



Annual Drinking Water Quality Report for Calendar Year 2024

Pingree Grove Public Water Supply
Facility Number IL0890160

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. This report includes drinking water facts, information on violations (if applicable), and contaminants detected in your drinking water supply during calendar year 2024. Each year, we will provide you a new report. If you need help understanding this report or have general questions, please contact the person listed below.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Contact Name: Pat Doherty
Telephone Number: 847-464-5533 extension 1502
E-mail: Pdoherty@pingreegrove.org

Before we begin listing our unique water quality characteristics, here are some important facts you should know to help have a basic understanding of drinking water in general.

Sources of Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Our source of water comes from **Ground Water Wells. Well 1 (016317) is located in front of the Water Treatment Plant.**

Well 2 (016327) is located 1500 feet North of Well 1.

Well 3 (01803) is located beside WTP II.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also, come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Source Water Assessments

Source water protection (SWP) is a proactive approach to protecting our critical sources of public water supply and assuring that the best source of water is being utilized to serve the public. It involves implementation of pollution prevention practices to protect the water quality in a watershed or wellhead protection area serving a public water supply. Along with treatment, it establishes a multi-barrier approach to assuring clean and safe drinking water to the citizens of Illinois. The Illinois EPA has implemented a source water assessment program (SWAP) to assist with wellhead and watershed protection of public drinking water supplies.

The Illinois EPA does not consider Pingree Grove's source water to be susceptible to contamination. This determination was made based on the identification of potential sources and routes of contamination, land use activities around the wells, available hydrogeological data and monitoring results. During the survey of the source water protection area, a sewage treatment plant was identified within the combined 1,000-foot Phase I Wellhead Protection Area (WHPA) for Well 1 (01631) and Well 2 (01632). Sampling performed to assess for pathogenic contamination (e.g. virus, total coliform, e-coli) has also demonstrated that the source water is not susceptible to these types of contaminants.

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our water supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by the Municipal Center or call Pat Doherty our water operator at 847-464-5533 extension 1502. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Other Facts about Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amounts of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

2023 Regulated Contaminants Detected

The next several tables summarize contaminants detected in your drinking water supply.

Copper Range 0 – 1310ppm

Lead Range 0 – 1.23ppm

To obtain a copy of the system's lead tap sampling data: 847-464-5533 extension 1502

Our Community Water Supply has developed a service line material inventory.

To obtain a copy of the system's service line inventory: 847-464-5533 extension 1502

Lead and Copper								
	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2024	1.3	1.3	1.07	0	ppm	N	Erosion of natural deposits; leaching from wood preservatives; Corrosion of household plumbing systems.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Village of Pingree Grove is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at <http://www.epa.gov/safewater/lead> .

Regulated Contaminants

Disinfectants and Disinfection Byproducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2024	1	0.83 – 1.07	MRDLG=4	MRDL=4	ppm	N	Water Additive used to control microbes
Haloacetic Acids (HAA5)	2024	9	0 – 10	No Goal for the total	60	ppb	N	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2024	29	14.89 – 40	No Goal for the total	80	ppb	N	Byproduct of drinking water disinfection
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2024	1	1.15 – 1.17	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	2024	2.29	2.29 -2.29	100	100	ppb	N	Discharge from steel and pulp mills; Erosion of natural deposits

Cyanide	2024	3.3	3.3 -3.3	200	200	ppb	N	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories.
Fluoride	2024	.66	.66 - .66	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Manganese	2024	1.51	1.51 – 1.51	150	150	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate [measured as Nitrogen]	2024	.13	0 - .13	10	10	ppm	N	Runoff from fertilizer use; Leaching from Septic tanks, sewage; Erosion of natural deposits.
Selenium	2024	0.211	0.211 – 0.211	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium	2024	11.2	11.2 – 11.2			ppm	N	Erosion from naturally occurring deposits. Used in water softener regeneration.
Zinc	2024	0.00216	0.00216 – 0.00216	5	5	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal
Radiological Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2024	4	1.54 – 6.32	0	5	pCi/L	N	Erosion of natural deposits
Gross alpha excluding radon and uranium	2024	9	3.15 – 11	0	15	pCi/L	N	Erosion of natural deposits

Medium PWS Notification Requirements for the Fifth Unregulated Contaminant Monitoring Rule

The following chart below to notify you that Pingree Grove is subject to the requirements of the next Unregulated Contaminants Monitoring Rule (UCMR 5), published on December 27, 2021 (86 FR 73131). UCMR 5 requires certain PWSs to collect drinking water samples for 29 per- and polyfluoroalkyl substances (PFAS) and lithium during a 12-month period between 2023 and 2025.

The Safe Drinking Water Act (SDWA) requires the U.S. Environmental Protection Agency (EPA) to establish criteria for a program to monitor unregulated contaminants in drinking water and to identify contaminants to be monitored every five years. The UCMR dataset is one of the

primary sources of information on occurrence and population exposure EPA uses to develop regulatory decisions for contaminants in the public drinking water supply.

SDWA was amended in 2018 and now specifies that, subject to the availability of appropriations, PWSs serving between 3,300 and 10,000 people as of February 1, 2021, including those that purchase all their water, are among the PWSs required to participate in UCMR. For any PWS serving 10,000 or fewer people, such as Pingree Gove's, EPA will pay for the cost of shipping the samples to an EPA-designated laboratory, as well as the cost of analysis. **EPA has determined that it has appropriations available to support including your PWS in UCMR 5 and is confirming your participation.**

What must your PWS do during UCMR 5 sampling?

EPA's contractor will supply your PWS with sampling kits and instructions. In some situations, State personnel will collect the UCMR 5 samples for PWSs. Unless you are advised that this is the case, your PWS will be responsible for collecting the samples per EPA's instructions. The EPA-designated laboratory will post your analytical results to SDWARS 5 so you are aware of the results and can meet your Public Notification and Consumer Confidence Report requirements. Community water systems must inform their consumers of UCMR 5 monitoring results in their Consumer Confidence Report (see 40 CFR 141.153(d)(7)). Non-transient, non-community water systems required to monitor for UCMR 5 must inform their consumers of the availability of monitoring results for Tier 3 Public Notice (see 40 CFR 141.207).

Questions?

- For more information about the program, please review the [UCMR 5 Website](#).
- For general questions about requirements or navigating SDWARS, please contact the UCMR Message Center at UCMR5@glec.com or 1-

Fifth Unregulated Contaminant Monitoring Rule (UCMR 5)								
Sample Kit ID	Method ID	Analyte Name	Sampling Event	Collection Date(s)	EPA Minimum Reporting Value (ug/L)	Reported Value (ug/L)	IL0890160 Results ≥ MRL	Status
102050P, 107703P	EPA 537.1	PFTA	SE1, SE2	3/6/2023, 9/12/23	<0.008	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 537.1	PFTrDA	SE1, SE2	3/6/2023, 9/12/23	<0.007	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 537.1	NEtFOSAA	SE1, SE2	3/6/2023, 9/12/23	<0.005	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 537.1	NMeFOSAA	SE1, SE2	3/6/2023, 9/12/23	<0.006	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFBS	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFHpA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFHxS	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFNA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFOS	SE1, SE2	3/6/2023, 9/12/23	<0.004	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFOA	SE1, SE2	3/6/2023, 9/12/23	<0.004	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFDA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFDoA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFHxA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFUnA	SE1, SE2	3/6/2023, 9/12/23	<0.002	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	11Cl-PF3OUDS	SE1, SE2	3/6/2023, 9/12/23	<0.005	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	9Cl-PF3ONS	SE1, SE2	3/6/2023, 9/12/23	<0.002	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	ADONA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	HFPO-DA	SE1, SE2	3/6/2023, 9/12/23	<0.005	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFBA	SE1, SE2	3/6/2023, 9/12/23	<0.005	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	6:2 FTS	SE1, SE2	3/6/2023, 9/12/23	<0.005	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	4:2 FTS	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	8:2 FTS	SE1, SE2	3/6/2023, 9/12/23	<0.005	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFMPA	SE1, SE2	3/6/2023, 9/12/23	<0.004	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFPeA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved

102050P, 107703P	EPA 533	PFMBA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFEESA	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	NFDHA	SE1, SE2	3/6/2023, 9/12/23	<0.02	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PPPeS	SE1, SE2	3/6/2023, 9/12/23	<0.004	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 533	PFHpS	SE1, SE2	3/6/2023, 9/12/23	<0.003	<MRL	0	PWS/EPA Approved
102050P, 107703P	EPA 200.7	Lithium	SE1, SE2	3/6/2023, 9/12/23	<9	<MRL	0	PWS/EPA Approved

- [800-949-1581](tel:800-949-1581).

For ground water ground water locations, UCMR 5 sampling should take place twice over the course of 12 months (for a total of 2 sampling events). These sampling events should occur five to seven months apart.

Here are a few definitions and scientific terms which will help you understand the information in the contaminant detection tables.

AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Avg.	Regulatory compliance with some MCLs is based on running annual average of monthly samples.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system
Level 2 Assessment	A level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL	Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal: The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
N/A	Not Applicable
Mrem:	Millirems per year (a measure of radiation absorbed by the body).
ppb	Parts per billion or micrograms per liter (ug/L) - or one ounce in 7,350,000 gallons of water.
ppm	Parts per million or milligrams per liter (mg/L) - or one ounce in 7,350 gallons of water.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

Violations Table

Combined Radium 226/228			
Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	10/1/2024	12/31/2024	The IEPA required sample was taken by staff on 10/17/2024 and submitted to the lab on 10/17/2024 which was within the required timeframe for analysis. Due to a data entry error by the sub-contracted certified laboratory that was not rectified in the required IEPA timeframe the official lab results were not allowed to be accepted.

Gross alpha including radon and uranium			
Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	10/1/2024	12/31/2024	The IEPA required sample was taken by staff on 10/17/2024 and submitted to the lab on 10/17/2024 which was within the required timeframe for analysis. Due to a data entry error by the certified laboratory that was not discovered or rectified in the required IEPA timeframe the sample could not be tested and there for was not submitted in the allotted time-frame to the IEPA.

December 31, 2024

Village of Pingree Grove
Village of Pingree Grove
275 Water St.
Pingree Grove, IL 60140

RE: [none]

AAJ0626

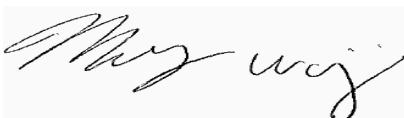
Metiri Analytical Group Inc, - Geneva received sample(s) on 10/17/2024 for the analyses presented in the following report.

All data for the associated quality control (QC) met EPA, method, or internal laboratory specifications except where noted in the case narrative. If you are comparing these results to external QC specifications or compliance limits and have any questions, please contact us.

This final report of laboratory analysis consists of this cover letter, case narrative, analytical report, dates report, and any accompanying documentation including, but not limited to, chain of custody records, raw data, and letters of explanation or reliance. This report may not be reproduced, except in full, without the prior written approval of Suburban Laboratories, Inc.

If you have any questions regarding these test results, please call me at (708) 544-3260.

Sincerely,



Mary Wojdyla
Project Manager



Village of Pingree Grove 275 Water St. Pingree Grove, IL 60140	Project: 0890160 - RADS Project Number: Project Manager: Village of Pingree Grove	Reported: 12/31/2024 12:06
--	---	----------------------------

Notes and Definitions

Item Definition

General Comments:

- All results reported in wet weight unless otherwise indicated. (dry = Dry Weight)
- Sample results relate only to the analytes of interest tested and to sample as received by the laboratory.
- Environmental compliance sample results meet the requirements of 35 IAC Part 186 unless otherwise indicated.
- Waste water analysis follows the rules set forth in 40 CFR part 136 except where otherwise noted.
- Accreditation by the State of Illinois is not an endorsement or a guarantee of the validity of data generated.
- For more information about the laboratories' scope of accreditation, please contact us at (708) 544-3260 or the Agency at (217) 782-6455.
- All radiological results are reported to the 95% confidence level.

Abbreviations:

- Reporting Limit: The concentration at which an analyte can be routinely detected on a day to day basis, and which also meets regulatory and client needs.
- Quantitation Limit: The lowest concentration at which results can be accurately quantitated.
- J: The analyte was positively identified above our Method Detection Limit and is considered detectable and usable; however, the associated numerical value is the approximate concentration of the analyte in the sample.
- ATC: Automatic Temperature Correction. - TNTC: Too Numerous To Count
- TIC: Tentatively Identified Compound (GCMS library search identification, concentration estimated to nearest internal standard).
- SS: (Surrogate Standard): Quality control compound added to the sample by the lab.
- LA: Lab Accident - No valid data to report.
- VO: Insufficient Volume provided
- BR: Received broken
- IP: Invalid Sampling

Method References:

For a complete list of method references please contact us.

- E: USEPA Reference methods
- SW: USEPA, Test Methods for Evaluating Solid Waste (SW-846)
- M: Standard Methods for the Examination of Water and Wastewater

Soil pH measured in water at degree C

RPD Relative Percent Difference

%REC Percent Recovery

Source Sample that was matrix spiked or duplicated.

PQL, Practical Quantitation Limit = Method Reporting Limit (MRL).

Table of Contents

Qualifiers and Definitions	2
Sample Results	5
Other Documents or Sub Lab Data	6

Metiri Group - Geneva - 1950 S Batavia Ave, Suite 150, Geneva, IL 60134

Village of Pingree Grove 275 Water St. Pingree Grove, IL 60140	Project: 0890160 - RADS Project Number: Project Manager: Village of Pingree Grove	Reported: 12/31/2024 12:06
--	---	----------------------------

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
AAJ0626-01	tp02	Drinking Water	10/17/2024 07:50	10/17/2024

Metiri Group - Geneva - 1950 S Batavia Ave, Suite 150, Geneva, IL 60134

Village of Pingree Grove 275 Water St. Pingree Grove, IL 60140	Project: 0890160 - RADS Project Number: Project Manager: Village of Pingree Grove	Reported: 12/31/2024 12:06
--	---	----------------------------

Sample Results

Data Analyzed by: Pace Analytical Services LLC

Sample: tp02

AAJ0626-01 (Drinking Water)

Analyte	Result /Qual	DL	RL	Units	Date Sampled	Date Analyzed	DF	Method	Prep Batch
Radium-226	2.88 ± 0.858		0.842	pCi/L	10/17/24 07:50			SW9315	[none]
Radium-228	3.44 ± 0.541		0.674	pCi/L	10/17/24 07:50			SW9320	[none]

November 04, 2024

Daniel Kenneally
Suburban Labs
1950 S. Batavia Avenue
Suite 150
Geneva, IL 60134

RE: Project: AAJ0626
Pace Project No.: 30728077

Dear Daniel Kenneally:

Enclosed are the analytical results for sample(s) received by the laboratory on October 22, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Nikayla M. Yasurek
nikayla.yasurek@pacelabs.com
(724)850-5600
Project Manager

Enclosures

cc: E Ducote, Suburban Laboratories, Inc.
Dan Galeher, Suburban Labs
Amanda Greuel, Suburban Laboratories, Inc.
Drinking Water Group, Suburban Laboratories
Kerri Pulley, Suburban Labs



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: AAJ0626
Pace Project No.: 30728077

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE SUMMARY

Project: AAJ0626
Pace Project No.: 30728077

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30728077001	AAJ0626-01	Drinking Water	10/17/24 07:50	10/22/24 10:00

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

SAMPLE ANALYTE COUNT

Project: AAJ0626
Pace Project No.: 30728077

Lab ID	Sample ID	Method	Analysts	Analyses Reported	Laboratory
30728077001	AAJ0626-01	EPA 903.1	REH1	1	PASI-PA
		EPA 904.0	ZPC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

PROJECT NARRATIVE

Project: AAJ0626
Pace Project No.: 30728077

Method: EPA 903.1
Description: 903.1 Radium 226, DW
Client: Suburban Laboratories, Inc./Metiri Group
Date: November 04, 2024

General Information:

1 sample was analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

PROJECT NARRATIVE

Project: AAJ0626
Pace Project No.: 30728077

Method: EPA 904.0
Description: 904.0 Radium 228, DW
Client: Suburban Laboratories, Inc./Metiri Group
Date: November 04, 2024

General Information:

1 sample was analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0626
 Pace Project No.: 30728077

Sample: AAJ0626-01	Lab ID: 30728077001	Collected: 10/17/24 07:50	Received: 10/22/24 10:00	Matrix: Drinking Water	
PWS:	Site ID:	Sample Type:			
Comments: • The sampler's name and signature were not listed on the COC.					
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	
		Pace Analytical Services - Greensburg		CAS No.	
Radium-226	EPA 903.1	2.88 ± 0.858 (0.842) C:NA T:93%	pCi/L	11/04/24 12:25	13982-63-3
Radium-228	EPA 904.0	3.44 ± 0.541 (0.674) C:81% T:90%	pCi/L	10/31/24 11:27	15262-20-1

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0626
Pace Project No.: 30728077

QC Batch: 704995 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228, DW
Associated Lab Samples: 30728077001 Laboratory: Pace Analytical Services - Greensburg

METHOD BLANK: 3432691 Matrix: Drinking Water

Associated Lab Samples: 30728077001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0895 ± 0.275 (0.622) C:85% T:85%	pCi/L	10/31/24 11:14	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0626
Pace Project No.: 30728077

QC Batch: 704996 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226, DW
Associated Lab Samples: 30728077001 Laboratory: Pace Analytical Services - Greensburg

METHOD BLANK: 3432692 Matrix: Drinking Water

Associated Lab Samples: 30728077001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0991 ± 0.238 (0.460) C:NA T:88%	pCi/L	11/04/24 12:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALIFIERS

Project: AAJ0626
Pace Project No.: 30728077

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Unc - Uncertainty: For Safe Drinking Water Act (SDWA) analyses, the reported Unc. is the calculated Count Uncertainty (95% confidence interval) using a coverage factor of 1.96. For all other matrices (non-SDWA), the reported Unc. is the calculated Expanded Uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.

Gamma Spec: The Unc. reported for all gamma-spectroscopy analyses (EPA 901.1), is the calculated Expanded Uncertainty (CSU) at the 95.4% confidence interval, using a coverage factor of 2.0.

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: AAJ0626
Pace Project No.: 30728077

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30728077001	AAJ0626-01	EPA 903.1	704996		
30728077001	AAJ0626-01	EPA 904.0	704995		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



SUBCONTRACT ORDER

Sending Laboratory:

Metiri Group - Geneva
1950 S Batavia Ave, Suite 150
Geneva, IL 60134
Phone: (800) 783-5227
Fax: (517) 699-0388

Project Manager: Mary Wojdyla

Subcontracted Laboratory:

Pace Analytical Services LLC
1689 Roseytown Road - Suites 2, 3, 4
Greensburg, PA 15601
Phone: (724) 850-5600
Fax:

Work Order: AAJ0626

Analysis	Comments
----------	----------

Sample ID: AAJ0626-01 *Drinking Water* *Sampled: 10/17/2024 07:50*

Radium228 Sub
Radium226 Sub

Containers Supplied:



Received by Pace Greensburg
Therm ID Corr Factor /
Receipt Temp
Corrected Temp
Correct Preservation N

Released By

10-21-24

Date

Received By

10/22/24 10:00

Date

 DC#_Title: ENV-FRM-GBUR-0088 v07_Sample Condition Upon Receipt Greensburg Effective Date: 01/04/2024	WO# : 30728077 PM: NMY Due Date: 11/12/24 CLIENT: SUBURBLABSIL																																																																																																						
	Client Name: Suburban Proj:																																																																																																						
Courier: <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Commercial <input type="checkbox"/> Pace <input type="checkbox"/> Other Tracking Number: 1Z6476621344740405																																																																																																							
Custody Seal on Cooler/Box Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Thermometer Used: _____ Type of Ice: Wet Blue None Cooler Temperature: Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C Temp should be above freezing to 6°C																																																																																																							
<table border="1"> <thead> <tr> <th>Comments:</th> <th>Yes</th> <th>No</th> <th>NA</th> </tr> </thead> <tbody> <tr> <td>Chain of Custody Present</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Chain of Custody Filled Out: -Were client corrections present on COC</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Chain of Custody Relinquished</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Sampler Name & Signature on COC:</td> <td>✓</td> <td>✓</td> <td></td> </tr> <tr> <td>Sample Labels match COC: -Includes date/time/ID</td> <td>✓</td> <td></td> <td>DW</td> </tr> <tr> <td>Matrix:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Samples Arrived within Hold Time:</td> <td>✓</td> <td></td> <td>6.</td> </tr> <tr> <td>Short Hold Time Analysis (<72hr remaining):</td> <td></td> <td>✓</td> <td>7.</td> </tr> <tr> <td>Rush Turn Around Time Requested:</td> <td></td> <td>✓</td> <td>8.</td> </tr> <tr> <td>Sufficient Volume:</td> <td>✓</td> <td></td> <td>9.</td> </tr> <tr> <td>Correct Containers Used: -Pace Containers Used</td> <td>✓</td> <td>✓</td> <td>10.</td> </tr> <tr> <td>Containers Intact:</td> <td>✓</td> <td></td> <td>11.</td> </tr> <tr> <td>Orthophosphate field filtered:</td> <td></td> <td>✓</td> <td>12.</td> </tr> <tr> <td>Hex Cr Aqueous samples field filtered:</td> <td></td> <td>✓</td> <td>13.</td> </tr> <tr> <td>Organic Samples checked for dichlorination</td> <td></td> <td>✓</td> <td>14.</td> </tr> <tr> <td>Filtered volume received for dissolved tests:</td> <td></td> <td>✓</td> <td>15.</td> </tr> <tr> <td>All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix</td> <td>✓</td> <td></td> <td>16.</td> </tr> <tr> <td>All containers meet method preservation requirements:</td> <td>✓</td> <td></td> <td> PHLO Initial when completed: JS Date/Time of Preservation: _____ Lot# of added Preservative: _____ </td> </tr> <tr> <td>8260C/D: Headspace in VOA Vials (> 6mm)</td> <td></td> <td>✓</td> <td>17.</td> </tr> <tr> <td>624.1: Headspace in VOA Vials (0mm)</td> <td></td> <td>✓</td> <td>18.</td> </tr> <tr> <td>Radon: Headspace in RAD Vials (0mm)</td> <td></td> <td>✓</td> <td>19.</td> </tr> <tr> <td>Trip Blank Present:</td> <td></td> <td>✓</td> <td>Trip blank custody seal present? YES or NO</td> </tr> <tr> <td>Rad Samples Screened <.05 mrem/hr.</td> <td></td> <td>✓</td> <td> Initial when completed: JS Date: 10/22/24 Survey Meter: SN:25014380 </td> </tr> <tr> <td>Comments:</td> <td colspan="3"></td> </tr> </tbody> </table>				Comments:	Yes	No	NA	Chain of Custody Present	✓			Chain of Custody Filled Out: -Were client corrections present on COC	✓	✓		Chain of Custody Relinquished	✓			Sampler Name & Signature on COC:	✓	✓		Sample Labels match COC: -Includes date/time/ID	✓		DW	Matrix:				Samples Arrived within Hold Time:	✓		6.	Short Hold Time Analysis (<72hr remaining):		✓	7.	Rush Turn Around Time Requested:		✓	8.	Sufficient Volume:	✓		9.	Correct Containers Used: -Pace Containers Used	✓	✓	10.	Containers Intact:	✓		11.	Orthophosphate field filtered:		✓	12.	Hex Cr Aqueous samples field filtered:		✓	13.	Organic Samples checked for dichlorination		✓	14.	Filtered volume received for dissolved tests:		✓	15.	All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	✓		16.	All containers meet method preservation requirements:	✓		PHLO Initial when completed: JS Date/Time of Preservation: _____ Lot# of added Preservative: _____	8260C/D: Headspace in VOA Vials (> 6mm)		✓	17.	624.1: Headspace in VOA Vials (0mm)		✓	18.	Radon: Headspace in RAD Vials (0mm)		✓	19.	Trip Blank Present:		✓	Trip blank custody seal present? YES or NO	Rad Samples Screened <.05 mrem/hr.		✓	Initial when completed: JS Date: 10/22/24 Survey Meter: SN:25014380	Comments:			
Comments:	Yes	No	NA																																																																																																				
Chain of Custody Present	✓																																																																																																						
Chain of Custody Filled Out: -Were client corrections present on COC	✓	✓																																																																																																					
Chain of Custody Relinquished	✓																																																																																																						
Sampler Name & Signature on COC:	✓	✓																																																																																																					
Sample Labels match COC: -Includes date/time/ID	✓		DW																																																																																																				
Matrix:																																																																																																							
Samples Arrived within Hold Time:	✓		6.																																																																																																				
Short Hold Time Analysis (<72hr remaining):		✓	7.																																																																																																				
Rush Turn Around Time Requested:		✓	8.																																																																																																				
Sufficient Volume:	✓		9.																																																																																																				
Correct Containers Used: -Pace Containers Used	✓	✓	10.																																																																																																				
Containers Intact:	✓		11.																																																																																																				
Orthophosphate field filtered:		✓	12.																																																																																																				
Hex Cr Aqueous samples field filtered:		✓	13.																																																																																																				
Organic Samples checked for dichlorination		✓	14.																																																																																																				
Filtered volume received for dissolved tests:		✓	15.																																																																																																				
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	✓		16.																																																																																																				
All containers meet method preservation requirements:	✓		PHLO Initial when completed: JS Date/Time of Preservation: _____ Lot# of added Preservative: _____																																																																																																				
8260C/D: Headspace in VOA Vials (> 6mm)		✓	17.																																																																																																				
624.1: Headspace in VOA Vials (0mm)		✓	18.																																																																																																				
Radon: Headspace in RAD Vials (0mm)		✓	19.																																																																																																				
Trip Blank Present:		✓	Trip blank custody seal present? YES or NO																																																																																																				
Rad Samples Screened <.05 mrem/hr.		✓	Initial when completed: JS Date: 10/22/24 Survey Meter: SN:25014380																																																																																																				
Comments:																																																																																																							

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
 PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Page 1 of 1

Page 13 of 13

Page 18 of 18