



2023
Annual Drinking Water Quality Report
SCHUYLKILL COUNTY MUNICIPAL AUTHORITY
PWS ID # 3540038, 3540046, 3540054, 3540062, 3540075, 3540021

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. *(This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)*

We are very pleased to provide you with the **2023 Annual Drinking Water Quality Report**. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a dependable and adequate supply of drinking water.

Source(s) of Water:

Eight (8) water treatment plants service our customers and one (1) interconnect. The following illustrates the facility, the source of supply and the service area for each facility:

<u>Facility</u>	<u>Source</u>	<u>Service Area</u>
Mt. Laurel Water Filtration Plant	Mt. Laurel Reservoir Kauffman Reservoir	Portions of Butler, Cass, Foster, New Castle, Mahanoy, Ryan and West Mahanoy Townships
Broad Mt. Water Filtration Plant	Wolf Creek Reservoir Eisenhuth Reservoir Pine Run Reservoir Kauffman Reservoir	City of Pottsville (East of 12 th St.), Mechanicsville, Palo Alto, Port Carbon, St. Clair and portions of Blythe, East Norwegian, New Castle and Norwegian Townships
Indian Run Water Filtration Plant	Indian Run Reservoir	City of Pottsville (West of 12 th St.), Forest Hills, Bunker Hill and Mt. Carbon areas. Portions of North Manheim and Norwegian Townships
Gordon Water Plant	Groundwater Well	Portions of Butler, Cass, Foster, New Castle, Mahanoy, Ryan and West Mahanoy Townships
Tremont Water Filtration Plant	Groundwater Wells	Tremont Borough, Portions of Frailey, Portions Tremont Township
Pinebrook Water Plant	Groundwater Well	Pinebrook Development, West Brunswick Township
Pine Grove Water Plant	Groundwater Wells	Portions of Pine Grove Township
Orwigsburg Interconnect	Orwigsburg Borough	Portions of West Brunswick Township
Morea Water Plant	Groundwater Well	Morea, Portions of Mahanoy Township

Water System Information:

This report shows our water quality and what it means. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings. Public meetings are generally held on the third Wednesday of each month at 10:00 A.M. at the office of the Authority.

We at the Schuylkill County Municipal Authority work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our

way of life and our children's future. A source water assessment was completed by the Philadelphia Water Department for the PA DEP on the entire Schuylkill River Watershed. This report was dated March 14, 2003 and included all SCMA surface water supplies. In 2008, SCMA received approval from PaDEP for our Source Water Protection Plan that identifies actual and potential sources of contamination to the source water, educates the public on the importance of source water protection, develops a long-term sustainable plan for the future protection of the source water, and provides a comprehensive action plan in the event of a source water contamination emergency. The Plan, which is a collaborative effort amongst six local water suppliers, is available for review at the Authority office. The first project that is to be implemented as a result of the approval of the plan is a spill response signage program along Interstate I-81.

If you have any questions about this report or concerning your water utility, please contact Patrick M. Caulfield, P.E., Executive Director or Amy S. Batdorf, Assistant Director at (570) 622-8240 or visit our website at www.scmawater.com. We want our valued customers to be informed about their water utility.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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).

Monitoring Your Water:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2023. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The sample date has been noted in the sample results table.

Detected Sample Results

The following tables represents the samples collected from the Pottsville Area System (PWS ID 3540038), the Tremont System (PWS ID 3540046), the Pinebrook System (PWS ID 3540054), the Pine Grove Township System (PWS ID 3540062), the SCMA Orwigsburg Interconnect (PWS ID 3540075), and the Morea Citizens Water Company (3540021) that resulted in detection. Again, it is important to remember that the presence of these constituents does not necessarily pose a health risk.

Chemical Contaminants		Mt. Laurel Plant		Broad Mt. Plant		Indian Run Plant		Gordon Plant						
Contaminant	Violation Y/N	Level Detected	Range	Level Detected	Range	Level Detected	Range	Level Detected	Range	Units	MCL	MCLG	Sample Date	Likely Sources of Contamination
Chlorine	N	0.78	0.78-1.01	0.78	0.78-1.01	0.78	0.78-1.01	0.78	0.78-1.01	ppm	MRDL= 4	MRDLG = 4	2023	Water additive used to control microbes. Distribution disinfectant level reported as highest monthly average and range.
TTHM	N	12.2	12.6	12.5	4.7-24.7	12	5.8-24.7	N/A	N/A	ppb	80	N/A	2023	By-product of drinking water chlorination. Reported as highest annual average and range.
HAA5	N	8	12	13.3	11.0-16.0	15.5	10.0-26.0	N/A	N/A	ppb	60	N/A	2023	By-product of drinking water chlorination. Reported as highest annual average and range.
Arsenic	N	ND	ND	ND	ND	ND	ND	ND	ND	ppb	10	0	2022	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	N	0.0113	0.0113	0.0133	0.0133	0.00814	0.00814	0.00582	0.00582	ppm	2	2	2022	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Nitrate	N	ND	ND	ND	ND	ND	ND	ND	ND	ppm	10	10	2023	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural

Chemical Contaminants		Tremont Plant		Pinebrook Plant		Pine Grove Twp.								
Contaminant	Violation Y/N	Level Detected	Range	Level Detected	Range	Entry Point 100		Entry Point 102		Units	MCL	MCLG	Sample Date	Likely Sources of Contamination
						Level Detected	Range	Level Detected	Range					
Chlorine	N	0.95	0.95-1.3	0.75	0.75-1.18	0.94	0.94-1.38	0.94	0.94-1.38	ppm	MRDL= 4	MRDLG = 4	2023	Water additive used to control microbes. Distribution disinfectant level reported as highest monthly average and range.
TTHM	N	13.9	13.9	4	4	2.3	2.3	2.3	2.3	ppb	80	N/A	2023	By-product of drinking water chlorination. Reported as highest annual average and range.
HAA5	N	5	5	ND	ND	ND	ND	ND	ND	ppb	60	N/A	2023	By-product of drinking water chlorination. Reported as highest annual average and range.
Arsenic	N	3.6	3.6	ND	ND	ND	ND	ND	ND	ppb	10	0	2021	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	N	0.0815	0.0815	0.0112	0.0112	0.0212	0.0212	0.0186	0.0186	ppm	2	2	2021	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Nitrate	N	ND	ND	3.38	3.38	ND	ND	ND	ND	ppm	10	10	2023	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural
Uranium	N	ND	ND	ND	ND	ND	ND	0.67	0.67	pCi/L	30	0	2023	Erosion of natural deposits.

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Chemical Contaminants		Orwigsburg Interconnect		Morea Water System						
Contaminant	Violation Y/N	Level Detected	Range	Level Detected	Range	Units	MCL	MCLG	Sample Date	Likely Sources of Contamination
Chlorine	N	0.45	0.45-0.95	0.77	0.77-1.48	ppm	MRDL= 4	MRDLG = 4	2023	Water additive used to control microbes. Distribution disinfectant level reported as highest monthly average and range.
TTHM	N	4	4	22.1	12.2-28.6	ppb	80	N/A	2023	By-product of drinking water chlorination. Reported as highest annual average and range.
HAA5	N	ND	ND	13.3	9.9-18.0	ppb	60	N/A	2023	By-product of drinking water chlorination. Reported as highest annual average and range.
Barium	N	N/A	N/A	0.0714	0.0714	ppm	2	2	2021	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural
Nickel	N	ND	ND	5.37	5.37	ppb	NA	NA	2021	Erosion of natural deposits

*EPA considers 50 pCi/L to be the level of concern for beta particles.

Lead & Copper		Mt. Laurel Plant	Broad Mt. Plant	Indian Run Plant	Gordon Plant					
Contaminant	Violation Y/N	90th Percentile Value	90th Percentile Value	90th Percentile Value	90th Percentile Value	Units	MCL	MCLG	Sample Date	
Lead (ppb)	N	Pottsville System Level Detected = 1.00				ppb	AL = 15	0	2022	Corrosion of household plumbing systems, Erosion of natural deposits. Reported as 90th percentile value and number of samples exceeding action limit (15 ppb).
# of samples exceeding AL		0 out of 30								
Copper (ppm)	N	Pottsville System Level Detected = 0.241				ppm	AL = 1.3	1.3	2022	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives. Reported as 90th percentile value and number of samples exceeding action limit (1.3 ppm).
# of samples exceeding AL		0 out of 30								

Lead & Copper		Tremont Plant	Pinebrook Plant	Pine Grove Twp.					
Contaminant	Violation Y/N	90th Percentile Value	90th Percentile Value	90th Percentile Value	Units	MCL	MCLG	Sample Date	Likely Sources of Contamination
Lead (ppb)	N	7	5	1	ppb	AL = 15	0	2022	Corrosion of household plumbing systems, Erosion of natural deposits. Reported as 90th percentile value and number of samples exceeding action limit (15 ppb).
# of samples exceeding AL		0 out of 10	0 out of 10	0 out of 5					
Copper (ppm)	N	0.263	0.908	0.158	ppm	AL = 1.3	1.3	2022	Corrosion of household plumbing systems, Erosion of natural deposits; Leaching from wood preservatives. Reported as 90th percentile value and number of samples exceeding action limit (1.3 ppm).
# of samples exceeding AL		0 out of 10	0 out of 10	0 out of 5					

Lead & Copper		Orwigsburg Interconnect		Morea Water System						
Contaminant	Violation Y/N	90th Percentile Value		90th Percentile Value		Units	MCL	MCLG	Sample Date	Likely Sources of Contamination
Lead (ppb)	N	1		1		ppb	AL = 15	0	2023	Corrosion of household plumbing systems, Erosion of natural deposits. Reported as 90th percentile value and number of samples exceeding action limit (15 ppb).
# of samples exceeding AL		0 out of 10		0 out of 10						
Copper (ppm)	N	0.201		0.13		ppm	AL = 1.3	1.3	2023	Corrosion of household plumbing systems, Erosion of natural deposits; Leaching from wood preservatives. Reported as 90th percentile value and number of samples exceeding action limit (1.3 ppm).
# of samples exceeding AL		0 out of 10		0 out of 10						

Turbidity		Mt. Laurel Plant		Broad Mt. Plant		Indian Run Plant		Gordon Plant						
Contaminant	Violation Y/N	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Units	MCL	MCLG	Sample Date	Likely Sources of Contamination
Turbidity (ntu)	N	0.2	100.00%	0.22	100.00%	0.18	100.00%	N/A	N/A	NTU	0.30	0.30	2023	Soil runoff.
		TT = 1 NTU for a single measurement TT = at least 95% of monthly samples <0.3 NTU												

Turbidity		Tremont Plant		Pinebrook Plant		Pine Grove Twp.								
Contaminant	Violation Y/N	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Entry Point 100		Entry Point 102		Units	MCL	MCLG	Sample Date	Likely Sources of Contamination
						Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard					
Turbidity (ntu)	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NTU	0.30	0.30	N/A	Soil runoff.
		TT = 1 NTU for a single measurement TT = at least 95% of monthly samples <0.3 NTU												

Turbidity		Orwigsburg Interconnect		Morea Water System						
Contaminant	Violation Y/N	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Highest Level Detected	Lowest Monthly Percent Meeting TT Standard	Units	MCL	MCLG	Sample Date	Likely Sources of Contamination
Turbidity (ntu)	N	N/A	N/A	N/A	N/A	NTU	0.30	0.30	N/A	Soil runoff.
		TT = 1 NTU for a single measurement TT = at least 95% of monthly samples <0.3 NTU								

<i>Total Organic Compounds</i>		Mt. Laurel Plant		Broad Mt. Plant		Indian Run Plant		Gordon Plant						
Contaminant	Number of quarters out of compliance	% Removal Achieved		% Removal Achieved		% Removal Achieved		% Removal Achieved		Units	Removal Required	MCLG	Sample Date	Likely Sources of Contamination
TOC	0	N/D		N/A		45%		N/A		%	35%	N/A	2023	Naturally present in the environment. Reported as highest annual average and range.

<i>Entry Point Disinfectant Residual</i>		Mt. Laurel Plant		Broad Mt. Plant		Indian Run Plant		Gordon Plant					
Contaminant	Violation Y/N	Lowest Level Detected	Range	Lowest Level Detected	Range	Lowest Level Detected	Range	Lowest Level Detected	Range	Units	MinRDL	Sample Date	Likely Sources of Contamination
Chlorine	N	0.60	0.6-1.36	0.41	0.41-1.56	0.47	0.47-1.75	0.9	0.9-2.02	ppm	0.20	2023	Water additive used to control microbes. Reported as minimum entry point disinfectant.

<i>Entry Point Disinfectant Residual</i>		Tremont Plant		Pinebrook Plant		Pine Grove Twp.							
Contaminant	Violation Y/N	Lowest Level Detected	Range	Lowest Level Detected	Range	Entry Point 100		Entry Point 102		Units	MinRDL	Sample Date	Likely Sources of Contamination
						Level Detected	Range	Level Detected	Range				
Chlorine	N	0.47	0.47-2.04	0.48	0.48-1.89	0.59	0.59-2.2	0.53	0.53-2.05	ppm	0.20	2023	Water additive used to control microbes. Reported as minimum entry point disinfectant.

<i>Entry Point Disinfectant Residual</i>		Orwigsburg Interconnect		Morea Water System					
Contaminant	Violation Y/N	Lowest Level Detected	Range	Lowest Level Detected	Range	Units	MinRDL	Sample Date	Likely Sources of Contamination
Chlorine	N	0.45	0.45-0.95	0.93	0.93-1.43	ppm	0.20	2023	Water additive used to control microbes. Reported as minimum entry point.

Definitions:

YOU WILL FIND MANY TERMS AND ABBREVIATIONS YOU MIGHT NOT BE FAMILIAR WITH IN THIS REPORT. TO HELP YOU BETTER UNDERSTAND THESE TERMS WE'VE PROVIDED THE FOLLOWING DEFINITIONS:

ACTION LEVEL (AL) = THE CONCENTRATION OF A CONTAMINANT WHICH, IF EXCEEDED, TRIGGERS TREATMENT OR OTHER REQUIREMENTS WHICH A WATER SYSTEM MUST FOLLOW.

MAXIMUM CONTAMINANT LEVEL (MCL) = THE HIGHEST LEVEL OF A CONTAMINANT THAT IS ALLOWED IN DRINKING

MAXIMUM CONTAMINANT LEVEL GOAL (MCLG) = THE LEVEL OF A CONTAMINANT IN DRINKING WATER BELOW WHICH THERE IS NO KNOWN OR EXPECTED RISK TO HEALTH.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL) = THE HIGHEST LEVEL OF A DISINFECTANT ALLOWED IN DRINKING

MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL (MRDLG) = THE LEVEL OF A DRINKING WATER DISINFECTANT BELOW WHICH THERE IS NO KNOWN OR EXPECTED RISK TO HEALTH.

MAXIMUM RESIDUAL DISINFECTANT LEVEL (MINRDL) = THE MINIMUM LEVEL OF RESIDUAL DISINFECTANT REQUIRED AT THE ENTRY POINT TO THE DISTRIBUTION SYSTEM.

MINIMUM REPORTABLE LEVEL (MRL) = THE MINIMUM REPORTABLE LEVEL DEFINED BY UCMR3.

N/A = NOT APPLICABLE; NOT REQUIRED.

ND = NOT DETECTABLE AT TESTING LIMIT.

NTU = NEPHELOMETRIC TURBIDITY UNITS.

PPB = PARTS PER BILLION, OR MICROGRAMS PER LITER (MG/L) – ONE PART PER BILLION CORRESPONDS TO ONE MINUTE IN 2,000 YEARS OR A SINGLE PENNY IN \$10,000,000.

PPM = PARTS PER MILLION, OR MILLIGRAMS PER LITER (MG/L) – ONE PART PER MILLION CORRESPONDS TO ONE MINUTE IN TWO YEARS OR A SINGLE PENNY IN \$10,000.

TREATMENT TECHNIQUE (TT) = A REQUIRED PROCESS INTENDED TO REDUCE THE LEVEL OF A CONTAMINANT IN DRINKING WATER.

90TH PERCENTILE = THE HIGHEST CONCENTRATION OF LEAD OR COPPER IN TAP WATER THAT IS EXCEEDED BY 10 PERCENT OF THE SITES SAMPLED DURING A MONITORING PERIOD. THIS VALUE IS COMPARED TO THE LEAD AND COPPER ACTION LEVELS (AL) TO DETERMINE WHETHER AN AL HAS BEEN EXCEEDED.

% = PERCENT

> = GREATER THAN

< = LESS THAN

Health Effects:

We are proud that all of our water quality parameters have met or surpassed all State and Federal Requirements. IN 2023, NO MCL'S OR TREATMENT TECHNIQUES WERE EXCEEDED. MCL'S are set at very stringent levels for health effects. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Other Violations:

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

During February 2023 SCMA was required to collect and analyze one (1) Chlorine sample from the Pottsville distribution system each week and report the results to Pennsylvania Department of Environmental Protection (PA DEP). These samples were collected and submitted for analysis on time and sample results were compliant with all State and Federal regulations. However, the results were not submitted to PA DEP correctly. The reporting error was corrected by SCMA in May of 2023 and re-submitted to PA DEP. This resulted in an incorrect reporting violation, which is considered a monitoring violation

During March 2023 SCMA was required to collect and analyze one (1) Chlorine sample from the Pottsville distribution system each week and report the results to Pennsylvania Department of Environmental Protection (PA DEP). These samples were collected and submitted for analysis on time and sample results were compliant with all State and Federal regulations. However, the results were not submitted to PA DEP correctly. The reporting error was corrected by SCMA in May of 2023 and re-submitted to PA DEP. This resulted in an incorrect reporting violation, which is considered a monitoring violation

During the year 2023, SCMA was required to collect one (1) sample for Haloacetic Acids and Trihalomethanes within a +/- 3 day window from August 14, 2023 in the Morea Water System. The sample for Haloacetic Acids and Trihalomethanes was collected and submitted for analysis on August 10, 2024 and sample results were below the associated Maximum Contaminant Levels (MCL). However, due to the sample date being out of the +/-3 day window from August 14, 2023 it resulted in a late reporting violation, which is considered a monitoring violation.

Even though these situations were not an emergency, as our customers, you have a right to know what happened and what we did to correct these situations.

Educational Information:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and 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. 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 stormwater run-off, 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 stormwater 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 stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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

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 Environmental Protection Agency's *Safe Drinking Water Hotline* (800-426-4791).

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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Information about Lead

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 Schuylkill County Municipal Authority 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 or at <http://www.epa.gov/safewater/lead>.

Information about Nitrate

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Other Information:

Schuylkill County Municipal Authority was chosen by the US Environmental Protection Agency to conduct monitoring under the Unregulated Contaminant Monitoring Rule 5 (UCMR5). Beginning in 2023, our Pottsville water system was monitored for several unregulated contaminants specified by US EPA. Unregulated contaminants are those that do not yet have a drinking water standard set by the EPA. All results of these unregulated contaminants were below minimum detectable limits.

We are proud to report that all of our water quality parameters have met or surpassed both State and Federal Requirements. In 2023, No Maximum Contaminant Levels (MCLs) or Treatment Techniques (TTs) were exceeded.