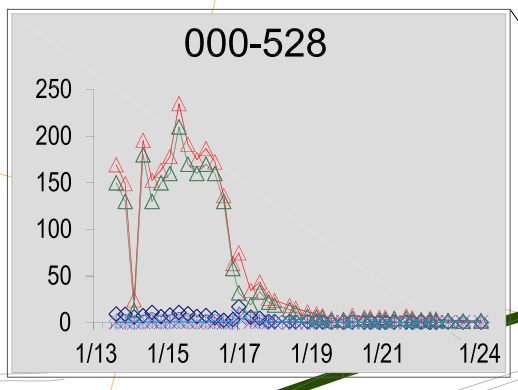
TITLE:

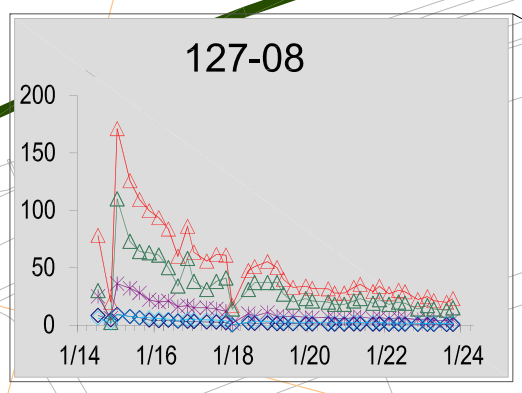
OU III INDUSTRIAL PARK AND INDUSTRIAL PARK EAST TVOC HYDROGEOLOGIC CROSS SECTION (I–I')

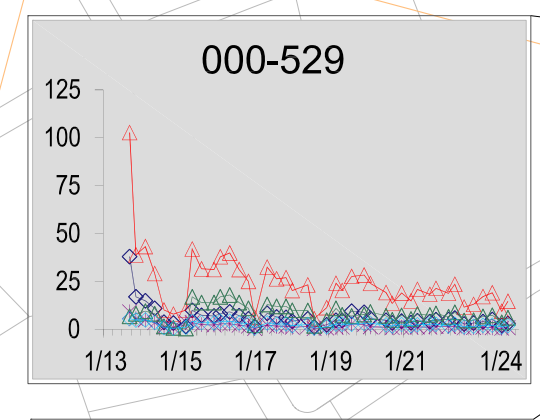
2023 BNL GROUNDWATER STATUS REPORT

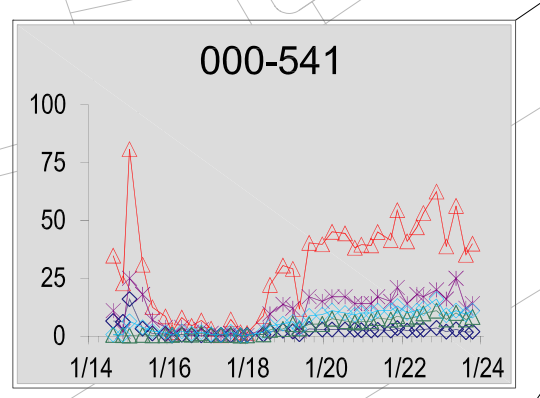
DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	2:1	03/27/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

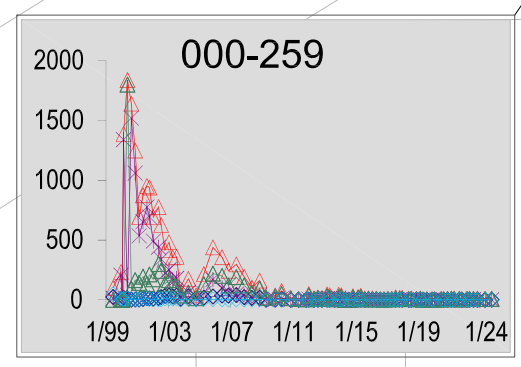
FIGURE NO.: 3.2.5–2

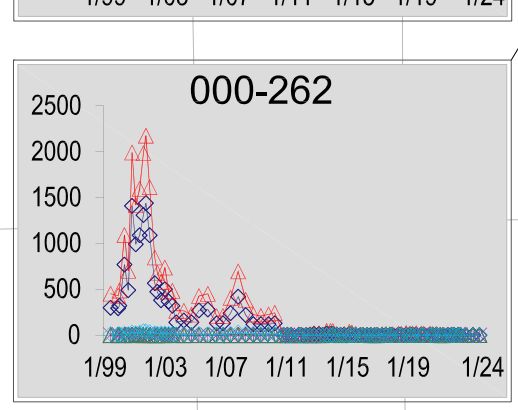


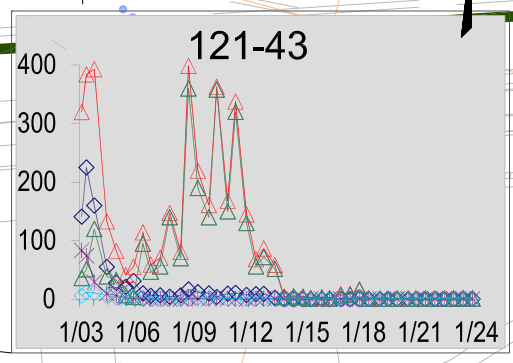


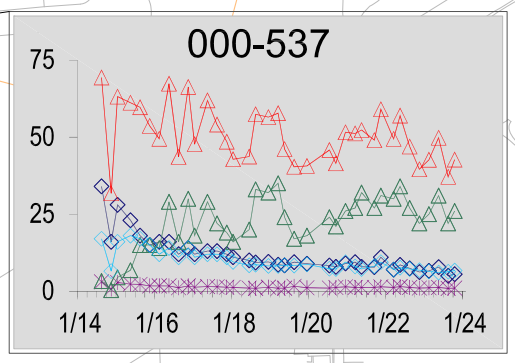


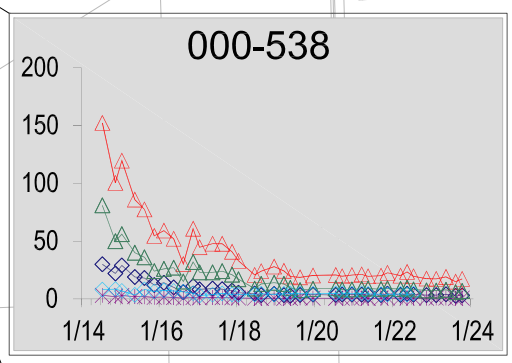


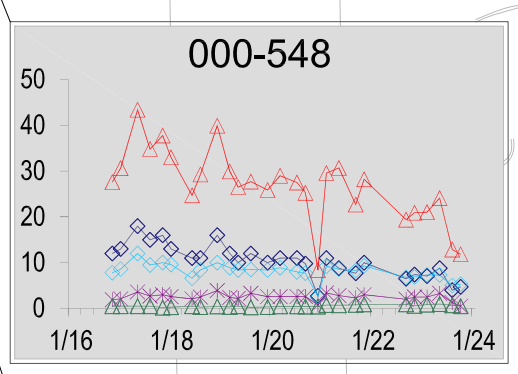


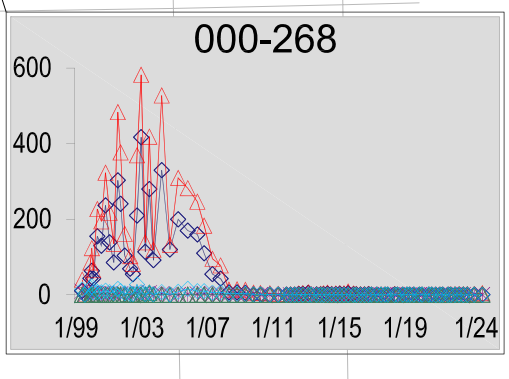












EW-3
EW-4
EW-5
EW-6
EW-7
EW-8
EW-12
EW-17
UVB-1
UVB-2
UVB-3
UVB-4
UVB-5
UVB-6
UVB-7
IP-EW-8
IP-EW-9
5
43
122
127
000
08
528
529
537
538
541
548
259
262
268
PRECISION DRIVE
RAMSAY DRIVE
LONG ISLAND RAILROAD
CARLETON DRIVE
MORICHES MIDDLE ISLAND ROAD

SCALE
0 300 600 FEET

LEGEND

- 268 MONITORING WELL ID
- EXTENT OF TVOC PLUME BASED ON 5 µg/L ISOCONTOUR
- 000 BNL GRID NUMBER
- UVB-5 BNL REMEDIATION WELL
- BNL RECHARGE BASIN
- TVOC – TOTAL VOLATILE ORGANIC COMPOUND
- µg/L – MICROGRAMS PER LITER
- TVOC
- 1,1,1–TRICHLOROETHANE (TCA)
- CARBON TETRACHLORIDE
- TETRACHLOROETHYLENE (PCE)
- TRICHLOROETHYLENE (TCE)

CONCENTRATION (IN µg/L)
DATE (MONTH/YEAR)

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III INDUSTRIAL PARK HISTORICAL VOC TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/01/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.5–3

Figure 3.2.5-4
OU III Industrial Park Groundwater Remediation System
TVOC Influent Concentration

2023 BNL Groundwater Status Report

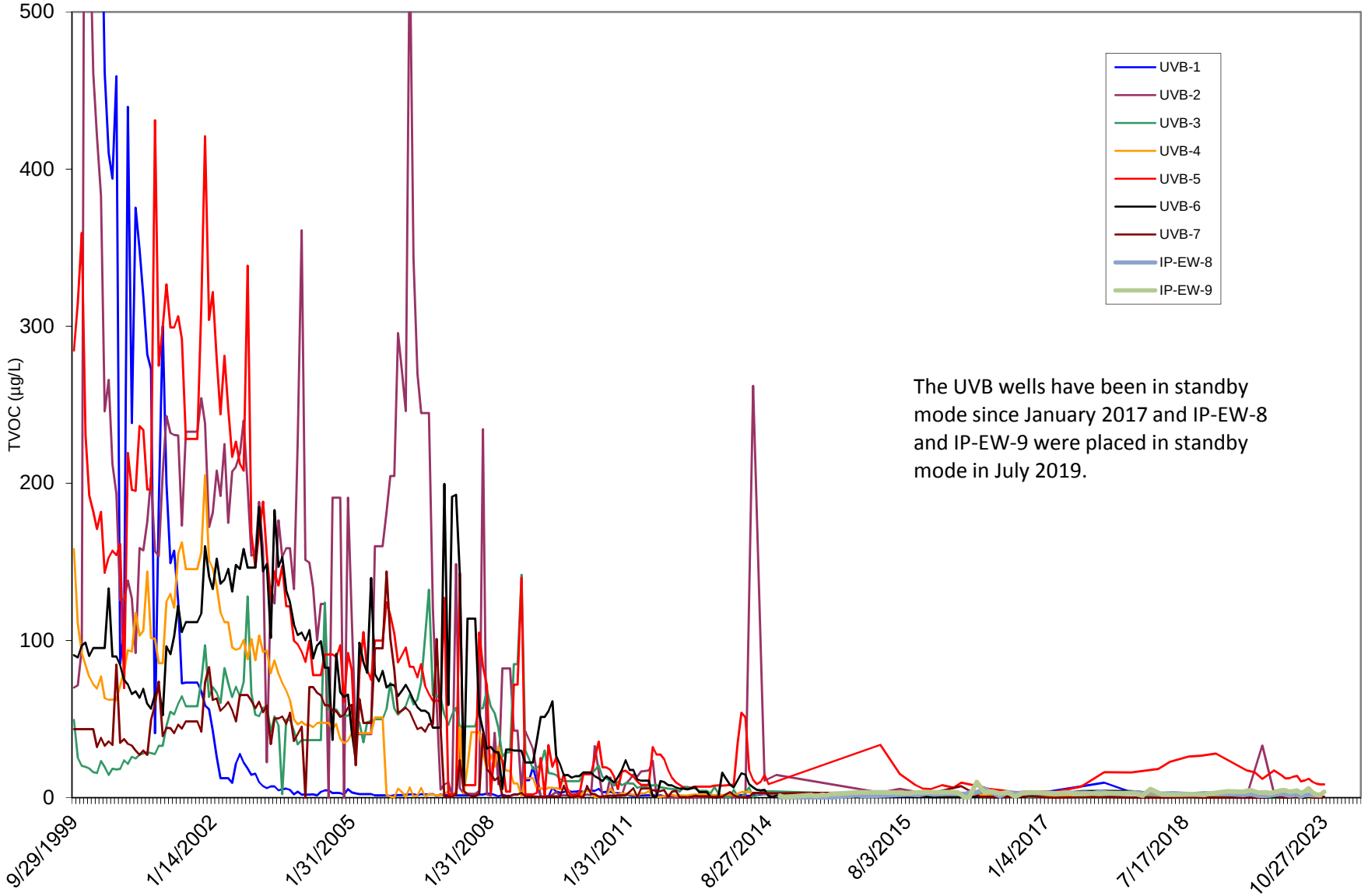


Figure 3.2.5-5
OU III Industrial Park Groundwater Remediation System
TVOC Effluent Concentration

2023 BNL Groundwater Status Report

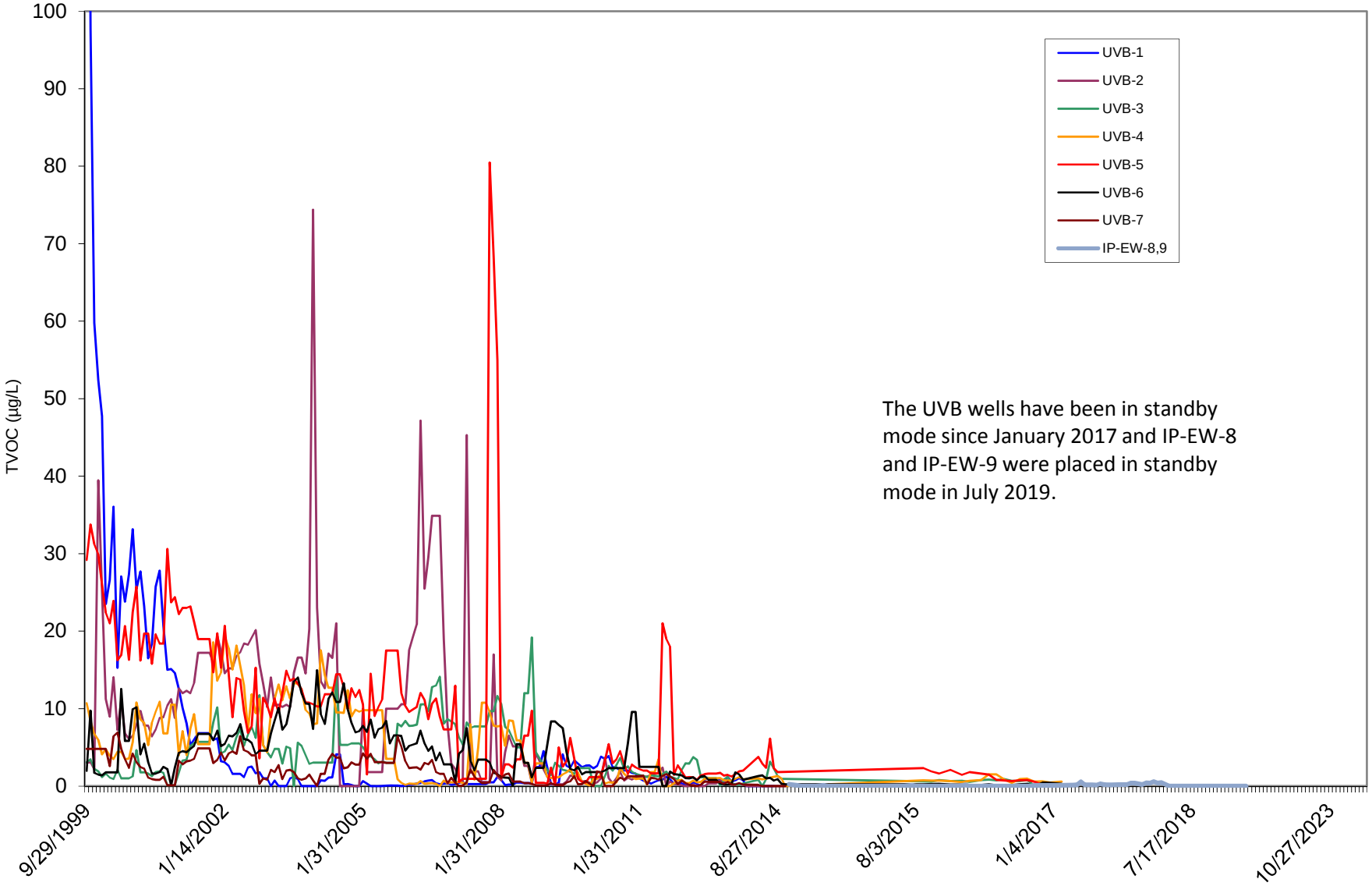
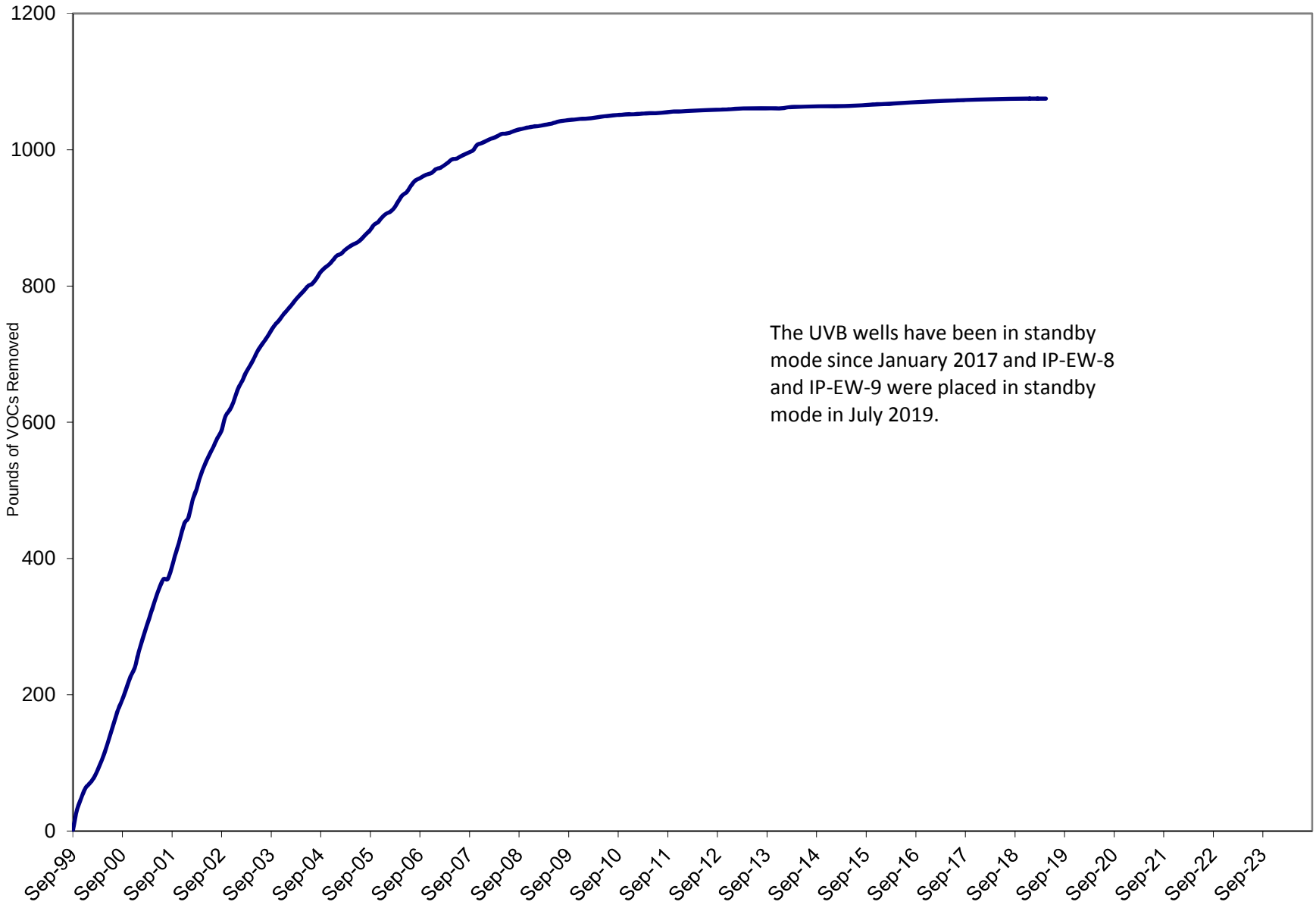


Figure 3.2.5-6
OU III Industrial Park Groundwater Remediation System
Cumulative VOC Mass Removed

2023 BNL Groundwater Status Report

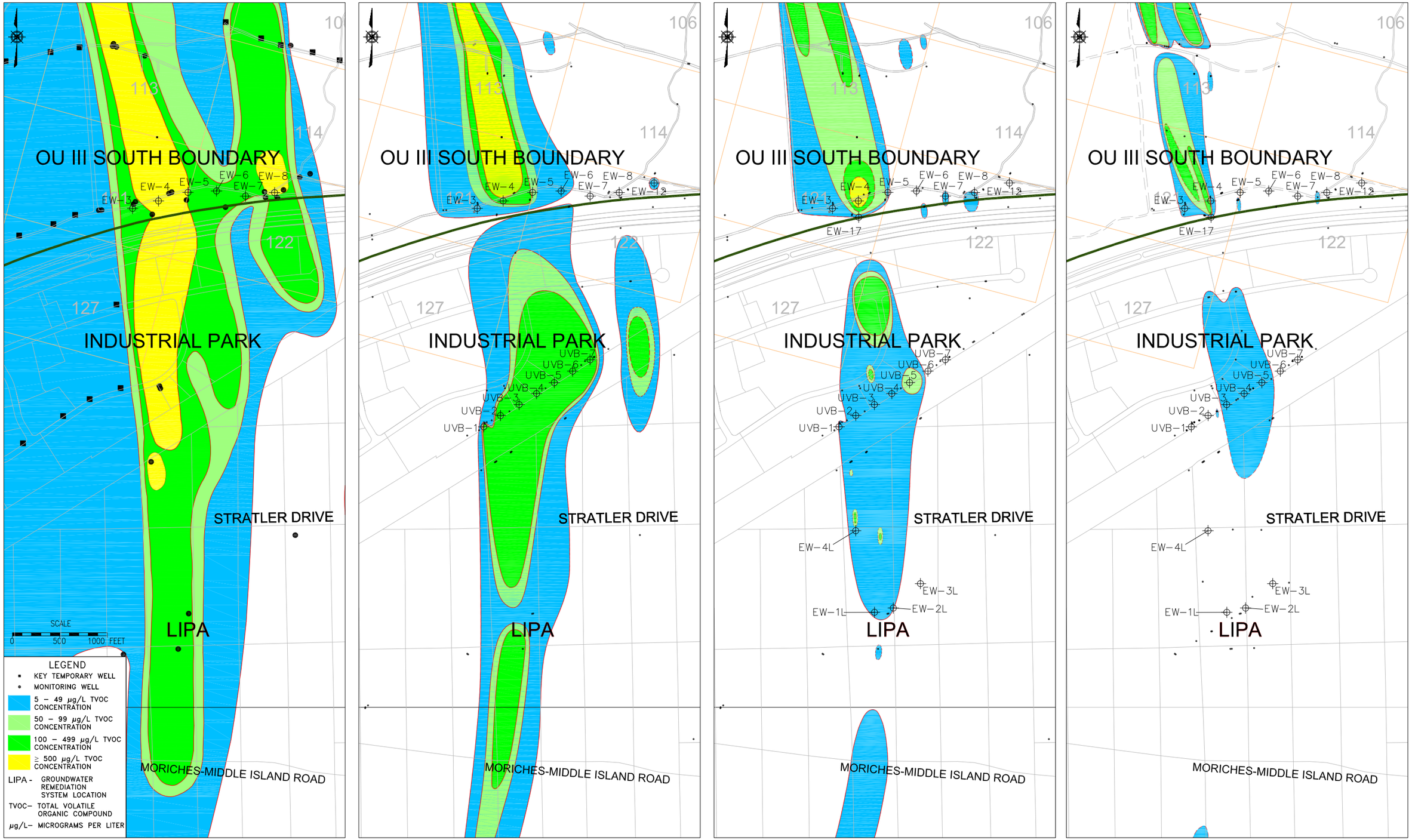


1997 TVOC PLUME DISTRIBUTION

2005 TVOC PLUME DISTRIBUTION

2013 TVOC PLUME DISTRIBUTION

2023 TVOC PLUME DISTRIBUTION



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

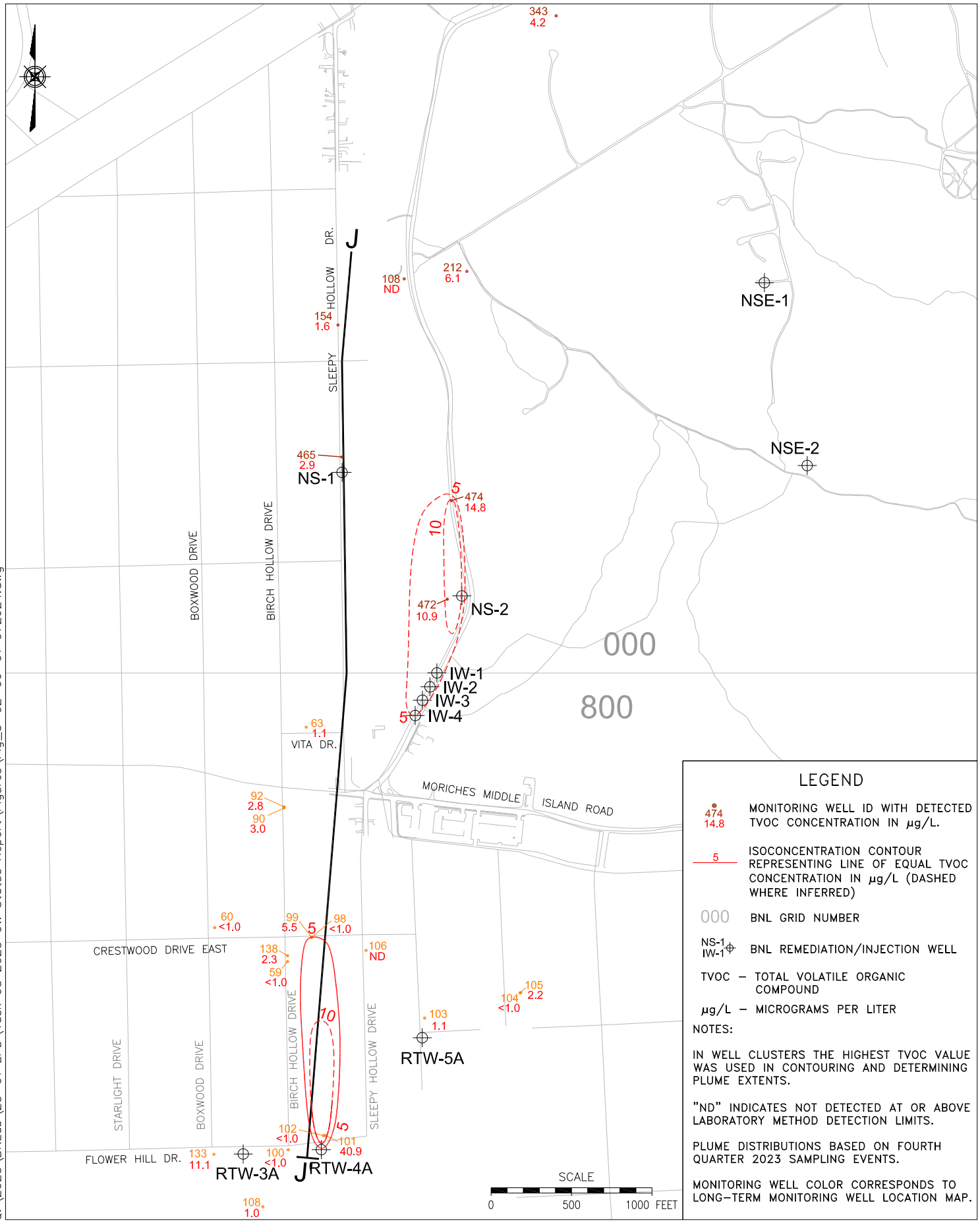
TITLE:

OU III INDUSTRIAL PARK TVOC PLUME COMPARISON 1997, 2005, 2013, 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/01/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.5-7



LEGEND

474 / 14.8 — MONITORING WELL ID WITH DETECTED TVOC CONCENTRATION IN µg/L.

5 — ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL TVOC CONCENTRATION IN µg/L (DASHED WHERE INFERRED)

000 — BNL GRID NUMBER

NS-1 / IW-1 — BNL REMEDIATION/INJECTION WELL

TVOC – TOTAL VOLATILE ORGANIC COMPOUND

µg/L – MICROGRAMS PER LITER

NOTES:

IN WELL CLUSTERS THE HIGHEST TVOC VALUE WAS USED IN CONTOURING AND DETERMINING PLUME EXTENTS.

"ND" INDICATES NOT DETECTED AT OR ABOVE LABORATORY METHOD DETECTION LIMITS.

PLUME DISTRIBUTIONS BASED ON FOURTH QUARTER 2023 SAMPLING EVENTS.

MONITORING WELL COLOR CORRESPONDS TO LONG-TERM MONITORING WELL LOCATION MAP.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

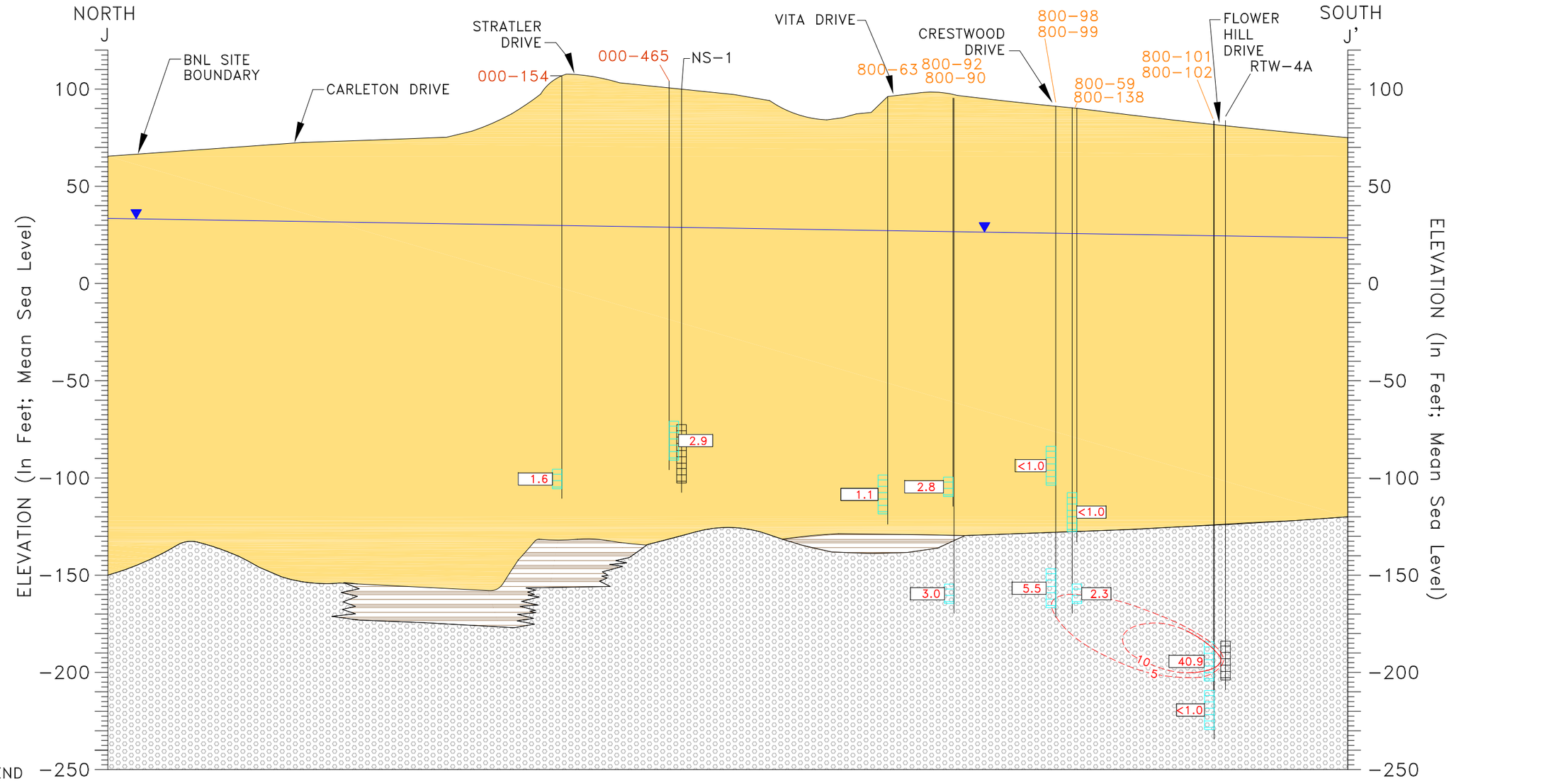
TITLE:

NORTH STREET TVOC PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.6-1



LEGEND

Upper Glacial aquifer
- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay
- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer
- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undifferentiated)
- MO Magothy – OTHER

TVOC – Total Volatile Organic Compound

µg/L – Micrograms Per Liter

800-63 BNL Well ID

ND Indicates not detected at or above laboratory method detection limits

65.2 TVOC Concentration (µg/L)

5 TVOC Contour (µg/L) (Dashed Where Inferred)

Monitoring Well Screen

Extraction Well Screen

Water Table As Of Aug 21 – Aug 25, 2023

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep

000-463
000-464

HORIZONTAL SCALE
0 500 1000 FEET

NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS.

2) PLUME DISTRIBUTION BASED ON FOURTH QUARTER 2023 FORMER LANDFILL (FLF) AND OUI/IV SAMPLING EVENTS.

3) CONTOUR INTERVAL IS AS SHOWN.

5) BNL WELL ID COLOR CORRESPONDS TO LONG-TERM MONITORING PROGRAM WELL LOCATION MAP.

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

NORTH STREET
TVOC HYDROGEOLOGIC CROSS SECTION (J-J')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	15:1	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.6-2

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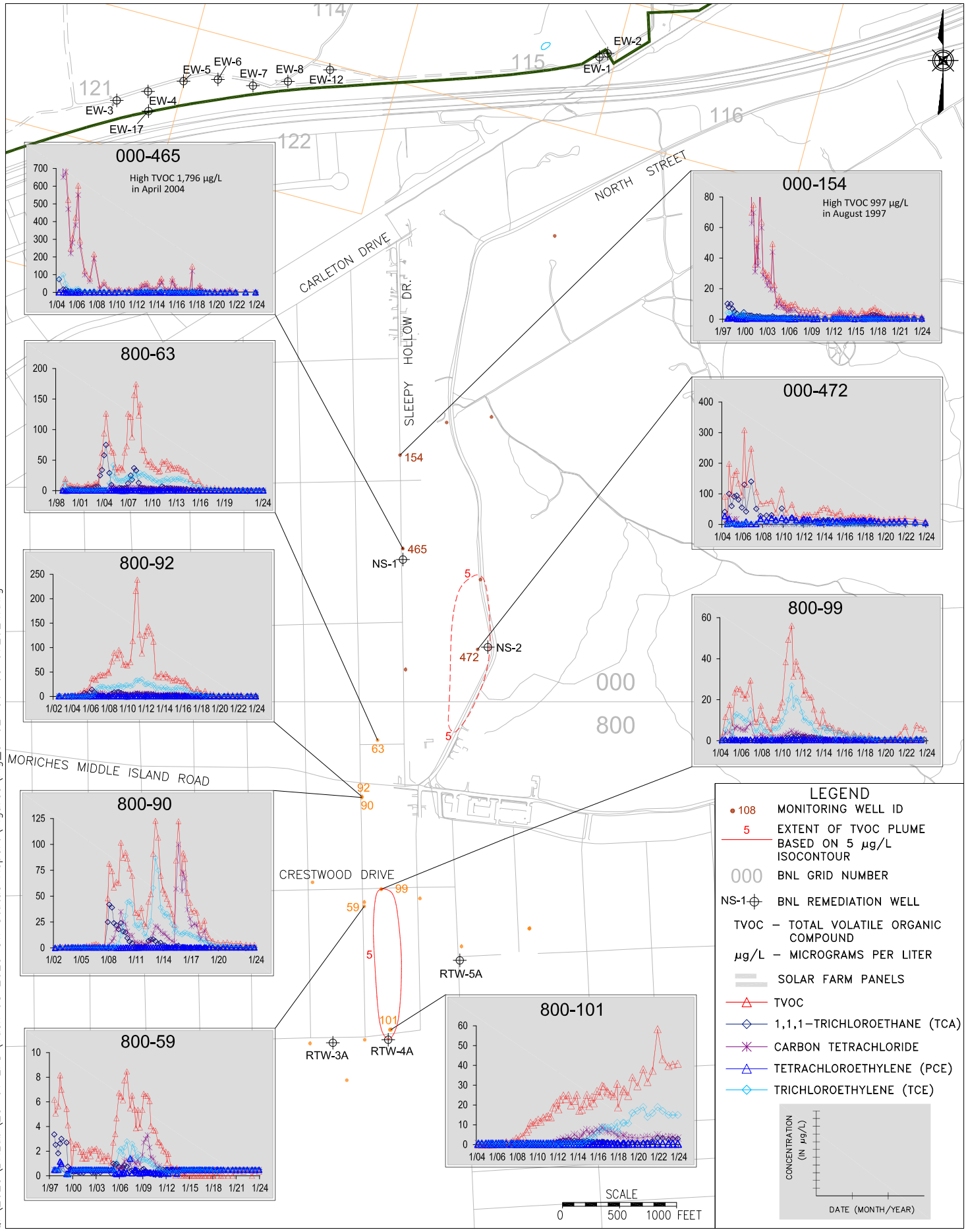

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

NORTH STREET HISTORICAL VOC TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.6-3

Figure 3.2.6-4
OU III North Street Groundwater Remediation System
Extraction Well TVOC Concentrations

2023 BNL Groundwater Status Report

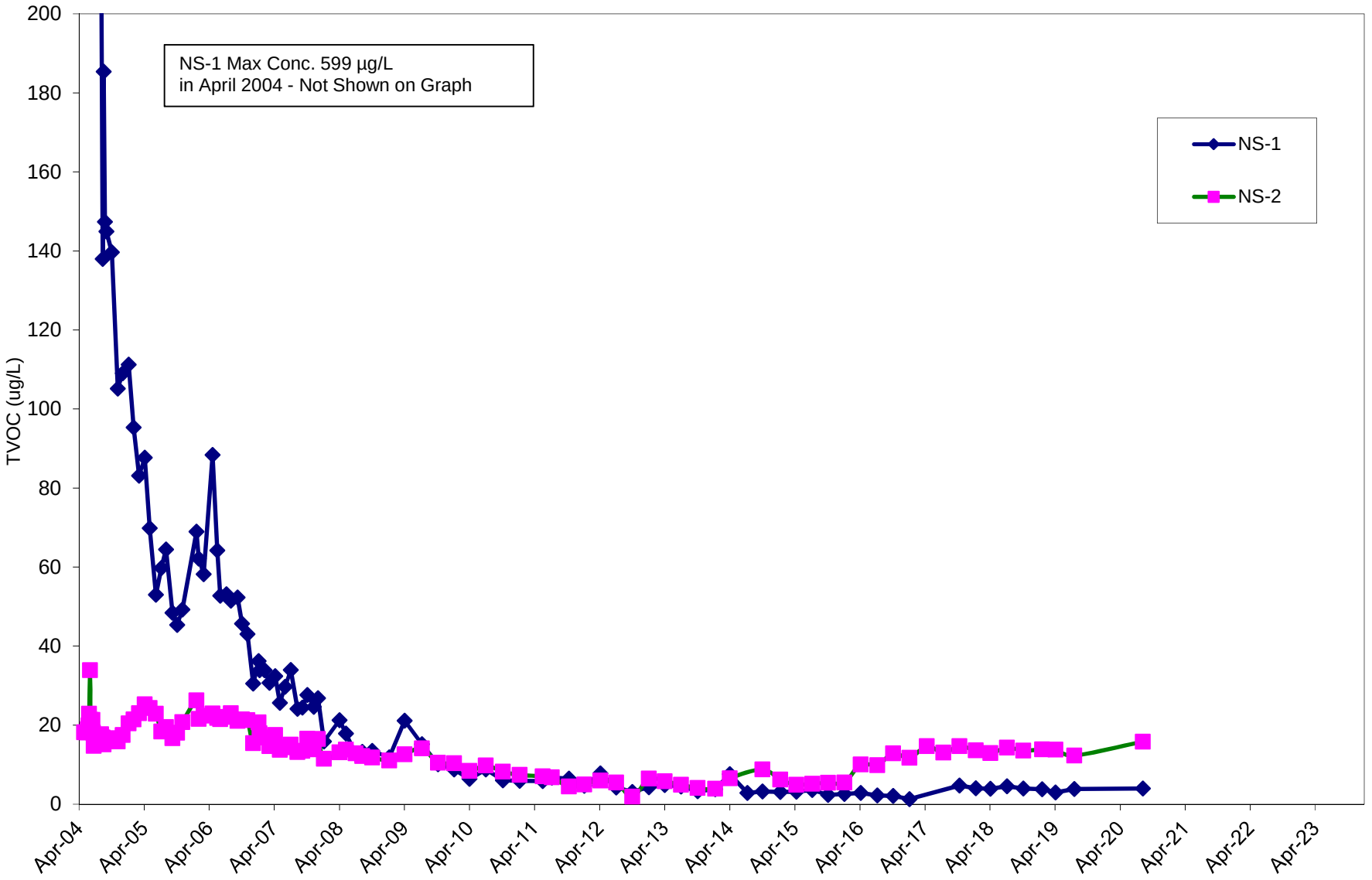
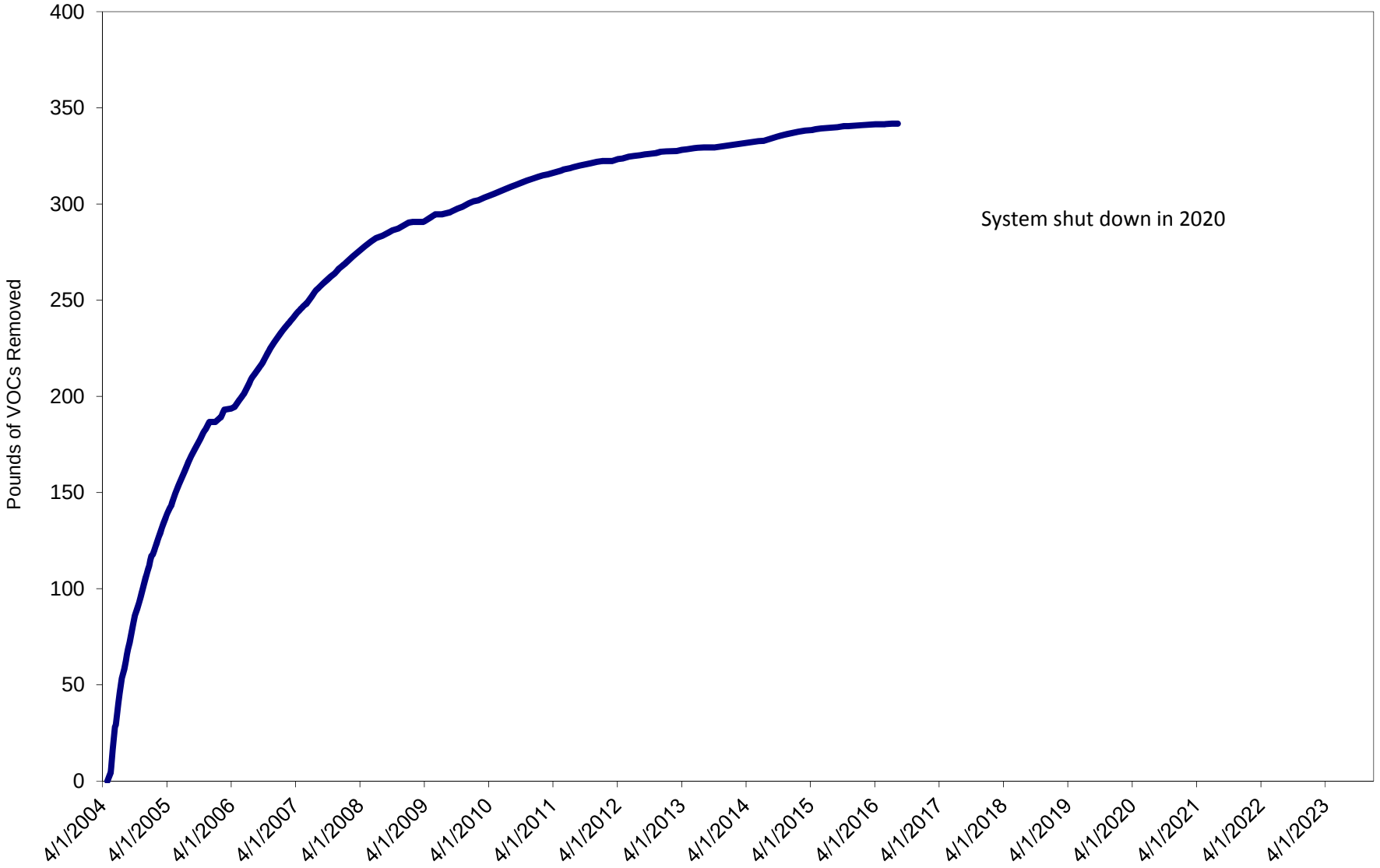


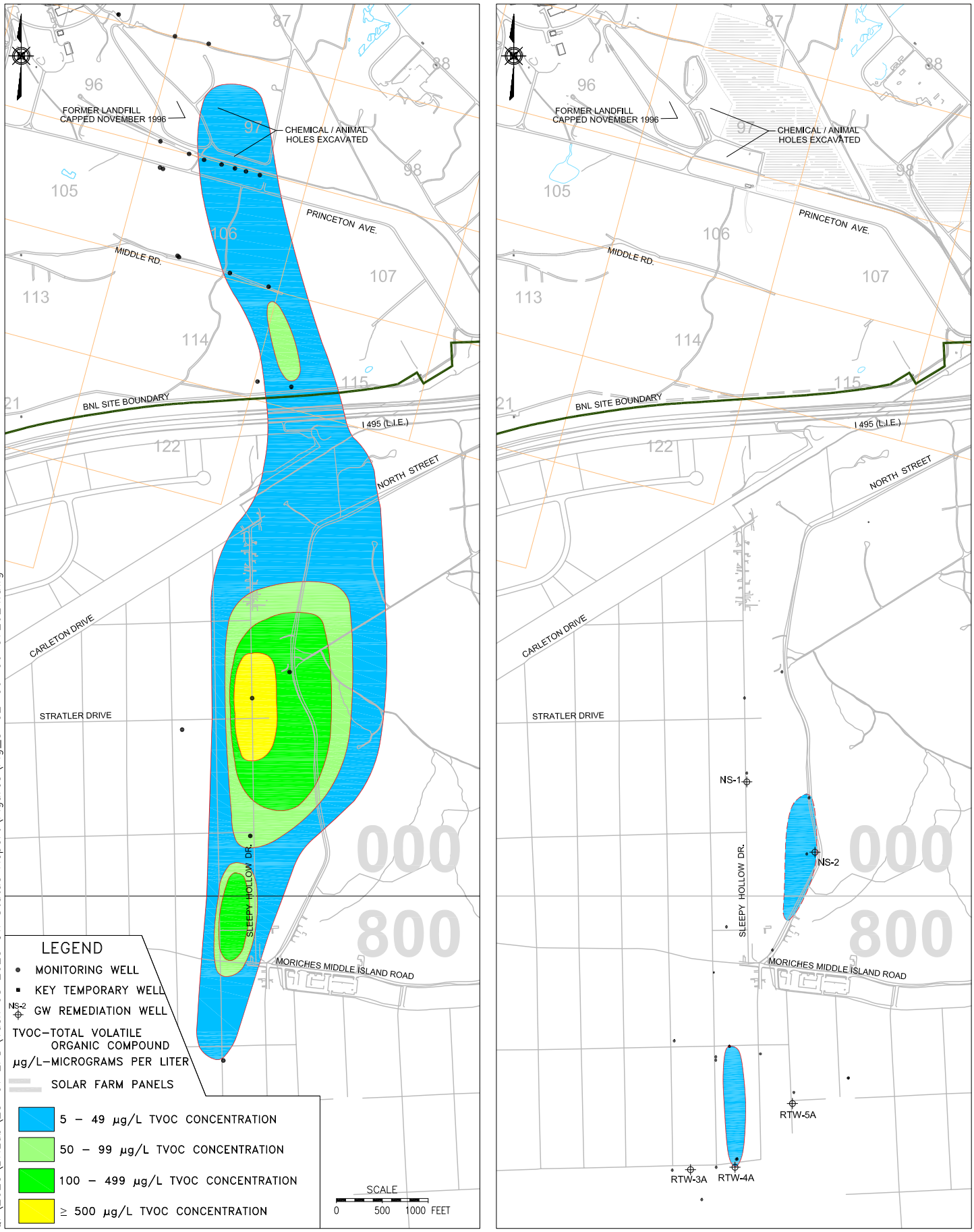
Figure 3.2.6-5
OU III North Street Groundwater Remediation System
Cumulative VOC Mass Removed

2023 BNL Groundwater Status Report



1997 TVOC PLUME DISTRIBUTION

2023 TVOC PLUME DISTRIBUTION



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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

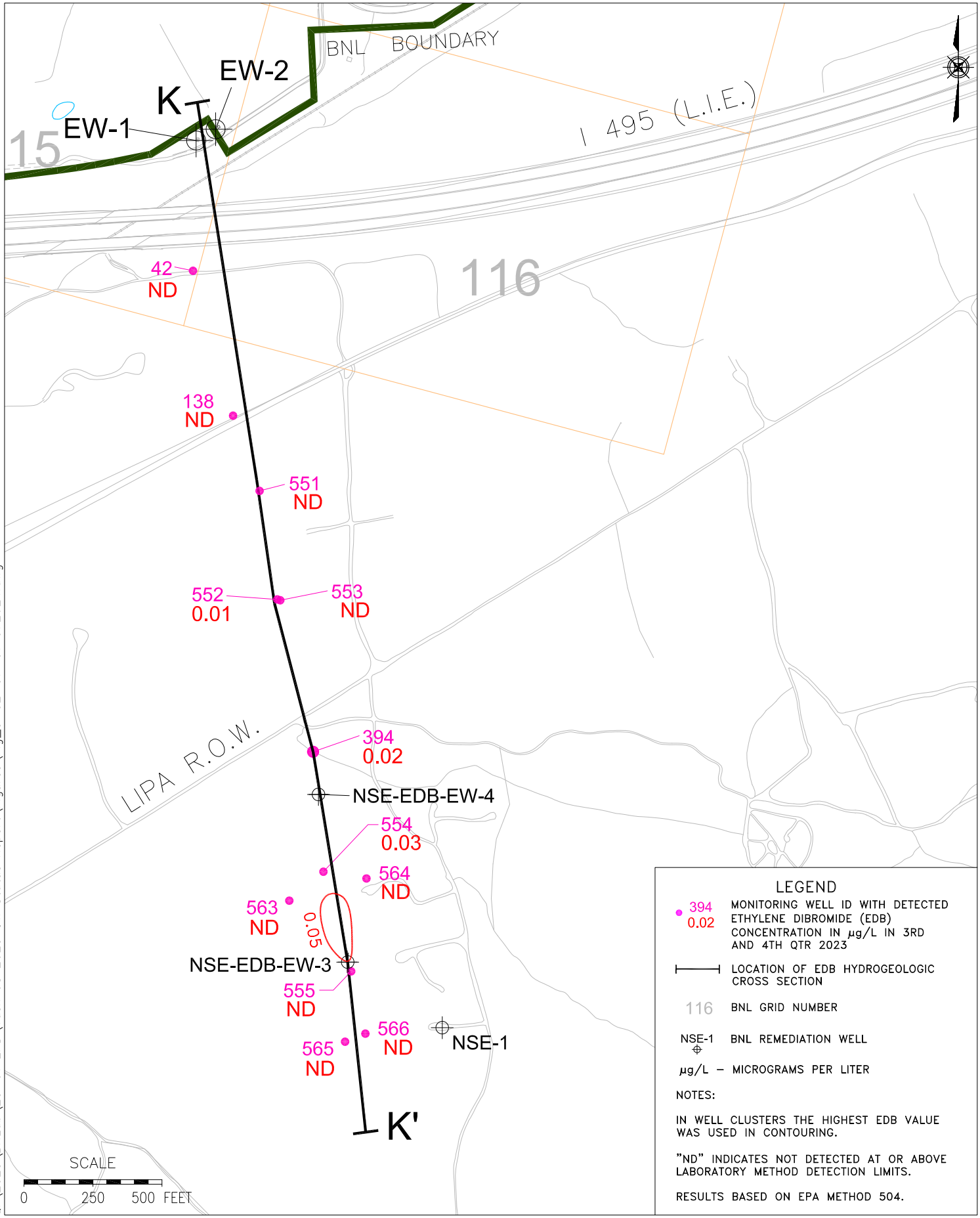
TITLE:

NORTH STREET TVOC PLUME COMPARISON 1997 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.6-6



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III NORTH STREET EAST EDB PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.7-1

LEGEND

Upper Glacial aquifer

- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay

- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer

- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undifferentiated)
- MO Magothy – OTHER

000–394 BNL Well ID

ND Indicates not detected at or above laboratory method detection limits

NS Indicates not sampled

.06 Ethylene dibromide (EDB) Concentration (µg/L)

0.05 EDB Contour (µg/L) (Dashed Where Inferred)

µg/L – Micrograms Per Liter

Water Table As Of Aug 21 – Aug 25, 2023

Monitoring Well Screen

Extraction Well Screen

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep

000–???
000–???

NOTES:

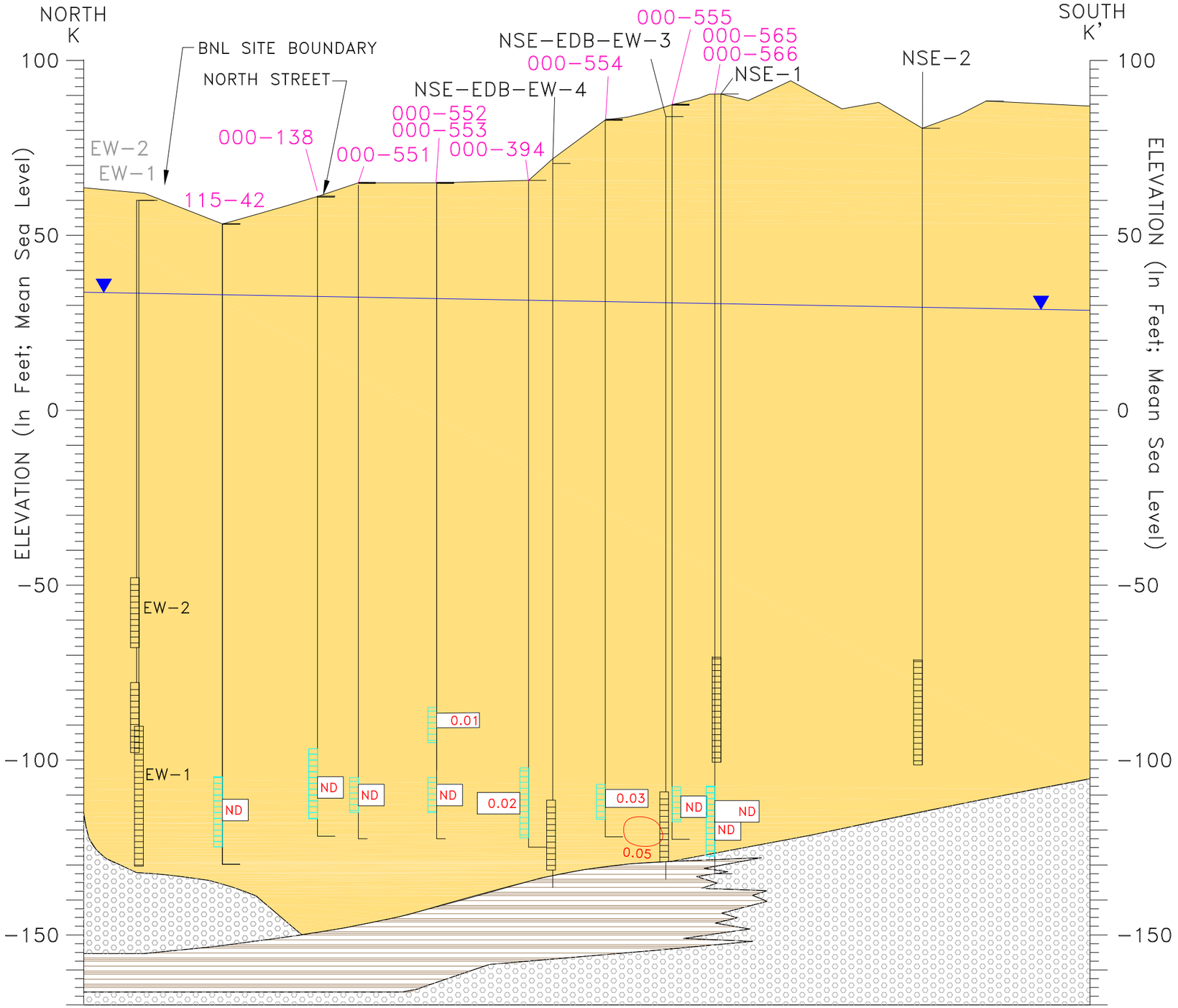
1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS.

2) EDB EXTENT IS BASED ON THIRD AND FORTH QUARTER 2023 OU VI SAMPLING EVENT.

3) RESULTS BASED ON EPA METHOD 504.

4) CONTOUR INTERVAL IS AS SHOWN.

HORIZONTAL SCALE
0 500 1000 FEET



Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III NORTH STREET EAST
EDB HYDROGEOLOGIC CROSS SECTION (K–K')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	20:1	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.7–2

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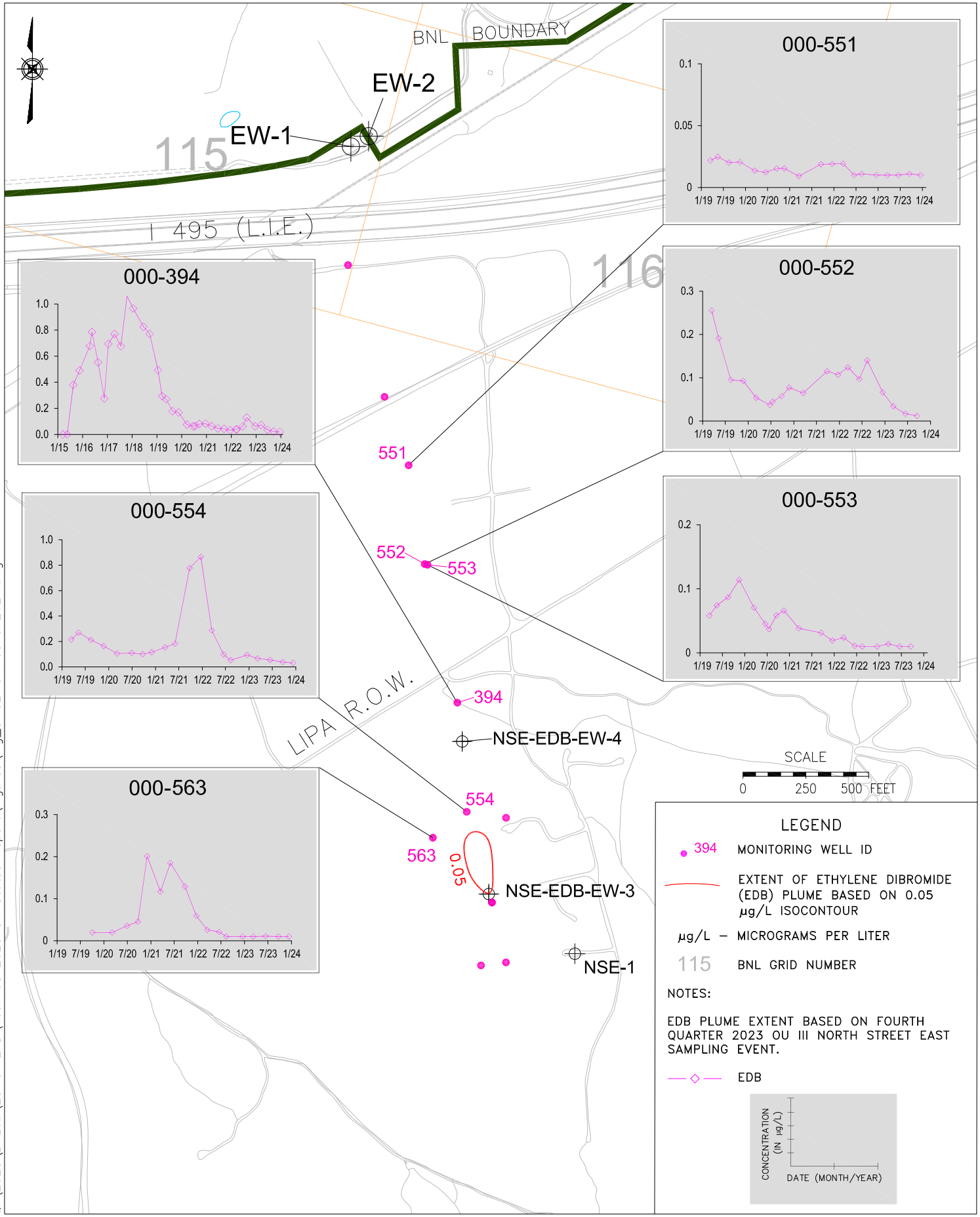

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III NORTH STREET EAST HISTORICAL EDB TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.7-3

Figure 3.2.7-4
OU III North Street East Groundwater Remediation System
Extraction Well TVOC Concentrations

2023 BNL Groundwater Status Report

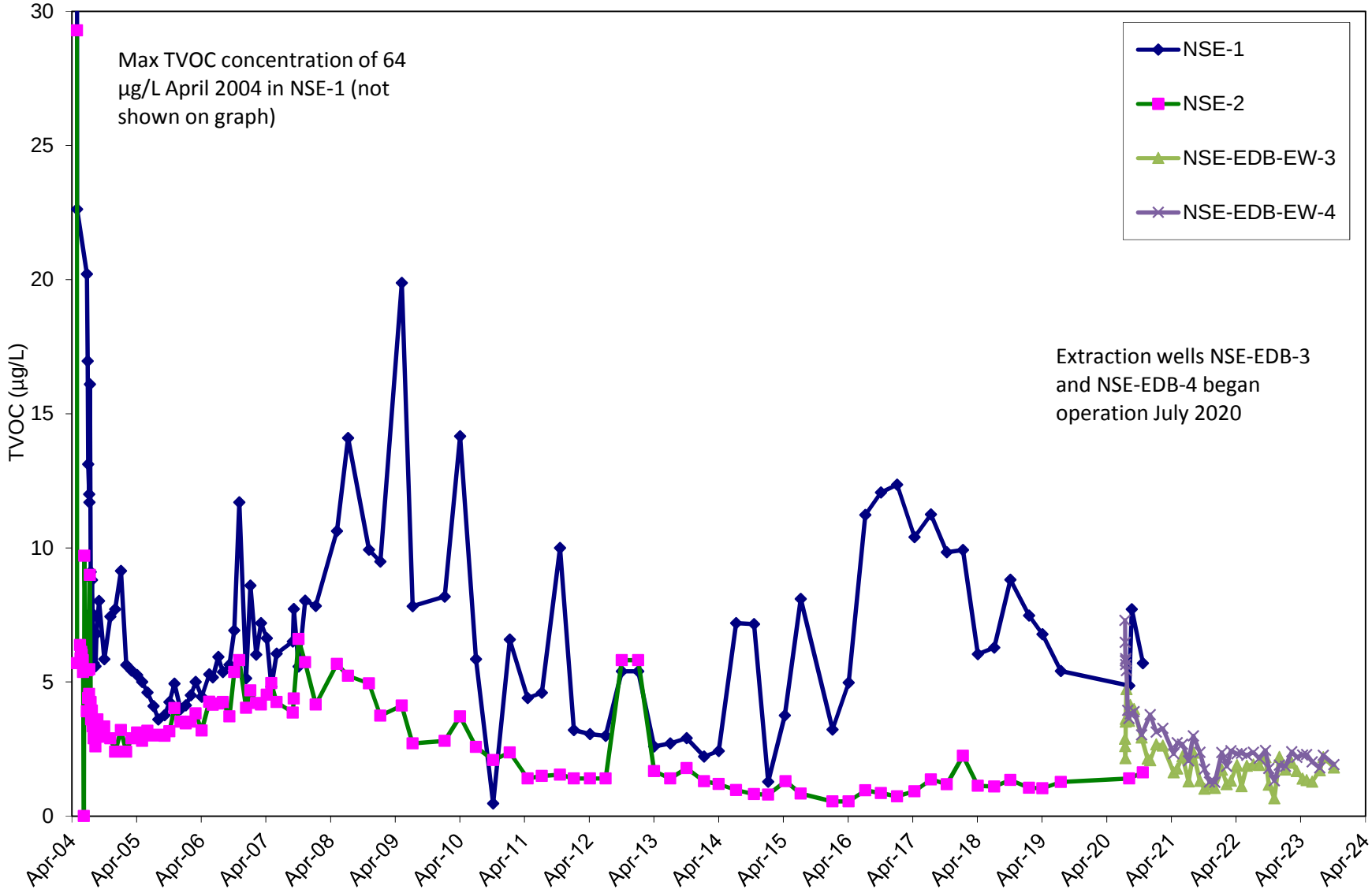


Figure 3.2.7-5
OU III North Street East Groundwater Remediation System
Extraction Well EDB Concentrations

2023 BNL Groundwater Status Report

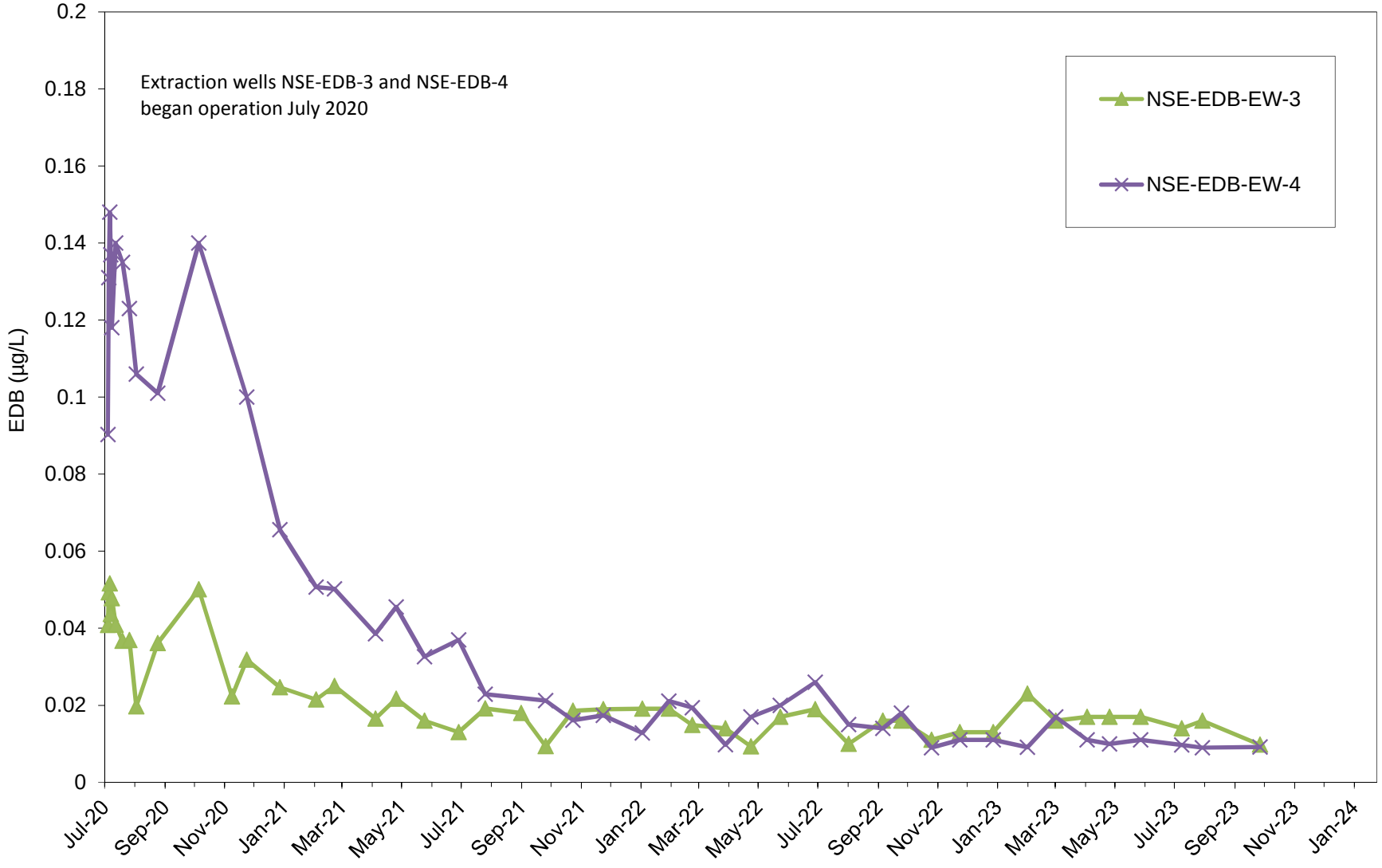
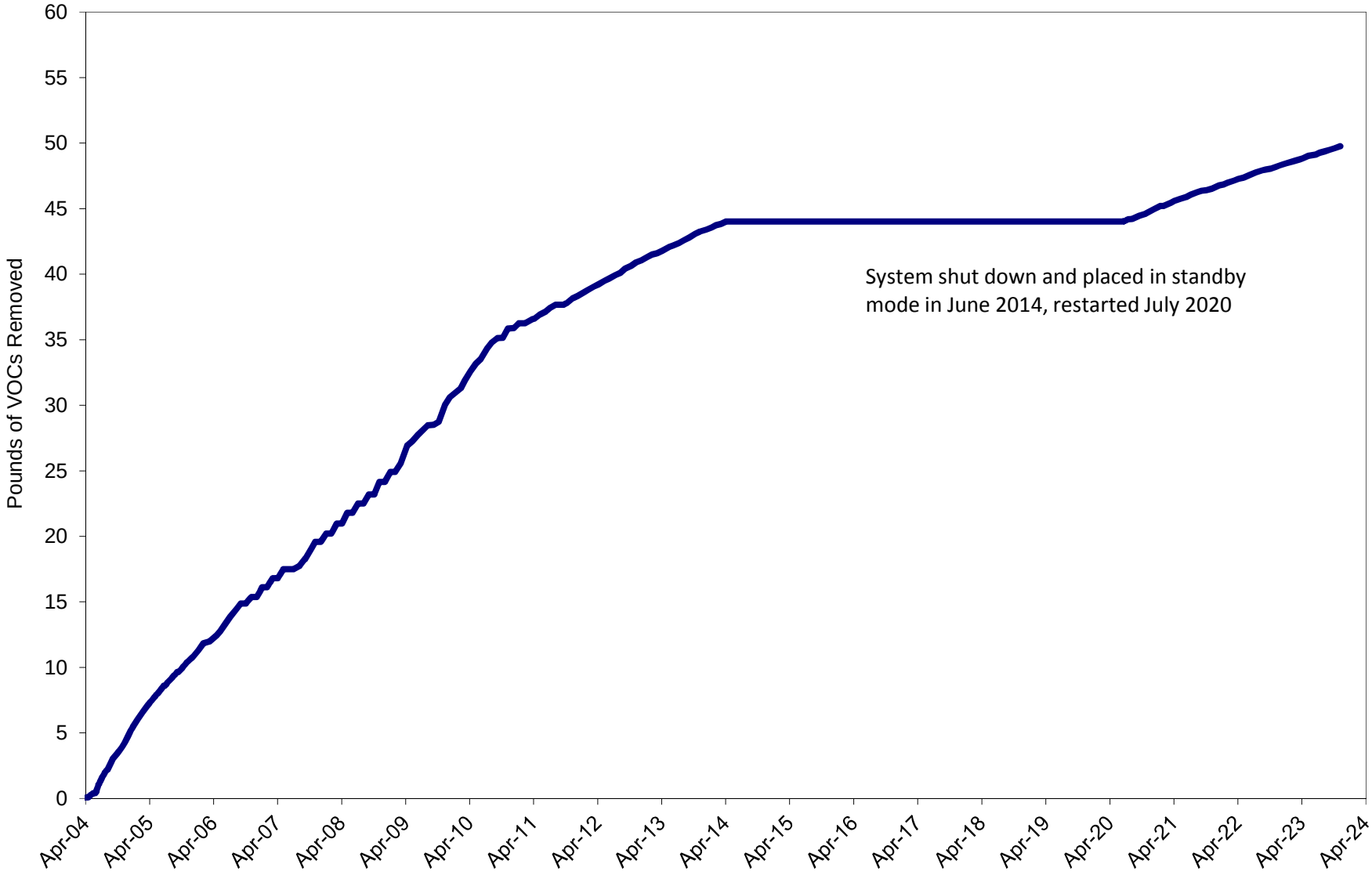
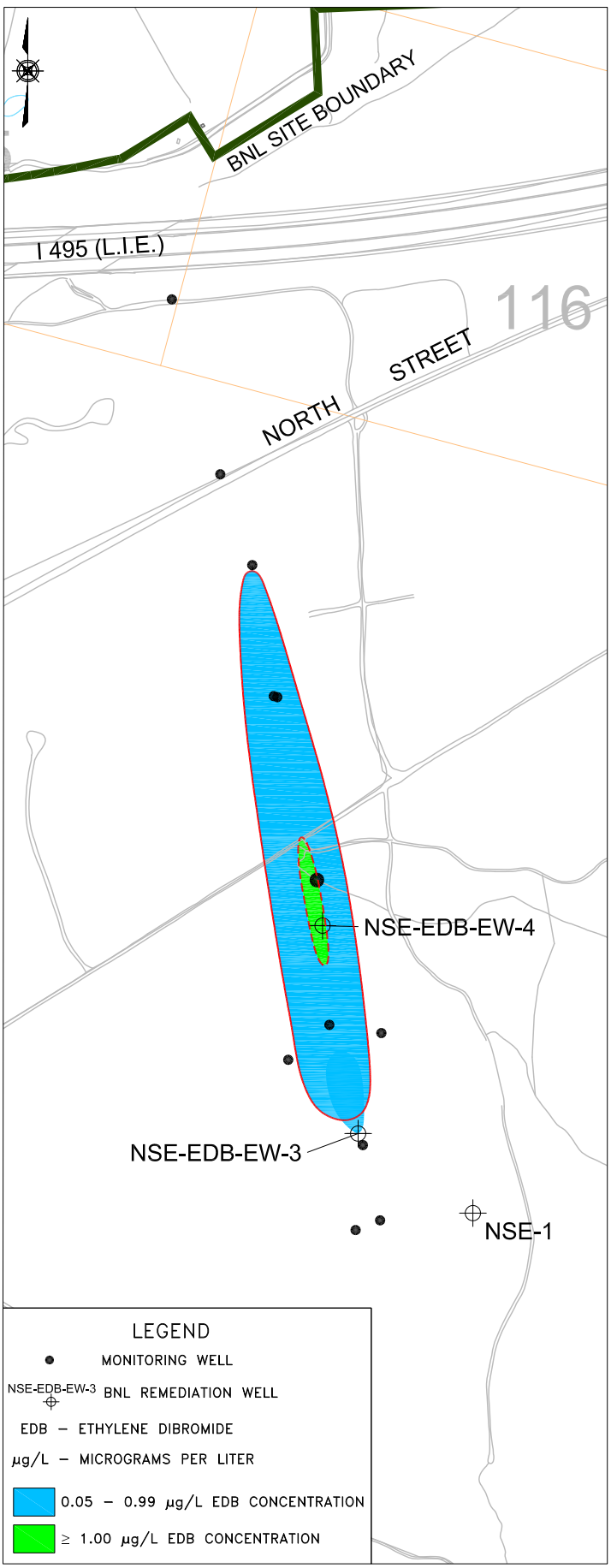
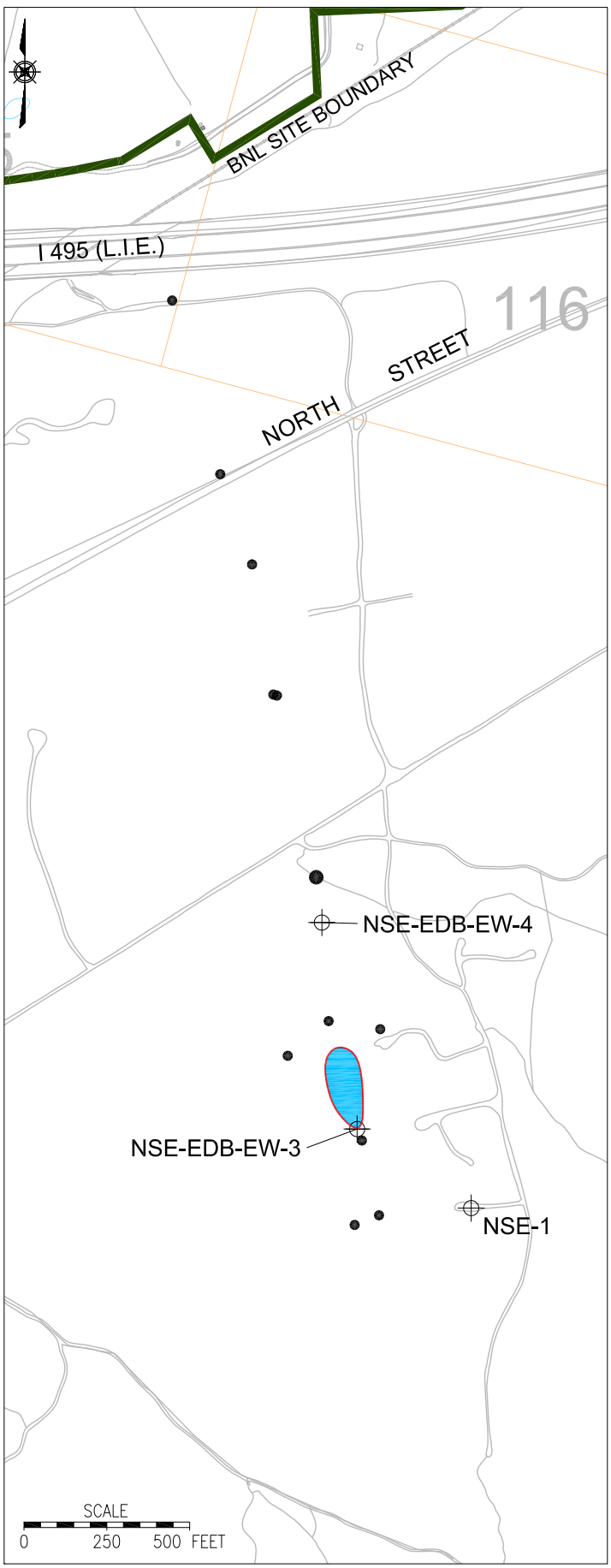


Figure 3.2.7-6
OU III North Street East Groundwater Remediation System
Cumulative VOC Mass Removed

2023 BNL Groundwater Status Report







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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

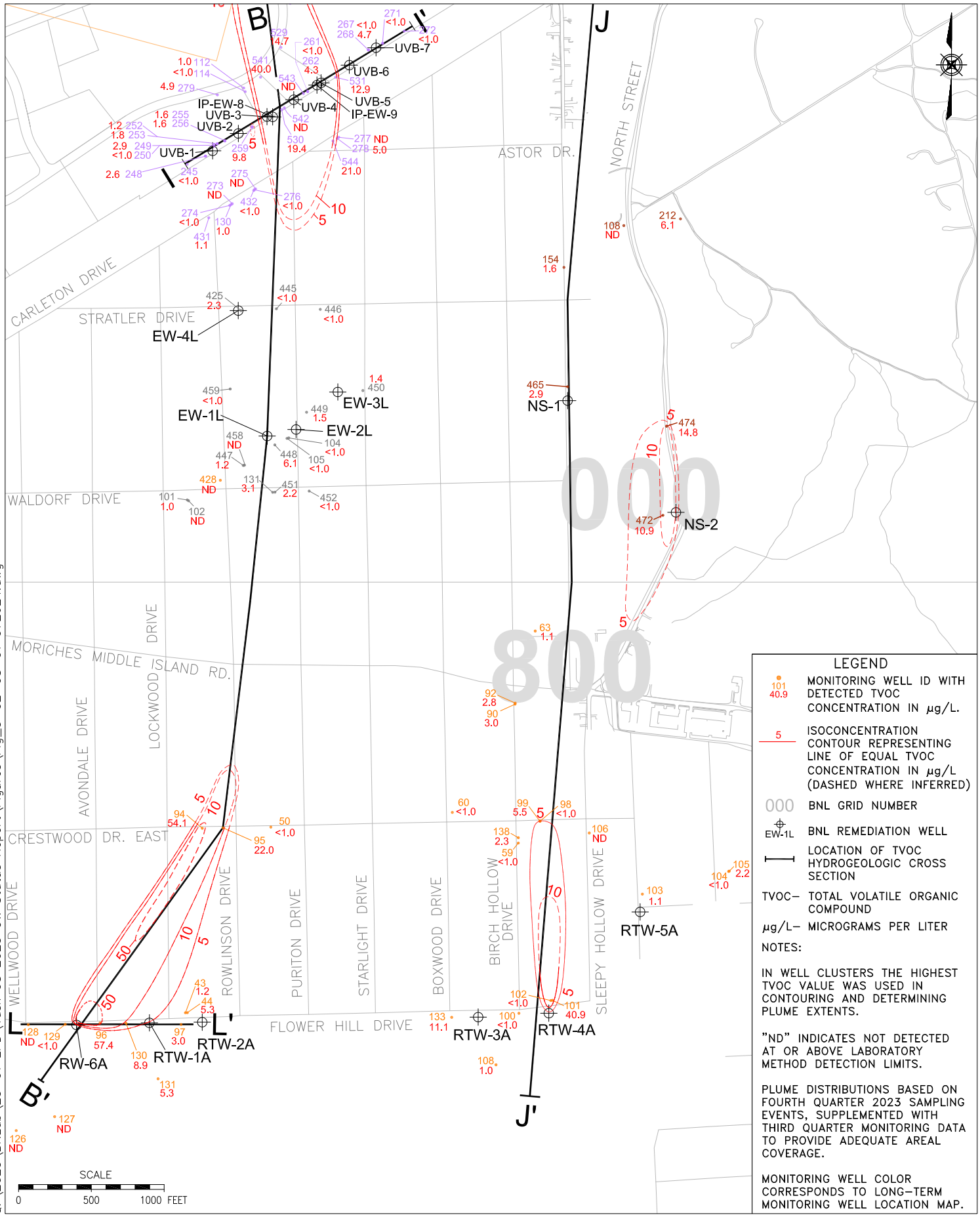
TITLE:

OU III NORTH STREET EAST
EDB PLUME COMPARISON
2019 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.7-7



LEGEND

- 101 / 40.9 — MONITORING WELL ID WITH DETECTED TVOC CONCENTRATION IN µg/L.
- 5 — ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL TVOC CONCENTRATION IN µg/L (DASHED WHERE INFERRED)
- 000 — BNL GRID NUMBER
- EW-1L — BNL REMEDIATION WELL
- LOCATION OF TVOC HYDROGEOLOGIC CROSS SECTION

TVOC– TOTAL VOLATILE ORGANIC COMPOUND

µg/L– MICROGRAMS PER LITER

NOTES:

IN WELL CLUSTERS THE HIGHEST TVOC VALUE WAS USED IN CONTOURING AND DETERMINING PLUME EXTENTS.

"ND" INDICATES NOT DETECTED AT OR ABOVE LABORATORY METHOD DETECTION LIMITS.

PLUME DISTRIBUTIONS BASED ON FOURTH QUARTER 2023 SAMPLING EVENTS, SUPPLEMENTED WITH THIRD QUARTER MONITORING DATA TO PROVIDE ADEQUATE AREAL COVERAGE.

MONITORING WELL COLOR CORRESPONDS TO LONG–TERM MONITORING WELL LOCATION MAP.

Q:\2023\BNLab\23-01 EPD\Task 08 2023 GW Status Report\Figures\Fig_3-02-08-01 072624.dwg

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

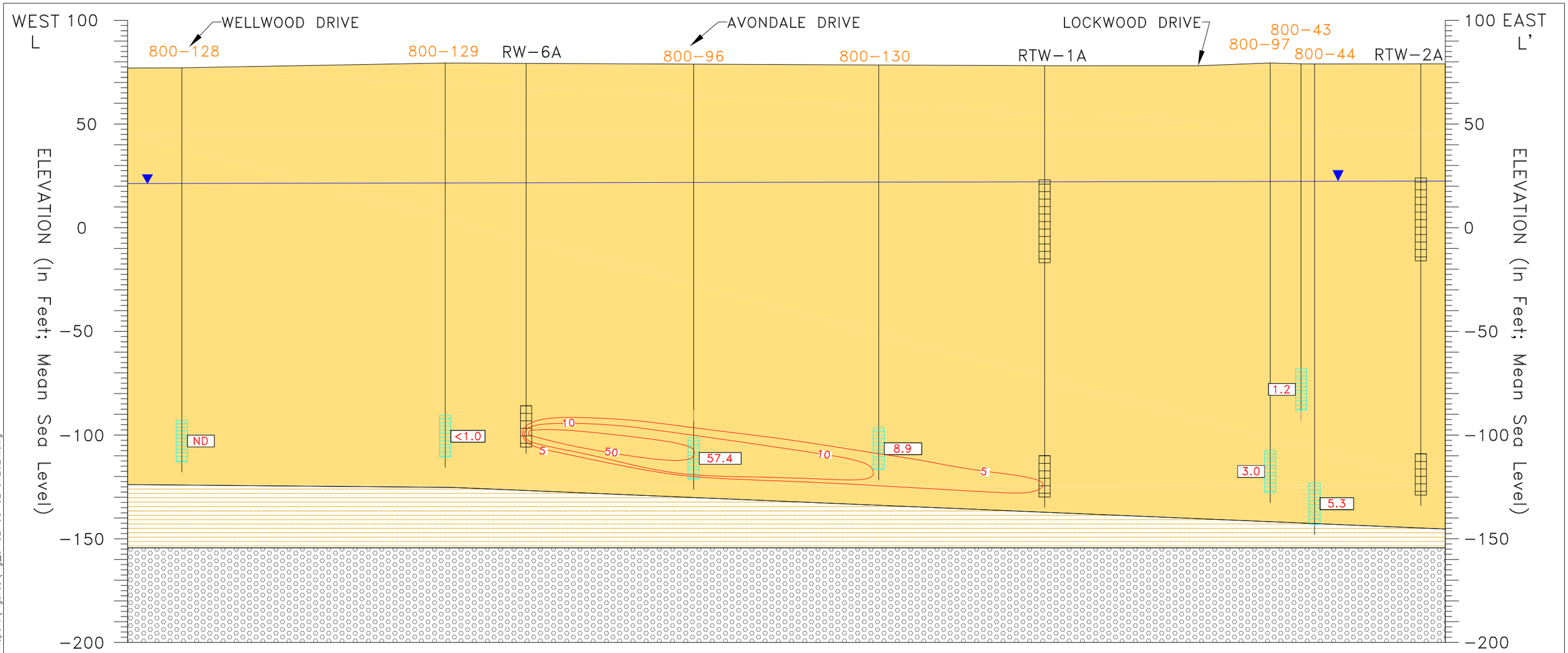
TITLE:

OU III LIPA/AIRPORT TVOC PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.8–1



LEGEND

Upper Glacial aquifer

UG Upper Glacial Sands

UC Upper Glacial Silts & Clays

Magothy aquifer

MA Magothy Sands and Clay

800-44 BNL Well ID

32.93 TVOC Concentration (µg/L)

50 TVOC Contour (µg/L) (Dashed Where Inferred)

Monitoring Well Screen

Extraction Well Screen

Water Table As Of Aug 21 – Aug 25, 2023

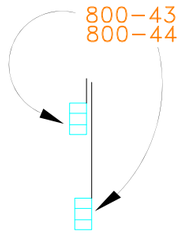
TVOC – Total Volatile Organic Compound

µg/L – Micrograms Per Liter

HORIZONTAL SCALE

0 50 100 FEET

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep



NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS 2006 AND 2007).

2) PLUME DISTRIBUTION IS BASED ON FOURTH QUARTER 2023 OU III SAMPLING EVENT.

3) CONTOUR INTERVAL IS AS SHOWN.

4) BNL WELL ID COLOR CORRESPONDS TO LONG-TERM MONITORING PROGRAM COLOR CODE.

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III AIRPORT WEST
TVOC HYDROGEOLOGIC CROSS SECTION (L–L')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	2:1	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.8-2

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Figure 3.2.8-3
OU III LIPA Groundwater Remediation System
Extraction Well TVOC Concentrations

2023 BNL Groundwater Status Report

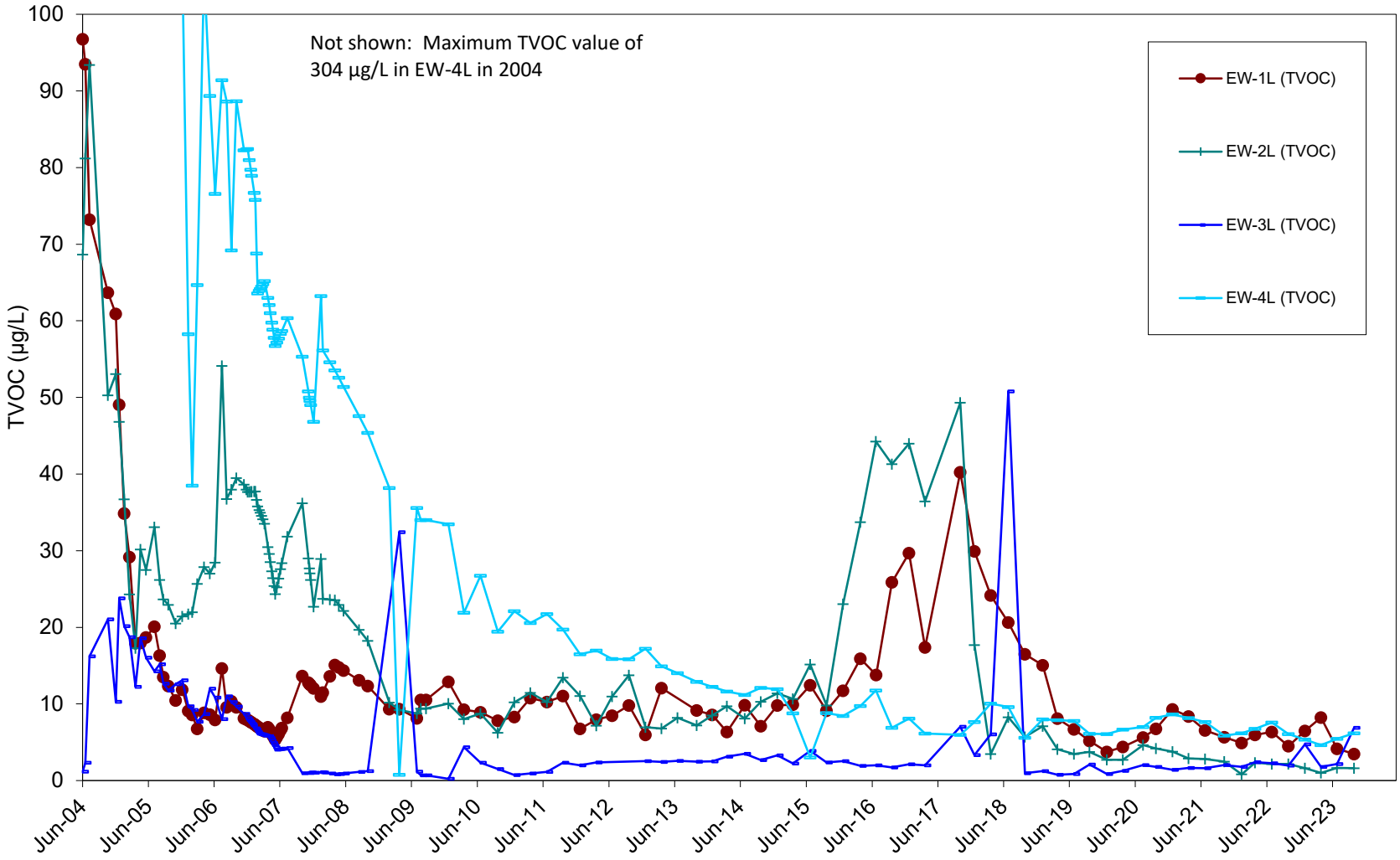


Figure 3.2.8-4
OU III Airport Groundwater Remediation System
Extraction Well TVOC Concentrations

2023 BNL Groundwater Status Report

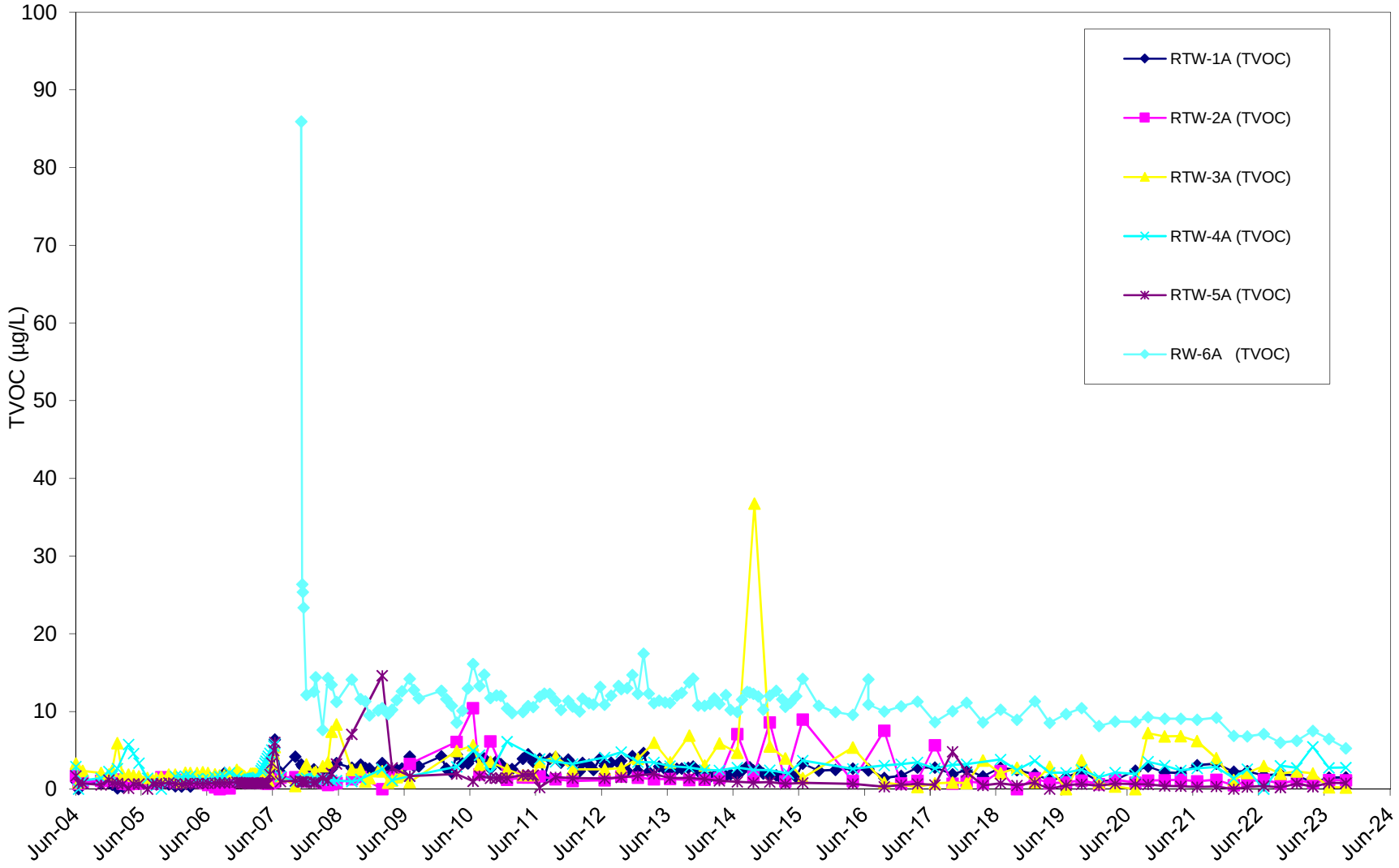
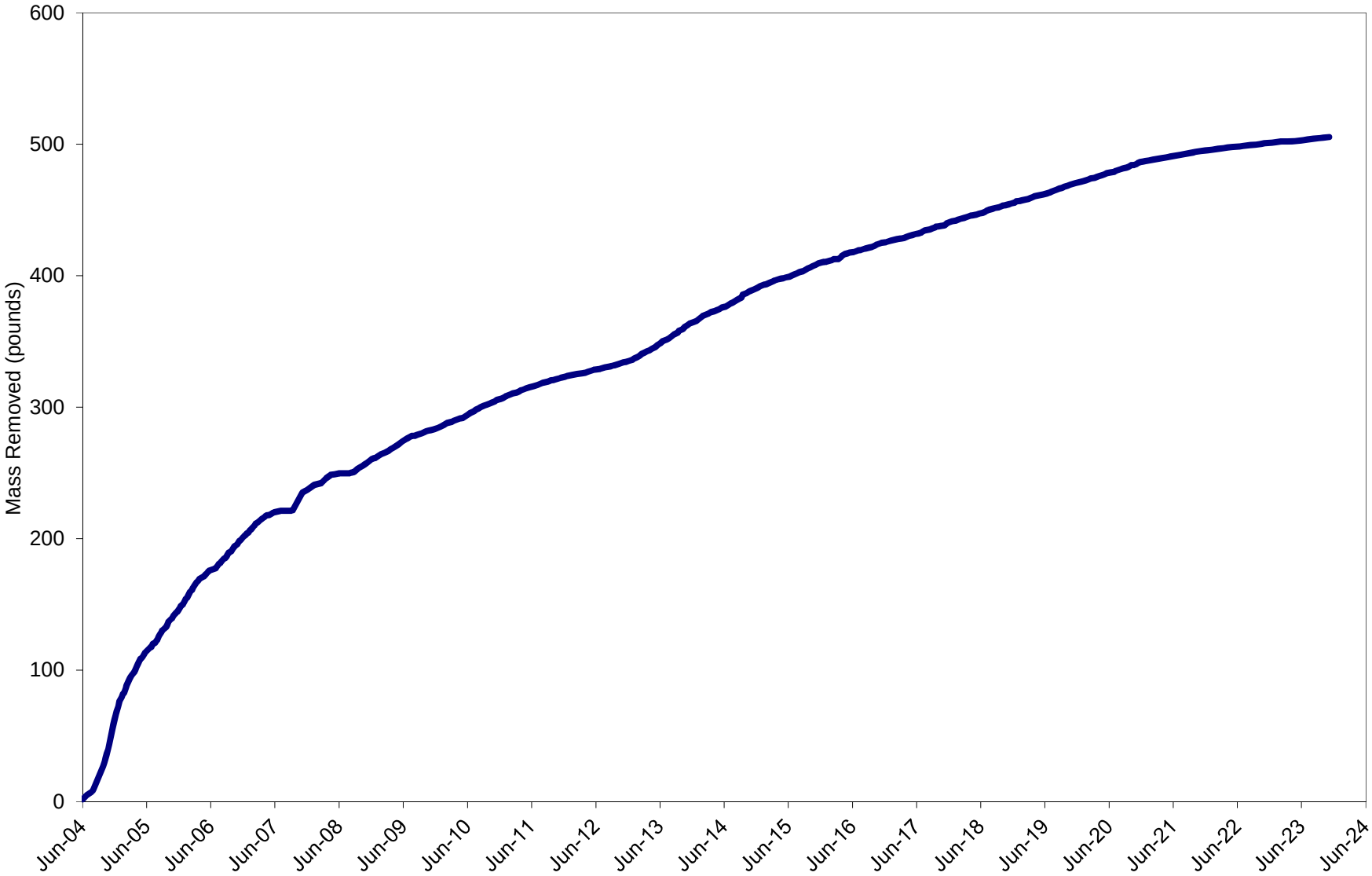
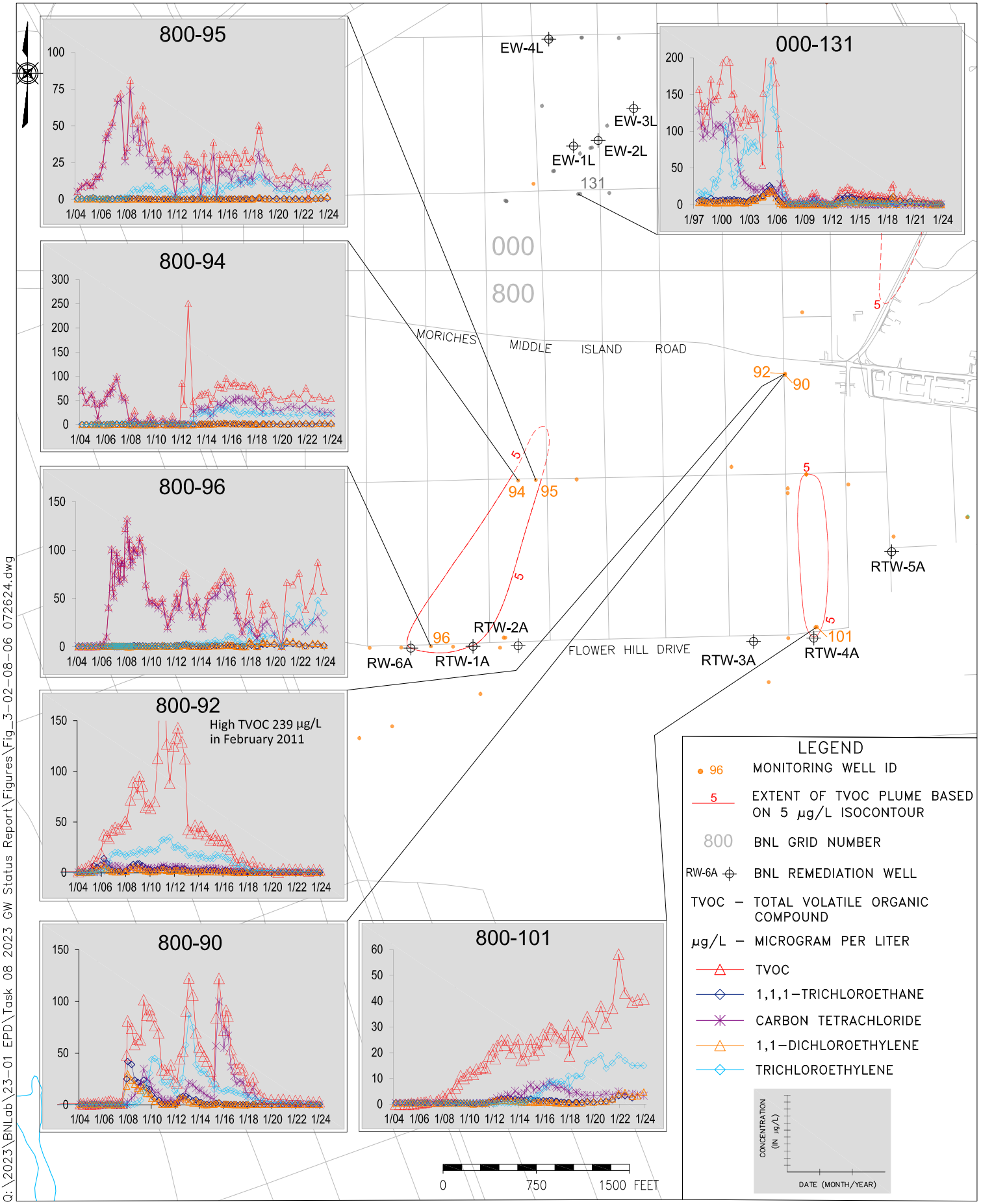


Figure 3.2.8-5
OU III LIPA/Airport Groundwater Remediation System
Cumulative VOC Mass Removed

2023 BNL Groundwater Status Report





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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

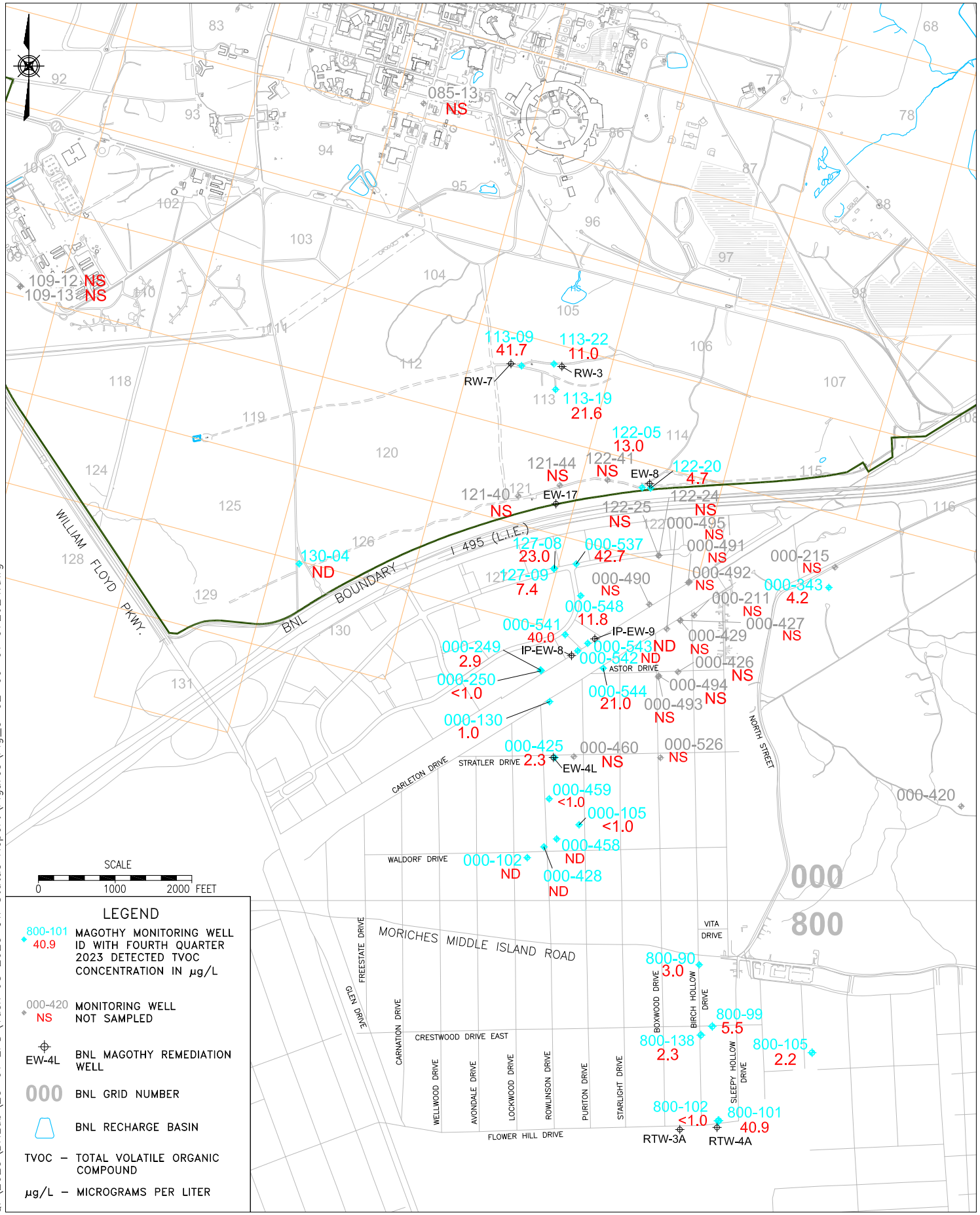
TITLE:

OU III LIPA/AIRPORT HISTORICAL VOC TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.8–6



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

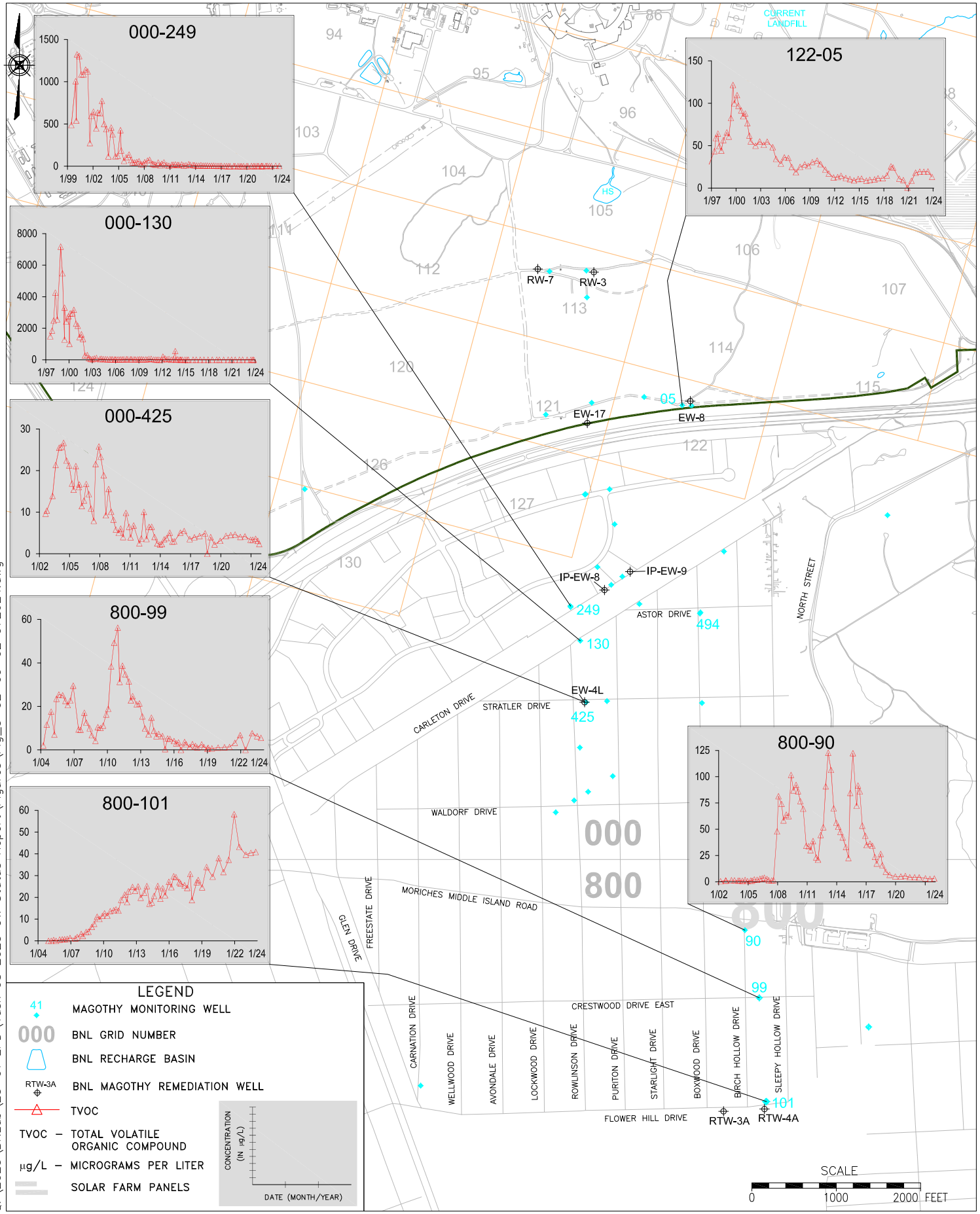
TITLE:

MAGOTHY WELL LOCATIONS AND TVOC RESULTS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.9–1



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

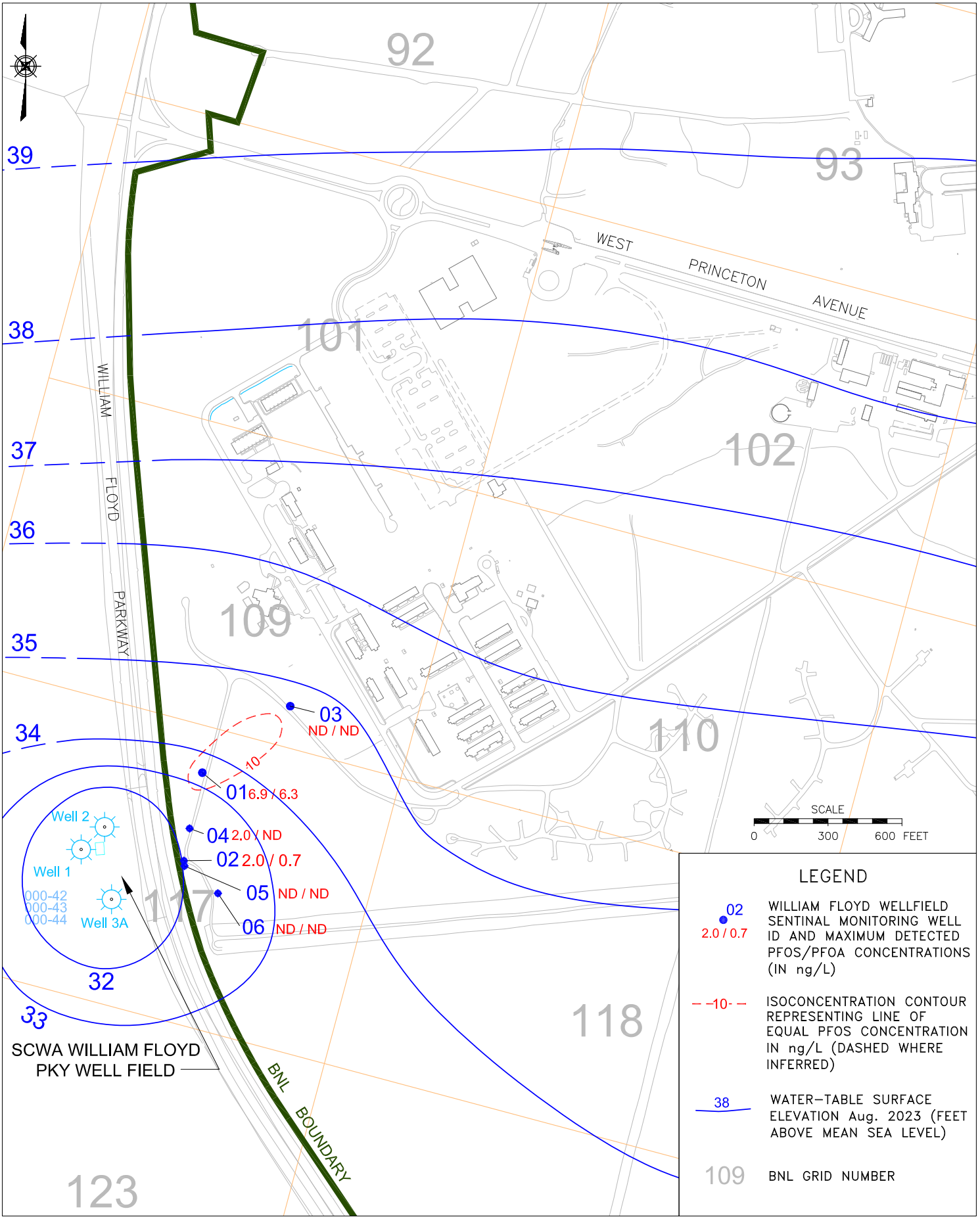
TITLE:

MAGOTHY HISTORICAL TVOC TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.9-2



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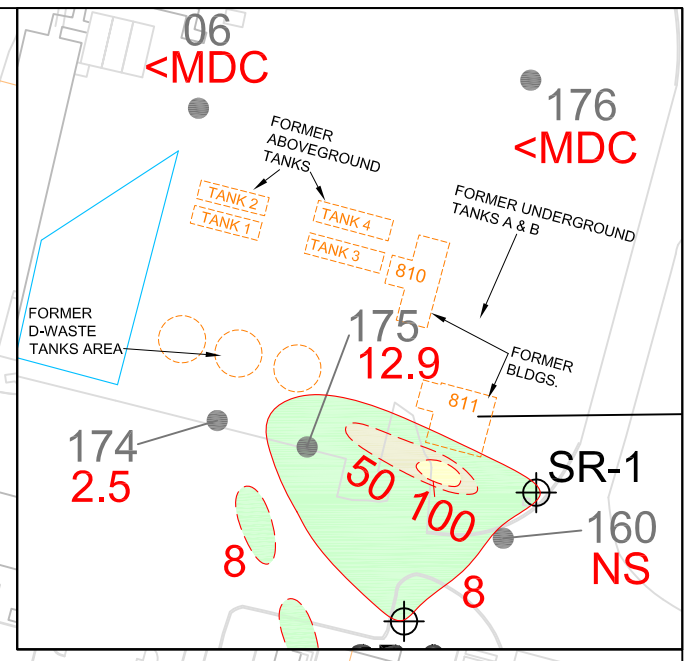
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
WILLIAM FLOYD WELLFIELD
SENTINEL MONITORING
MONITORING WELL LOCATIONS
PFOS/PFOA DATA JUNE 21–AUG. 17 2023
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/04/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.10-1



LEGEND

- 402 / 2.3 — MONITORING WELL ID WITH DETECTED Sr–90 CONCENTRATION (IN pCi/L) FROM THIRD & FOURTH QUARTER 2023.
- BGRR-VP-173 / 9.5 — TEMPORARY WELL LOCATION WITH MAXIMUM DETECTED Sr–90 RESULTS pCi/L, SAMPLES OBTAINED DURING AUGUST 2023.
- SR-1 — EXTRACTION WELL ID
- 8 — ISOCONCENTRATION LINE REPRESENTING LINE OF EQUAL Sr–90 CONCENTRATION (IN pCi/L) (DASHED WHERE INFERRED)
- CROSS SECTION LINE
- ≥ 8–49 pCi/L Sr–90 CONCENTRATION
- ≥ 50–99 pCi/L Sr–90 CONCENTRATION
- ≥ 100–499 pCi/L Sr–90 CONCENTRATION
- BNL RECHARGE BASIN
- ENGINEERED CAP
- 75 — BNL GRID NUMBER

pCi/L – PICO CURIES PER LITER

HFBR – HIGH FLUX BEAM REACTOR

WCF – WASTE CONCENTRATION FACILITY

BGRR – BROOKHAVEN GRAPHITE RESEARCH REACTOR

NOTES:

"<MDC" INDICATES BELOW MINIMUM DETECTABLE CONCENTRATION.

"NS" INDICATES NOT SAMPLED.

CONTOUR INTERVAL AS SHOWN.

IN WELL CLUSTERS THE HIGHEST Sr–90 VALUE WAS USED IN CONTOURING AND DETERMINING PLUME EXTENTS.

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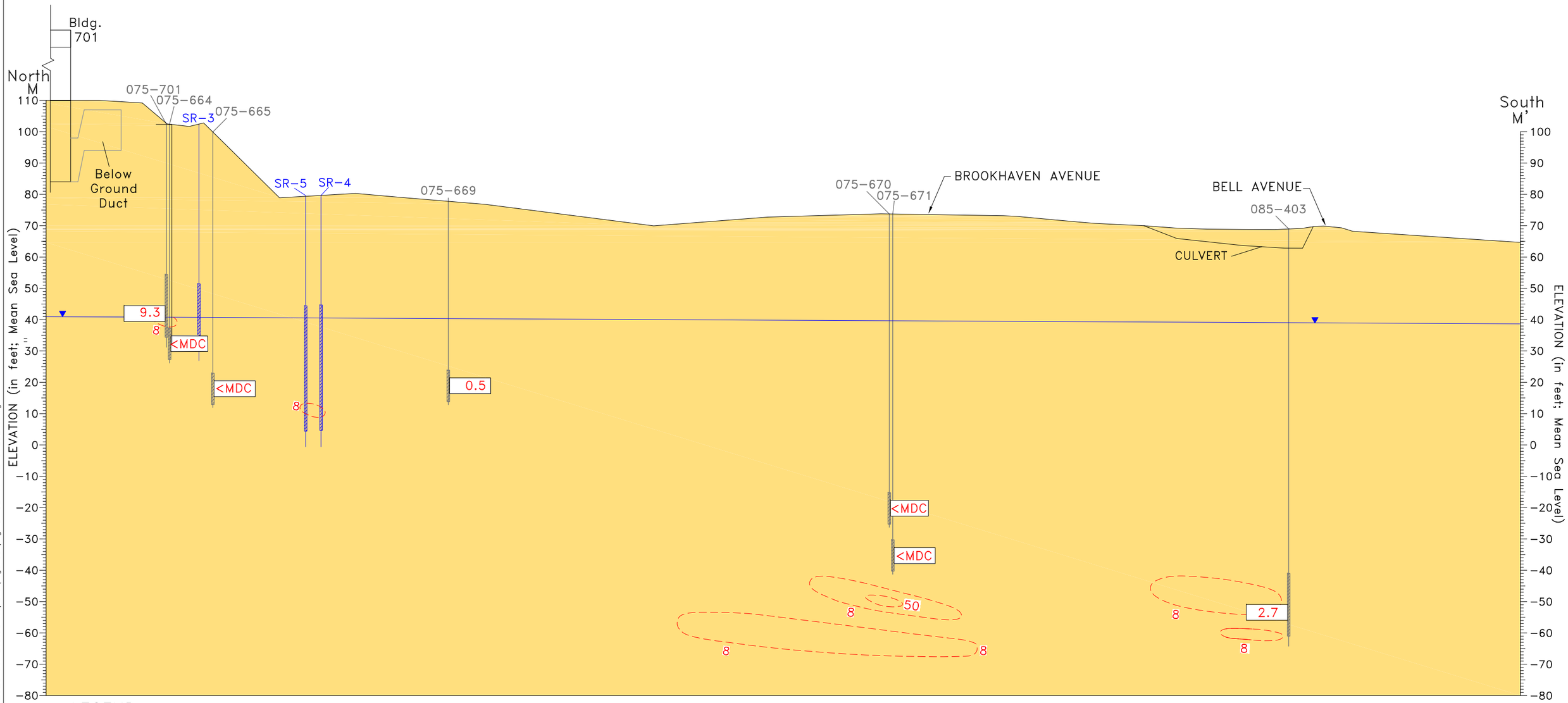
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III BGRR/WCF
Sr–90 PLUME DISTRIBUTION
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.11–1



LEGEND

Upper Glacial aquifer

UG Upper Glacial Sands

8 Strontium–90 (Sr–90) Plume Contours

SR–3 Extraction Well

075–664 Monitoring Well

Well Screen Zone

8.9 Sr–90 results in pCi/L, obtained during 3rd & 4th quarter 2023.

"<MDC" indicates below minimum detectable concentration.

pCi/L – pico Curies per liter

Water Table As Of Aug 21 – Aug 25, 2023

HORIZONTAL SCALE

0 100 200 FEET

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

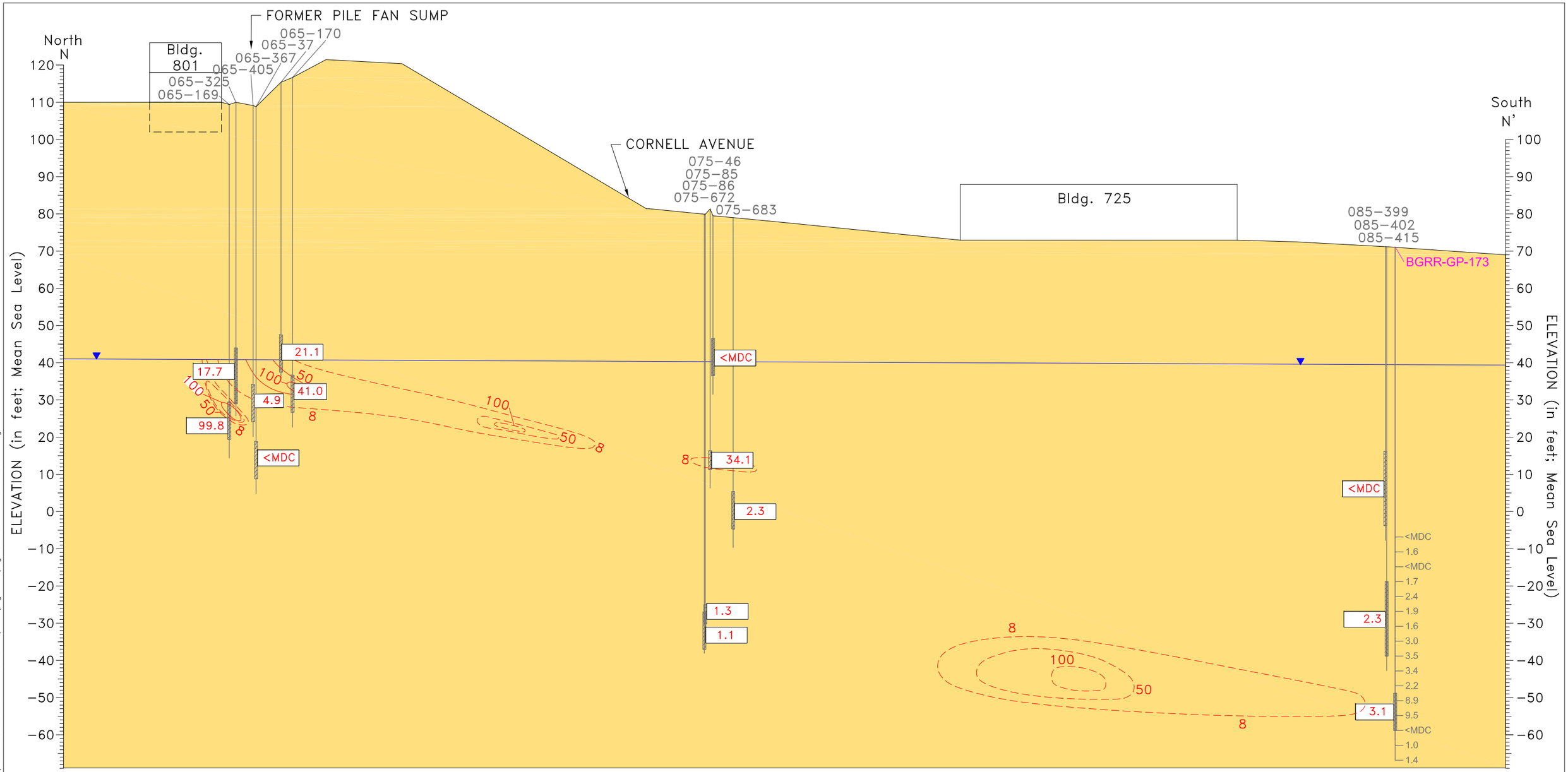
TITLE:

OU III BGRR/WCF
Sr–90 CROSS SECTION (M–M')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	5:1	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.11–2



LEGEND

Upper Glacial aquifer

UG Upper Glacial Sands

8 Strontium–90 (Sr–90) Plume Contours

065–169 Monitoring Well

Well Screen Zone

1.3 Sr–90 results in pCi/L, obtained during 3rd & 4th quarter 2023.

"<MDC" indicates below minimum detectable concentration.

pCi/L – pico Curies per liter

Water Table As Of Aug 21 – Aug 25, 2023

HORIZONTAL SCALE

0 100 200 FEET

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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

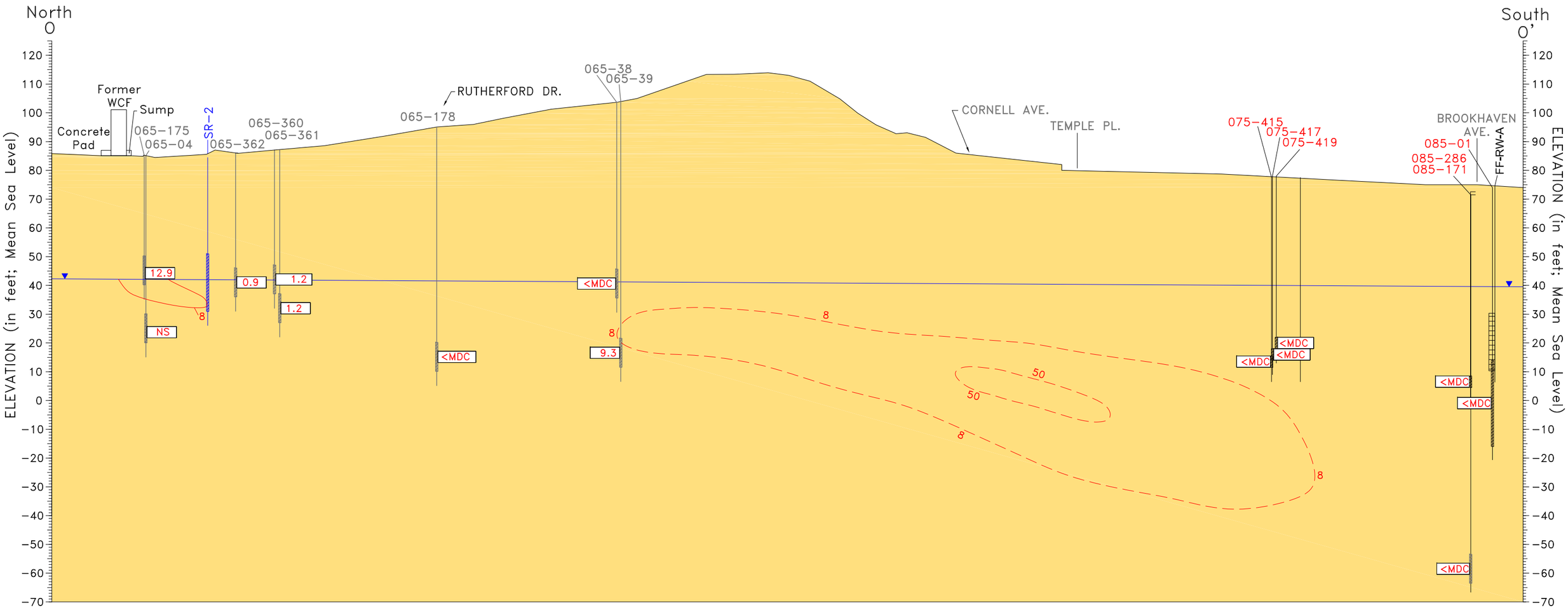
TITLE:

OU III BGRR/WCF
Sr–90 CROSS SECTION (N–N')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	5:1	03/08/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.11–3



LEGEND

Upper Glacial aquifer

UG Upper Glacial Sands

8 Strontium-90 (Sr-90) Plume Contours (Dashed where inferred)

SR-2 Sr-90 Plume Extraction Well

FF-RW-A PFAS Plume Extraction Well

065-175 Monitoring Well

Well Screen Zone

39.1 Sr-90 results in pCi/L, obtained during 3rd & 4th quarter 2023.

"<MDC" indicates below minimum detectable concentration.

"NS" indicates not sampled.

pCi/L – pico Curies per liter

Water Table As Of Aug 21 – Aug 25, 2023

HORIZONTAL SCALE

0 100 200 FEET

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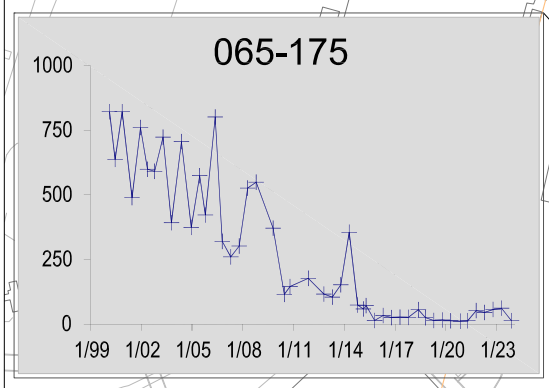
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

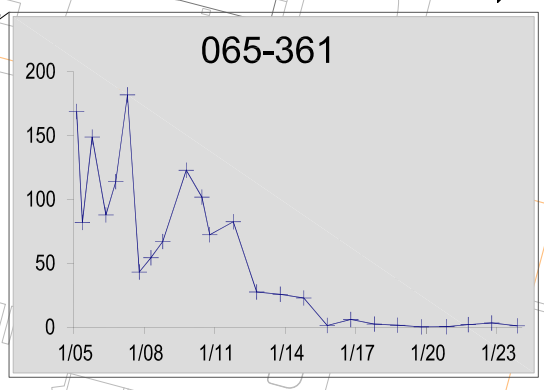
TITLE:

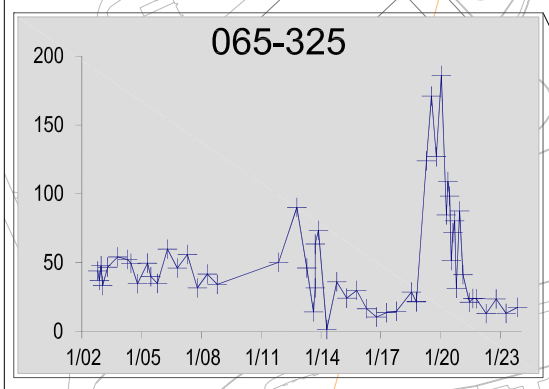
OU III BGRR/WCF
Sr-90 CROSS SECTION (O-O')
2023 BNL GROUNDWATER STATUS REPORT

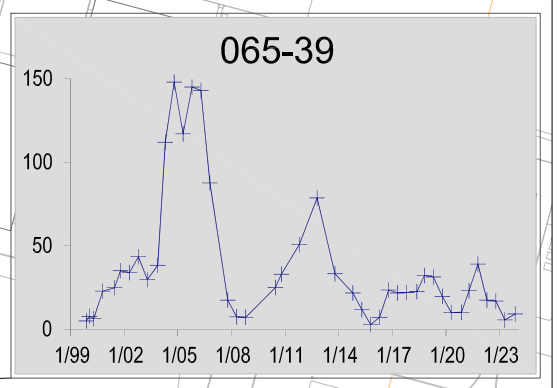
DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	5:1	03/08/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

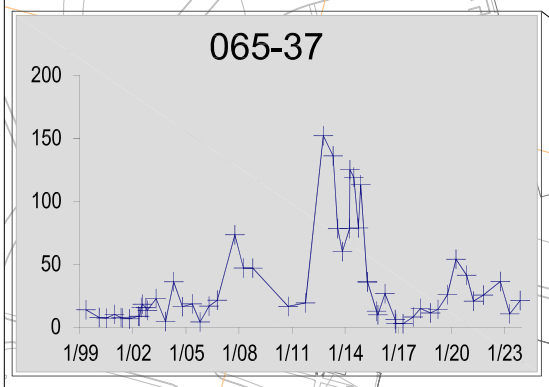
FIGURE NO.: 3.2.11-4

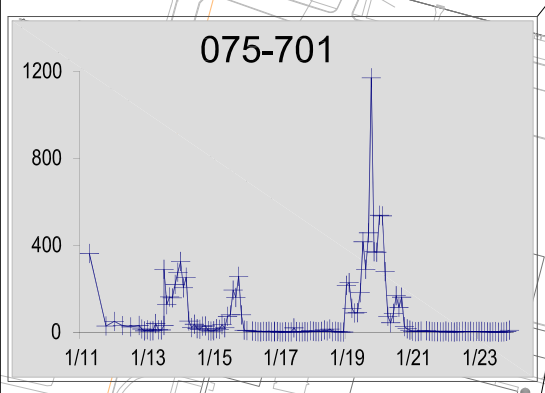


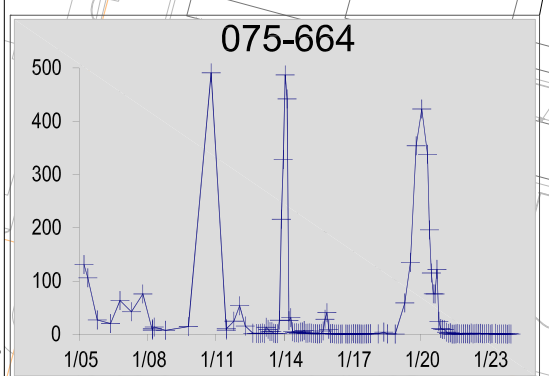


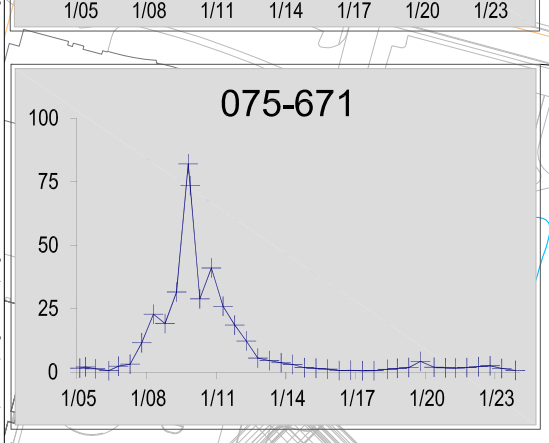


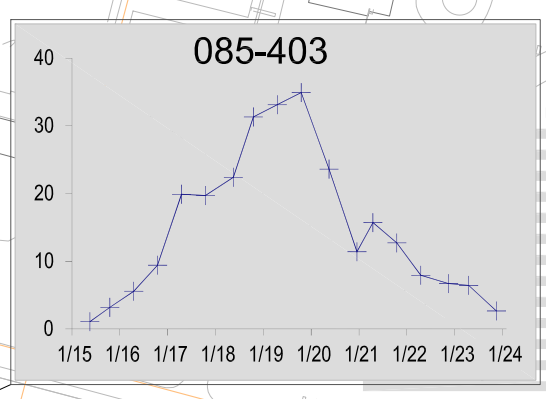












HENRY ST.

WASTE CONCENTRATION FACILITY

175

SR-1

SR-2

361

BGRR

325

39

37

65

701

664

SR-3

SR-6

HFBR

SR-5

SR-4

SR-7

SR-8

SR-9

CORNELL AVENUE

669

TEMPLE STREET

75

TECHNOLOGY

671

BROOKHAVEN AVENUE

85

403

ROCHESTER

ROWLAND STREET

SCALE

0 200 400 FEET

LEGEND

- 175 MONITORING WELL ID
- TEMPORARY WELL
- 8 EXTENT OF Sr-90 PLUME BASED ON 8 pCi/L ISOCONTOUR (DASHED WHERE INFERRED)
- 75 BNL GRID NUMBER

pCi/L- PICOCURIES PER LITER

WCF- WASTE CONCENTRATION FACILITY

BGRR- BROOKHAVEN GRAPHITE RESEARCH REACTOR

-+- STRONTIUM-90 (Sr-90) (pCi/L)

CONCENTRATION (IN pCi/L)

TIME (MONTH/YEAR)

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III BGRR/WCF HISTORICAL Sr-90 TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/08/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.11-5

Figure 3.2.11-6
OU III BGRR/WCF Monitoring Well 075-701
Sr-90 Concentration Comparison to Water Table Elevation

2023 BNL Groundwater Status Report

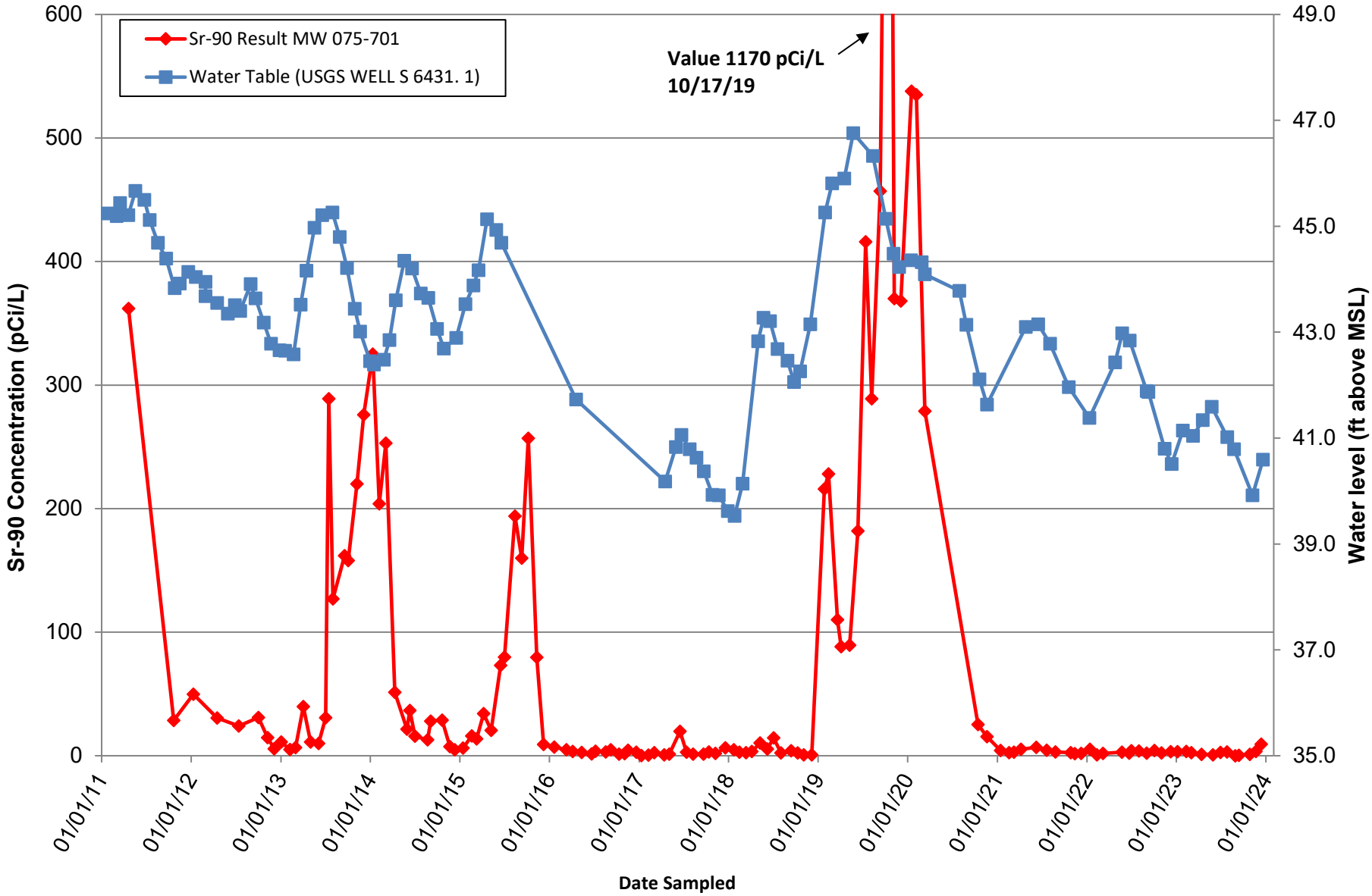


Figure 3.2.11-7
OU III BGRR/WCF
Sr-90 Cumulative
MilliCuries Removed

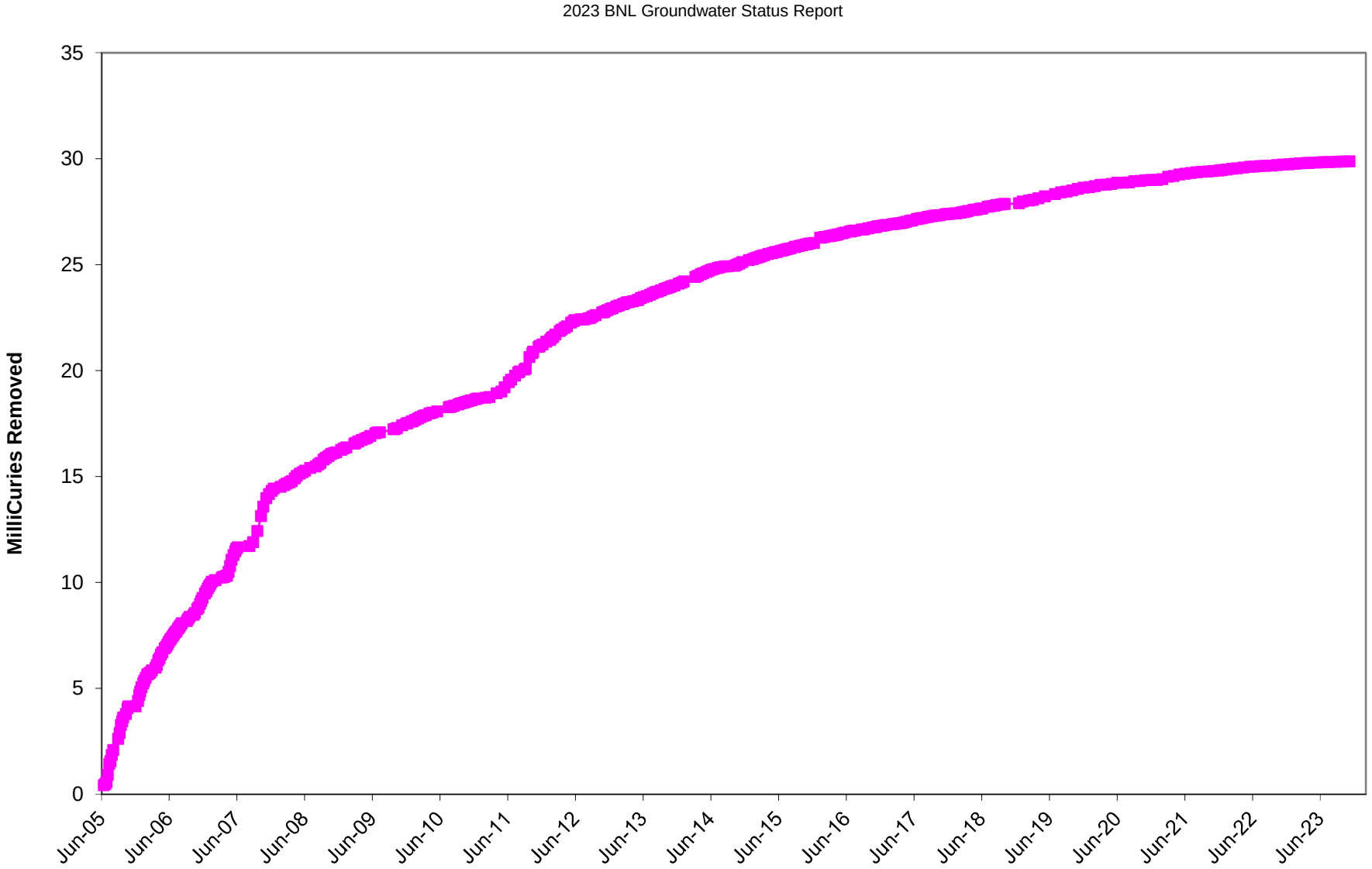


Figure 3.2.11-8
OU III BGRR/WCF
Sr-90 Influent Concentrations For Extraction Wells

2023 BNL Groundwater Status Report

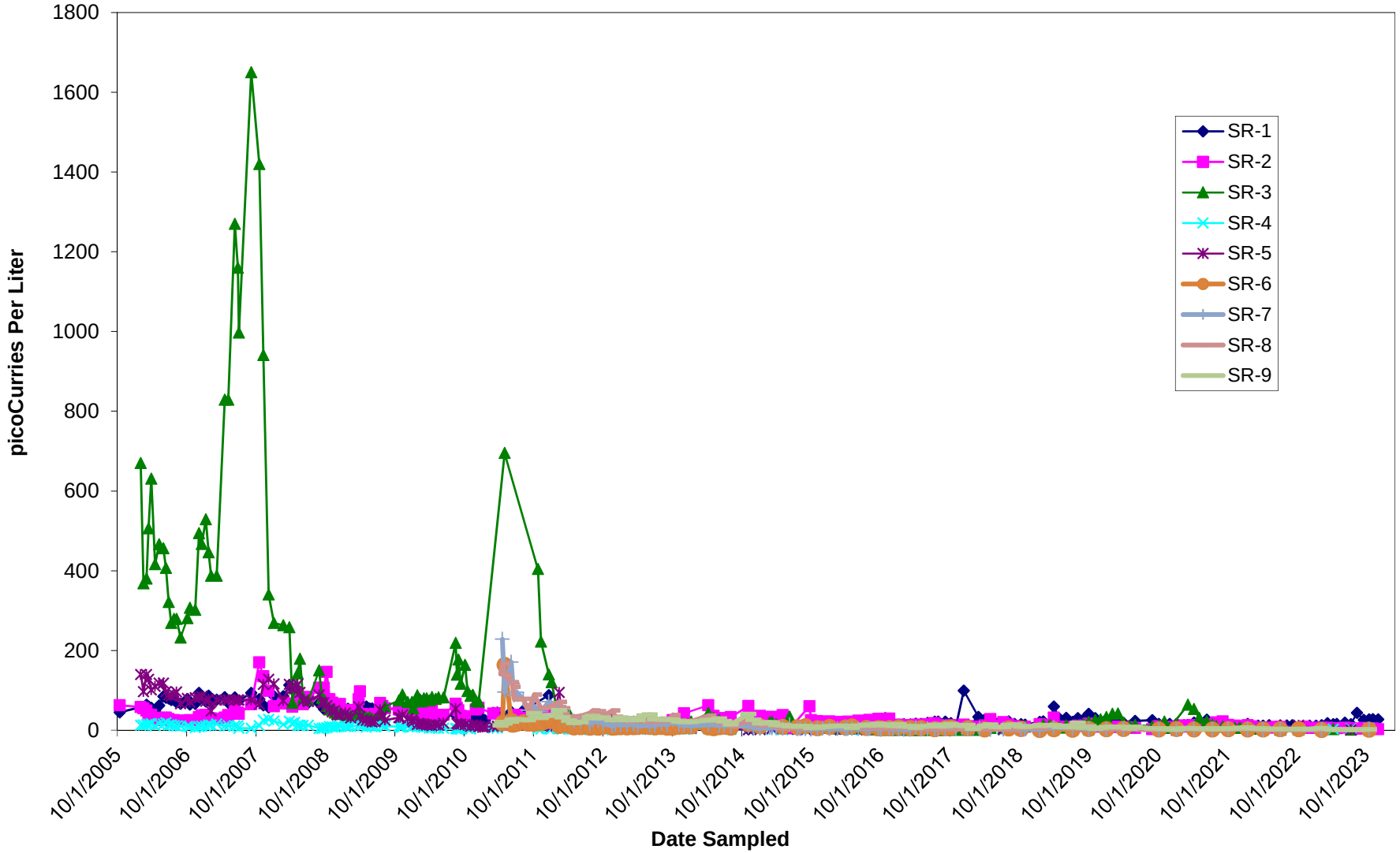
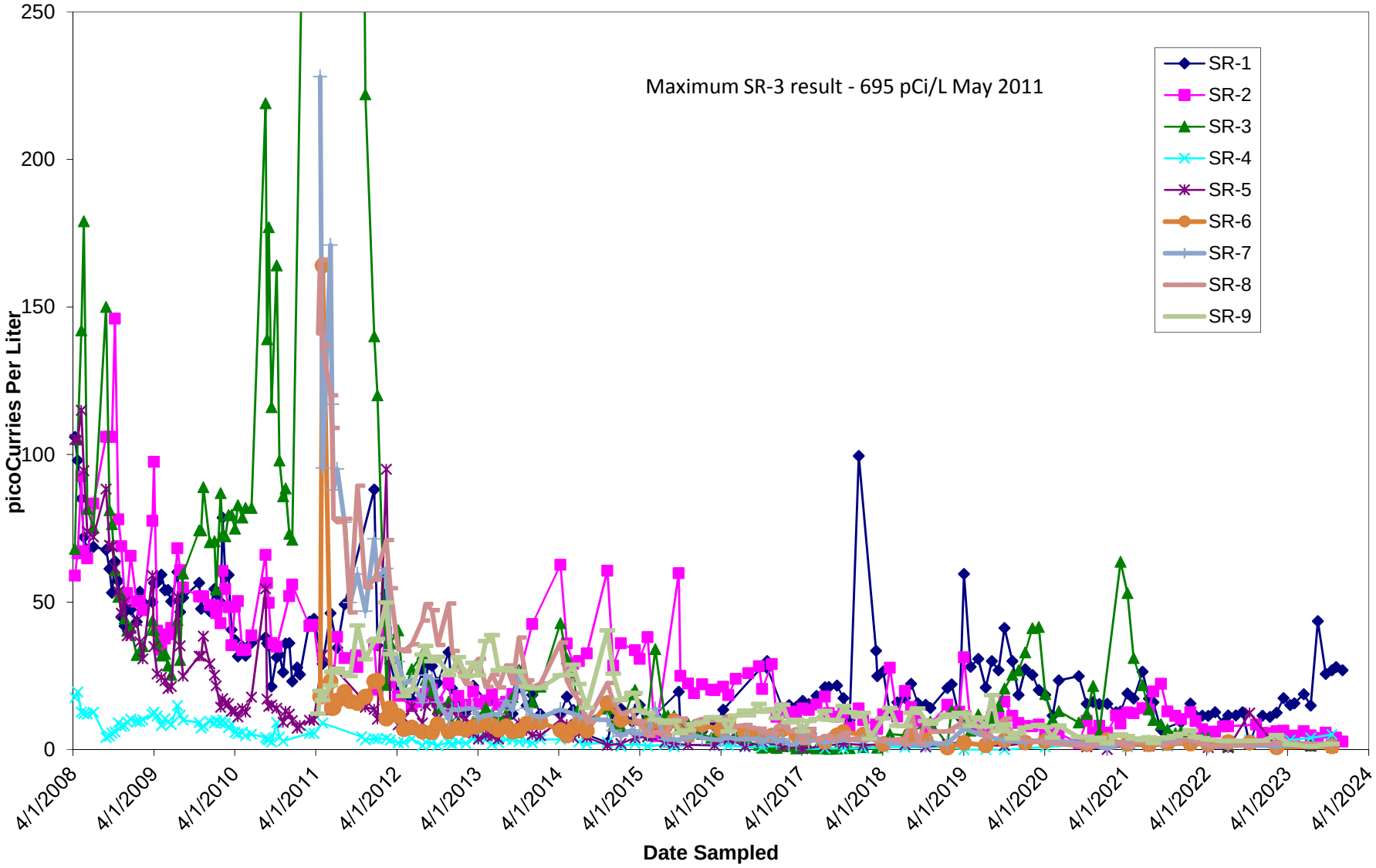


Figure 3.2.11-9
OU III BGRR/WCF
Sr-90 Influent Concentrations From April 2008 to Present

2023 BNL Groundwater Status Report



2004

2008

2023

FORMER D-WASTE TANK AREA

WASTE CONCENTRATION FACILITY

SR-1

SR-2

SR-3

SR-4

SR-5

SR-6

SR-7

SR-8

SR-9

FORMER PILE FAN SUMP LOCATION

BELOW GROUND DUCTS LOCATION

BGRR

Building 701

FORMER CANAL HOUSE

Building 801

HFBR

LIGHT SOURCE
Building 725

CFN
Building 735

65

75

85

HENRY ST.

LAWRENCE DR.

RUTHERFORD DR.

CORNELL AVENUE

PENNSYLVANIA STREET

RAILROAD STREET

TEMPLE PLACE

TECHNOLOGY STREET

BROOKHAVEN AVENUE

DEPOT ROAD

BELL AVENUE

ROWLAND STREET

TO BLDG

LEGEND

- TEMPORARY WELL
- MONITORING WELL
- SR-1 GW EXTRACTION WELL
- BGRR– BROOKHAVEN GRAPHITE RESEARCH REACTOR
- HFBR– HIGH FLUX BEAM REACTOR
- pCi/L– PICO CURIES PER LITER
- ≥ 8–49 pCi/L Sr-90 CONCENTRATION
- ≥ 50–99 pCi/L Sr-90 CONCENTRATION
- ≥ 100–499 pCi/L Sr-90 CONCENTRATION
- ≥ 500 – pCi/L Sr-90 CONCENTRATION

SCALE
0 300 600 FEET

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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

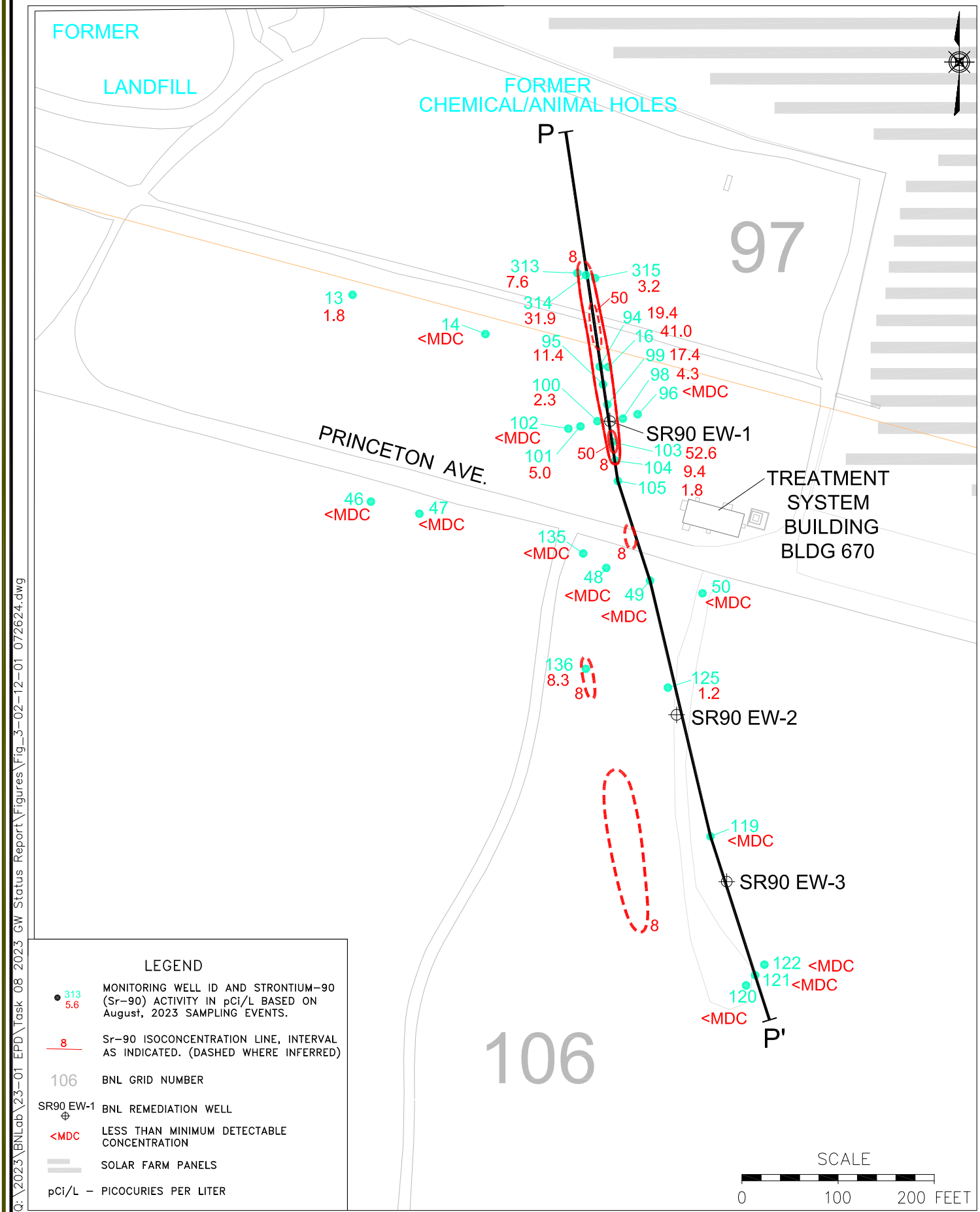
TITLE:

OU III BGRR/WCF
Sr–90 PLUME COMPARISON 2004 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/08/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.11–10



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

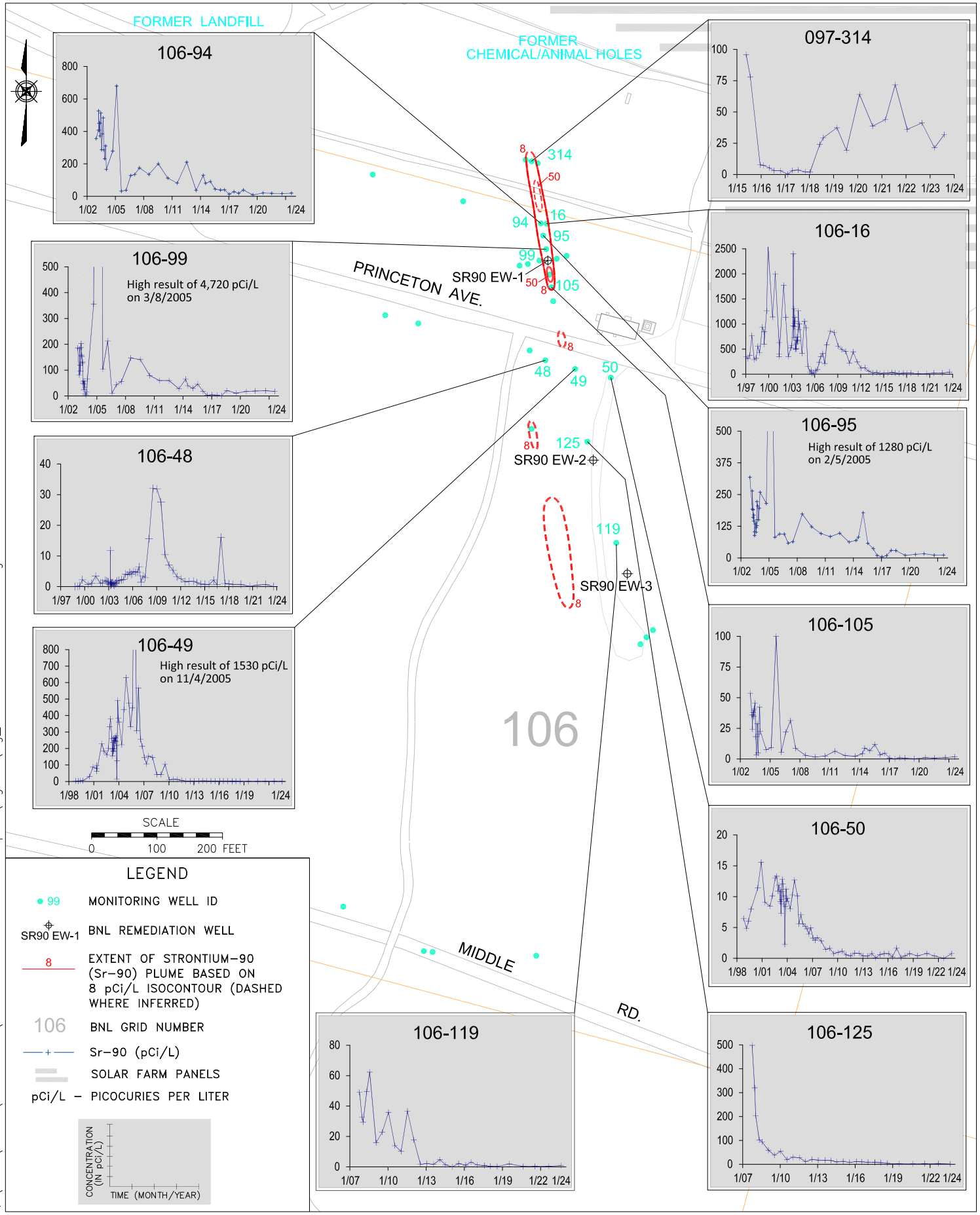
TITLE:

OU III CHEMICAL/ANIMAL HOLES Sr-90 PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/11/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.12-1



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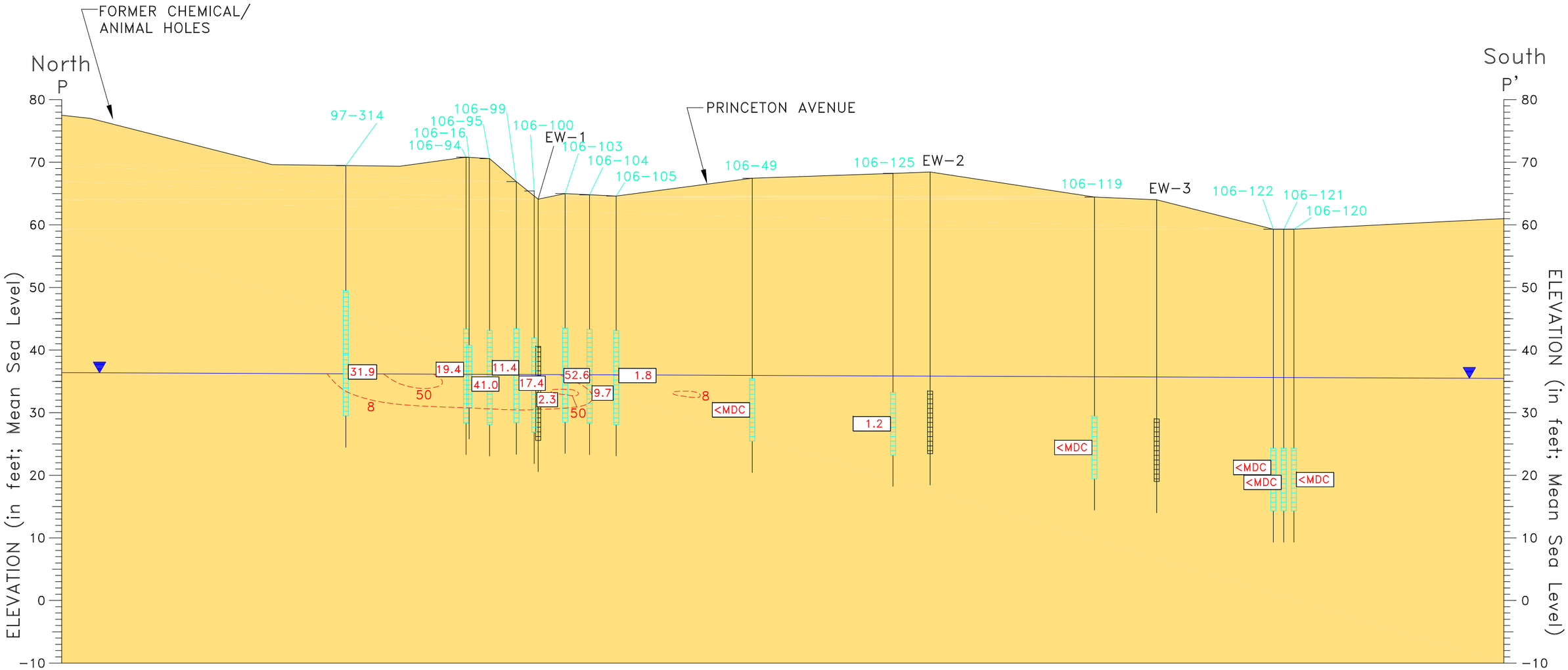
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
OU III CHEMICAL/ANIMAL HOLES HISTORICAL Sr-90 TRENDS
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/11/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.12-2



LEGEND

Upper Glacial aquifer

UG Upper Glacial Sands

20.9 — Sr-90 results in pCi/L, obtained during AUGUST 2023 sampling events.

"<MDC" indicates below minimum detectable concentration.

8 — Strontium-90 (Sr-90) Plume Contours

106-94 — Monitoring Well

Monitoring Well Screen

Extraction Well Screen

Water Table As Of Aug 21 – Aug 25, 2023

pCi/L – pico Curies per liter

HORIZONTAL SCALE

0 50 100 FEET

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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III CHEMICAL/ANIMAL HOLES
Sr-90 HYDROGEOLOGIC CROSS SECTION (P-P')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	5:1	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.12-3

Figure 3.2.12-4
OU III Chemical/Animal Holes
Sr-90 Extraction Well Concentrations

2023 BNL Groundwater Status Report

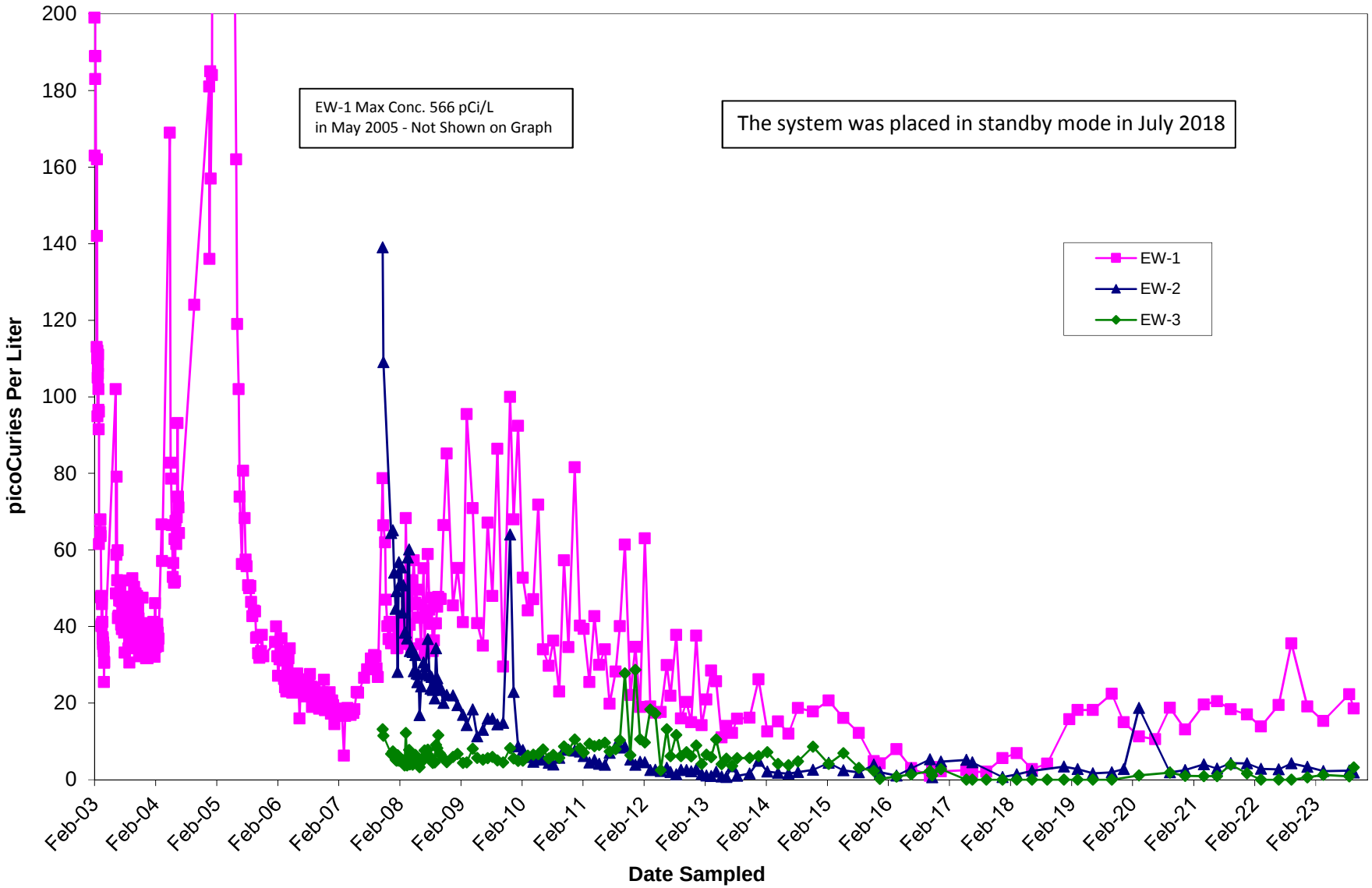
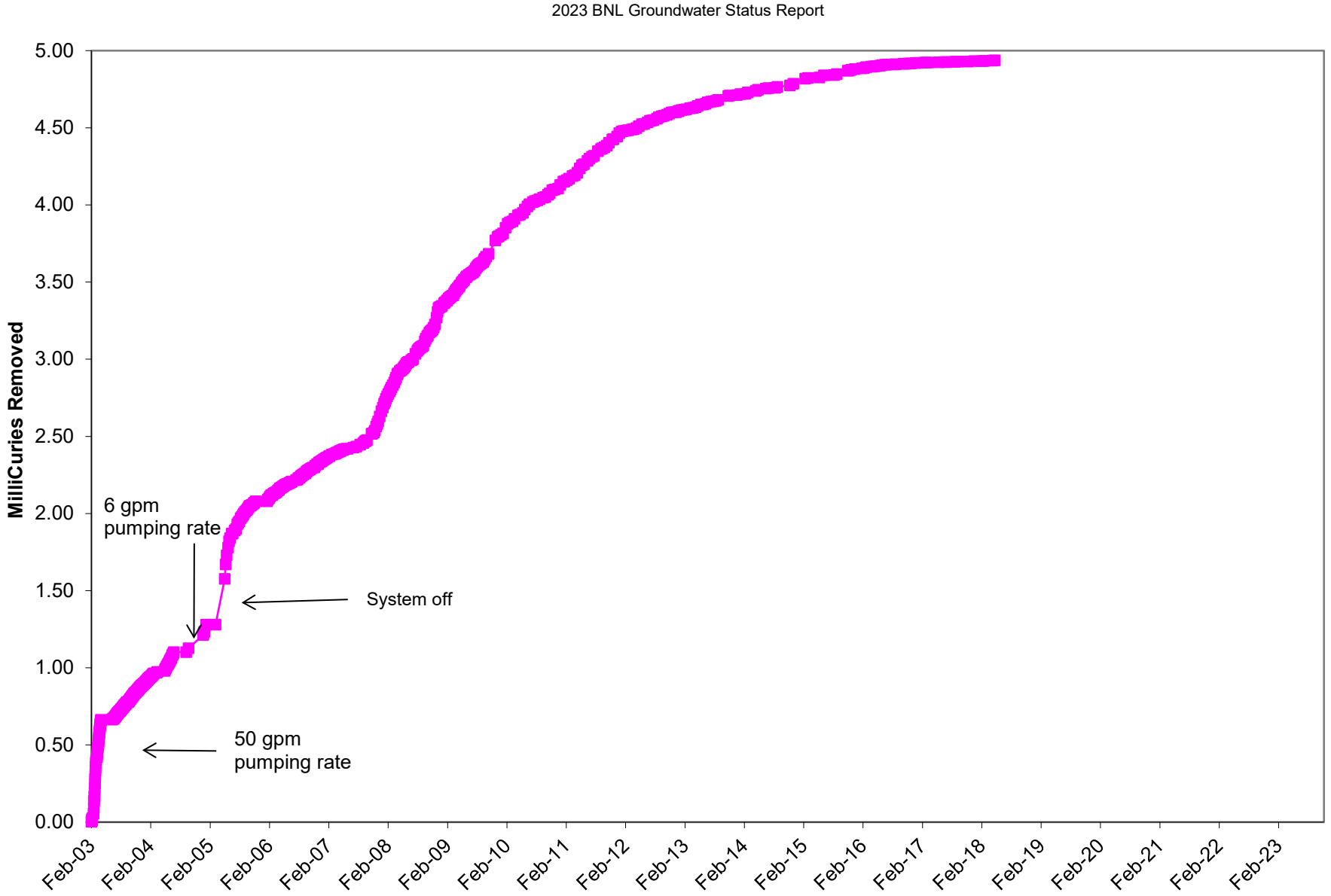
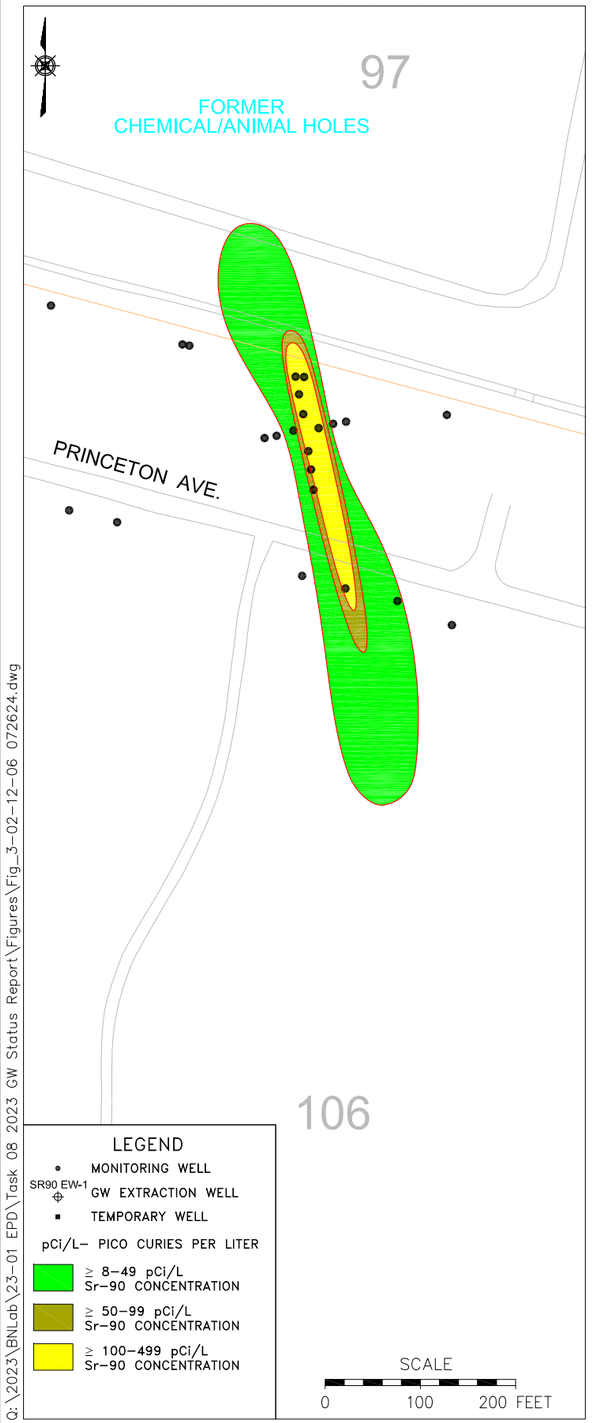


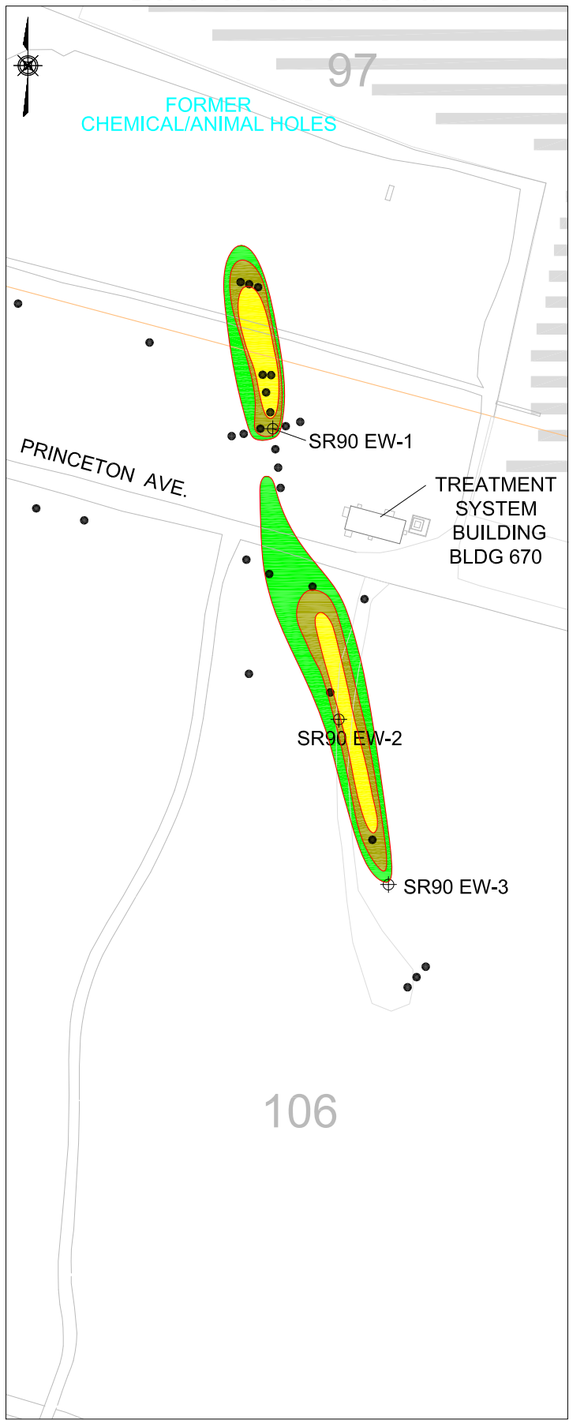
Figure 3.2.12-5
OU III Chemical/Animal Holes
Sr-90 Cumulative MilliCuries Removed



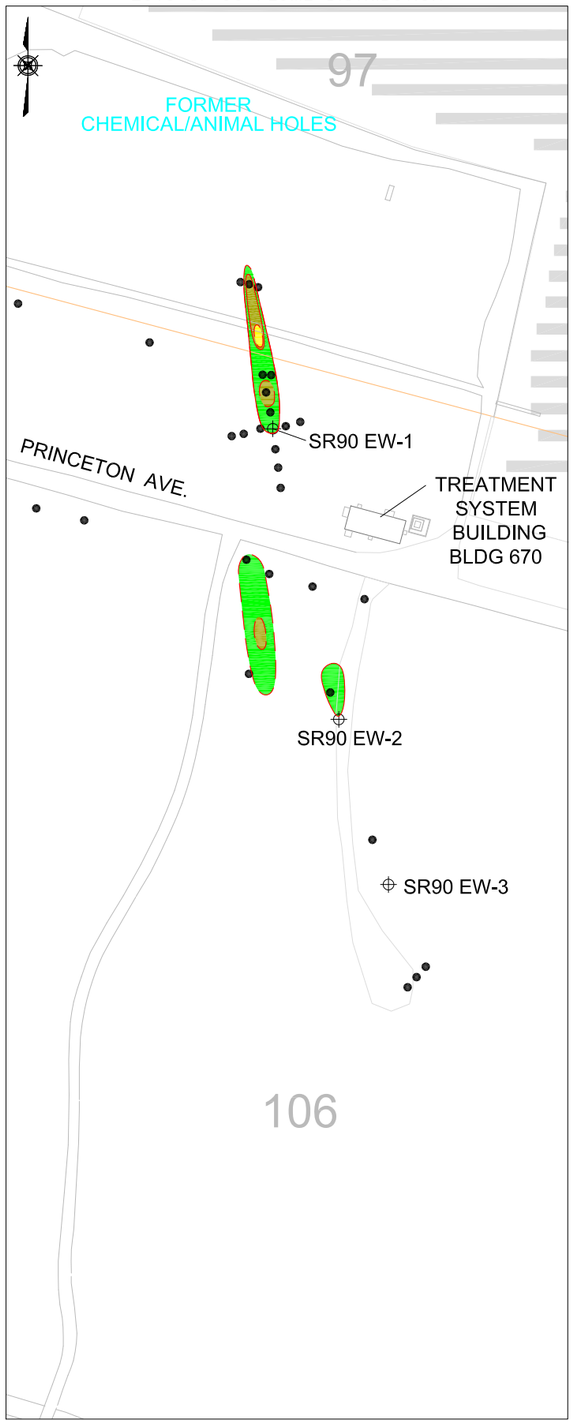
2002 Sr-90 PLUME DISTRIBUTION



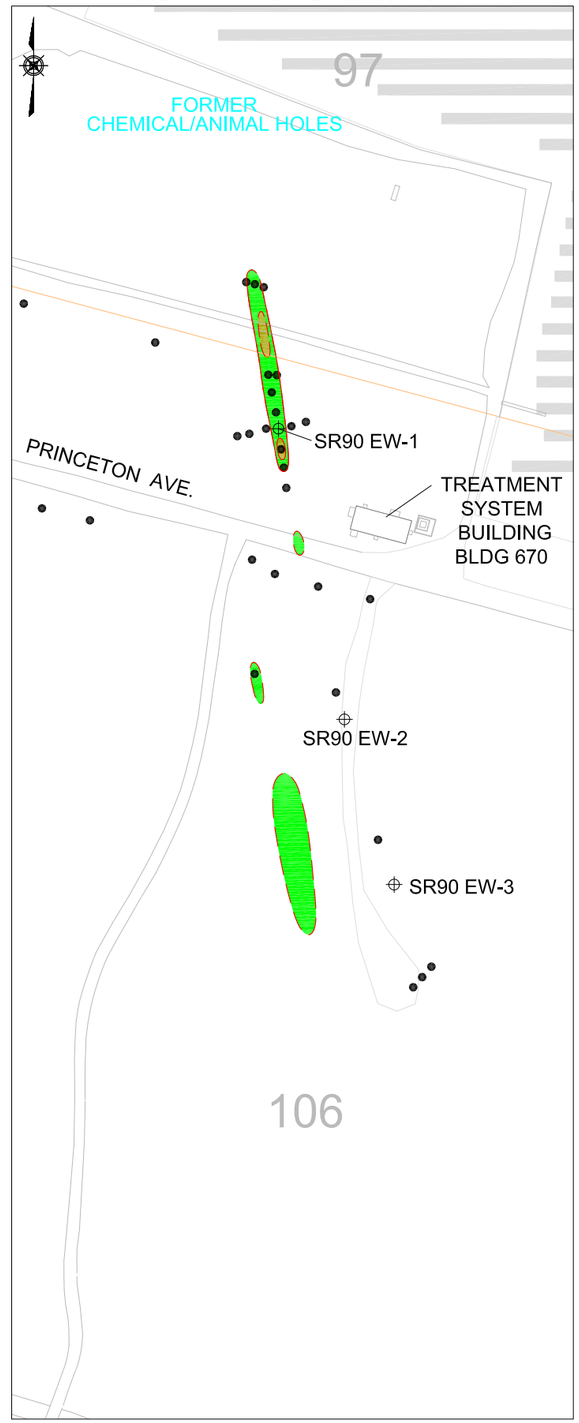
2008 Sr-90 PLUME DISTRIBUTION



2013 Sr-90 PLUME DISTRIBUTION



2023 Sr-90 PLUME DISTRIBUTION



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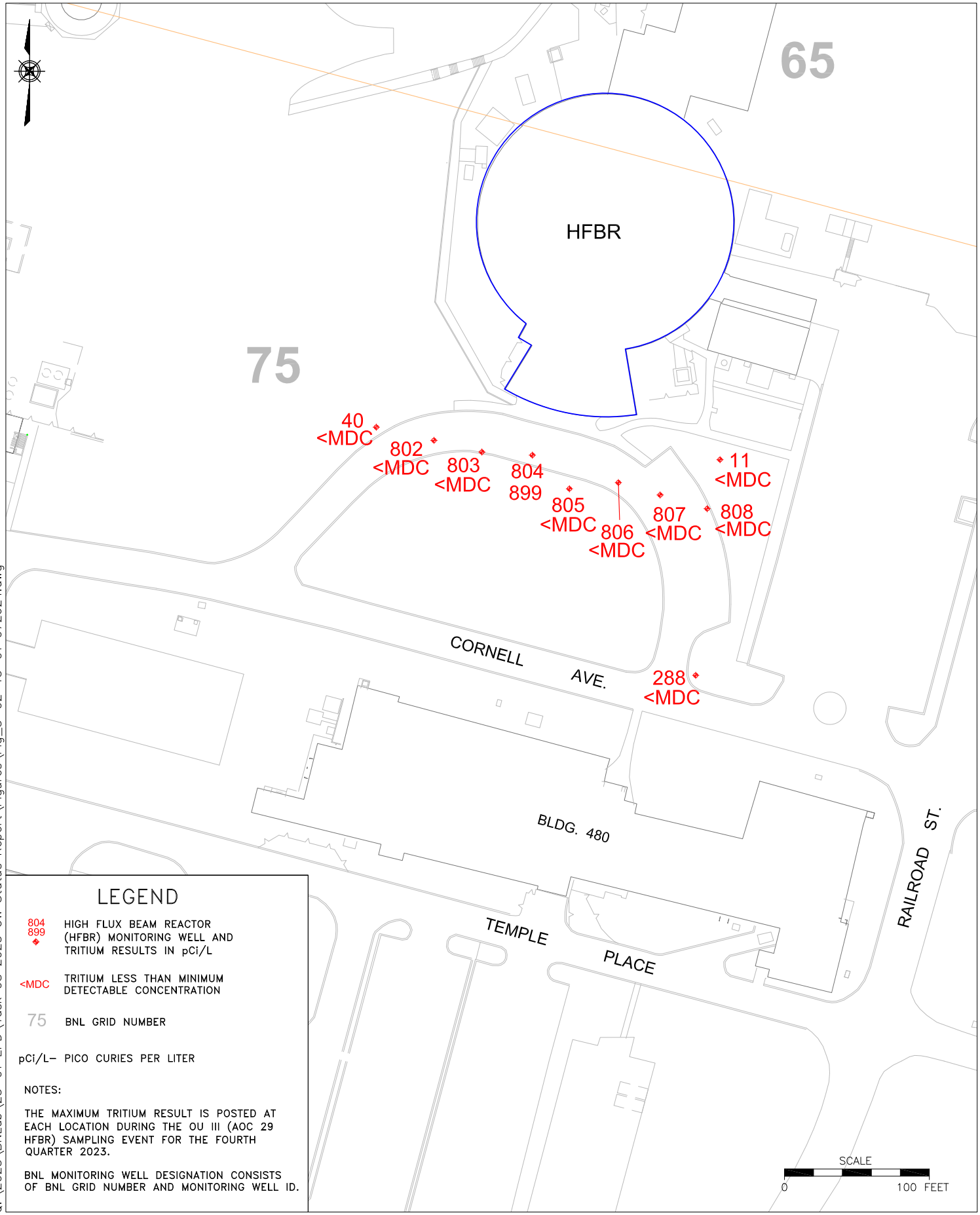
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III CHEMICAL/ANIMAL HOLES Sr-90 PLUME COMPARISON 2002, 2008, 2013 AND 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/11/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–
FIGURE NO.:			
3.2.12-6			



LEGEND

804 / 899 — HIGH FLUX BEAM REACTOR (HFBR) MONITORING WELL AND TRITIUM RESULTS IN pCi/L

<MDC — TRITIUM LESS THAN MINIMUM DETECTABLE CONCENTRATION

75 — BNL GRID NUMBER

pCi/L — PICO CURIES PER LITER

NOTES:

THE MAXIMUM TRITIUM RESULT IS POSTED AT EACH LOCATION DURING THE OU III (AOC 29 HFBR) SAMPLING EVENT FOR THE FOURTH QUARTER 2023.

BNL MONITORING WELL DESIGNATION CONSISTS OF BNL GRID NUMBER AND MONITORING WELL ID.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU III HFBR AOC 29 TRITIUM MONITORING WELL RESULTS

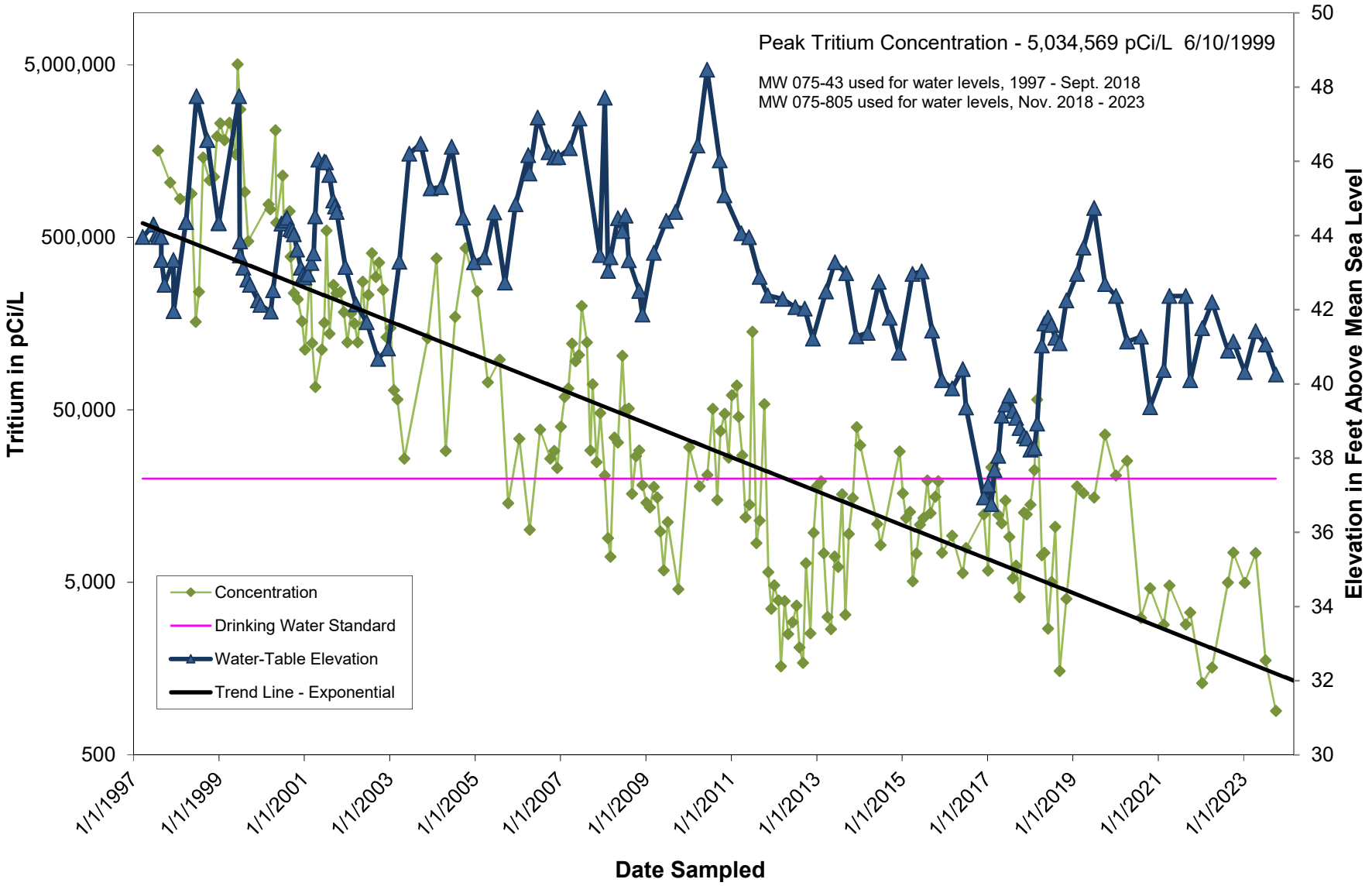
2023 BNL GROUNDWATER STATUS REPORT

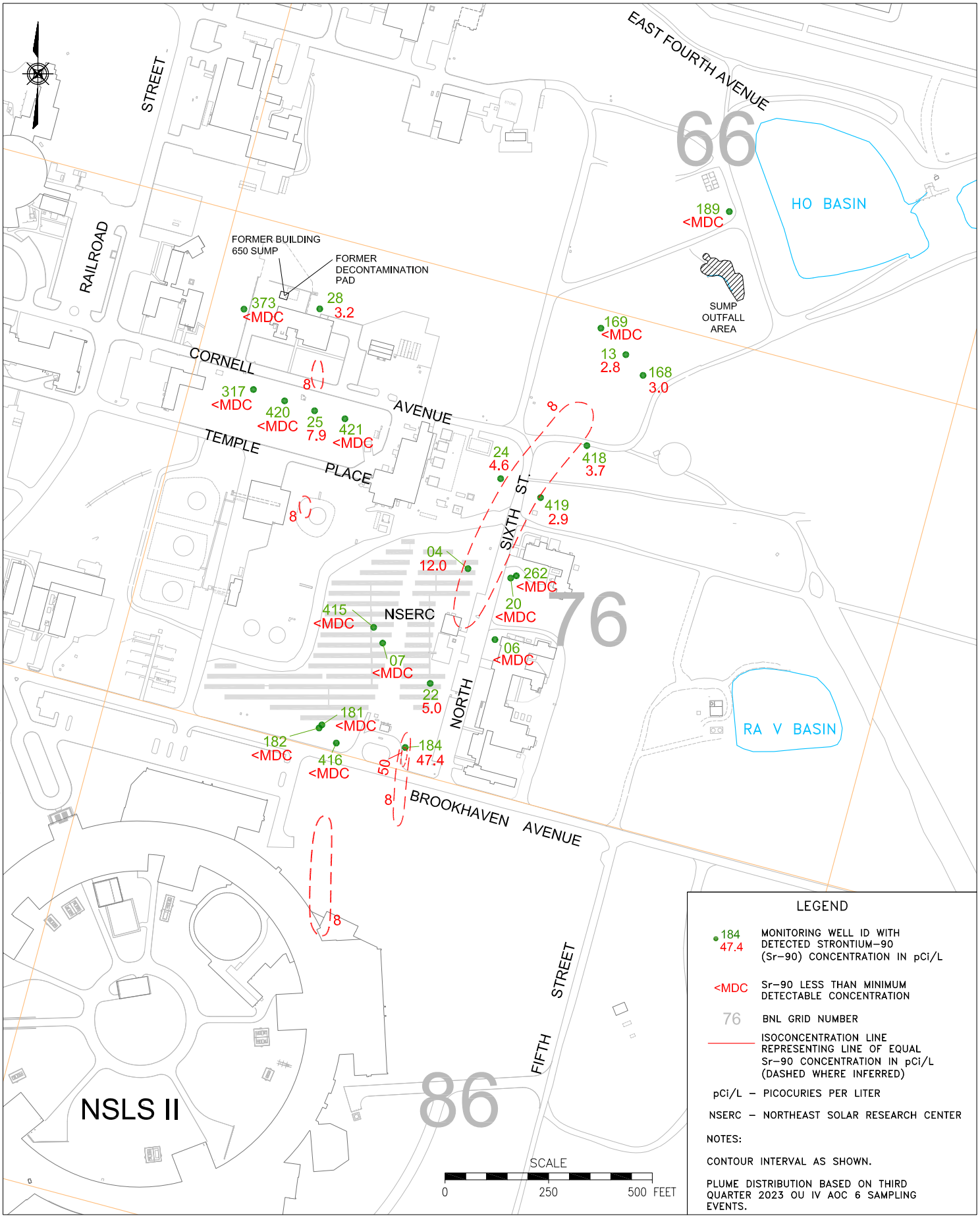
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.2.13-1

Figure 3.2.13- 2
OU III HFBR
Peak Tritium Concentrations in Groundwater - HFBR to Cornell Avenue

2023 BNL Groundwater Status Report





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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

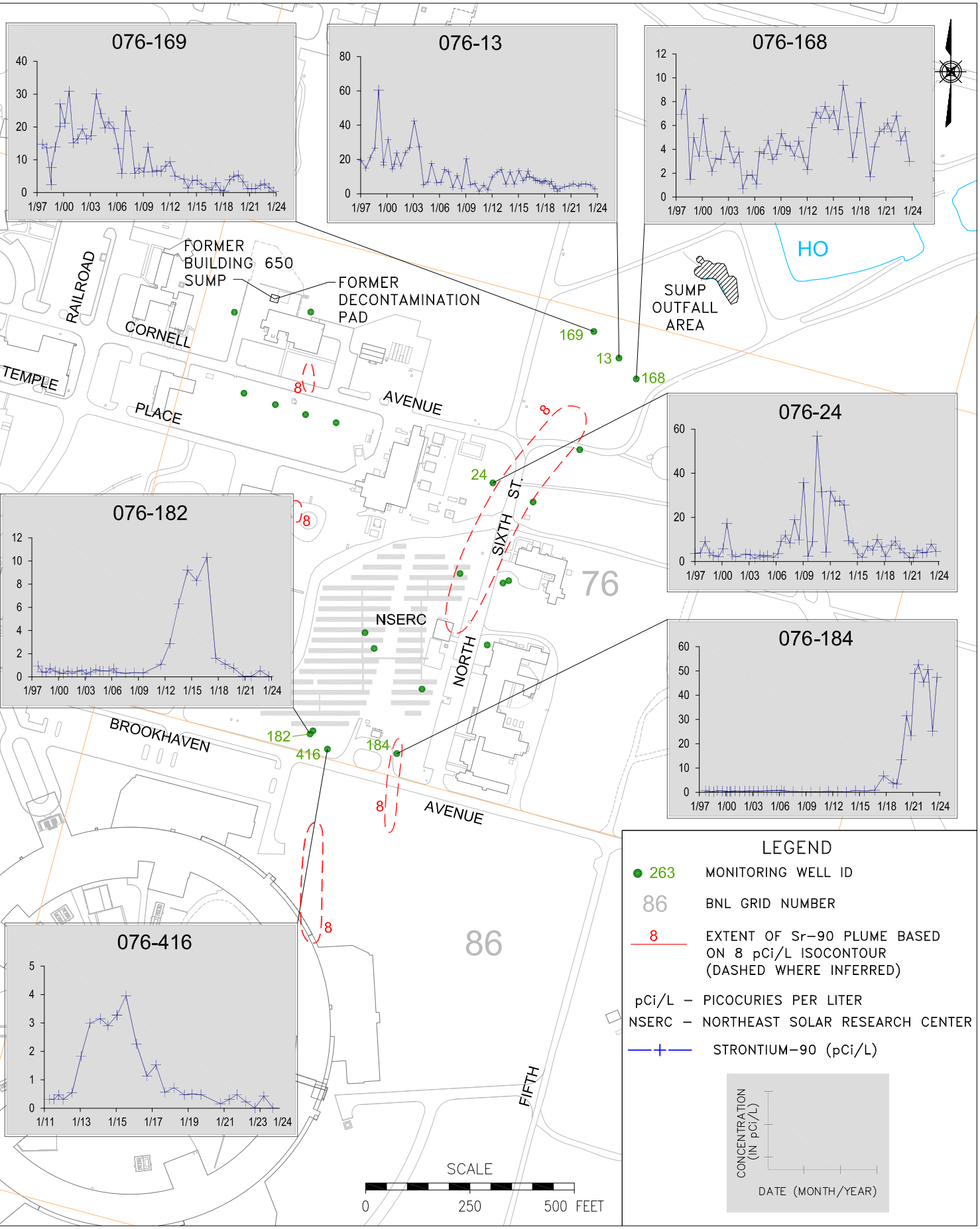
TITLE:

OU IV AOC 6
Sr-90 PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.3.1-1



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU IV AOC 6
HISTORICAL Sr-90 TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/11/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.3.1-2

I 495 (L.I.E.)

175
NS

173
0.03

0.05

209
NS

0.05

283
0.07

284
0.02

178
0.16

550
0.35

549
0.20

520
0.23

EDB
TREATMENT
BLDG.

567
0.08

568
0.50

0.05

1.00

524
ND

507
0.01

570
1.10

498
ND

499
ND

582
ND

500
0.12

0.16
2/15/24

EW-3E

572
0.58

EW-1E

501
ND

571
2.00

EW-4E 0.92 2/15/24

EW-2E

DW-1E

DW-2E

519
ND

508
ND

527
ND

580
ND

581
0.11

Q'

SCALE
0 500 1000 FEET

WEEKS AVE.

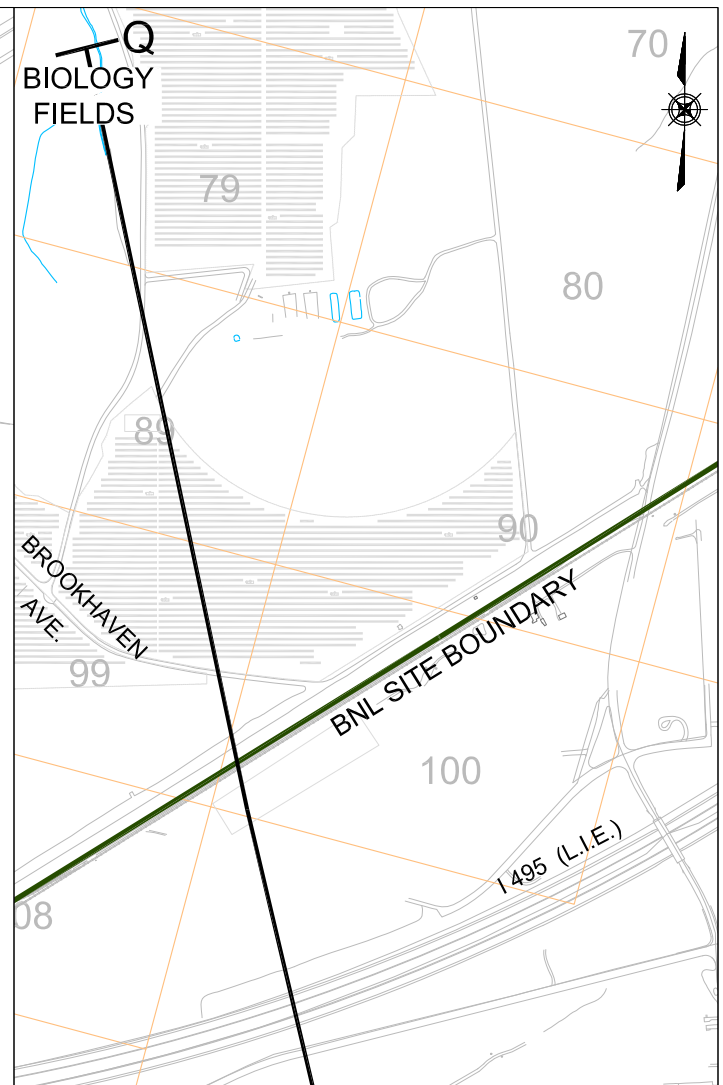
BIOLOGY FIELDS

Q

BROOKHAVEN AVE.

BNL SITE BOUNDARY

NORTH STREET



LEGEND

- 570 / 1.10 — MONITORING WELL ID WITH DETECTED ETHYLENE DIBROMIDE (EDB) CONCENTRATION IN µg/L
- 0.05 — EDB ISOCONCENTRATION CONTOUR IN µg/L
- LOCATION OF EDB HYDROGEOLOGIC CROSS SECTION
- 000 — BNL GRID NUMBER
- EW-1E — BNL REMEDIATION WELL
- DW-1E — BNL DIFFUSION WELL
- SOLAR FARM PANELS
- µg/L – MICROGRAMS PER LITER

NOTES:

IN WELL CLUSTERS THE HIGHEST EDB VALUE WAS USED IN CONTOURING.

EDB PLUME EXTENT BASED ON FOURTH QUARTER 2023 OU VI EDB SAMPLING EVENT.

"ND" INDICATES NOT DETECTED AT OR ABOVE LABORATORY METHOD DETECTION LIMITS.

RESULTS BASED ON EPA METHOD 504.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

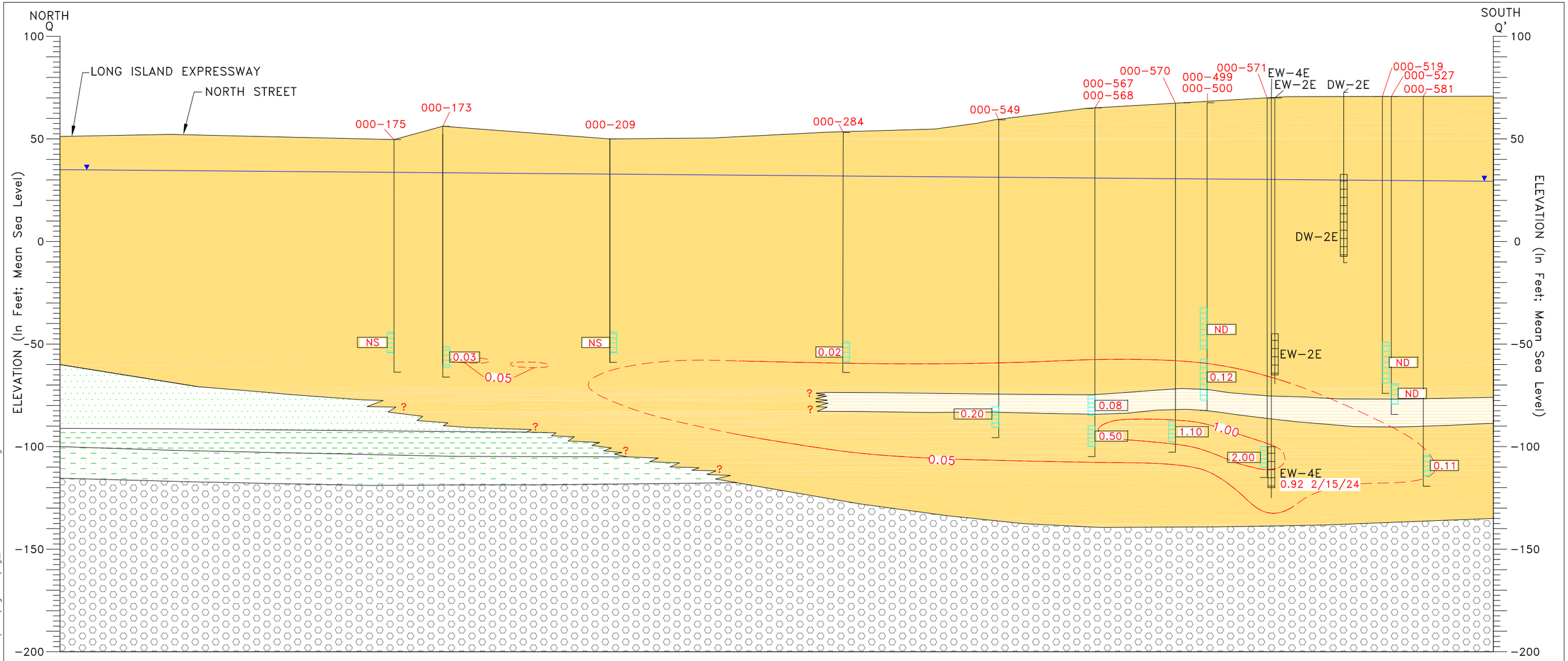
TITLE:

OU VI
EDB PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/08/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.4–1



LEGEND

Upper Glacial aquifer

- UG Upper Glacial Sands
- UC Upper Glacial Silts & Clays
- UU Upton Unit

Gardiners Clay

- GL Gardiners Clay
- GS Gardiners Clay – Silt

Magothy aquifer

- MA Magothy Sands and Clay
- MB Magothy Brown Clay
- MC Magothy Clays (undifferentiated)
- MO Magothy – OTHER

000-500 BNL Well ID

ND Indicates not detected at or above laboratory method detection limits

NS Indicates not sampled

.080 Ethylene dibromide (EDB) Concentration (µg/L)

0.05 EDB Contour (µg/L) (Dashed Where Inferred)

µg/L – Micrograms Per Liter

Water Table As Of Aug. 21 – Aug. 25, 2023

Monitoring Well Screen

Extraction Well Screen

HORIZONTAL SCALE
0 300 600

Monitoring Well IDs are stacked in order of the depth of the well from shallow to deep

000-499
000-500

NOTES:

1) GEOLOGIC INFORMATION SHOWN IS BASED ON ADDITIONAL EXPLORATIONS (e.g., HYDROPUNCHES, GEOPROBES, VERTICAL PROFILES, AND/OR TEST WELLS) DOCUMENTED IN PREVIOUS, MORE DETAILED REPORTS.

2) EDB EXTENT IS BASED ON FOURTH QUARTER 2023 OU VI SAMPLING EVENTS.

3) RESULTS BASED ON EPA METHOD 504.

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

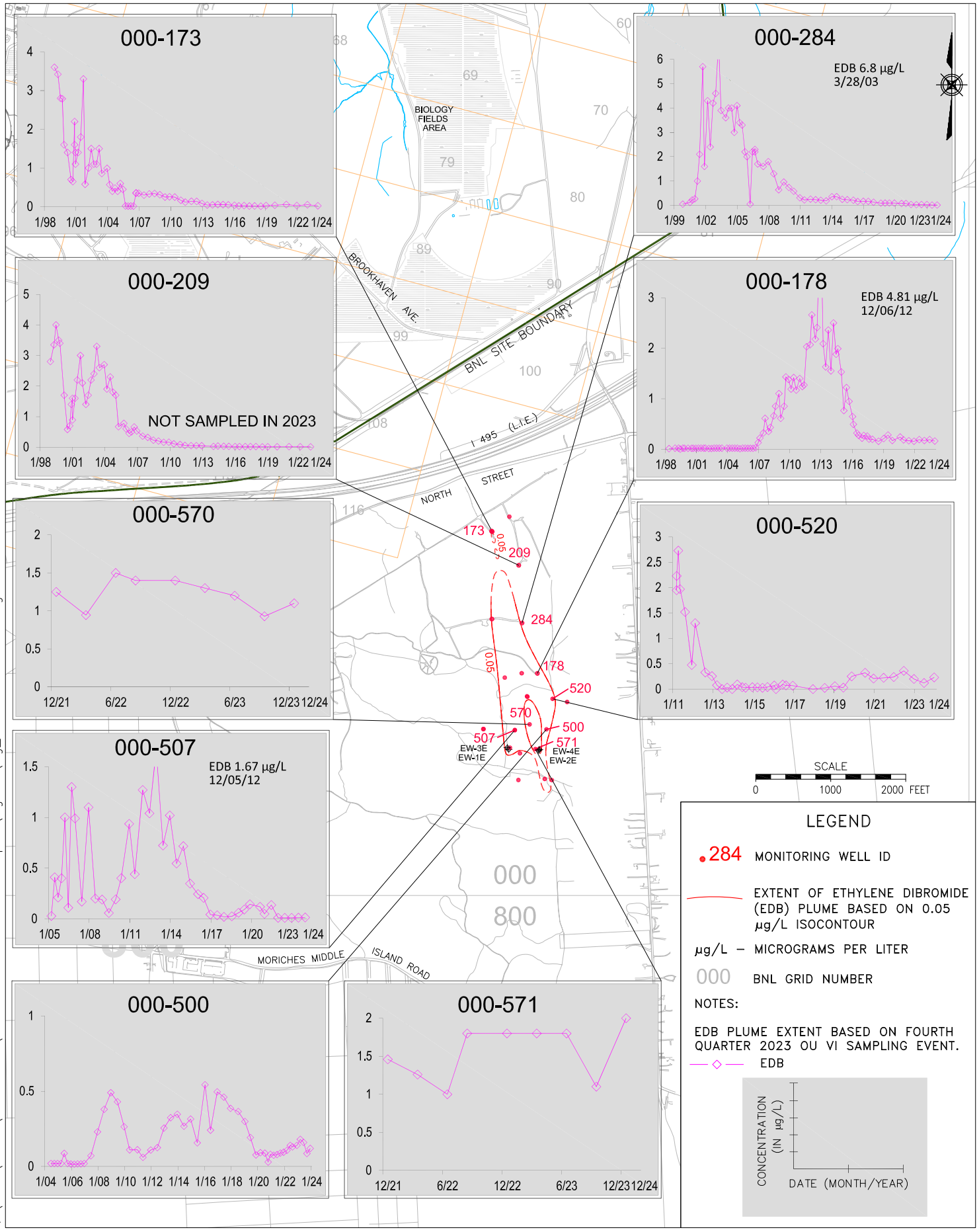
TITLE:

OU VI
EDB HYDROGEOLOGIC CROSS SECTION (Q–Q')

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	25:1	03/08/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.4-2



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU VI HISTORICAL EDB TRENDS

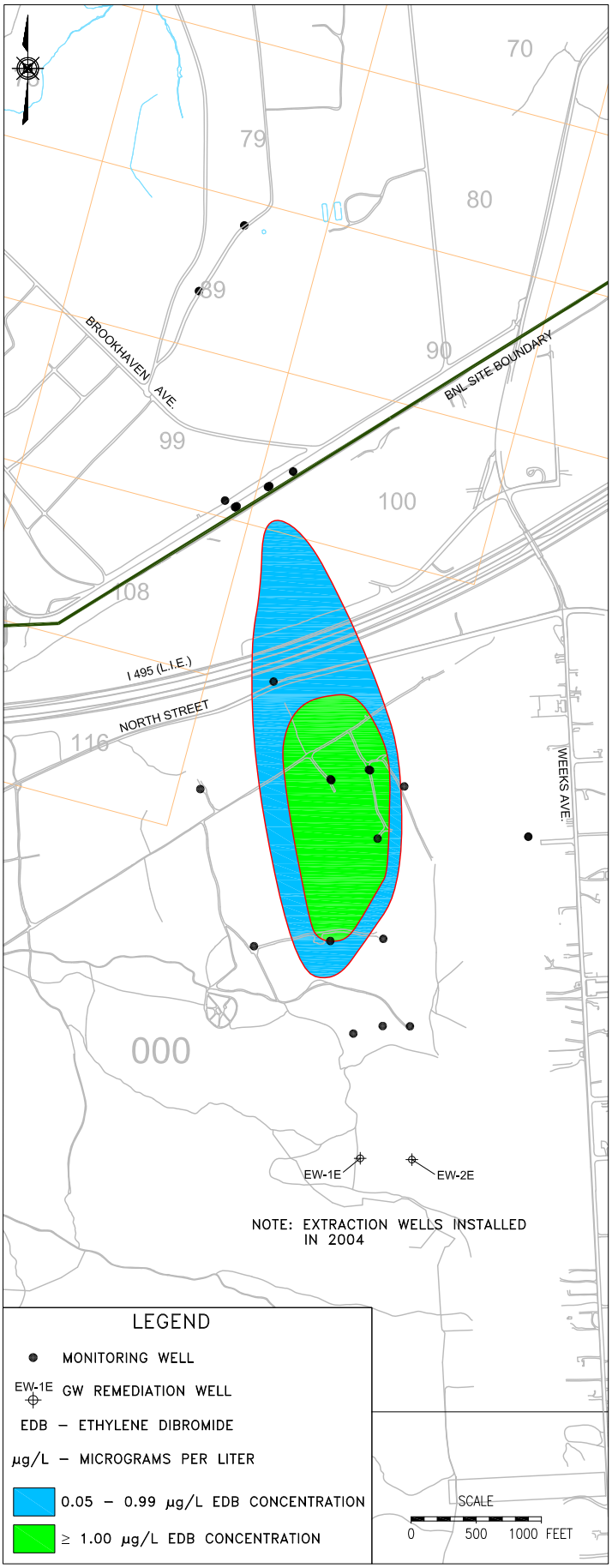
2023 BNL GROUNDWATER STATUS REPORT

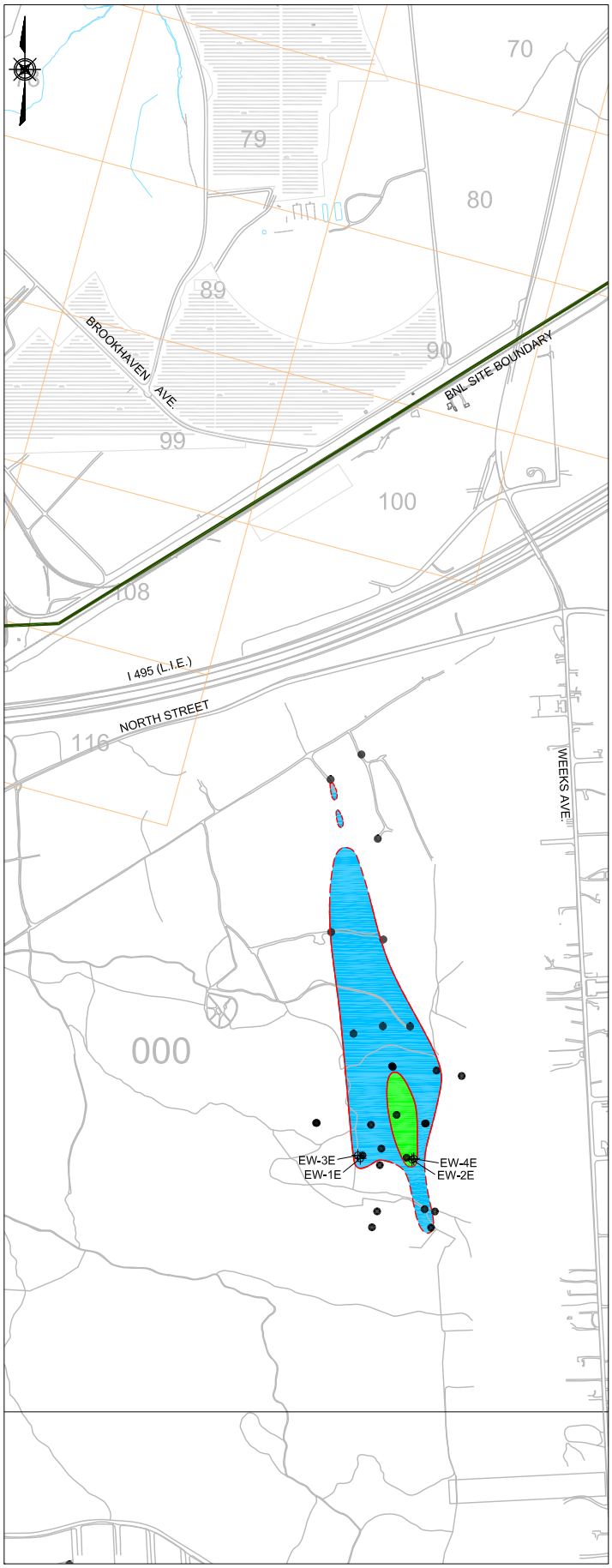
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/08/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.4-3

1999 EDB PLUME DISTRIBUTION

2023 EDB PLUME DISTRIBUTION





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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

TITLE:

OU VI EDB PLUME COMPARISON 1999 – 2023

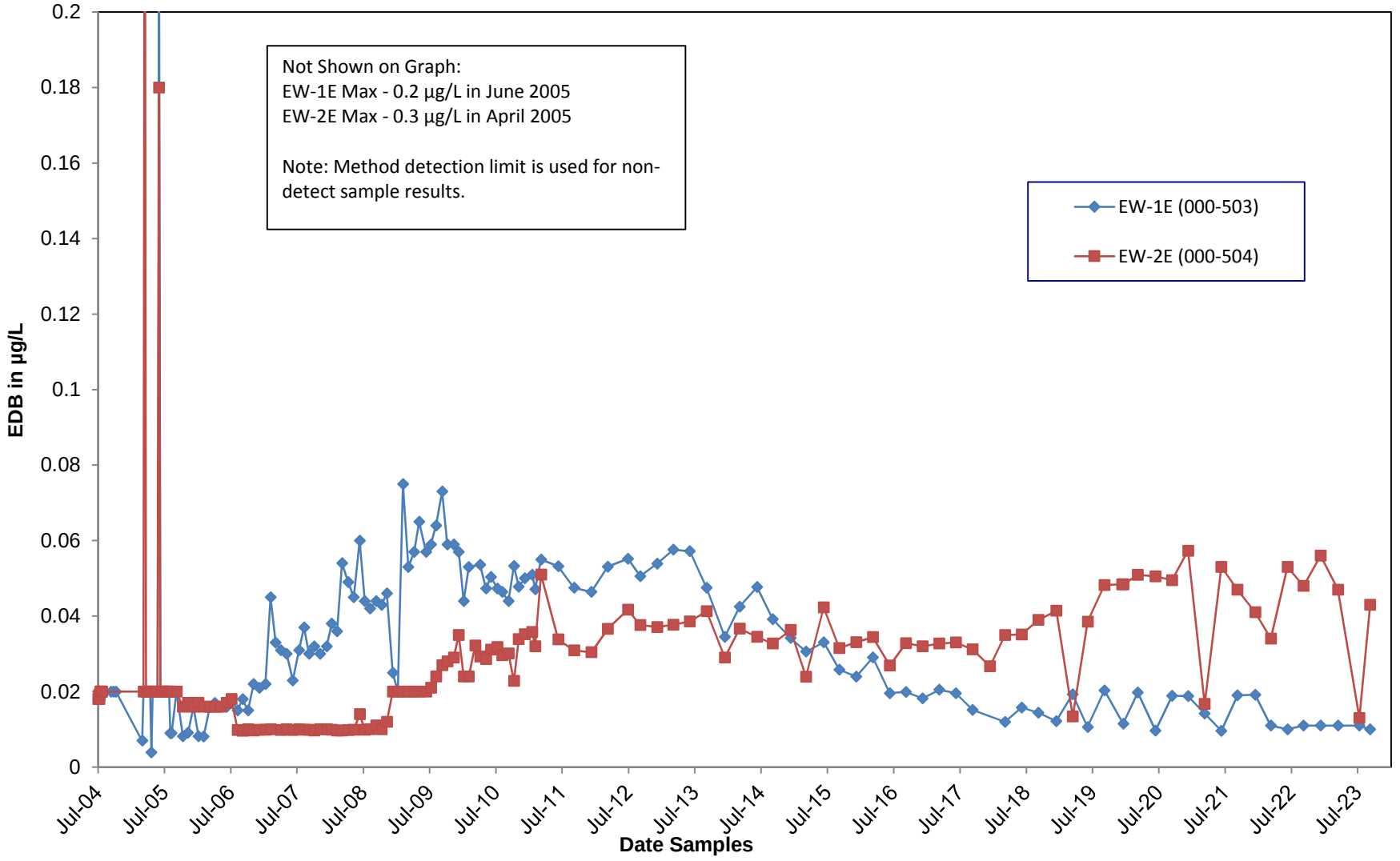
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/08/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.4–4

Figure 3.4-5
OU VI EDB
EDB Concentrations in Extraction Wells

2023 BNL Groundwater Status Report



LEGEND

- 29 / 0.7 / ND — MONITORING WELL ID WITH DETECTED (PFAS), PFOS/PFOA CONCENTRATIONS (IN ng/L) JUNE 21–AUG. 17 2023
- CF-RW-A — GROUNDWATER REMEDIATION WELL
- BNL-4 — POTABLE SUPPLY WELL
- GENERAL GROUNDWATER FLOW DIRECTION
- SUSPECTED FOAM RELEASE AREA
- NS — NOT SAMPLED
- –10– — ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL PFOS CONCENTRATION IN ng/L (DASHED WHERE INFERRED)

NOTE:
PFAS RESULTS BASED ON METHOD 1633

Water Treatment Plant Recharge Basins
HX
01 3.8 / ND
Upton Rd.
Cornell Ave.
73
74
27 228.0 / 3.6
Training Area
28 233.0 / 9.4
29 0.7 / ND
Drywell
Drywell
Current Fire House
CF-RW-A
1010.0 / 15.6 26
CF-RW-B
148.0 / 2.8 30
31 1840.0 / 27.9
32 21.8 / ND
135 13.1 / 2.8
33 1290.0 / 10.0
West Brookhaven Ave.
BNL Paint Shop
Johns Hopkins St
2.2 / ND 01
5.9 / 0.7 02
95.2 / 1.2 35
4.4 / 1.1 33
15.2 / 1.4 34
BNL-4
20.4 / 1.1 36
38 654.0 / 4.8
39 403.0 / 5.2
86 18.1 / 1.7
87 268.0 / 3.8
88 744.0 / 26.7
89 225.0 / 4.7
40 14.1 / 1.1
37 85.4 / 0.7
82
Woods Road
83
Bell
04 3.6 / ND
03 58.2 / 1.4
90 12.8 / 0.7
91 9.3 / 4.3
92 919.0 / 44.7
CF-RW-C
CF-RW-D
CF-RW-E
Ave.
84
3.4 / ND 47
BNL-7
Training Areas
29.7 / ND 93
21.3 / ND 95
2260.0 / 8.7 94
20.0 / 12.8 96
3760.0 / 42.1 04
6.9 / ND 41
1.8 / 1.1 44
3.2 / ND 42
43 92.3 / 0.8
05 4.8 / 0.9
Mitchell La.
Bldg. 170
94 96.5 / 7.1
95 ND / ND
96 1830.0 / 258.0
97 722.0 / 21.3
98 ND / ND
93 130.0 / 3.5
28 13.2 / 8.5
92
BNL-6
88 0.7 / ND
89 3.0 / 0.8
90 1.0 / ND
91 16.5 / 2.7
92 55.5 / 0.8
44.1 / 2.4 97
98 144.0 / 2.9
93
Upton Road
275 19.9 / 1.5
278 48.9 / 2.6
276 164.0 / 3.0
277 28.4 / 2.7
West Princeton Ave.
CF-RW-I
36 1.9 / 0.7
37 24.9 / 2.0
CF-RW-F
26 3.8 / ND
27 3.8 / 1.1
CF-RW-G
CF-RW-H
28 ND / ND
38 15.1 / 1.3
39 35.1 / 3.1
104.0 / 16.8
32 66.0 / 3.8
30 61.1 / 2.0
31
34 102.0 / 6.3
33 132.0 / 6.2
94
101
Yale Road
9.3 / 4.8 29
20.8 / 1.0 30
145.0 / 3.7 31
40 301.0 / 9.5
12 7.2 / 1.3
10 ND / ND
19 NS
18 NS
East Princeton Ave.
02 NS
102
Stormwater Discharge Area
East St.
Recreation Center Area
Yale
Yule Lane
York Lane
Road
Carver Road
Upton Road
103
109
04 ND / ND
03 ND / ND
13 NS
12 NS
01 6.9 / 6.3
04 2.0 / ND
02 2.0 / 0.7
05 ND / ND
06 ND / ND
Well 2
Well 1
Well 3A
000-42
000-43
000-44
Lane
Road
Court
Yaphank Road
Mendel Lane
110
111
Aston
117
Suffolk County Water Authority
William Floyd Well Field
118
Upton Road
119
123
William Floyd Parkway
SCALE
0 400 800 FEET

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

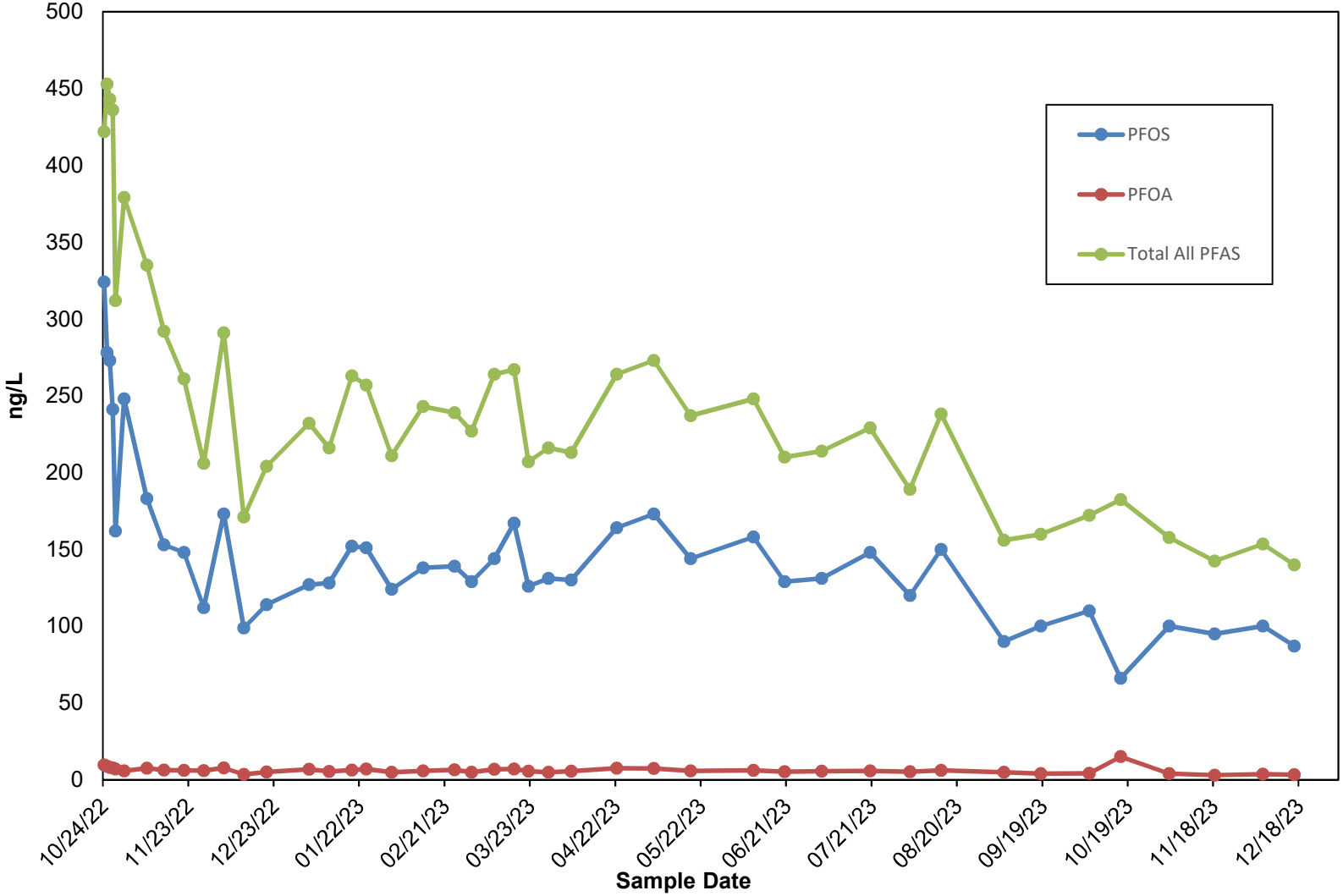
TITLE:
CURRENT FIREHOUSE AND BUILDING 170 PFAS PLUME DISTRIBUTION
2023 BNL GROUNDWATER STATUS REPORT

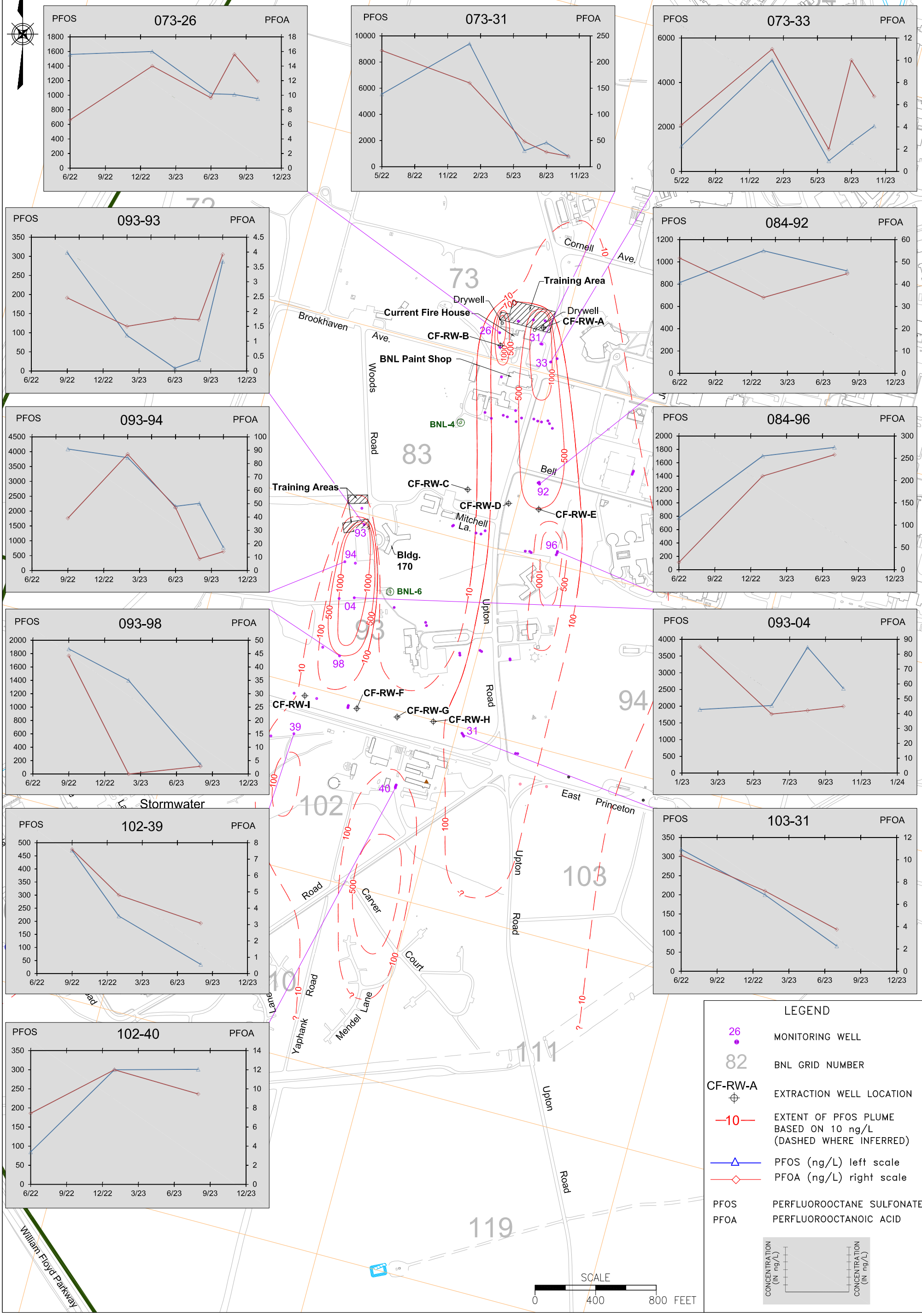
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/06/24	–
CHKD:	APPD:	REV.:	NOTES:
DEP	DEP	07/26/24	–

FIGURE NO.: 3.5.1–1

Figure 3.5.1-2
Current Firehouse Treatment System
Influent Concentrations (ng/L)

2023 BNL Groundwater Status Report





LEGEND

- 26 — MONITORING WELL
- 82 — BNL GRID NUMBER
- CF-RW-A — EXTRACTION WELL LOCATION
- —10— EXTENT OF PFOS PLUME BASED ON 10 ng/L (DASHED WHERE INFERRED)
- PFOS (ng/L) left scale
- PFOA (ng/L) right scale
- PFOS PERFLUOROOCTANE SULFONATE
- PFOA PERFLUOROOCTANOIC ACID

CONCENTRATION (IN ng/L) CONCENTRATION (IN ng/L)

Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

CURRENT FIREHOUSE AND BUILDING 170 PFAS TREND PLOTS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	—	02/06/24	—
CHKD:	APPD:	REV.:	NOTES:
DEP	DEP	07/26/24	—

FIGURE NO.: 3.5.1-3

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2020-2021

2022

2023

LEGEND

- MONITORING WELL
- GEOPROBE WELL (2018)
- GEOPROBE WELL (2020–2022)
- CF-RW-A GW EXTRACTION WELL

PFOS PERFLUOROOCTANE SULFONATE
ng/L NANOGRAMS PER LITER

- ≥ 10–99 ng/L PFOS CONCENTRATION
- ≥ 100–499 ng/L PFOS CONCENTRATION
- ≥ 500–999 ng/L PFOS CONCENTRATION
- ≥ 1000 ng/L PFOS CONCENTRATION

Current Fire House
CF-RW-A
CF-RW-B
CF-RW-C
CF-RW-D
CF-RW-E
CF-RW-F
CF-RW-G
CF-RW-H
CF-RW-I
BNL-4
BNL-6
BNL-7
HX
HP
OUIN BASIN
Brookhaven Ave.
West Princeton Ave.
East Princeton Ave.
Upton Road
Yale Road
William Floyd Parkway
BNL SITE BOUNDARY
Well 1
Well 2
Well 3A

SCALE
0 500 1000 FEET

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

CURRENT FIREHOUSE AND BUILDING 170 PFOS PLUME COMPARISON 2020 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/06/24	–
CHKD:	APPD:	REV.:	NOTES:
DEP	DEP	07/26/24	–
FIGURE NO.:			
3.5.1–4			

LEGEND

410 ● 650.0 / 18.0 — MONITORING WELL ID WITH DETECTED (PFAS), PFOS/PFOA CONCENTRATIONS (IN ng/L). JULY 2023.

FF-RW-A — GROUNDWATER REMEDIATION WELL

GENERAL GROUNDWATER FLOW DIRECTION

SUSPECTED FOAM RELEASE AREA

NS — NOT SAMPLED

–10– — ISOCONCENTRATION CONTOUR REPRESENTING LINE OF EQUAL PFOS CONCENTRATION IN ng/L (DASHED WHERE INFERRED)

NOTE:
PFAS RESULTS BASED ON METHOD 1633

75 76 85 86 95 96 104 105

Technology Street
Temple Street
Brookhaven Avenue
Bell Avenue
Rowland Street
Weaver Drive
East Princeton Avenue
Grove Street
S. Railroad St.
Cornell Place

Major Petroleum Facility
Training Area
Former Roadway
Former Fire House
Training Area
Former Water Supply Well 1
Storm Drainage Culvert
FF-RW-A
Former Building 96 Area
EW-18
Former Supply and Material Area
RTW-1
RTW-2
RTW-3
RTW-4
FF-RW-B
EW-16
EW-9
EW-10
EW-11
FF-RW-C
Building 526
HW

87 9.0 / 6.5
671 NS
1300.0 / 150.0 809
2200.0 / 78.0 810
811 2000.0 / 1500.0
16 NS
17 NS
378 NS
380 NS
18 NS
379 NS
185 NS
200.0 / 100.0 407
1100.0 / 53.0 406
31.0 / 13.0 404
ND / 11.0 405
408 24.0 / 15.0
410 650.0 / 18.0
409 5.8 / 5.9
43 36.0 / 6.7
384 26.0 / 5.4
87.0 / 65.0 411
412 14.0 / 9.9
123 ND / 3.1
350 4.4 / 3.4
170 2.4 / 1.4
140.0 / 87.0 122
69.0 / 9.1 123
124 5.6 / 6.8
125 8.0 / 6.9
171 6.7 / 3.3
42 NS
39.0 / 20.0 128
99.0 / 69.0 127
44.0 / 12.0 126
78.0 / 9.8 129
131 3.4 / 6.3
130 6.9 / 3.9
115 11.0 / 6.8
117 51.0 / 7.0
118 140.0 / 63.0
84 8.9 / 10.0
74 100.0 / 18.0
75 41.0 / 14.0
76 40.0 / 15.0
23 NS
37 NS
43 7.7 / 5.9
44 7.0 / 4.2
78 31.0 / 8.6
77 170.0 / 52.0

10 100 500 1000 ?

SCALE 0 200 400 FEET

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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

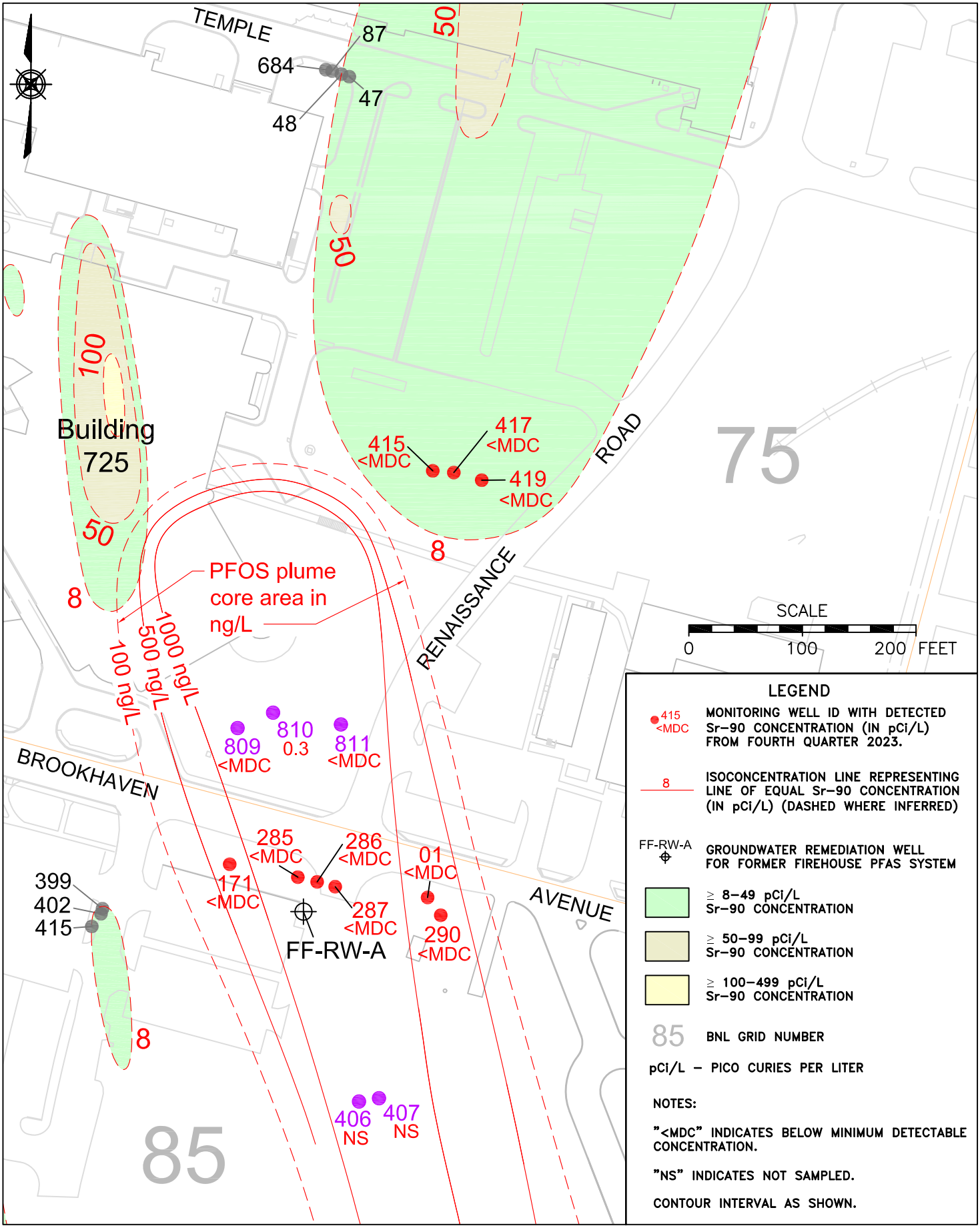
TITLE:

FORMER FIREHOUSE PFAS PLUME DISTRIBUTION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/02/24	–
CHKD:	APPD:	REV.:	NOTES:
DEP	DEP	07/26/24	–

FIGURE NO.: 3.5.2–1



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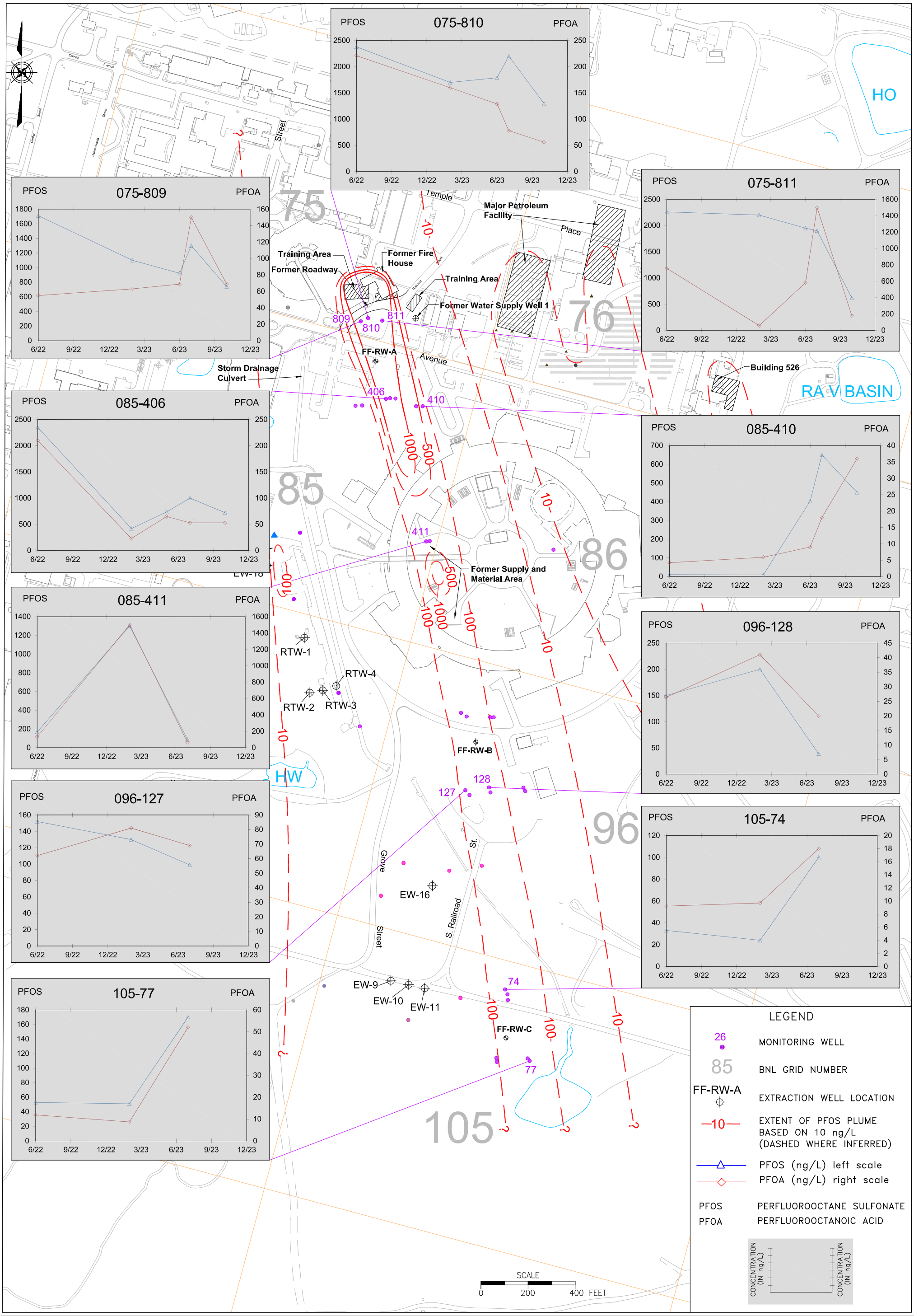
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
DETECTION OF Sr-90 IN THE VICINITY OF FORMER FIREHOUSE EXTRACTION WELL FF-RW-A
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	WRD	07/26/24	–

FIGURE NO.: 3.5.2-2



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FORMER FIREHOUSE PFAS TREND PLOTS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/02/24	–
CHKD:	APPD:	REV.:	NOTES:
DEP	DEP	07/26/24	–

FIGURE NO.: 3.5.2-3

2020-2021

2022

2023

LEGEND

- MONITORING WELL
- GEOPROBE WELL (2018)
- GEOPROBE WELL (2020–2022)
- FF-RW-A GW EXTRACTION WELL
- PFOS PERFLUOROOCTANE SULFONATE
- ng/L NANOGRAMS PER LITER
- ≥ 10–99 ng/L PFOS CONCENTRATION
- ≥ 100–499 ng/L PFOS CONCENTRATION
- ≥ 500–999 ng/L PFOS CONCENTRATION
- ≥ 1000 ng/L PFOS CONCENTRATION

Former Fire House

FF-RW-A

FF-RW-B

FF-RW-C

EW-18, RTW-1, RTW-2, RTW-3, RTW-4, EW-16, EW-9, EW-10, EW-11

Temple Place, Technology Street, Brookhaven Avenue, Bell Avenue, Rowland Street, Weaver Drive, Grove Street, S. Railroad St., East Princeton Avenue

HO, HW, HS, RAV BASIN

SCALE 0 500 1000 FEET

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Brookhaven National Laboratory

ENVIRONMENTAL PROTECTION DIVISION

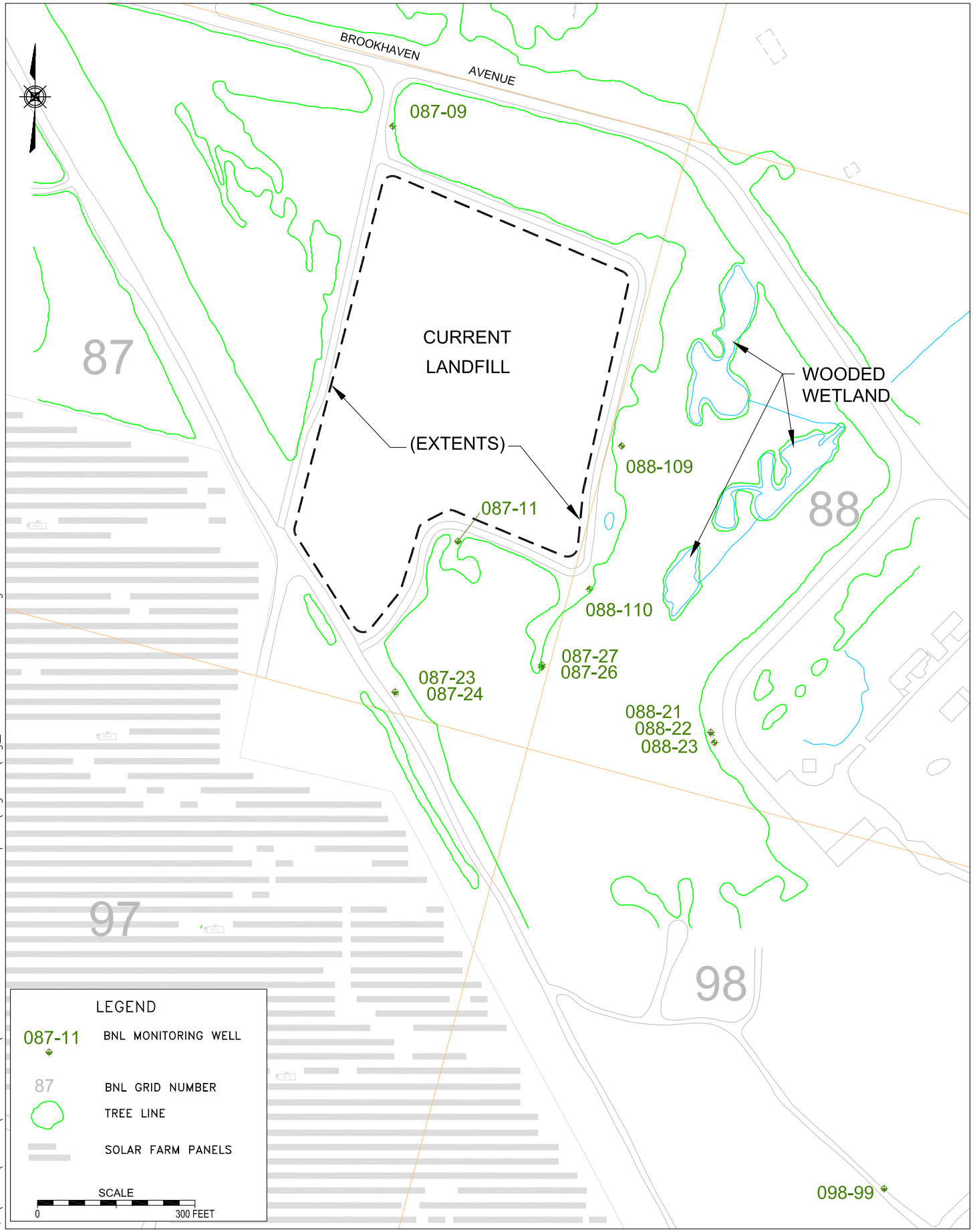
TITLE:

FORMER FIREHOUSE
PFOS PLUME COMPARISON 2020 – 2023

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT:HZ.:	DATE:	PROJECT NO.:
AJZ	–	02/06/24	–
CHKD:	APPD:	REV.:	NOTES:
DEP	DEP	07/26/24	–

FIGURE NO.: 3.5.2–4



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

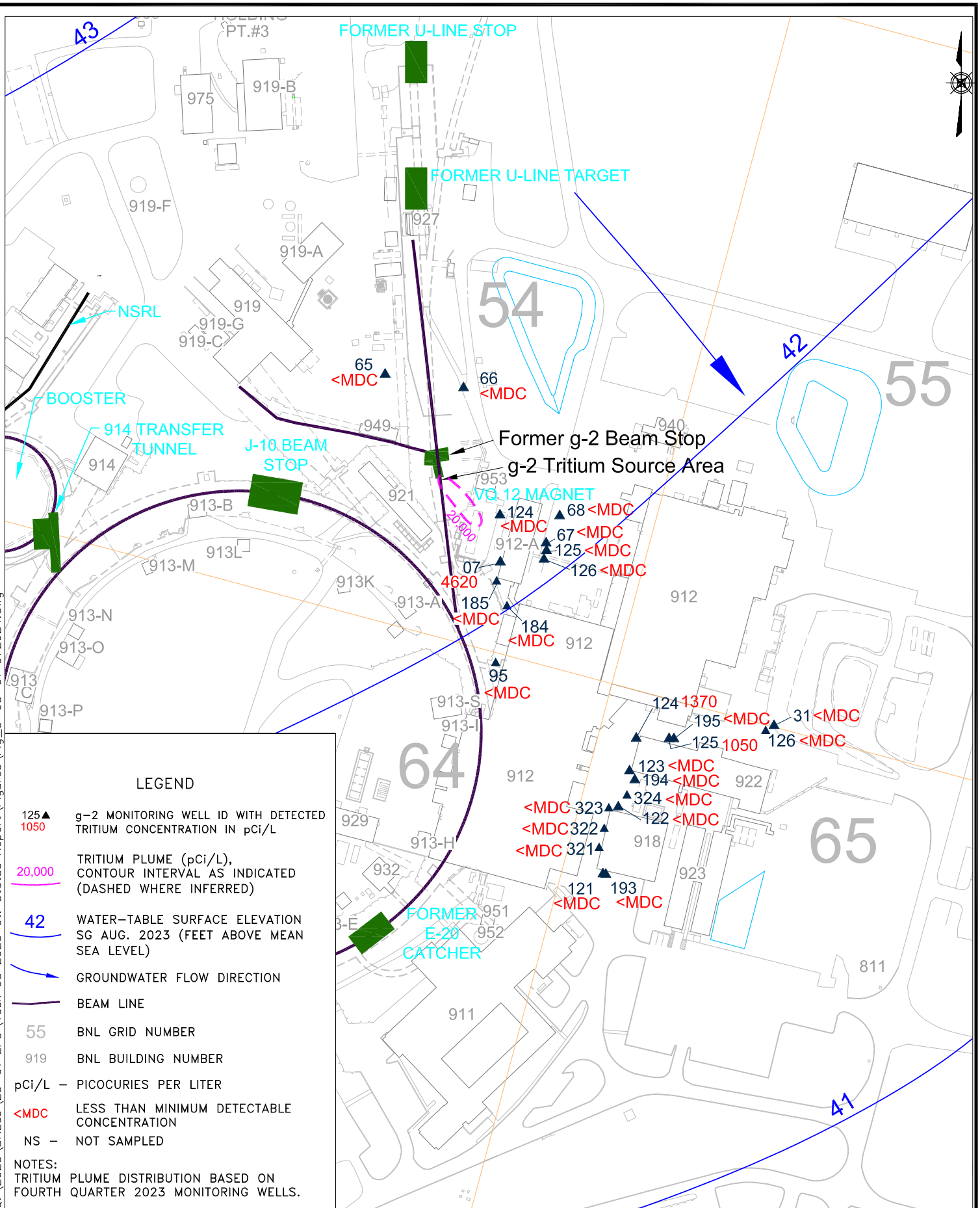
TITLE:

CURRENT LANDFILL MONITORING WELL LOCATIONS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/11/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	JTM	07/26/24	–

FIGURE NO.: 3.7-1



LEGEND

125▲ 1050	g-2 MONITORING WELL ID WITH DETECTED TRITIUM CONCENTRATION IN pCi/L
20,000	TRITIUM PLUME (pCi/L), CONTOUR INTERVAL AS INDICATED (DASHED WHERE INFERRED)
42	WATER-TABLE SURFACE ELEVATION SG AUG. 2023 (FEET ABOVE MEAN SEA LEVEL)
	GROUNDWATER FLOW DIRECTION
	BEAM LINE
55	BNL GRID NUMBER
919	BNL BUILDING NUMBER
pCi/L	– PICOCURIES PER LITER
<MDC	LESS THAN MINIMUM DETECTABLE CONCENTRATION
NS	– NOT SAMPLED

NOTES:
TRITIUM PLUME DISTRIBUTION BASED ON FOURTH QUARTER 2023 MONITORING WELLS.

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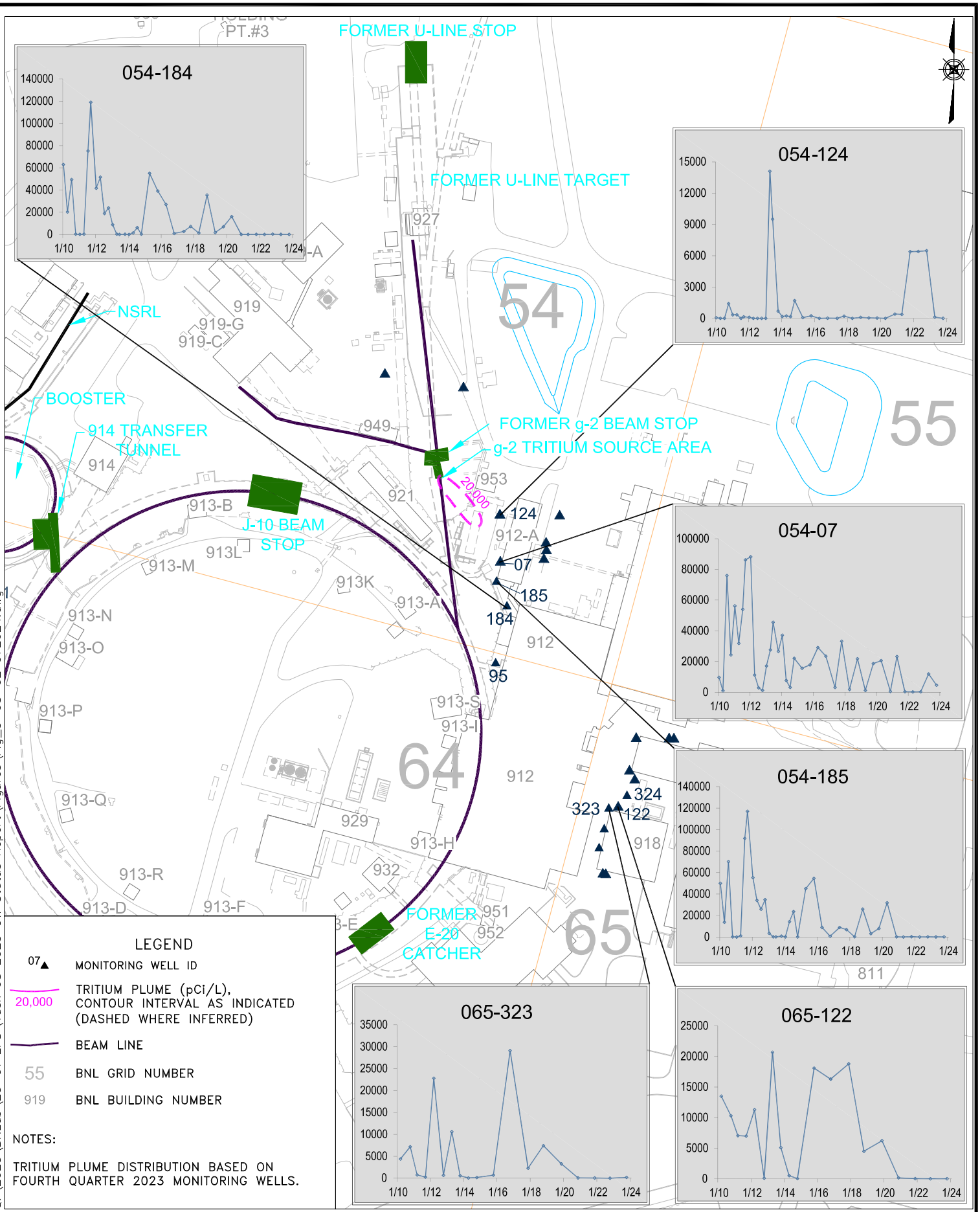
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FACILITY MONITORING PROGRAM, AOC 16T g-2 TRITIUM PLUME 4th QUARTER 2023
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 3.8-1



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

FACILITY MONITORING PROGRAM, AOC 16T g-2 HISTORICAL TRITIUM TRENDS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/11/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 3.8-2

Figure 3.8-3
Facility Monitoring Program
AOC 16T g-2 Tritium Plume
Comparison to ROD Trigger

2023 BNL Groundwater Status Report

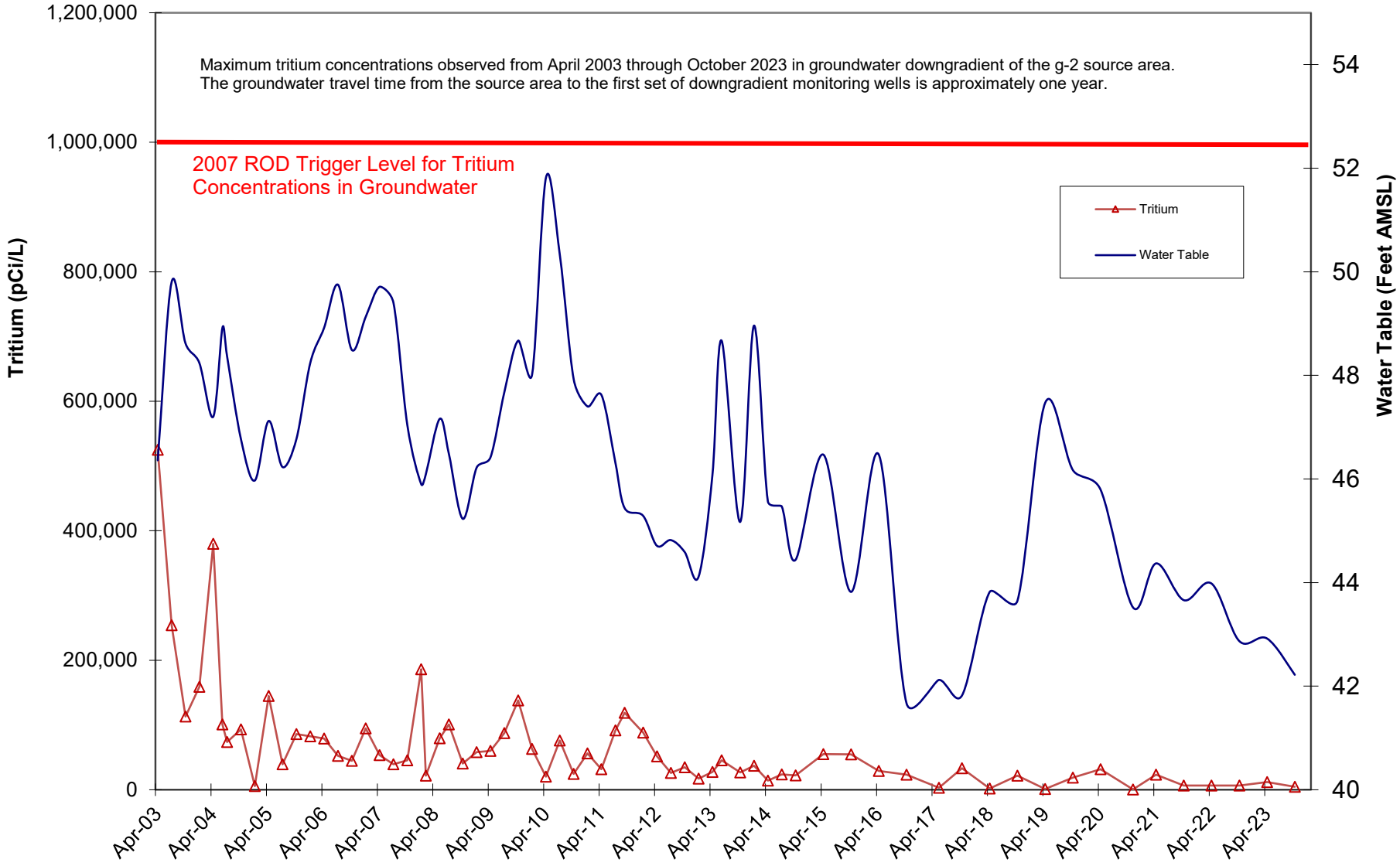
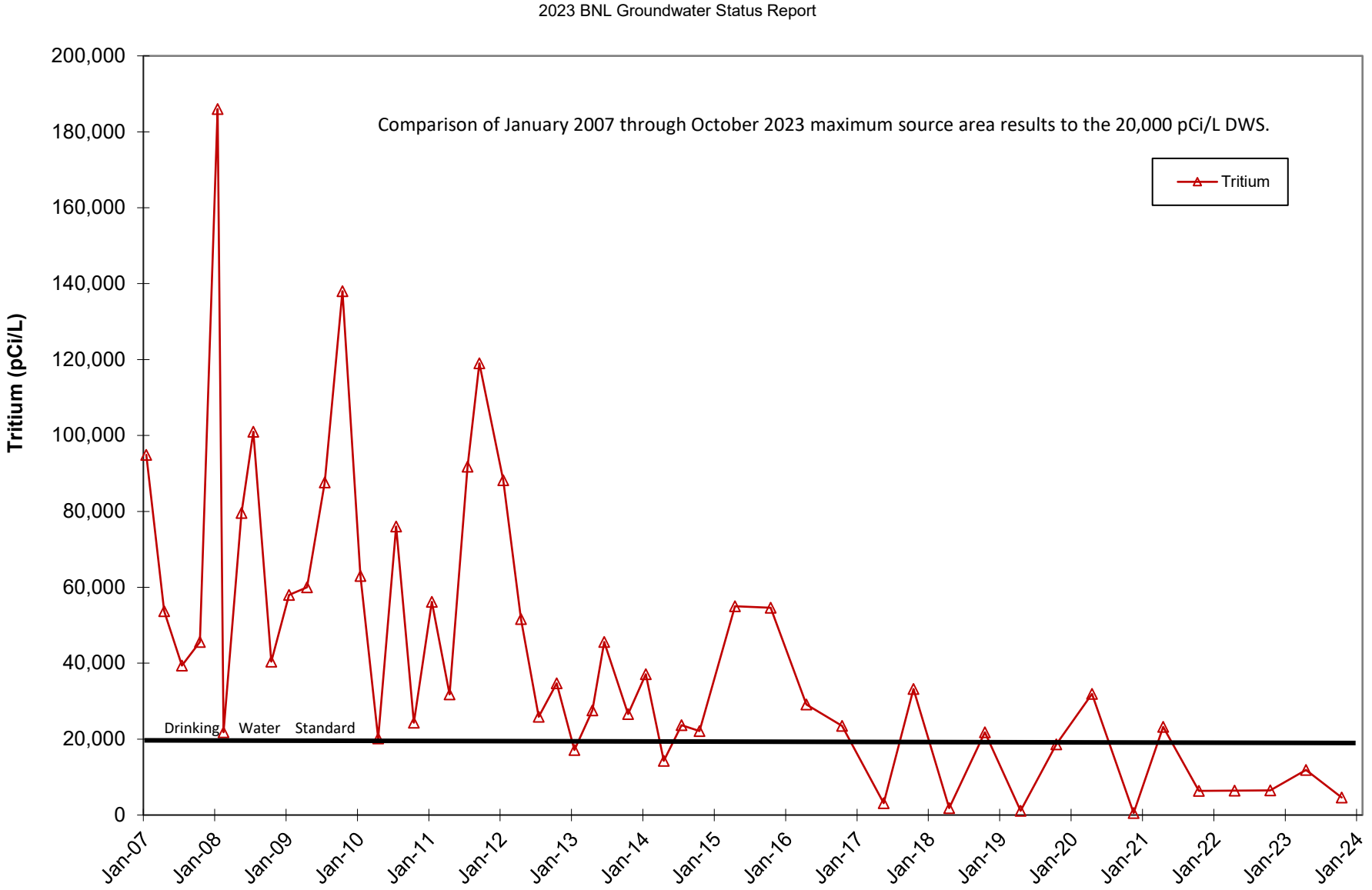
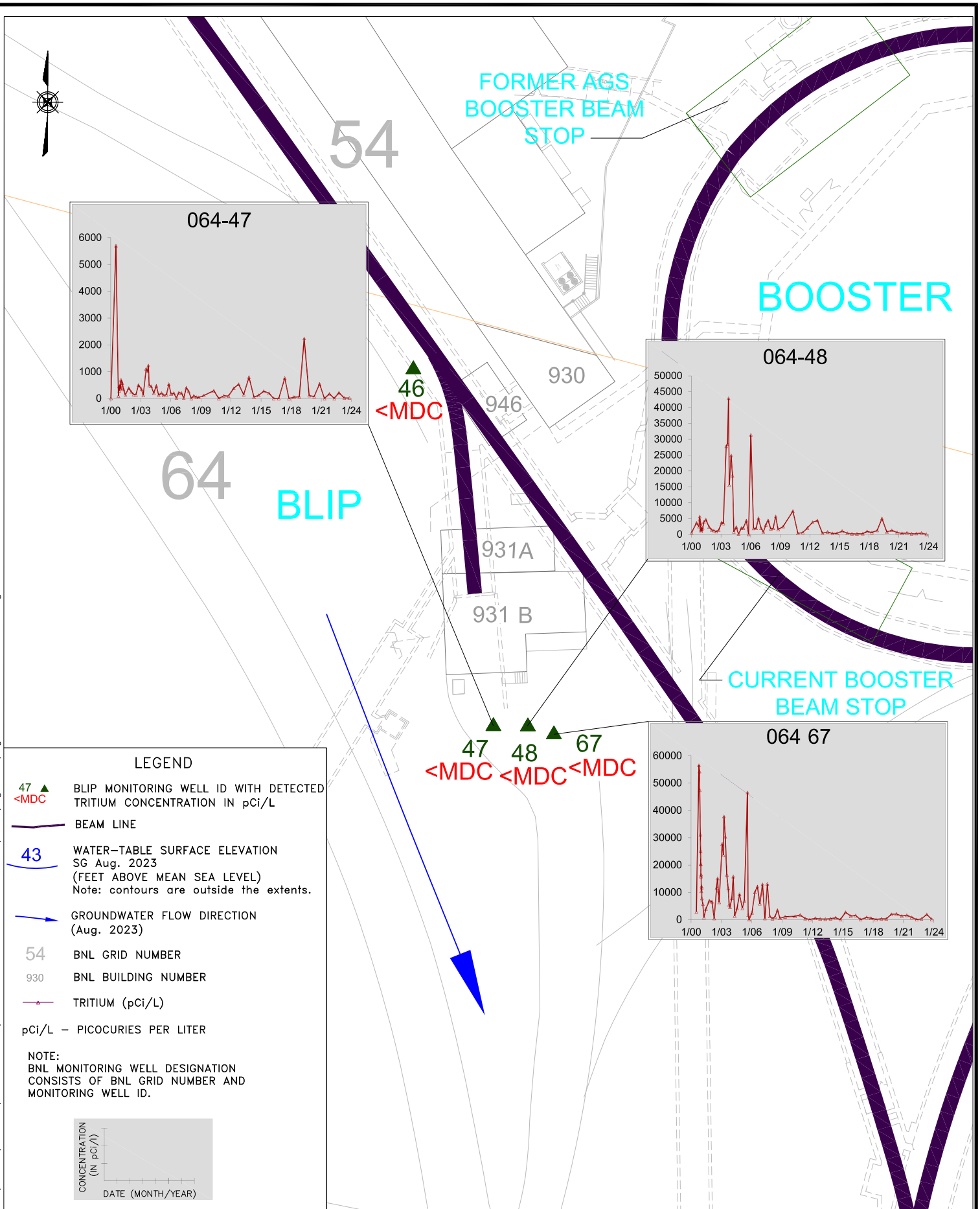


Figure 3.8-4
Facility Monitoring Program
AOC 16T g-2 Tritium Plume
Comparison to DWS





LEGEND

47 ▲ <MDC — BLIP MONITORING WELL ID WITH DETECTED TRITIUM CONCENTRATION IN pCi/L

BEAM LINE

43 — WATER-TABLE SURFACE ELEVATION SG Aug. 2023 (FEET ABOVE MEAN SEA LEVEL) Note: contours are outside the extents.

GROUNDWATER FLOW DIRECTION (Aug. 2023)

54 — BNL GRID NUMBER

930 — BNL BUILDING NUMBER

TRITIUM (pCi/L)

pCi/L – PICOCURIES PER LITER

NOTE:
BNL MONITORING WELL DESIGNATION CONSISTS OF BNL GRID NUMBER AND MONITORING WELL ID.

CONCENTRATION (IN pCi/l)
DATE (MONTH/YEAR)

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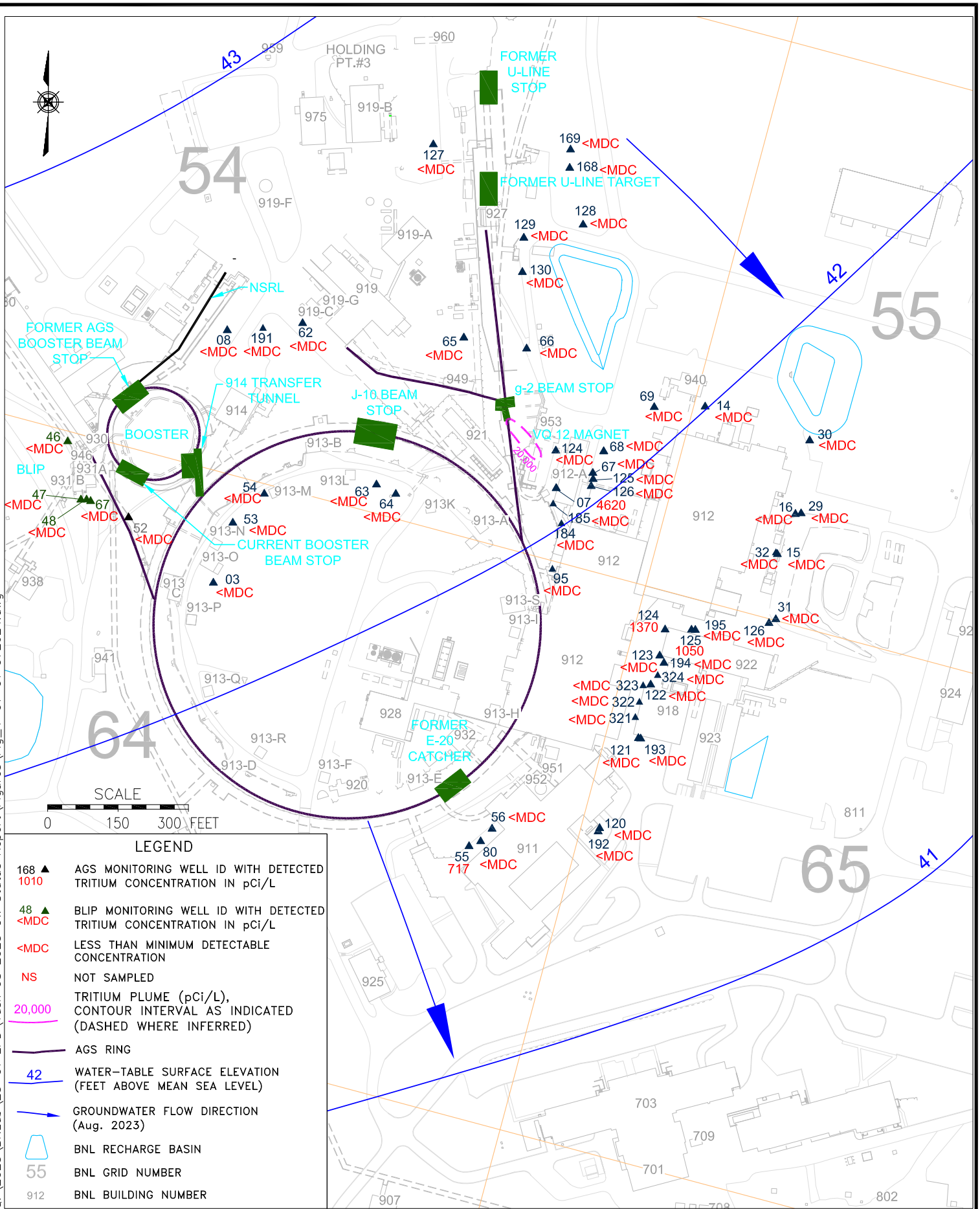
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE: FACILITY MONITORING PROGRAM, BLIP FACILITY AREA MONITORING WELL LOCATIONS AND TRITIUM RESULTS, 2023
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 3.9-1



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE: FACILITY MONITORING PROGRAM, AGS AND BLIP FACILITY AREA MONITORING WELL LOCATIONS AND TRITIUM RESULTS, 2023
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.1-1

Figure 4.1-2
Facility Monitoring Program
AGS Facility Area
Maximum Tritium Concentrations Downgradient of Booster Stop

2023 BNL Groundwater Status Report

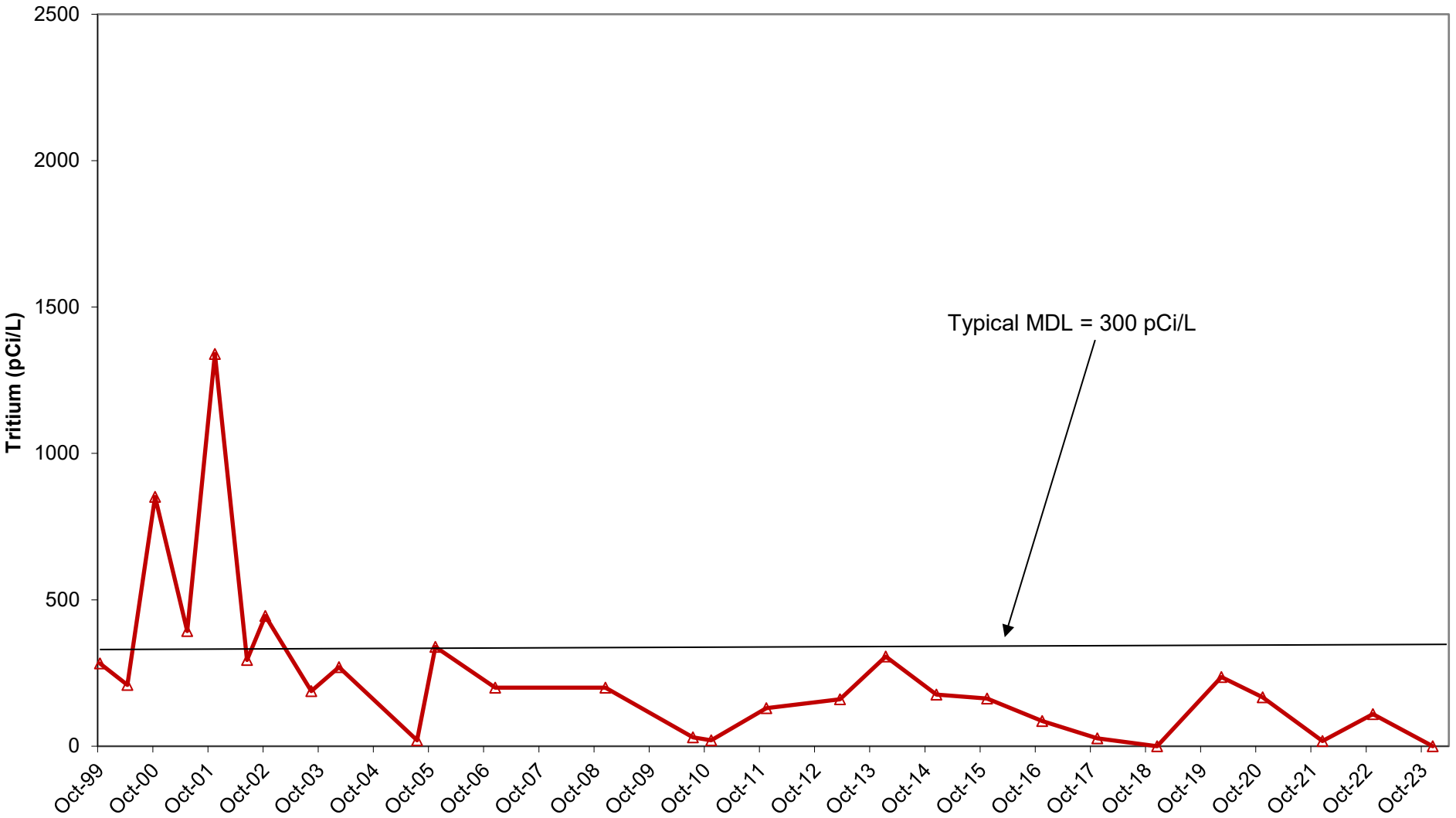


Figure 4.1-3
Facility Monitoring Program
AGS Facility Area
Maximum Tritium Concentrations
Downgradient of Former AGS E-20 Catcher

2023 BNL Groundwater Status Report

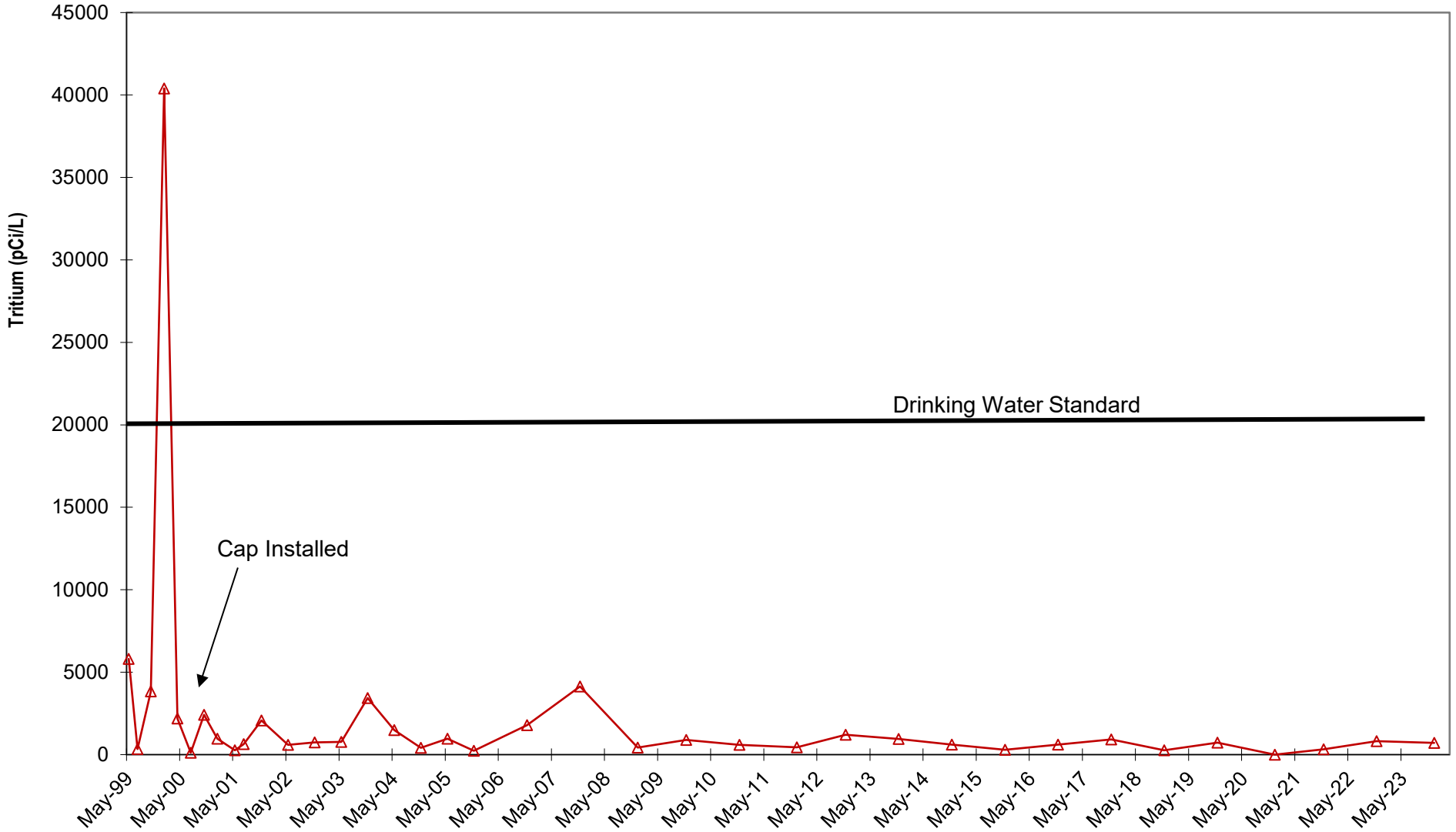


Figure 4.1-4
Facility Monitoring Program
AGS FacilityArea
Maximum Tritium Concentrations
Downgradient of Building 914

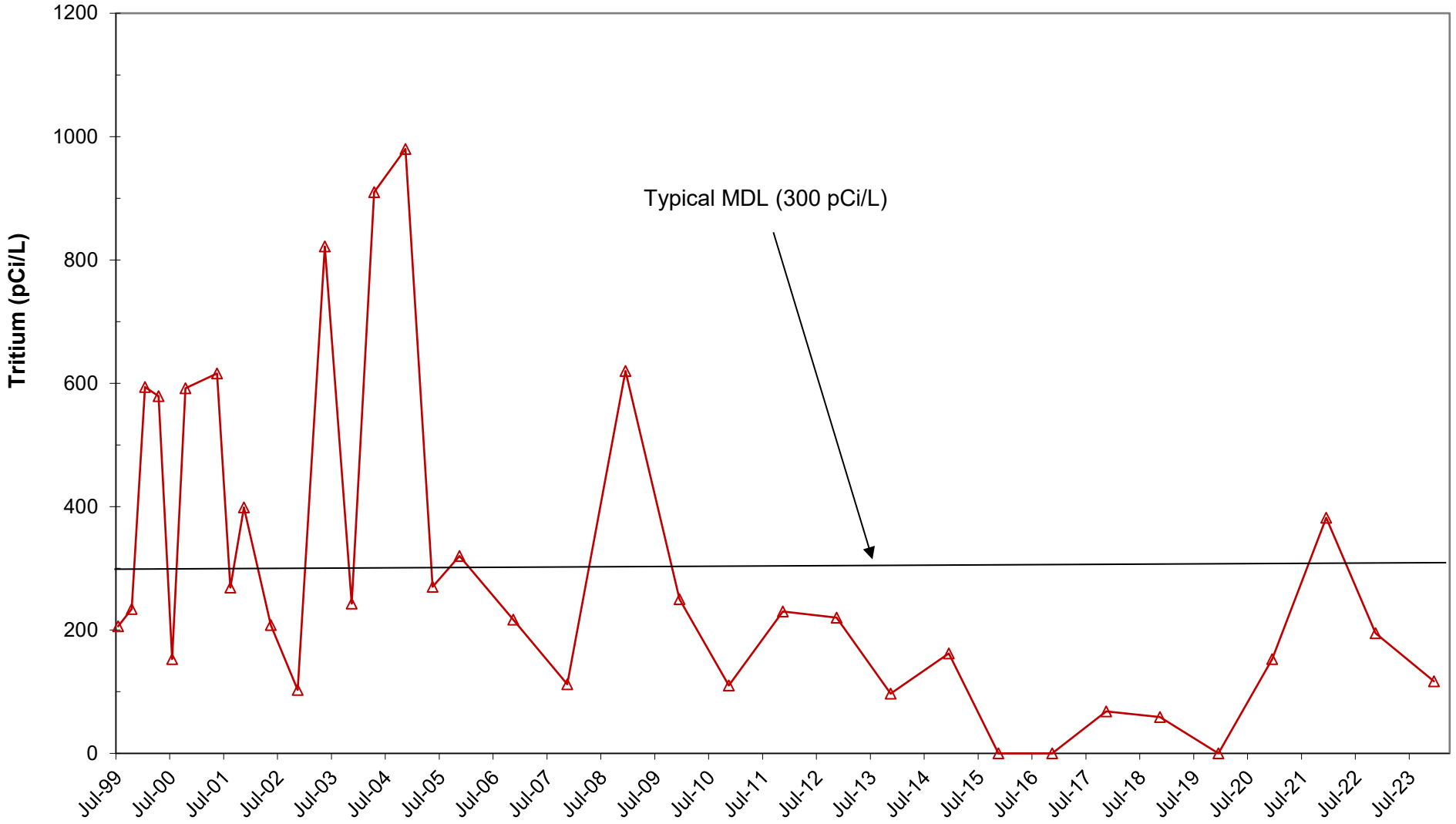


Figure 4.1-5
Facility Monitoring Program
AGS Facility Area
Maximum Tritium Concentrations
Downgradient of J-10 Beam Stop

2023 BNL Groundwater Status Report

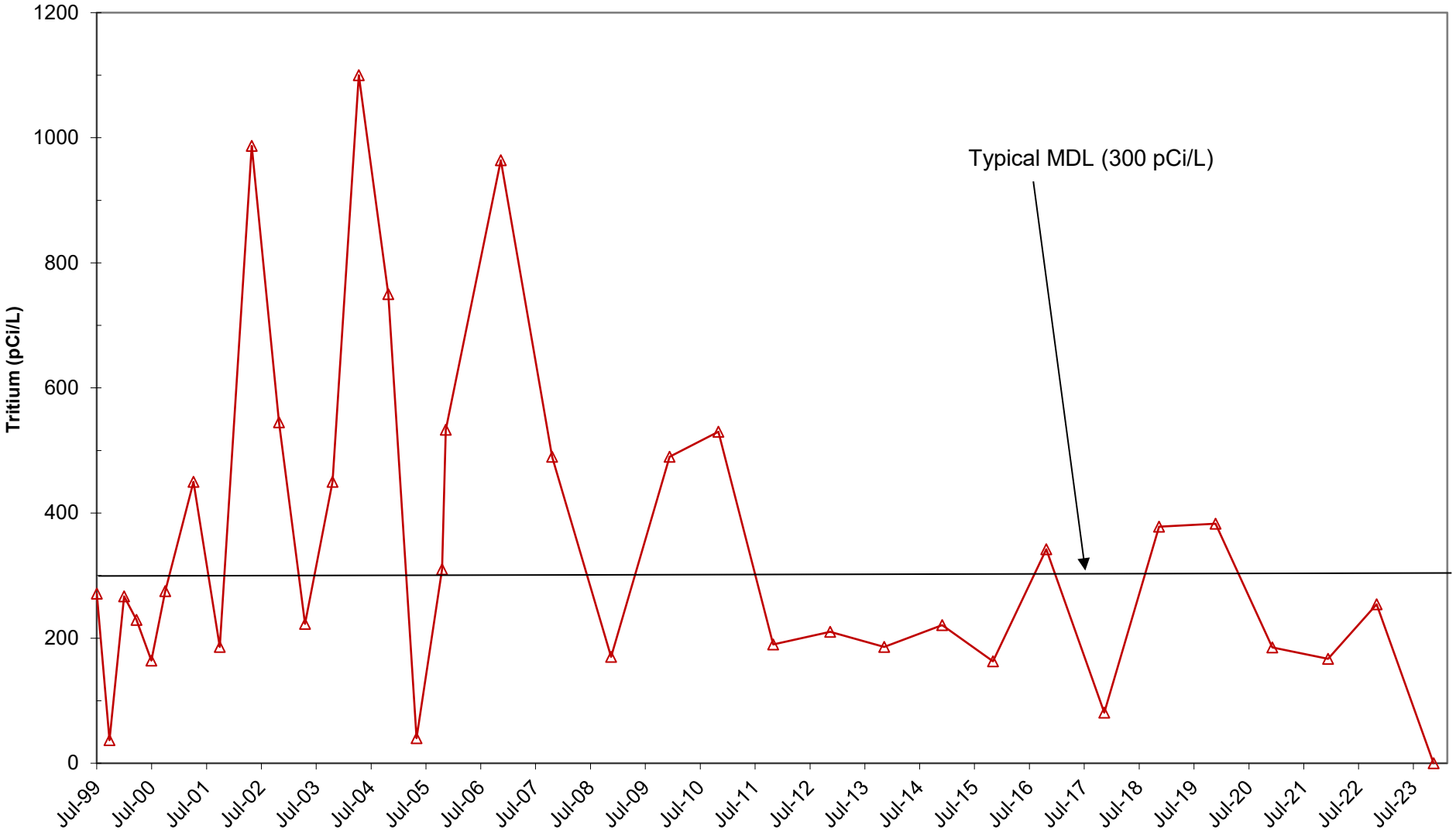


Figure 4.1-6
Facility Monitoring Program
AGS Facility Area
Maximum Tritium Concentrations
Downgradient of Former U-Line Target

2023 BNL Groundwater Status Report

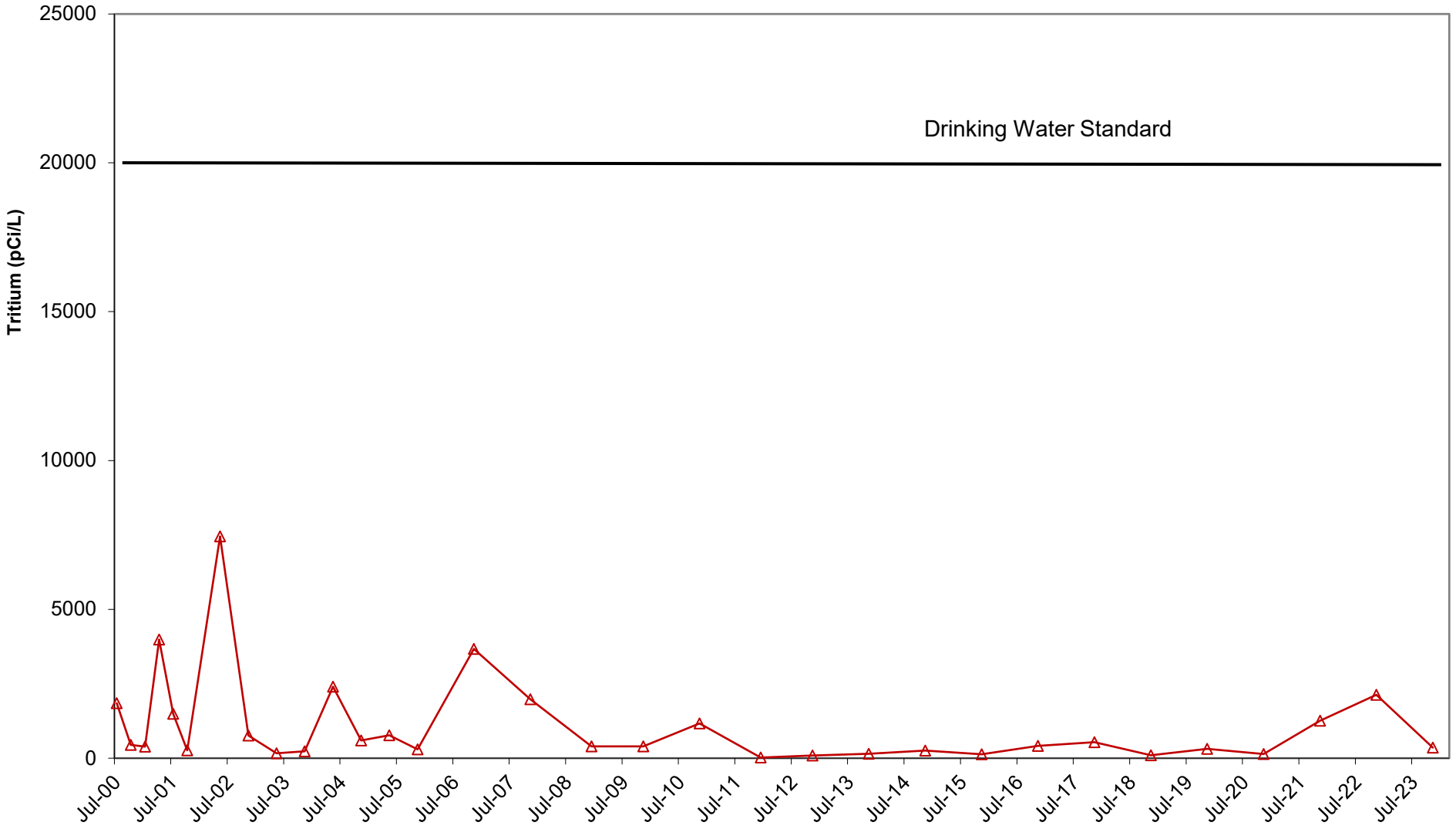
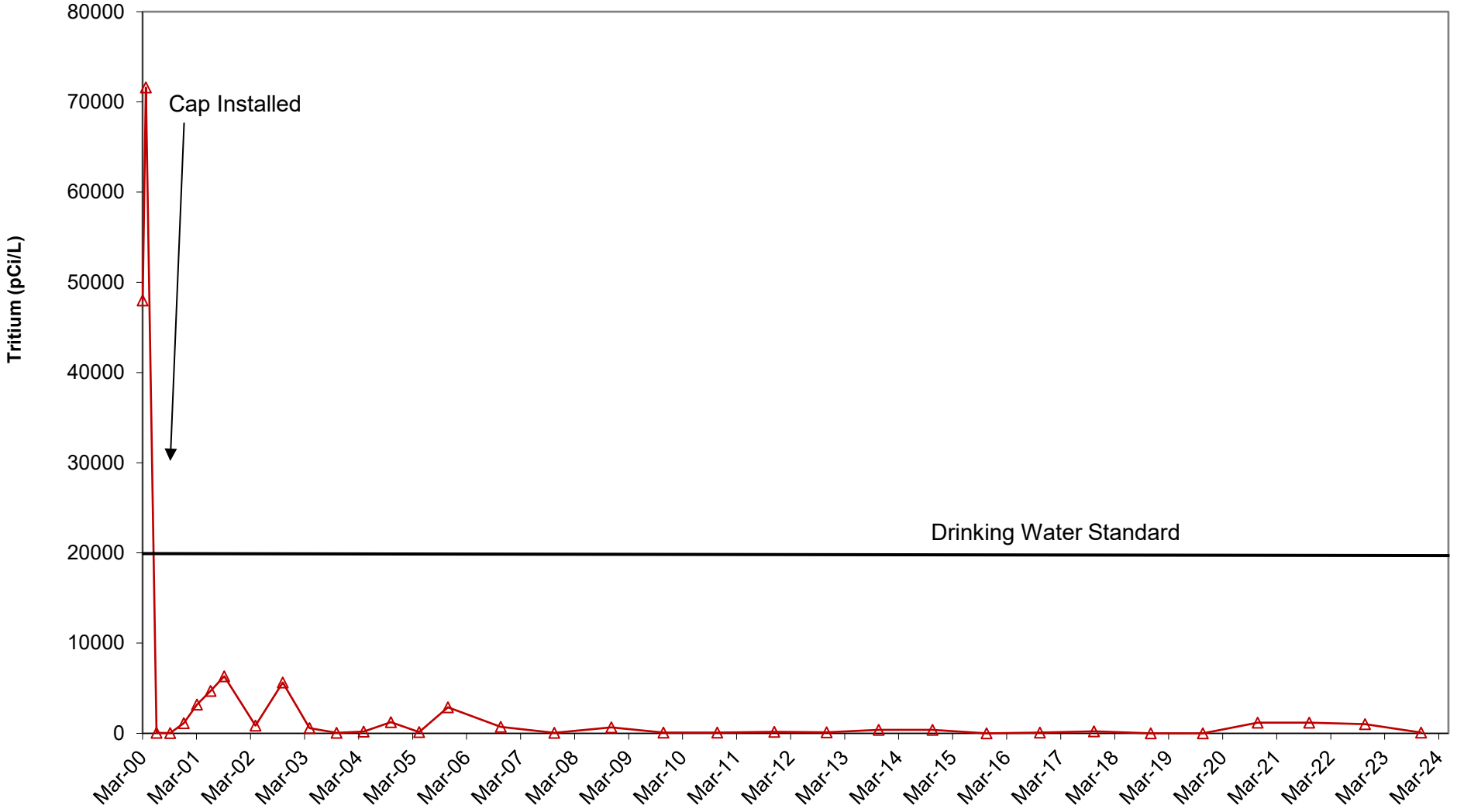
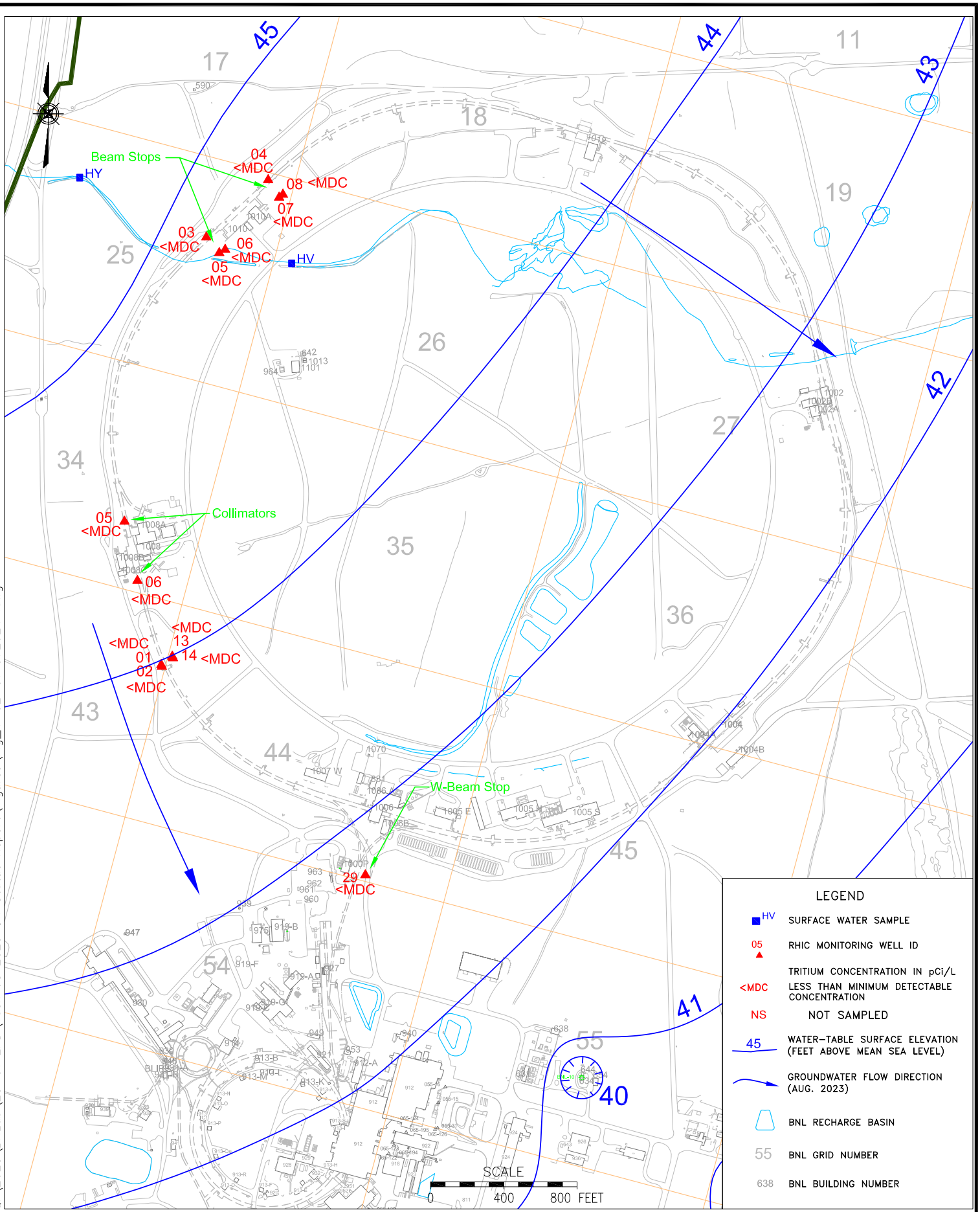


Figure 4.1-7
Facility Monitoring Program
AGS Facility Area
Maximum Tritium Concentrations
Downgradient of Former U-Line Beam Stop Area

2023 BNL Groundwater Status Report





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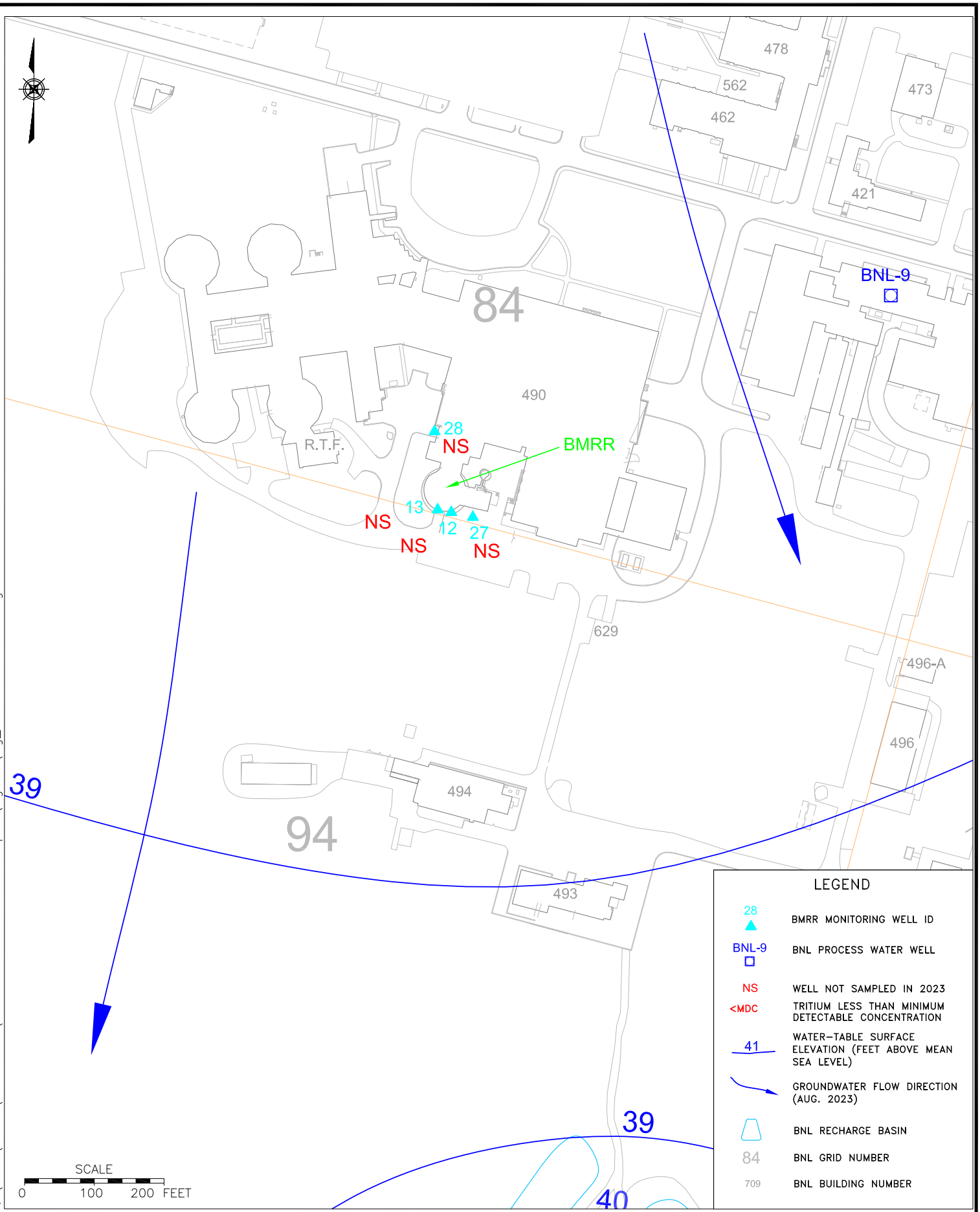
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE: FACILITY MONITORING PROGRAM, RELATIVISTIC HEAVY ION COLLIDER, MONITORING WELL LOCATIONS TRITIUM RESULTS, 3RD QTR 2023
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.2-1



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FACILITY MONITORING PROGRAM, BROOKHAVEN MEDICAL RESEARCH REACTOR MONITORING WELL LOCATIONS

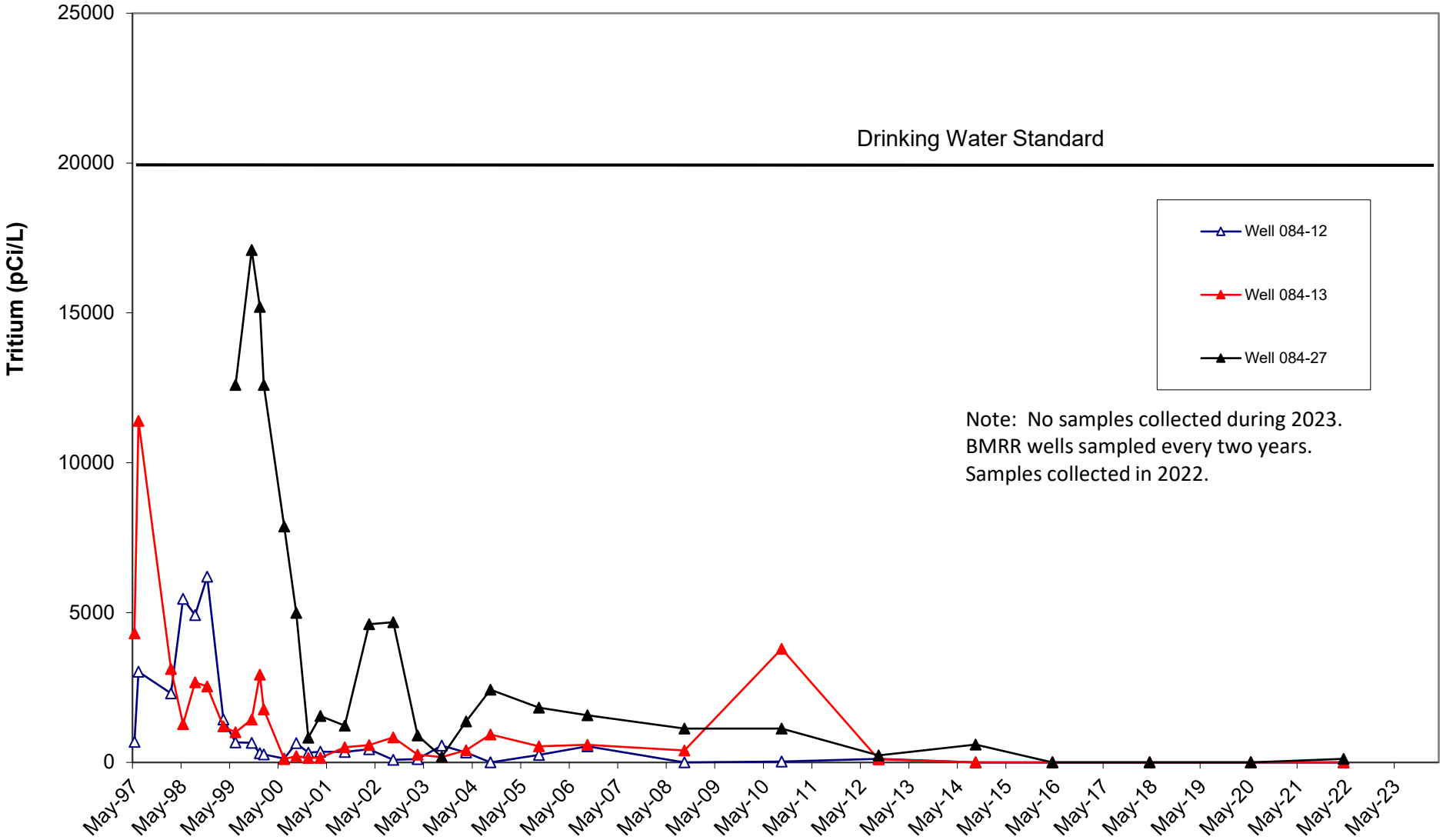
2023 BNL GROUNDWATER STATUS REPORT

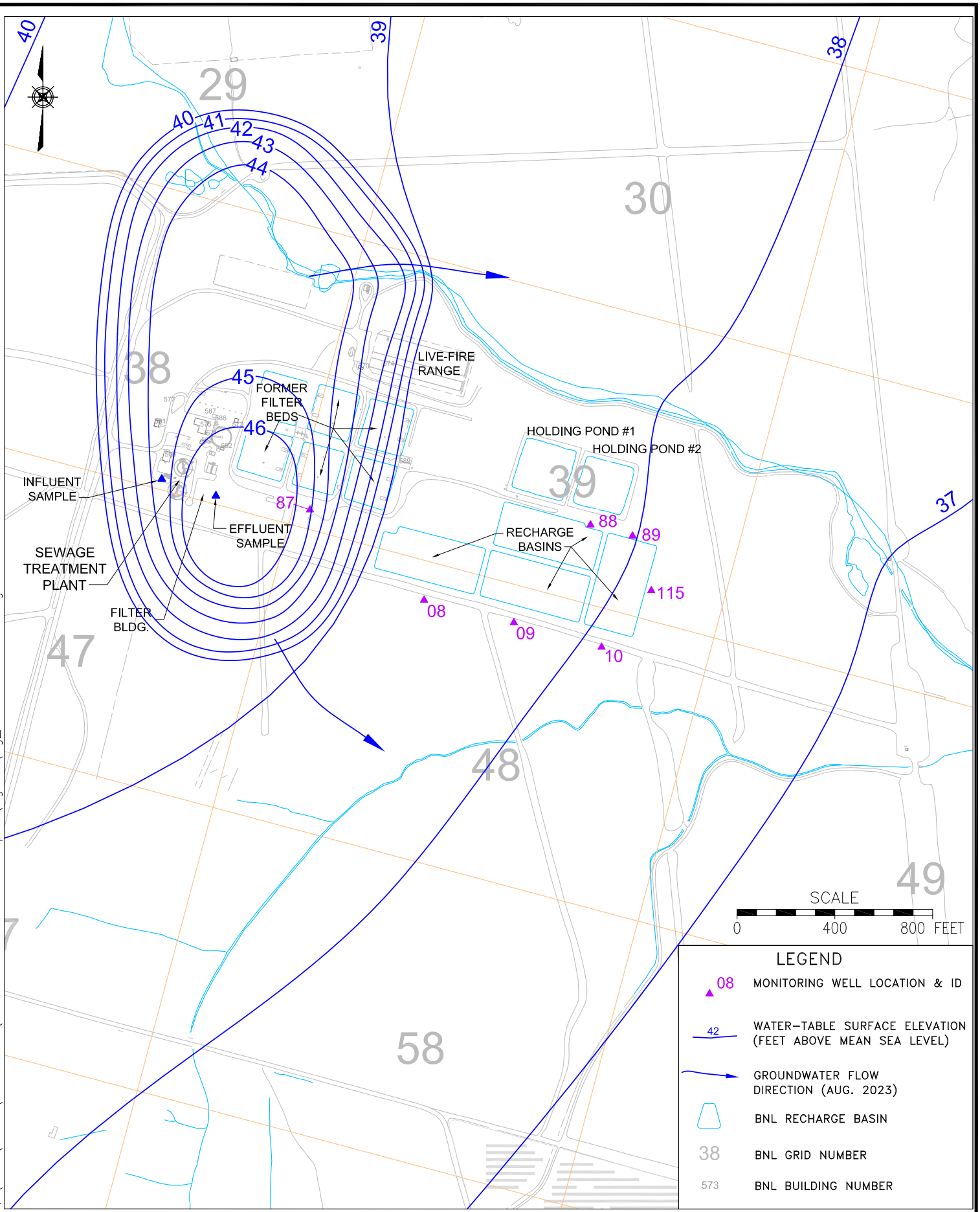
DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/25/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.3-1

Figure 4.3-2
Facility Monitoring Program
Brookhaven Medical Research Reactor
Monitoring Well Tritium Concentrations

2023 BNL Groundwater Status Report





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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

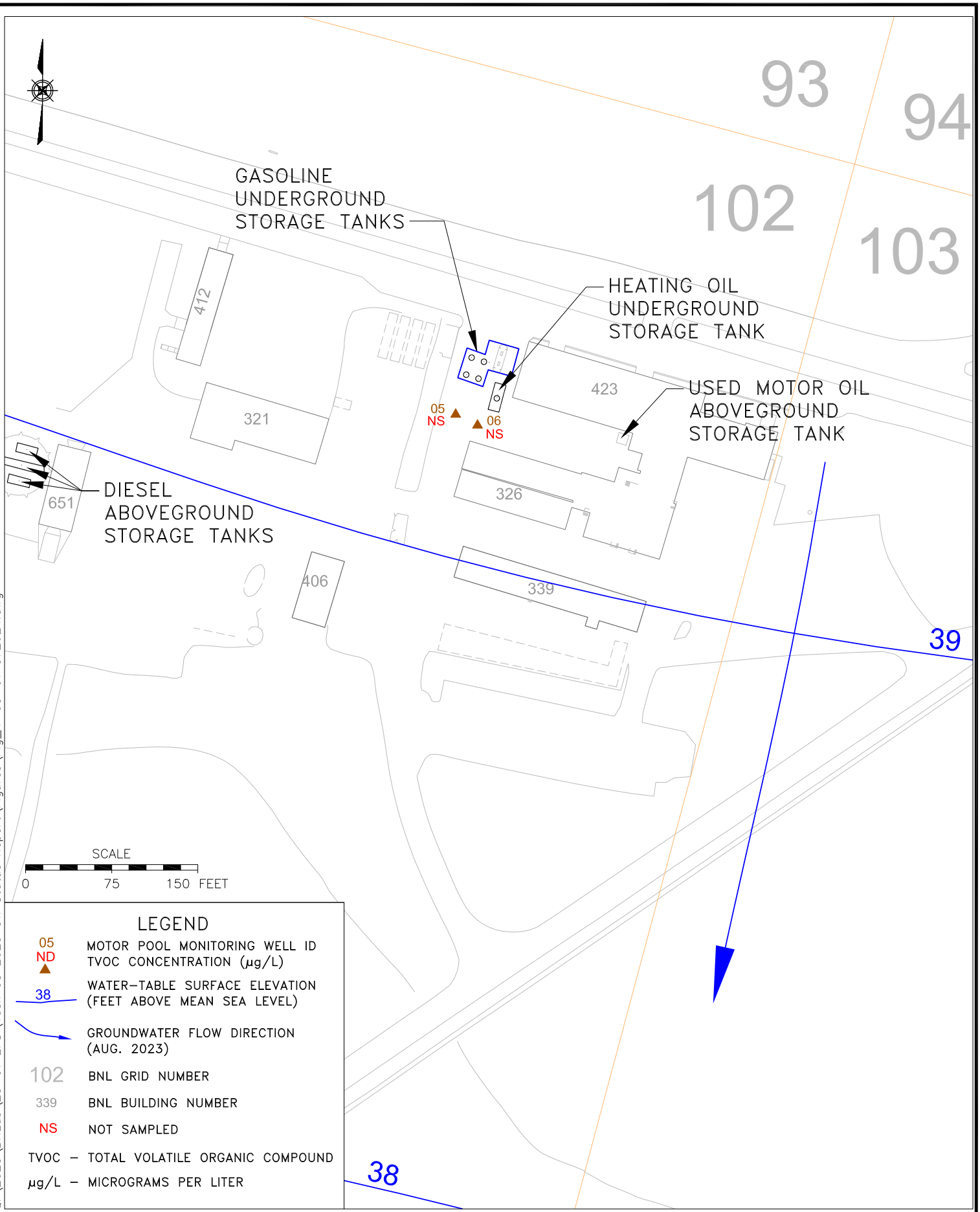
TITLE:

SEWAGE TREATMENT PLANT SYSTEM SAMPLING AND MONITORING WELL LOCATIONS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/14/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	RFH	07/26/24	–

FIGURE NO.: 4.4-1



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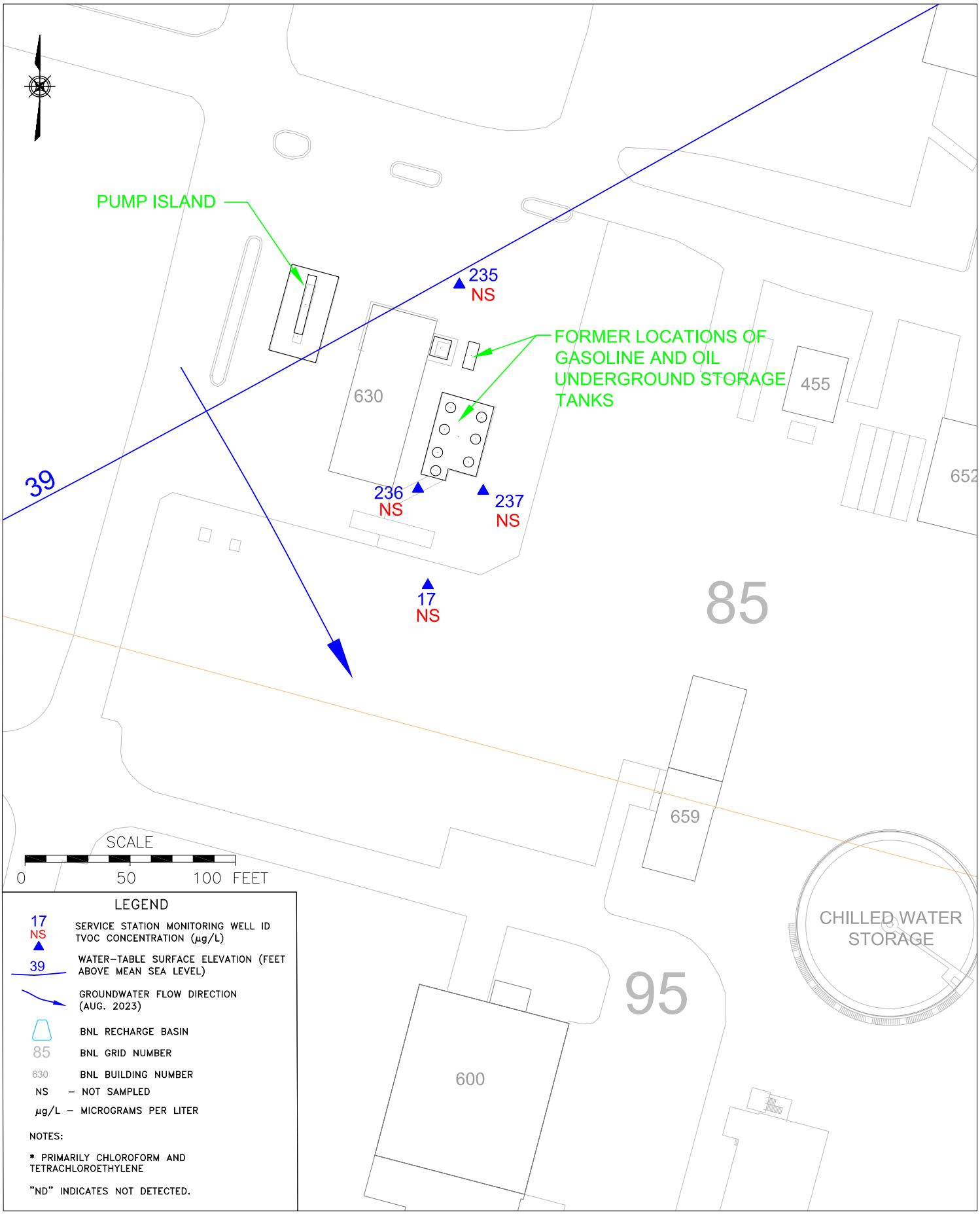
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTON DIVISION

TITLE:
FACILITY MONITORING PROGRAM,
MOTOR POOL
MONITORING WELL LOCATIONS
TVOC RESULTS 4TH QUARTER 2023
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/14/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.5-1



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

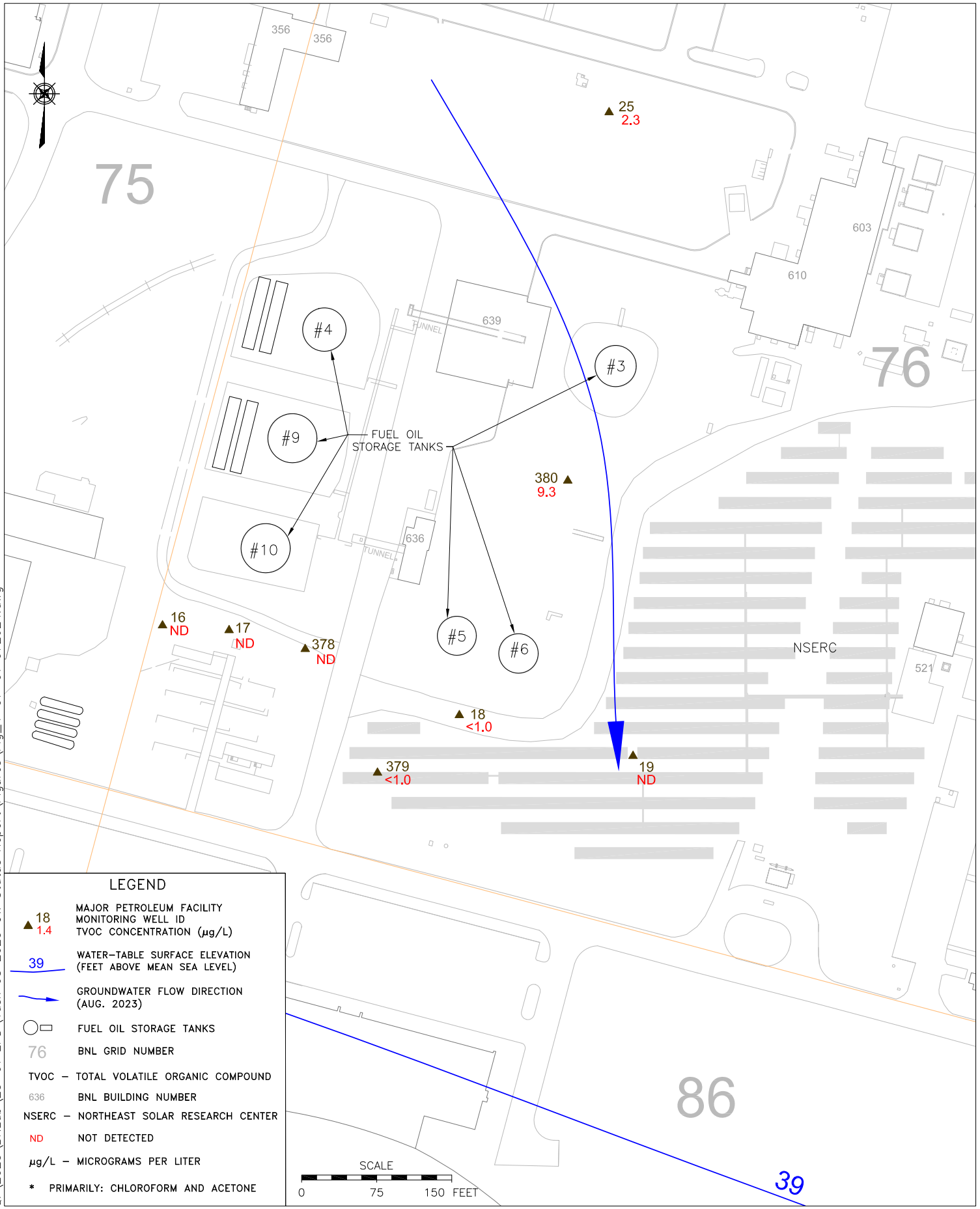
TITLE:

FACILITY MONITORING PROGRAM,
SERVICE STATION

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/14/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.6-1



LEGEND

- ▲18 / 1.4 — MAJOR PETROLEUM FACILITY MONITORING WELL ID / TVOC CONCENTRATION (µg/L)
- 39 — WATER-TABLE SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER FLOW DIRECTION (AUG. 2023)
- FUEL OIL STORAGE TANKS
- 76 — BNL GRID NUMBER
- TVOC – TOTAL VOLATILE ORGANIC COMPOUND
- 636 — BNL BUILDING NUMBER
- NSERC – NORTHEAST SOLAR RESEARCH CENTER
- ND — NOT DETECTED
- µg/L – MICROGRAMS PER LITER
- * PRIMARILY: CHLOROFORM AND ACETONE

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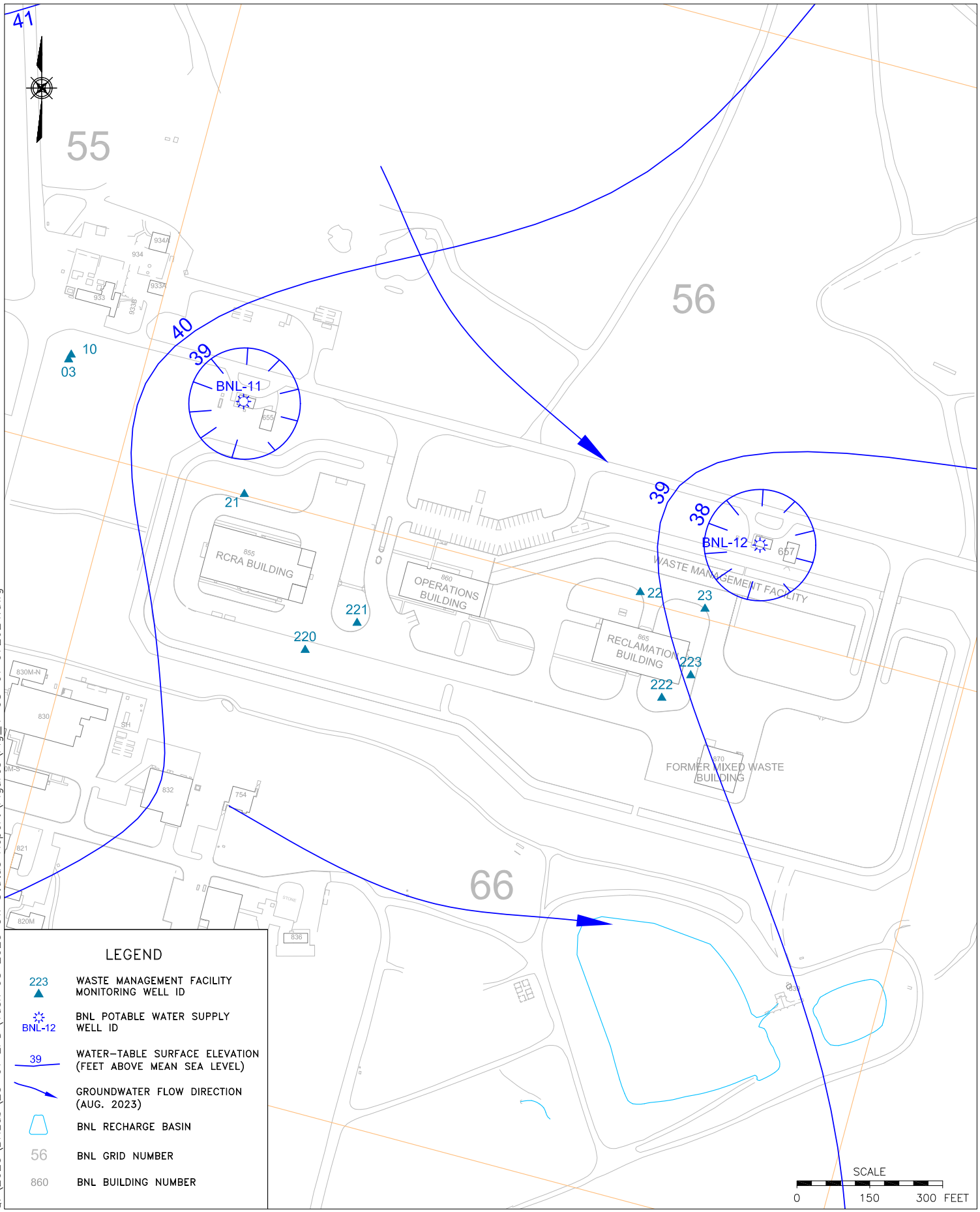
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FACILITY MONITORING PROGRAM, MAJOR PETROLEUM FACILITY MONITORING WELL LOCATIONS TVOC CONCENTRATIONS, 4th QTR 2023
2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/14/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.7-1



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

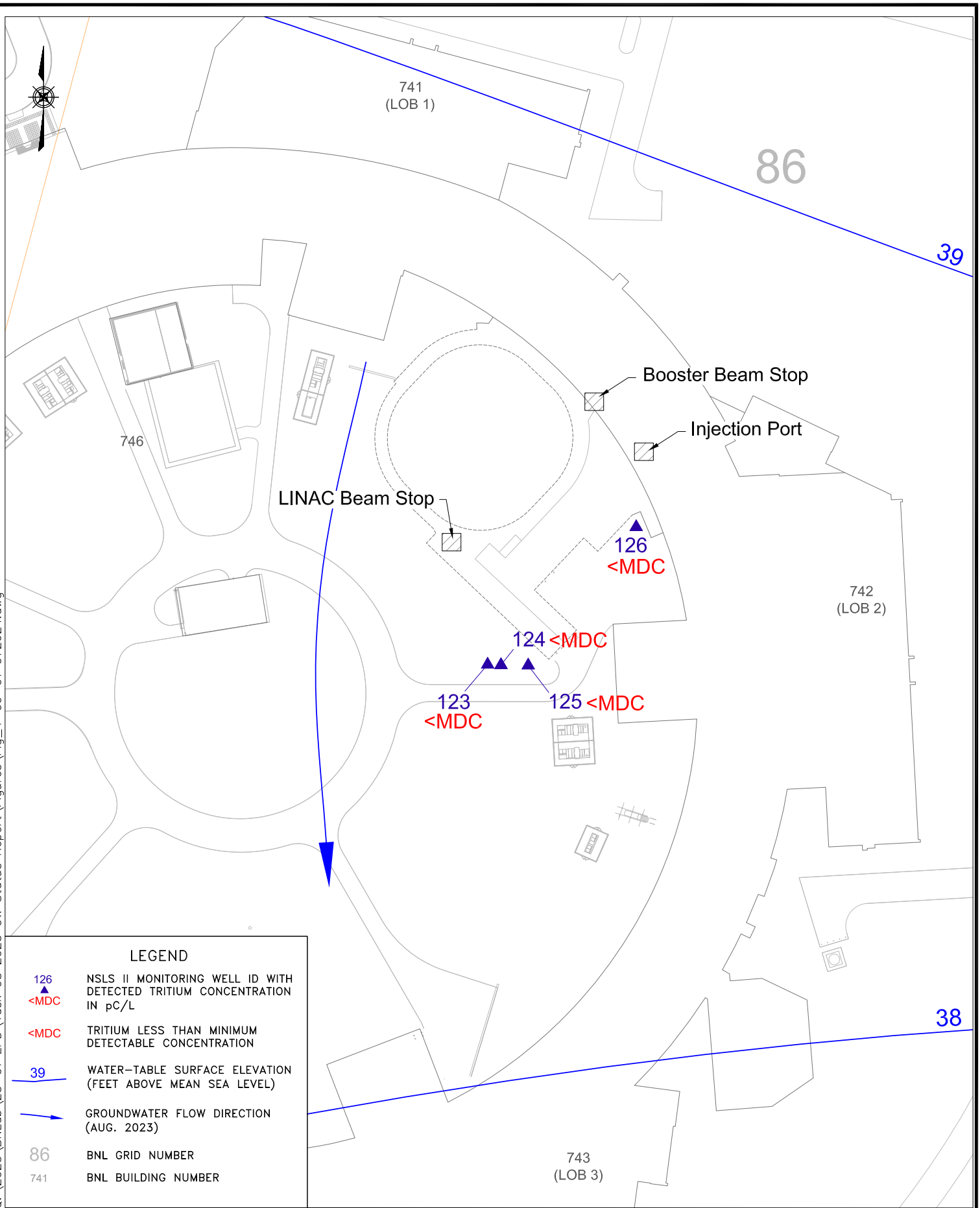
TITLE:

FACILITY MONITORING PROGRAM, WASTE MANAGEMENT FACILITY MONITORING WELL LOCATIONS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/14/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.8-1



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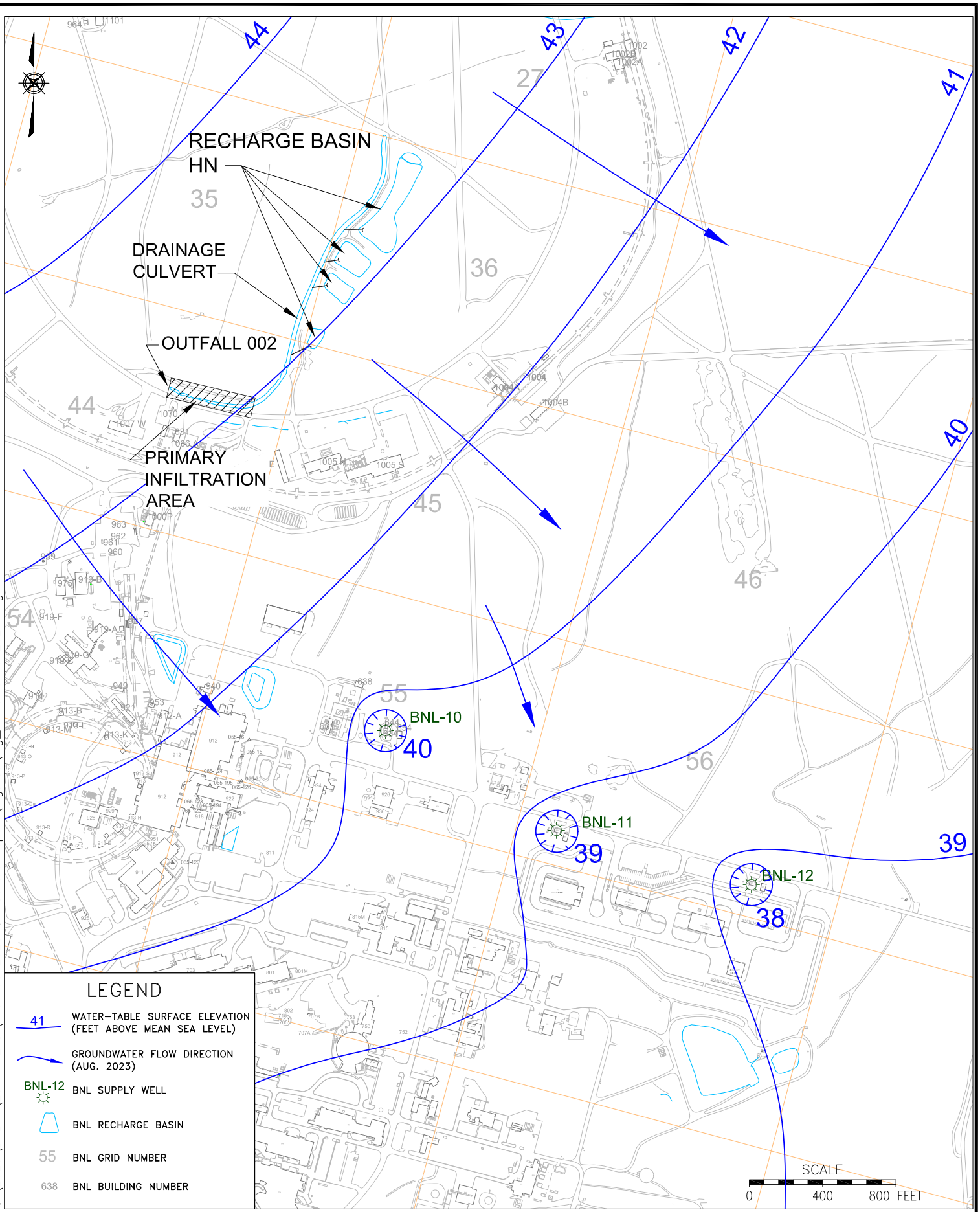
Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:
FACILITY MONITORING PROGRAM
NATIONAL SYNCHROTRON LIGHT SOURCE II
MONITORING WELL LOCATIONS

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/14/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.9-1



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Brookhaven National Laboratory
ENVIRONMENTAL PROTECTION DIVISION

TITLE:

WATER SUPPLY WELL LOCATIONS DOWNGRADIENT OF BASIN HN (SPDES OUTFALL 002)

2023 BNL GROUNDWATER STATUS REPORT

DWN:	VT: HZ.:	DATE:	PROJECT NO.:
AJZ	–	03/14/24	–
CHKD:	APPD:	REV.:	NOTES:
WRD	DEP	07/26/24	–

FIGURE NO.: 4.10-1