Environmental Assessment Report

Roth Middle School
4000 East Henrietta Road
Henrietta, New York 14467

Prepared for:

Rush-Henrietta Central School District
1133 Lehigh Station Road
Henrietta, New York 14467

Prepared by:

Leader Professional Services, Inc.
271 Marsh Road, Suite 2
Pittsford, New York 14534

892.001

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EXECUTIVE SUMMARY

At the request of Rush–Henrietta Central School District ("RHCSD"), Leader Professional Services, Inc. ("Leader") conducted a comprehensive environmental assessment ("assessment") of the District's Roth Middle School building ("Roth") and property. The objective of the assessment was to evaluate the air quality and drinking water within the building, evaluate the soil conditions around Roth in the vicinity of the former bus garage, examine the past uses of the property and review the available regulatory information on the Roth property and nearby properties regarding spills or releases of hazardous substances.

The assessment began with an inspection of the Roth building and grounds focusing on the current conditions of the building, including the building's mechanical room, storage areas for maintenance supplies, classrooms, classroom storage areas and general use areas.

The air sampling Leader conducted for the assessment included sampling the indoor and outdoor air at the Roth building for comfort parameters, volatile organic compounds ("VOCs"), new carpet gas (4-phenylcyclohexene) and formaldehyde. The locations we sampled included common areas, a technology classroom, a faculty member's office and the outside air. The sample results are summarized on Table 1 through Table 4 and the laboratory analysis reports by Alpha Laboratories and Galson Laboratories are provided as Attachment 6 and Attachment 7. Figures 1 shows the air sampling locations for most comfort parameters and all VOC, 4-phenylcyclohexene, and formaldehyde samples.

Table 1 provides a summary of the comfort parameters measured during the assessment and all were within American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE 62-2001) guidelines. All of the real-time carbon dioxide measurements obtained throughout the building were found to be below the ASHRAE 62-2001 guideline of 700 parts per million (" ppm") above outdoor air levels, with one exception. Continuous monitoring of carbon dioxide levels in the cafeteria during lunch periods indicated a maximum level of 743 ppm. This condition was temporary and not unexpected with maximum occupancy of the space by children during their lunch period.

Several detectable VOCs were noted in all sampled areas, including the outside air and Tables 2 and 3 summarizes the VOCs results. The VOC levels were well below the Occupational Safety and Health Administration Permissible Exposure Limits and the NYSDOH residential background levels for ambient air in residential homes. The VOCs detected can be related to the typical cleaning and maintenance products used at the school, personal care items used by the students and staff, as well as art supplies and chemicals used in science classrooms.

Eight samples of drinking water were collected and analyzed using portable instruments and field test kits. Figure 2 provides the locations of the drinking water samples. Laboratory analysis was conducted to determine the concentration of selected metals and Heterotrophic bacterial in the drinking water. The Monroe County Water Authority ("MCWA") is the supplier of potable water to the Town of Henrietta, including the Roth building. The drinking water at the school can originate from several different sources that are combined in the distribution system. MCWA is required to analyze the water and report the results, and those results are provided in Attachment 8. In February 2016, MCWA sampled the school's drinking water. Leader requested and received copies of the water results from MCWA. Tables

5 and 6 summarize the sample results. In general, our sample results are consistent with those reported by the MCWA, with the exception of Sample 8 from a sink in the nurse's office. The laboratory analysis results for Sample 8 found elevated levels of lead (0.11 milligrams per liter ("mg/l")) and copper (1.6 mg/l) in the drinking water compared to USEPA's guidelines of 0.020 mg/l and 1.3 mg/l, respectively.

Leader conducted soil sampling at the Roth building in the vicinity of the former bus garage and we did not find any visual indication of a spill or release of hazardous substances. Figure 3 shows the location of the soil borings. One soil sample was collected from each of five soil boring locations and each was analyzed for USEPA's Target Compound List VOCs and for polyaromatic hydrocarbons associated with petroleum products. The sample results are shown on Table 7 and the laboratory analysis report prepared by Paradigm Environmental Laboratories ("Paradigm") is provided as Attachment 9. Acetone was found in the soil sample from soil boring B-2 at a concentration of 150 micrograms per kilogram ("µg/Kg"). The New York State Department of Environmental Conservation ("NYSDEC") soil cleanup requirements (Title 6 New York Code, Rules and Regulations Part 375) for residential property is 100,000 µg/Kg for acetone. The presence of acetone in the single sample is unusual since it is typically associated with industrial operations associated with manufacturing. Also, acetone can be a naturally occurring product from the decay of organic matter under specific conditions. Acetone is a common laboratory cleaning agent and it is not unusual to find it as a laboratory contaminant.

Leader conducted a review of the historical uses of the property. We found the school was built upon farmland in the early 1950s. The properties adjacent to the school have been used as farmland and farm homesteads, fallow land or woodlands prior to their development. Many of these properties have been developed for recreational athletics, residential property or undeveloped. A few properties along East Henrietta Road have been developed for commercial or retail purposes. This assessment was completed using historical aerial photographs that are provided in Appendix 1.

An environmental regulatory review was conducted for the property. Information was obtained from Environmental Data Resources ("EDR") and by submitting Freedom of Information Law ("FOIL") requests to the NYSDEC, Monroe County, and the Town of Henrietta. A review of regulatory environmental databases and information obtained through FOIL requests found that the RHCSD maintains a 12,000 gallon underground storage tank ("UST") to supply the Roth building with heating oil. The tank and piping have dual-wall construction and monitoring devices to alert school custodial staff of a potential problem. The tank was installed in 1993 replacing two 10,000-gallon USTs originally installed in 1950. During the course of their use, the two 10,000-gallon tanks had several releases which required repair and eventual removal of the tanks. The removal also included the contaminated soil. During the construction of a new loading dock several years later contaminated soil was discovered. The removal of the tanks and construction of the loading dock included the removal of some contaminated soil from the property. NYSDEC reviewed and approved the removal actions and closure activities following the reporting of spills.

Based on the conditions monitored, no environmental factors associated with an increased risk of cancer were identified.

Our review of additional environmental database information found several other environmental incidents on the New York State Thruway and at commercial properties north of the property along East Henrietta Road. These are not a concern because they have been addressed by the NYSDEC and the distance between the incident locations and the Roth building is substantial. If any residual contamination remains present, it would not create an impact to the school.

Based on the conditions monitored no environmental factors associated with increased risk of cancer were identified.

1. INTRODUCTION

Leader Professional Services, Inc. ("Leader") conducted a comprehensive Environmental Assessment at the Rush-Henrietta Central School District ("RHCSD") Roth Middle School ("Roth") building to obtain environmental data and information to evaluate the quality of the environment within and around the school. RHCSD requested Leader complete the environmental assessment because Roth staff members expressed concerns about the environmental conditions at Roth.

Out of an abundance of caution, Leader was retained by RHCSD to conduct an environmental assessment which included the following components: an indoor air quality assessment; potable water sampling; subsurface soil investigation; and a historical environmental review of the school property, and a review of environmental conditions on the property and nearby properties.

Property Description

The Roth School is located on approximately 63.5 acres east of East Henrietta Road and approximately 0.2 of a mile south of the New York State Thruway. In addition to the school building, the property has athletic fields and parking lots for staff. The school is situated in an area that is predominantly used for residential housing, and along East Henrietta Road there are several commercial buildings. Although the area is developed east and south of the school property there are wooded areas and to the north adjacent to school property there is park land and an executive style golf course.

Building and Grounds Assessment

Leader conducted a preliminary building and grounds assessment for evaluation purposes and to gain a better understanding of the building's layout, how different parts of the building are used and to determine potential sampling locations. Leader used both visual inspections and inspections aided by the use of potable air monitoring instruments during this process. The instruments included a Rae Systems Mini Rae 3000 organic vapor analyzed capable of measuring a wide range of different volatile organic compounds ("VOCs") associated with solvents, lubricants, natural gas, and petroleum products. Leader also used TSI Q-Track model 7565 indoor air quality meter capable of measuring a variety of parameters including carbon dioxide, carbon monoxide, relative humidity, temperature, and barometric pressure. During the assessment, the following areas were entered: HVAC system rooms; the boiler room; storage areas for maintenance supplies; classrooms; kitchen; offices; and general assembly areas such as the auditorium, library and gymnasium. The photographs taken during the various phases of work are provided in Attachment 1.

The details of our findings have been incorporated into the discussions in the following sections.

2. SITE ENVIRONMENTAL REVIEW

Scope of Work

The environmental review included: completing an inspection of the Roth building, review of existing historical property information, review regulatory information provided by the New York State Department of Environmental Conservation ("NYSDEC"), Monroe County, and the Town of Henrietta. In addition, Leader conducted a regulatory search of environmental databases of the NYSDEC and USEPA.

Findings

Inspection

Leader's site inspection found nothing unusual within the building. Maintenance storage areas are locked during school hours limiting access to the rooms. The materials stored in those areas were found in sealed containers and no noticeable odors were noticed or stains observed. The rooms were screened with a portable organic vapor analyzing meter with a photoionization detector ("PID") and no elevated readings were recorded. Classrooms and their associated storage rooms were also inspected. The classrooms using materials with hazardous substances were generally kept in metal cabinets suited for this type of storage. The technology classroom materials like glue, aerosol paints and cleaning or lubricating fluids (such as WD-40) were found on shelving units. The auditorium stage has a cabinet used for the storage of paints and scene decorating supplies. The materials found were in sealed containers.

The boiler room was found to have no unusual odors. Also, no elevated PID readings were measured from the boiler, sump pit or any of the chemicals being stored or in use. The chemicals found in the boiler room appear to be specific to conditioning the water used by the boiler. No unusual stains or spills were noticed associated with the boiler fueling system.

The Roth building has one 12,000 gallon underground storage tank to supply the building with heating fuel. Registration certificates and tank monitoring system gauges and alarms are located in the Building Custodian's Office. During the outdoor inspection on the west side of the building, near Room 420, we observed a vent pipe and dust filtration equipment. This type of vent could have been a left over from the former bus garage or a vehicle lift system.

One of the building's HVAC fan rooms was inspected. The entry area in the room is used for storage of school equipment, while the second floor housed the intake fans. No unusual odors or pooled water was found.

Nothing unusual was found during our inspection of hallways, classrooms, offices, library, gym and auditorium.

A walk around the grounds and parking lots did not find anything unusual. Staining typical of being used for a long period of time, but nothing to suggest a large quantity of fuel or some other substance was spilled.

Historical Use Information on the Property

Aerial Photographs

Leader obtained the aerial and satellite photographs from Monroe County's Geographic Information System database and Google Earth. The maps reviewed include the following years: 1930, 1951, 1960, 1970, 1980, 1988, 1993, 1996, 1998, 2002, 2009 and 2015. The photographs can be found in Attachment 1. Our observations are provided below.

Year	Observations
1930	The Roth Property is used as farmland, with some woodlands on the southeast corner of the property. The surrounding area appears to be used for farmland, fallow land or woodlands land.
1951	The school building is visible in the photograph on the west side of the Subject Property near E. Henrietta Road. There appears to be earthmoving ongoing east of the school and this may be related to preparing the athletic fields. The surrounding area is used for farmland, farm homesteads, residential property, or is undeveloped land.
1960	The Roth Property is developed with a school building, track, baseball diamond, and tennis courts. A new wing to the school appears to be under construction on the east side of the building. There is a parking lot located between the tennis court and the school. There is residential development located west of the Roth Property and E. Henrietta Road. The remaining properties surrounding the Roth Property have not changed significantly since 1951.
1970	The wing of the school under construction in the 1960 photograph has been completed. Land north of the Roth Property is under construction, possibly adding the existing golf course and Town park. There are no significant changes to the remaining properties surrounding the Subject Property since 1960.
1988	A second baseball diamond has been constructed east of the original athletic fields. Apartments or condominiums have been constructed south of the Property, since 1970. There appears to be some earth moving activities on property immediately adjacent to and north of the Roth Property and east of E. Henrietta Road. This is possibly related to the development of this land for residential housing seen in the 2002 photograph. There are no other significant changes to properties surrounding the Property, since 1970.
1993-1998	There are no significant changes to the Roth Property or its adjacent properties since 1988.
2002	The Property has not changed significantly since 1998. North of the Subject Property residential development has been completed on the land. To the east and south property use has not changed. West of the Property and E. Henrietta Road a new commercial building has been constructed.
2009	No significant changes have occurred on the Property or on the adjacent properties since 2002.
2015	No significant changes have occurred on the Property or on the adjacent properties since 2009.

The satellite and our review of aerial photographs do not reveal any on-or-off property environmental concerns. The historical aerial photographs show that the school Property was used as farmland in 1930 and was developed for as a school building by 1951. Since 1951 additions have been placed onto the school and athletic facilities have been added to the Property. The adjacent properties were originally shown in 1930 being used as farmland, farm homesteads, fallow land or woodlands. Gradually many of these properties were developed with residential dwellings and retail/commercial property between 1960 and 2002.

Fire Insurance Maps

Leader requested Fire Insurance Maps from the database service, however, Fire Insurance Maps were not available for the school property and the immediately surrounding area.

Agency Records Review

Leader submitted Freedom of Information Law ("FOIL") requests to the Town of Henrietta, Monroe County, and NYSDEC on February 10, 2016 to obtain information regarding the past use, environmental permits or registrations, environmental incidents (spills or releases), incidents where the Monroe County Department of Health provided assistance, and information regarding the current or former use of the school property and the properties immediately surrounding the school. Attachment 2 provides a copy of the documents provided by the NYSDEC, Monroe County, and the Town of Henrietta.

Below is a summary of the information provided from these agencies pertinent to our request.

NYSDEC RECORDS

The NYSDEC provided two Spill Reports related to the Roth High School and Roth Middle School. The first Spill Report is from December 17, 1986 and is related to an incident involving overfilling the school's heating oil tanks with fuel oil. Oil was observed around the fill port of the two, 10,000-gallon underground storage tanks ("USTs") used by the school. NYSDEC investigated the incident and the school cleaned up the spill to the satisfaction of the NYSDEC.

The second Spill Report is from July 23, 2007 and involved the discovery of #2 fuel oil contaminated soil while installing a loading dock at Roth Middle School. The cleanup of this reported spill is also the subject of a letter received in our FOIL response. A letter dated September 4, 2007 from LaBella Associates, to Michael Zamiarski, NYSDEC, discusses the sampling of the excavation after the contaminated soil was removed and the disposed. According to the letter, the south and west excavation sidewalls of the excavation could not be sampled because of the school building's foundation and the location of the 12,000 gallon UST. The letter further identifies that in 1993 two former USTs were removed, material suspected of being the source of this contamination was removed. The sample results obtained from the excavation found that there was no remedial concern at the site and the Spill file was closed with no further action. NYSDEC in their November 16, 2007 to David Kaye, of RHCSD, agreed with this assessment and did not require the school to conduct any additional investigation or cleanup.

Further information regarding these two Spill Reports can be found in the regulatory database review section of this report.

Monroe County Records

The Monroe County Department of Health provided water sampling results for the Roth Middle School for samples that were collected on February 1, 2008 and February 18, 2016. Three water samples were taken from the school's water system. The samples were taken from three locations including: School Injection Point, the School Endpoint, and the School Office Sink. All of the three samples were analyzed for total Coliform and residual chlorine. All of the samples were "Absent" for Coliform and were considered bacteriologically potable when collected. Residual

chlorine was found to range from 0.90 to 0.94 milligram per liter. One sample was also analyzed for turbidity and was found to have a turbidity value of 0.15 Nephelometric Turbidity Units ("NTU").

Monroe County Water Authority ("MCWA") provided water sampling data for five Water Treatment Plants ("WTP"), including Hemlock WTP. No volatile organic compounds, pesticides, or herbicides were detected in the water samples.

The Monroe County Department of Health ("MCDOH") also provided a "Hazmat Incident Response" document referring to a spill of ferric chloride in the Roth Middle School on November 3, 1999. Less than one gallon of Ferric Chloride leaked from a cabinet in the technology classroom to the floor surface. Approximately 22 children were evacuated from the room and the Monroe County Hazmat Team was called to respond. The spilled material was cleaned up and the room was fully ventilated before returning to use. One student and the technology teacher were observed by the School's Nurse, and the students clothing was discarded due to a small amount of the ferric chloride found on his pants and shoes. A Material Safety Data Sheet ("MSDS") was provided for the ferric chloride Solution.

Monroe County provided a map showing the location of the Roth Middle School and properties within one-half mile of the school that are either known or suspected waste sites. The provided map indicated there are no waste sites located within one-half mile of Roth Middle School.

Town of Henrietta

The Town of Henrietta provided two letters from the Principal of Roth Middle School, Ms. Beverly Burrell-Moore, which were direct to the Roth Parents or Guardians. The February 3, 1997 letter concerns a report about air quality in schools where the reporter measured carbon dioxide levels in the Roth Middle School. The letter highlights that the news reporter took a grab sample of the air in the school and broadcasted the results. The results are insignificant because of the sampling protocol used by the reporter. The letter also states that a Certified Industrial Hygienist will retake carbon dioxide measurements to reassure the parents that the air quality is acceptable. The additional air sampling data was not provided in the FOIA response from the Town of Henrietta.

The second letter is from November 3, 1999, and it provided information to parents and guardians regarding a spill of ferric chloride in technology Room 420 in the Roth Middle School. The MCDOH was called for assistance and inspected the room after the cleanup was completed. A Hazmat Incident Response report from the MCDOH was also provided.

Regulatory Database Review

Leader obtained a regulatory database report ("EDR Report") to conduct a search of regulatory environmental databases from NYSDEC and USEPA. The EDR Report is provided in Attachment 3. Additional regulatory status information was obtained from the USEPA's website. This information was incorporated into the pertinent sections below.

The EDR Report identified multiple listings for Roth property as Rush Henrietta JR High School, Rush Henrietta School, Roth Middle School, and Roth High School. All of these properties are identified as being located at 4000 East Henrietta Road. All of these listings are referred to as the "Property" in the discussion below. The Property is listed as having three closed NYSDEC Spill

files, one closed leaking underground storage tank ("LUST") file, and one in-use underground storage tank ("UST") registration. A regulatory file is opened when a spill or release is reported to NYSDEC and closed when it meets regulatory requirements or if the matter is transferred to another NYSDEC division which opens its own file.

The EDR Report also lists Property as having manifests for waste disposal on three separate occasions in between the years 1991 and 1992. In 1991 the school disposed of the following hazardous wastes: 2 pounds of sodium cyanide, 3 pounds of cadmium waste, 4 pounds of lead acetate, 9 pounds of corrosive waste and 84 pounds of ignitable waste. In 1992 the school disposed of 84 pounds of ignitable hazardous waste and 93 pounds of corrosive waste. Also in 1984 the school is identified as a large quantity generator of hazardous waste.

Standard Environmental Record Source(s)

The following is a summary of the findings of the database review:

SUMMARY OF FEDERAL & STATE AGENCY DATABASE FINDINGS			
Federal or State List	**Does Site Appear on List?**	**Surrounding Area Search Radius**	**Number of Sites Within Search Radius***
National Priorities List (NPL or Federal Superfund Listing)	No	1 mile	0
Delisted NPL Facilities	No	0.5 mile	0
Comprehensive Environmental Response, Compensation and Liability Information System ("CERCLIS")	No	0.5 mile	0
CERCLIS No Further Remedial Action Planned ("NFRAP")	No	0.5 mile	0
Resource Conservation and Recovery Act ("RCRA") Corrective Action Plan (CORRACTS)	No	1 mile	0
Resource Conservation and Recovery Information System – Treatment, Storage or Disposal Facilities (RCRIS-TSD, non-CORRACTS)	No	0.50 mile	0
RCRA Small and Large Quantity Generator of Hazardous Waste	No	0.25 mile	0
Federal Brownfield	No	0.50 mile	0
Emergency Response Notification System ("ERNS") List	No	0.125 mile	0
Tribal Lands (Federally recognized territory of where American Indian tribes have primary government authority)	No	1 mile	0
State or Tribal Hazardous Waste Site ("SHWS")	No	1 mile	0
State Spill Incidents	Yes	0.125 mile	2
State/Tribal Solid Water Facilities/Landfill Site ("SWLF")	No	0.50 miles	0
State/Tribal Leaking USTs Database ("LUST")	Yes	0.50 mile	3
State/Tribal Registered Underground Storage Tanks ("UST/AST")	Yes	0.25 mile	1

SUMMARY OF FEDERAL & STATE AGENCY DATABASE FINDINGS			
Federal or State List	**Does Site Appear on List?**	**Surrounding Area Search Radius**	**Number of Sites Within Search Radius***
State/Tribal Engineering Controls	No	0.50 mile	0
State/Tribal Institutional Controls	No	0.25 mile	0
State/Tribal Voluntary Cleanup Site	No	0.50 mile	0
State/Tribal Brownfields	No	0.50 mile	0
Federal institutional Controls/ Engineering Controls	No	0.50 mile	0
*The surrounding area search radius indicates the radial area (measured from the Site) for which the database review was performed.			

Federal NPL Sites

There are no National Priority List ("NPL") sites reported within a 1.00 mile radius of the Site.

Federal De-Listed NPL Sites

There are no de-listed National Priority List ("NPL") sites reported within a 0.50 mile radius of the Site.

Federal CERCLIS Site List

There are no Federal Comprehensive Environmental Response, Compensation, and Liability Information System ("CERCLIS") facilities reported within a 0.50 mile radius of the Site.

Federal CERCLIS/NFRAP Site List

There are no Federal Comprehensive Environmental Response, Compensation, and Liability Information System ("CERCLIS")/No Further Remedial Action Planned ("NFRAP") sites reported within a 0.50 mile radius of the Site.

Federal RCRA CORRACTS Facilities

There are no Resource Conservation and Recovery Act ("RCRA") Corrective Actions Facilities reported within a 1.0 mile radius of the Site.

Federal RCRA non-CORRACTS TSD Sites

There are no Federal RCRA non-Corrective Action ("non-CORRACTS") Treatment, Storage, or Disposal ("TSD") Facilities reported within a 0.50 mile radius of the Site.

Federal RCRA Generators List

The Resource Conservation and Recovery Act ("RCRA") - Large-Quantity Generator's ("LQG") list (i.e., >1000kg of RCRA waste/month) and Small-Quantity Generator's ("SQG") list (i.e., <1000kg of RCRA waste/month) were both included in this search. There are no RCRA generators reported within a 0.25 mile radius of the Site.

Federal Brownfield

There are no Federal Brownfield sites reported within a 0.50 mile radius of the Site.

Federal ERNS List

There are no incidents reported within a 0.125 mile radius of the Site that are included on the Federal Emergency Response Notification System ("ERNS") list.

Tribal Lands

There are no listed Tribal Lands reported within a 1.0 mile radius of the Site.

State and Tribal Sites

There are no NYSDEC Inactive Hazardous Waste Sites ("SHWS") reported within a 1.00 mile radius of the Site.

State and Tribal Spills Sites

There are three listed NYSDEC Spills for the Subject Property. There are no other Spills reported for properties within a 0.12 mile radius from the Subject Property. The information pertaining to the Spills on the Subject Property is shown below.

SITE	DISTANCE FROM SUBJECT SITE	STATUS	ORIENTATION
Rush Henrietta JR High School, 4000 East Henrietta Road	Subject Property	Spill # 9001974. Closed. On 5/15/1990, a custodian at Roth JR High School noticed a path of oil on the ground surface leading from a 10,000 gallon UST. NYSDEC inspected the area and identified an approximately twelve square foot area of #2 fuel oil contaminated soil caused by a tank overfill. The area around the tanks was excavated and the tanks were inspected. Contaminated soil was stockpiled in the east wing parking lot for disposal. A valve was causing the overfill and the problem was fixed. The spill was cleaned up to NYSDEC standards and the Spill file was closed on 6/21/1990.	N/A
Rush Henrietta Schools, 4000 East Henrietta Road	Subject Property	Spill # 9305565. Closed. On 8/4/1993, #2 fuel oil contaminated soil was encountered during the removal of two, 10,000-gallon USTs. Approximately 200 yards of contaminated soil was stockpiled in the north end of the parking lot. Sidewall and pit bottom samples were taken. Based on sampling results, NYSDEC stated there is no need for further sampling or a soil vent system. Contaminated soil was disposed. The spill was cleaned up to NYSDEC standards and the Spill file was closed on 8/17/1994.	N/A
Rush Henrietta School, 4000 East Henrietta Road	Subject Property	Spill #0750597. Closed. On 7/23/2007, a representative of the school encountered #2 fuel oil contaminated soil during the installation of a loading dock. Approximately 33 tons of contaminated soil was disposed of. Confirmatory soil samples from the excavation area came back non-detect. The spill was cleaned up to NYSDEC standards and the Spill file was closed on 11/16/2007.	N/A

According to the EDR Report, the three spills which occurred on the Roth property have been cleaned up to NYSDEC standards and have been closed. There is no ongoing remediation activities at the Property. These spills do not represent an on-site environmental concern for the Property based on the closed status of the Spill files and removal of contaminated soil from the Property.

State and Tribal Landfill and/or Solid Waste Disposal Site Lists

There are no New York State Landfill/Solid Waste Disposal Site ("SWLF") reported facilities within a 0.50 mile radius of the Site.

State and Tribal Leaking Underground Storage Tanks

There is one listed NYSDEC's LUST incident for the Subject Property and there are two LUSTs reported within a 0.50 mile radius of the Site. Information pertaining to the three LUSTs is shown below.

SITE	DISTANCE FROM SUBJECT SITE	DESCRIPTION	ORIENTATION
Rush Henrietta JR High School, 4000 East Henrietta Road	Subject Property	On 12/15/1996, a 10,000 gallon UST was filled with 9,750 gallons of fuel oil and the product expanded and seeped out of the fill port. Approximately 5-gallons of oil spilled on to the soil. Product from the tank was transferred to another 10,000 gallon UST and no further leakage was found. The spill was cleaned up to NYSDEC standards and the LUST file was closed on 12/30/1986.	N/A
NYS Thruway – Henrietta	0.31 of a mile north-northwest	On 9/14/1992, a 4,000-gallon UST failed a tank tightness test. Two USTs were pumped clean and removed from the property, with a third tank planned for removal. Soil samples were collected during the removal. A "no further action" letter was sent to the thruway authority and the LUST file was closed on 4/3/1997.	Down gradient
Linde Transportation, NYS Thruway	0.32 of a mile northeast	Closed. On 6/10/1986, a saddle tank on a truck ruptured spilling approximately 85-gallons of diesel to the thruway. The spilled material was cleaned up to NYSDEC satisfaction and the LUST was closed on 3/31/1987.	Down gradient

These two LUSTs are not an off-site REC based on the closed status of the LUSTs.

State and Tribal Registered Storage Tank Sites

The Subject Property is listed in the NYSDEC Petroleum Bulk Storage Facility Registry. Information pertaining to the storage tanks registered to the Property is listed below. There are no other off-site tank listings for properties within 0.25 of a mile from the Subject Property.

SITE	DISTANCE FROM SUBJECT SITE	DESCRIPTION	LOCATION
Rush Henrietta Central School District Roth Middle School 4000 E. Henrietta Road	Subject Property	Two 10,000-gallon USTs installed on 12/1/1950 were removed from the Property on 8/1/1993. One 12,000 gallon UST was installed on 7/1/1993 replacing the two former USTs. This UST is used to store #2 fuel oil.	Underground

The two former, 10,000-gallon USTs were removed from the Property in 1993 and replaced with a 12,000-gallon UST. The in-use UST stores #2 fuel oil used by the boiler in the school.

State and Tribal Engineering Control Registry

There are no facilities reported within a 0.50 mile of the Subject Property listed on the State and/or Tribal databases for sites that have engineering controls in place.

State and Tribal Institutional Control Registry

There are no facilities reported within a 0.50 mile of the Subject Property listed on the State and/or Tribal databases for sites that have institutional controls in place.

State and Tribal Voluntary Cleanup Sites

There are no NYSDEC's Voluntary Cleanup Program ("VCP") facilities reported within the 0.25 mile radius of the Subject Property.

State and Tribal Brownfield Sites

There are no NYSDEC Brownfield sites reported within a 0.25 mile radius of the Subject Property.

Federal Institutional Controls/Engineering Controls

There are no Federal sites with Institutional or Engineering Controls ("IC/EC") reported within a 0.25 mile radius of the Subject Property for Federal IC/EC sites.

Orphan

The EDR report identified no Orphan sites listings with the same zip code as the Subject Property.

3. INDOOR AIR QUALITY ASSESSMENT

Leader conducted a comprehensive assessment of the indoor air quality within the Roth building. The purpose of the sampling program was to assess general air quality parameters within the school building in those areas that are accessible and common to all members of the school community, as well as the office of one of the affected faculty members. The sample locations were determined in coordination with RHCSD staff. The sampling event included common areas (auditorium, cafeteria, and gymnasium), a copier room, a faculty office (Room 312), a technology classroom (Room 420), and the outside air for comparison purposes.

Scope of Work

The sampling of each location occurred on February 25, 2016. The samples were collected during the school day when students and staff were present. The indoor air samples are identified below and were collected at six (6) different locations within the Roth building:

- Auditorium – Stage
- Cafeteria
- Gymnasium
- Copier Room (next to the main office)
- Room 312 – Vice Principal's Office
- Room 420 – Technology Classroom

A sample was also collected from the roof of the Roth building in front of one of the fresh air intakes for the school's HVAC system.

The IAQ assessment and evaluation included the following investigative techniques:

- IAQ Survey for Comfort Parameters – The TSI Q-Trak Model 7565 air quality monitor/data logger ("Q-Trak") was used to measure the temperature, relative humidity, and carbon dioxide ("CO_2") in common areas, offices and classrooms. The listed analytes serve as indicators in evaluating general air quality and adequacy of the ventilation system. The Q-Trak also measures carbon monoxide ("CO"). The presence of CO in indoor environments typically indicates the presence of combustion sources either within the building or contaminated air being drawn into the air-intakes from outdoor sources. The Q-Trak is a real time monitor that provides direct-reading measurements of the listed parameters when utilized in survey mode. The monitor was also set up in the cafeteria during lunch periods to collect data at one (1) minute intervals. The duration of the sampling was approximately 3 hours. The recorded data was downloaded, generated into a graph and reviewed by Leader.

- A survey of non-specific VOCs utilizing a PID was conducted throughout common areas, offices and classrooms in conjunction with the comfort parameters investigation. The PID is a direct-reading instrument providing real-time feedback on the presence of VOCs.

- Volatile Organic Compounds, new carpet gas (4-phenylcyclohexene) and formaldehyde - The indoor and outdoor ambient air was sampled for VOCs using evacuated summa canisters (1- liter size) for a period of approximately 8 hours. A calibrated regulator is used to collect the time-integrated sample. The VOC samples were analyzed using USEPA Method TO-15. Alpha Laboratories received the summa canister samples for analysis. Alpha is NYSDOH certified laboratory. Formaldehyde and 4-phenylcyclohexene air samples were collected utilizing passive dosimeters. The formaldehyde samples were analyzed utilizing Modified OSHA Method 1007. The 4-phenylcyclohexene samples were analyzed using Modified NIOSH Method 1501. Upon completion of sample collection, sampling devices were closed and shipped to Galson Laboratories a NYSDOH certified laboratory. Chain of custody documentation was maintained throughout all phases of sample collection and analysis.

Findings

Visual Observations

Leader visually inspected the hallways, common areas, offices, classrooms, and outside areas at the Roth building. There were no observable signs of past or continuing fungi overgrowth in visible areas. Stained ceiling tiles were observed in the hallway outside Room 317.

Maintenance activities are carried out during and after the school day. The Roth building floors are cleaned at least once a day. The majority of the school has linoleum floors. Carpeting is found in some offices and the library. The gymnasium has a wood varnished floor.

The mixing of outside air with the indoor ambient air is based on the outdoor air temperature. When the sampling was conducted the approximate amount of fresh air introduced into the school was approximately 20%.

The only location in the Roth building that is below grade is the Mechanical/ Boiler Room.

The building was clean and orderly throughout.

Air Monitoring Results – General Comfort Parameters

The Q-Trak IAQ monitor was used to survey various areas of the Roth building on Thursday February 25. 2016. The teachers, staff and students were in the Roth building on the day of sampling. Table 1 summarizes the results of the general IAQ in each location.

Table 1
Comfort Parameters and PID Volatile Organics Survey Results
Roth Middle School
Rush Henrietta Central School District

Location	*Time (AM)*	*Carbon Dioxide (ppm)*	*Carbon Monoxide (ppm)*	*%RH*	*Temperature (◦F)*	*PID*
Custodian's office (NW wing)	8:30	870	0	35.1	70.8	0.7
Custodian's office (NW wing)	8:30	1020 peak				
Tech. Rm 420	8:35	780	0	35.1	72.2	0.6
Loading Dock	8:38	840	0	30.9	71.7	0.6
Boiler Room	8:39	600	0	29.6	74.7	0.6
Hall by Rm-415	8:42	980	0	26.8	73.7	0.2
Hall by Rm-407	8:44	595	0	26.7	71.9	0.2
Cafeteria (unoccupied)	8:46	550	0	27.9	71.8	0.2
Hall by Rm-305	8:49	804	0	29.1	71.6	0.3
Hall by Rm-317	8:51	862	0	29.5	71.6	0.4
Hall by Rm-314	8:53	828	0	28.8	71.8	0.4
Vice Principal's Office	8:55	607	0	29	72.4	0.4
V.P. Office - closet						0.4
Library	8:59	541	0	25.8	72.6	0.3
Hall outside library main door	9:01	631	0	27.1	72.8	0.4
Gymnasium (~14 students)	9:03	666	0	29.8	73.1	0.4
Fitness Room (~20 students)	9:07	840	0	26.5	73.1	0.4
Hall by Rm-210	9:08	589	0	25.9	72	0.4
Hall by Rm-217	9:10	630	0	27.2	71.6	0.5
Office 217 (unoccupied)	9:11	636	0	26.9	72.1	0.4
Main Office	9:20	741	0	41.1	64.9	0.4
Auditorium (unoccupied)	9:22	486	0	31.1	69.6	0.3
Hall by Rm-128	9:27	645	0	26.2	71.3	0.4
Hall by Health Office (Rm-117) passing time	9:33-9:35	794-935	0	30.7	73.3	0.6
Outdoors Main Entrance	**9:15**	**433**	**0.1**	**37.9**	**45.1**	**0.2**
ASHRAE Guidelines		700 ppm above outdoor level		20%-60%	68◦F-75◦F	
OSHA PEL		5,000ppm	50ppm			

"PID" – Photoionization Detection for non-specific volatile organic compounds
"ASHRAE" – American Society of Heating, Refrigerating and Air-Conditioning Engineers
"OSHA PEL" – Occupation Safety and Health Administration Permissible Exposure Limit

The OSHA Permissible Exposure Limit ("PEL") for CO_2 is 5,000 parts per million ("ppm") as an 8-hour Time-Weighted Average ("TWA"). The OSHA PEL is based on an adult working an 8-hour shift and working a 40-hour work week. The OSHA PEL for CO is 50 ppm, 8-hr TWA. The American Society of Heating, Refrigeration, and Air Conditioning Engineers ("ASHRAE") Standard, "Ventilation for Acceptable Indoor Air Quality (62-2001) states that a CO_2 level in excess of 700 ppm above the outside CO_2 level may be associated with increased odor and general air quality complaints.

ASHRAE also recommends that the optimal operative temperature for thermal acceptability of sedentary persons is 68°F to 75°F in the winter months with a relative humidity of 50%[1]. The ASHRAE Standard considers that the acceptable range of allowable humidity in the indoor environment is between 20% and 60%. The ASHRAE standards are guidelines intended to satisfy 80% of the building occupants.

The carbon dioxide levels exceeded the ASHRAE guideline for brief periods during the student lunch times in the cafeteria. This increase is not unexpected with full occupancy during lunch periods. If occupants voice complaints of excessive odors or "stale" air, increasing fresh air to the cafeteria would reduce the CO_2 levels and make the environment more comfortable. The comfort parameter sampling statistics and graph for the cafeteria are included in Attachment 4.

Air Sampling Results – Volatile Organic Compounds ("VOCs"), Formaldehyde, and 4-Phenylcyclohexene

Leader obtained seven indoor and outdoor air samples at the Roth building using evacuated summa canisters, over a period of approximately eight hours. The samples were collected on February 25, 2016 while the building was occupied by students and staff on a normal school day. The samples were analyzed using USEPA Method TO-15 for VOCs. Figure 1 shows the locations for VOC, 4-phenylcyclohexene (new carpet gas) and formaldehyde air samples.

Air samples for formaldehyde and 4-phenylcyclohexene were collected, using Assay Technology passive dosimeters, at 5 interior building locations on February 25, 2016 over a period of approximately 8 hrs. Due to sampling media shortage additional air samples for these constituents were collected on March 1, 2016 in the Copier Room. Upon completion of sample collection all samples were closed and shipped to Galson Laboratories in Syracuse, New York for analysis. Chain-of-custody documentation was maintained throughout sample collection and analysis. The formaldehyde samples were analyzed utilizing Modified OSHA Method 1007. The 4-phenylcyclohexene samples were analyzed using Modified NIOSH Method 1501.

There were no detectable levels of formaldehyde or 4-phenylcyclohexene found in any of the areas sampled**.**

The only regulatory exposure limits applicable to a school environment are the occupational exposure limits under OSHA, which are enforced in New York State by the Public Employee Department of Safety and Health ("PESH"), a division of the New York State Department of

[1]ASHRAE Standard 55-2010, "Thermal Environmental Conditions for Human Occupancy".

Labor. Table 2 provides the sampling locations and detectable VOC results and compares those levels to the OSHA PEL for each compound. The PELs are typically presented in units of milligrams per cubic meter of air or ppm. In order to keep the units consistent all data is presented in micrograms per cubic meter ("µg/m^3").

Table 3 provides the sampling locations and detectable VOC results and compares those levels to summary statistical data from a 1997 to 2003 New York State Department of Health ("NYSDOH") of VOCS in the indoor air of residential homes heated with fuel oil. The goal of this study was to obtain information on the type and concentration of VOCs found in the typical home. The study did not provide a health risk analysis. The study is instructive because it provides information which can be used to compare the school's indoor air VOC data. As Table 3 illustrates the school's indoor air 12 out of the 14 VOC detected during the Roth sampling have were also found during the NYSDOH study. Of the 12 VOCs with comparisons in the NYSDOH study, acetone and carbon tetrachloride were found in the Roth school at concentrations greater than the average NYSDOH concentration, but at a concentration significantly less than the NYSDOH's maximum concentration for those VOCs.

Ethanol and isopropanol (isopropanol was not reported by in the NYSDOH study) were found at higher concentrations than some of the other VOCs, particularly in the cafeteria. One explanation for this is that these are the main ingredients in the hand sanitizer used in the cafeteria. Acetone was also found at higher concentrations than some of the other VOCs and at similar concentrations throughout the school, with the exception of Room 420 where Technology is taught. In addition to being found in a number of commercial products (nail polish remover, cosmetics, and rubber cement), acetone is also made in our bodies during the breakdown of fats. It's also formed in nature from the breakdown of vegetation.

The following VOCs were not detected in any of the air samples taken, inside or outside, of the Roth building:

1,1,1-Trichloroethane	2-Butanone	Freon-113
1,1,2,2-Tetrachloroethane	2-Hexanone	Freon-114
1,1,2-Trichloroethane	3-Chloropropene	Hexachlorobutadiene
1,1-Dichloroethane	4-Ethyltoluene	Methyl tert butyl ether
1,1-Dichloroethene	4-Methyl-2-pentanone	Methylene chloride
1,2,4-Trichlorobenzene	Benzyl chloride	o-Xylene
1,2,4-Trimethylbenzene	Bromodichloromethane	p/m-Xylene
1,2-Dibromoethane	Bromoform	Styrene
1,2-Dichlorobenzene	Bromomethane	Tertiary butyl Alcohol
1,2-Dichloroethane	Carbon disulfide	Tetrahydrofuran
1,2-Dichloropropane	Chlorobenzene	trans-1,2-Dichloroethene
1,3,5-Trimethylbenzene	Chloroethane	trans-1,3-Dichloropropene
1,3-Butadiene	Chloroform	Trichloroethene
1,3-Dichlorobenzene	cis-1,2-Dichloroethene	Vinyl bromide
1,4-Dichlorobenzene	cis-1,3-Dichloropropene	Vinyl chloride
1,4-Dioxane	Dibromochloromethane	
2,2,4-Trimethylpentane	Ethylbenzene	

The Alpha and Galson laboratory packages are included in Attachment 5 and Attachment 6.

Typical Indoor Air Pollutants and Sources

VOCs are compounds that vaporize (become a gas) at room temperature. There are hundreds of VOCs found in the indoor air. VOCs are released from many housekeeping and maintenance products, building materials, furnishings and equipment, personal care products, cosmetics, and from human metabolism. Table 4 provides examples where detected VOCs can be found:

Table 4
Detected VOCs
Common Products and Use
Roth Middle School
Rush Henrietta Central School District

VOC	Common Products and Uses
Acetone	Acetone is a manufactured chemical that is also found naturally in the environment. It is a colorless liquid with a distinct smell and taste. It evaporates easily, is flammable, and dissolves in water. It occurs naturally in plants, trees, volcanic gases, forest fires, and as a product of the breakdown of body fat. It is present in vehicle exhaust, tobacco smoke, and landfill sites. It is found in products such as arts and crafts aerosols, interior/exterior paints, spray air fresheners, nail enamel, and nail polish remover
Benzene	Benzene is used to make some types of rubbers, lubricants, dyes, detergents, drugs, and pesticides. Natural sources of benzene include emissions from volcanoes and forest fires. Benzene is also a natural part of crude oil, gasoline, and cigarette smoke. It is found in products such as semi-gloss paints, spray adhesives, and adhesive removers.
Carbon tetrachloride	Carbon tetrachloride was used in the production of refrigeration fluid and propellants for aerosol cans, as a pesticide, as a cleaning fluid and degreasing agent, in fire extinguishers, and in spot removers. It can be found in products such as adhesives, plastic bonders, and adhesive removers.
Chloromethane	Most of the chloromethane that is released into the environment is from natural sources, such as chemical reactions that occur in the oceans. It is also given off when materials like grass, wood, charcoal, and plastics are burned. It is present in lakes and streams and has been found in drinking water. Other sources of exposure are cigarette smoke, polystyrene insulation, aerosol

VOC	Common Products and Uses
	propellants, and chlorinated swimming pools. It is also used in products such as Static Guard.
Cyclohexane	It is found in products such as spray adhesive, lacquer thinner, drywall adhesive and liquid nails.
Dichlorodifluoromethane	Dichlorofluoromethane is a colorless gas usually sold under the brand name Freon-12®. It is a chlorofluorocarbon (CFC) used as a refrigerant and aerosol spray propellant. Complying with the Montreal Protocol on Substances that Deplete the Ozone Layer, its manufacture was universally banned in 1996. This extremely inert substance is present in the atmosphere surrounding the globe.
Ethanol	Ethanol is one of the largest volume organic chemicals in production. It can be found in cleaners, antiseptic agents, inks, aerosol sprays, mouthwash, perfumes/aftershave, pharmaceuticals, and as a fuel or fuel additive.
Ethyl Acetate	It is found in products such as spray paints, liquid bandaid, nail polish remover, and nail enamels.
n-Heptane	n-Heptane can be found paints, coatings, rubber cement solvent and as a non-polar solvent for laboratory use. It is also a minor ingredient in gasoline.
Isopropyl alcohol	It is found in products such as nail enamel, hand sanitizers, hair colorants, spray paints, spray glitter, and matte fixatives.
n-Hexane	n-Hexane can be found in glues, cleaners and degreasers. It is also used as a solvent for adhesives, paints and surface coatings.
Tetrachloroethylene	The largest user of tetrachloroethylene (also known as “perc ”) is the dry cleaning industry. It accounts for 80% to 85% of all dry cleaning fluid used. Textile mills, chlorofluorocarbon producers, vapor degreasing and metal cleaning operations, and makers of rubber coatings also use perc. It can be added to aerosol formulations, solvent soaps, printing inks, adhesives, sealants, polishes, lubricants, and silicones. Typewriter correction fluid and shoe polish are among the consumer products that can contain perc.

VOC	Common Products and Uses
Toluene	Toluene is used in paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.
Trichlorofluoromethane	Trichlorofluoromethane is sold under the brand name Freon-11®. It is a chlorofluorocarbon (CFC) used as a refrigerant, a blowing agent in the production of polyurethane and foams and aerosol propellant for bronchodilators and corticosteroids in the treatment of bronchial asthma. The Montreal Protocol has caused an international decline in the use and production of Freon-11.

Summary

Schools present special concerns for managing indoor air quality. Students and teachers often work more closely together in classrooms than people in typical office buildings. Approximately four times more people may occupy a given amount of floor space in a school classroom as than in an office. Schools also have diverse activities and may have a wide range of potential air pollutant sources. These sources include: cafeterias, art, science and other classrooms technology laboratories; restrooms; and locker rooms.

The classrooms, hallways and common locations did not have carbon dioxide levels above the ASHRAE guideline of 700 ppm above outdoor levels, with exception of brief periods during maximum occupancy in the cafeteria. This indicates adequate fresh air and airflow into most areas of the building.

All classrooms and common areas monitored were within ASHRAE guidelines for temperature and relative humidity.

The air sampling conducted by Leader, did not show detectable levels of airborne formaldehyde or 4-Phenylcyclohexene**.**

There were no detectable levels of a majority of the monitored VOCs. There were some detectable levels of some VOCs, but the levels were orders of magnitude below the OSHA PELs. In addition, VOCs measured were below the average NYSDOH residential background levels for ambient air in residential homes, with the exception of two compounds and these were found at concentrations above the average detected concentration, but significantly below the maximum concentrations found.

The levels of detectable VOCs were extremely low and reflective of background air quality. The compounds detected can be attributed to particular chemicals, products, and materials used in the school, personal care items used and worn by the students and staff, or contaminants drawn into the building from the outdoor air. The air quality does not appear to be an issue at the Roth building.

4. POTABLE WATER SAMPLING AND ANALYSIS

Potable water samples were collected from sources used for drinking water that included: fountains in the hallways and Classroom 420, and from a bottled water dispenser found in Office 312. Figure 2 shows the locations for the drinking water samples. The bottle water dispenser is not RHCSD property, but is property of Ms. Ellingham. The purpose of the water sampling was to evaluate the general quality of the water by looking at general characteristics, selected heavy metals, and bacteria. All of these parameters are measured routinely by the MCWA as mandated by New York State Department of Health. Water quality within the school is not typically sampled by MCWA, but was sampled on February 18, 2016 by MCWA for chlorine residual and total coliform.

Scope of Work

Leader used a combination of methods to evaluate the water quality: laboratory analysis, portable instrumentation and field test kits. The parameters measured are similar or the same as those measured by MCWA so the water quality within the school could be compared to water quality within the distribution system. The measured parameters were also selected because they are also indicators of other potential issues impacting water quality. Parameters measured included: arsenic, barium, chromium, copper, lead, heterotrophic bacteria, alkalinity, pH, free chlorine, total chlorine, hardness, total dissolved solids, conductivity, oxidation – reduction potential and turbidity. The following parameters were measured by Paradigm Environmental Laboratories: arsenic, barium, chromium, copper, lead, heterotrophic bacteria. The metals were analyzed using USEPA Method 200.8 for drinking water. Bacteria were analyzed using Standard Method 9215B. Paradigm Environmental Laboratories received the samples the same day as the sampling following chain of custody procedures and protocols. The remaining parameters were measured using portable instruments and field test kits that are not based on laboratory methods. Portable instruments were obtained by Eco-Rental Solutions and the instruments were calibrated to factory specifications by their staff.

Samples to be analyzed for metals were collected on February 25, 2016 prior to the beginning of school and the use of the water from those particular locations. The samples collected from the sinks found in the school's nurse's office may have been used prior to sample collection, since these locations were not planned for sampling and school had already started by the time these sinks were sampled. The goal of collecting the samples prior to the sources being used was to evaluate the condition of the water under worst case conditions; where the water was left within the device or fixture for more than six hours prior to sampling. This is referred to as collecting a "first draw" water sample. Samples collected for bacteria samples and samples measured using portable instruments were collected after letting the water flow for at least three minutes. Other water quality parameters were measured on February 29, 2016 following the first draw method and after letting the water flow for at least three minutes.

Findings

Laboratory Results

Laboratory results for the water analysis of selected heavy metals and bacteria are shown on Table 5 and a copy of the laboratory report is provided in Appendix 7. In general, the sample results for metals arsenic, barium, and chromium are consistent with MCWA results. Copper and lead differ from the MCWA results in that these metals were only found in the school's water system. All of the values for copper and lead found are relatively low compared to the NYSDOH requirements for drinking water supplies with the exception of the sample collected from one of the sinks found in the school's Nurse's office and is identified as Sample 8. This sample exceeded NYSDOH's guidelines for lead and copper in drinking water. Since lead and copper were not detected in the MCWA water, it is suspected that it is coming from either the school's piping or the fixture dispensing water. It is most likely that lead and copper are coming from the fixture in the Nurse's office and could be the result of copper piping or lead solder used to join the fixture pieces.

The heterotrophic bacteria samples were analyzed to evaluate the biological activity in the water being provided in the school. The samples were analyzed for heterotrophic bacteria, because this analysis quantifies a larger number of micro-organisms as oppose to just Coliform or E. Coli; a specific group of bacteria (Coliform) or a particular species (E. Coli). Consequently, an analysis of heterotrophs could also include Coliform so it's a good indicator of biological activity in the water, but not necessarily of water quality. None of the samples exceeded USEPA's standards. The Sample 6 collected from Room 420's drinking water fountain contained 310 colony forming units ("CFU") of bacteria in one milliliter ("ml") of water sample. USEPA's National Primary Drinking Water Regulation for Public Water Supplies has a limit of 500 CFU/ml. We should also note the bacteria growth could be result of the source water, an accumulation of biofilm in the pipes, or a source of bacteria on the nozzle where the water leaves from the fountain. MCWA also analyzed samples for Coliform bacteria in the school and found none present in their samples.

Portable Instrument and Field Test Kits

Table 6 summarizes the results of the measurements taken with a Myron 6P water quality meter, Lamotte Smart3 Colorimeter, and Clorox Pool and Spa test strips. The Myron 6P measures a number of parameters, but the following were used for this sampling: pH, oxidation–reduction potential, total dissolved solids ("TDS"), and conductivity. USEPA drinking water standards for pH is 6.5 to 8.5 and for TDS the standard is less than 500 mg/L. The Lamotte Smart3 Colorimeter measures turbidity (the amount of suspended particles in the sample) of the sample in Nephelolometric turbidity units ("NTU"). USEPA's guidance regulatory values for turbidity for the water supplier is 5 NTU. The Clorox test strips measure: total alkalinity; pH; free chlorine, total chlorine, and hardness.

In general, the samples are very similar across the school with respect to all of the measured parameters with the exception of turbidity. The sinks found within the school's Nurse's office (samples 7 and 8) had a higher turbidity than the rest of the samples tested. These values were 9.2 and 9.57, the other samples ranged from 0 to 2. Interestingly, the Nurse's office samples were on the high end of the TDS values. The relationship between turbidity and TDS has not

been investigated, but over time high TDS could cause precipitation of solids on the piping or fixtures which eventually flake off resulting in turbidity.

A comparison of the Roth building drinking water sample results with the results from MCWA show results are similar, but there is follow up sampling the RHCSD should do. The sample location 8 should be resampled for first draw and post flush lead and copper concentrations. The bacteria sample, post flush, should be collected from the sample location 6 to confirm the values.

5. SOIL INVESTIGATION

Scope of Work

For a period of time, the Room 420 area of the Roth building was used as a school bus garage and is thus a potential source of contamination and possibly VOCs in the building. Four soil borings were planned around the former bus garage. One additional soil boring was sampled next to the tennis courts as a location where a background sample could be collected. Figure 3 shows the locations of the soil borings. Leader's contractor provided track mounted Geoprobe™ direct push soil sampling equipment. Soil borings were sampled to a depth ranging from 12 to 16 feet below the ground surface collecting samples in 4 ft intervals. Then brought to the ground surface each sample was visually inspected and screened using a PID. Samples retained for chemical analysis were selected based on the presence of VOCs as measured by the PID, the presence of stains, fill materials or from an interval which might either restrict the down or lateral flow groundwater or where groundwater was first encountered. Samples sent for laboratory analysis were analyzed for VOCs using USEPA Method 8260B and 8270 for polynuclear aromatic hydrocarbons ("PAHs").

Findings

Five soil borings were completed for the investigation. Figure 3 provides approximate locations for all of the soil borings. Soil found in the immediate vicinity of the school building encountered soil fill reaching a thickness of approximately 1.5 to 4 feet. These materials consisted of gravel, sand, sand and silt mixtures, and gravel/rock fragments. Below the fill layer native soils consisted of silt and fine sand mixtures and clay. A gray silt layer was found across the property at a depth ranging from 4 to 8 feet indicating this may be the original ground surface pre-school construction or reflective of glacial or post glacial ground surface and covered by post glacial sedimentation. Groundwater was not encountered but wet soil was found between 10.5 and 16 feet below the ground surface. Attachment 9 provides copies of the soil boring logs.

Soil sampling conducted in the vicinity of the former bus garage found no visual indication of a spill or release of hazardous substances. One soil sample was collected from each of five soil boring locations and each was analyzed for USEPA's Target Compound List VOCs and for polyaromatic hydrocarbons associated with petroleum products. The sample results are shown on Table 7 and the laboratory report prepared by Paradigm Environmental Laboratories is provided as Attachment 10. The soil sample from soil boring B-2, from a depth of 12 feet, found acetone at a concentration of 150 micrograms per kilogram ("µg/Kg"). New York State Department of Environmental Conservation ("NYSDEC") soil cleanup requirements (Title 6 New York Code, Rules and Regulations Part 375) for residential property is 100,000 µg/Kg for acetone. There can be may reasons for acetone to be present; from a release of chemical or product containing acetone; a laboratory contaminant, or as an artifact from a naturally occurring process. It is unclear what caused this single, low level occurrence of acetone, but at this concentration it would not impact the Roth building's environment.

6. SUMMARY

At the request of RHCSD, Leader conducted a comprehensive environmental assessment of the District's Roth Middle School building ("Roth") and property. The objective of the assessment was to evaluate the air quality and drinking water within the building, evaluate the soil conditions around Roth in the vicinity of the former bus garage, examine the past uses of the property and review the available regulatory information on the Roth property and nearby properties regarding spills or releases of hazardous substances.

A summary of Leader's findings are:

- The indoor air comfort parameters within the school are adequate and typical of school environments.

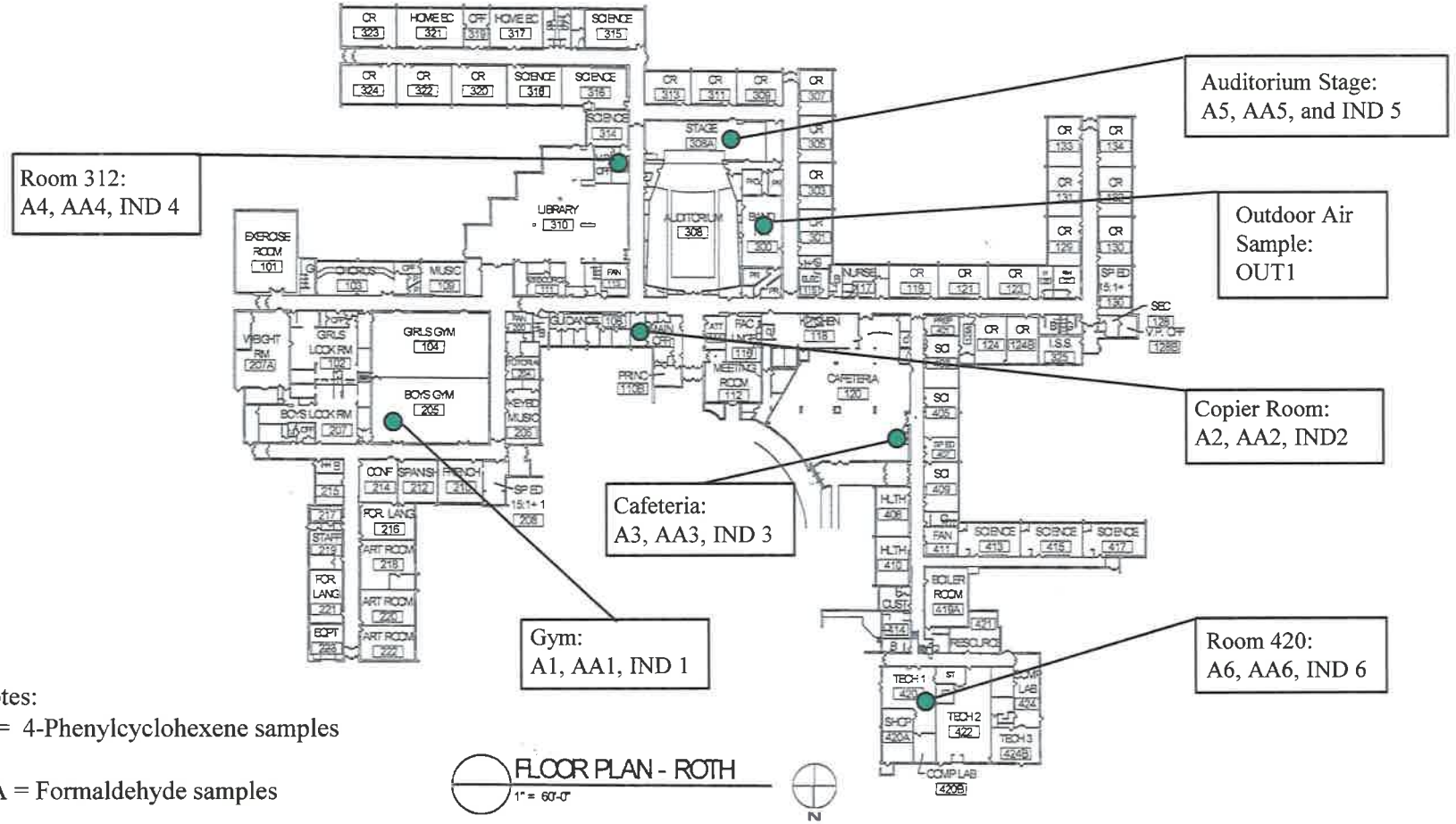
- All indoor air contaminants including VOCs, formaldehyde and 4-phenlycyclohexene levels measured were well below the OSHA PELs and below the levels found in residential homes in New York State.

- As a result of our soil sampling in the area of the former bus garage, we found no risk from vapor intrusion from petroleum related compounds.

- Based on samples collected, the drinking water in the school is safe. Consumption of water from one sink in the Health Office will be prohibited until plumbing issues are addressed.

- Based on the conditions monitored, no environmental factors associated with an increased risk of cancer were identified.

Air Sampling Locations



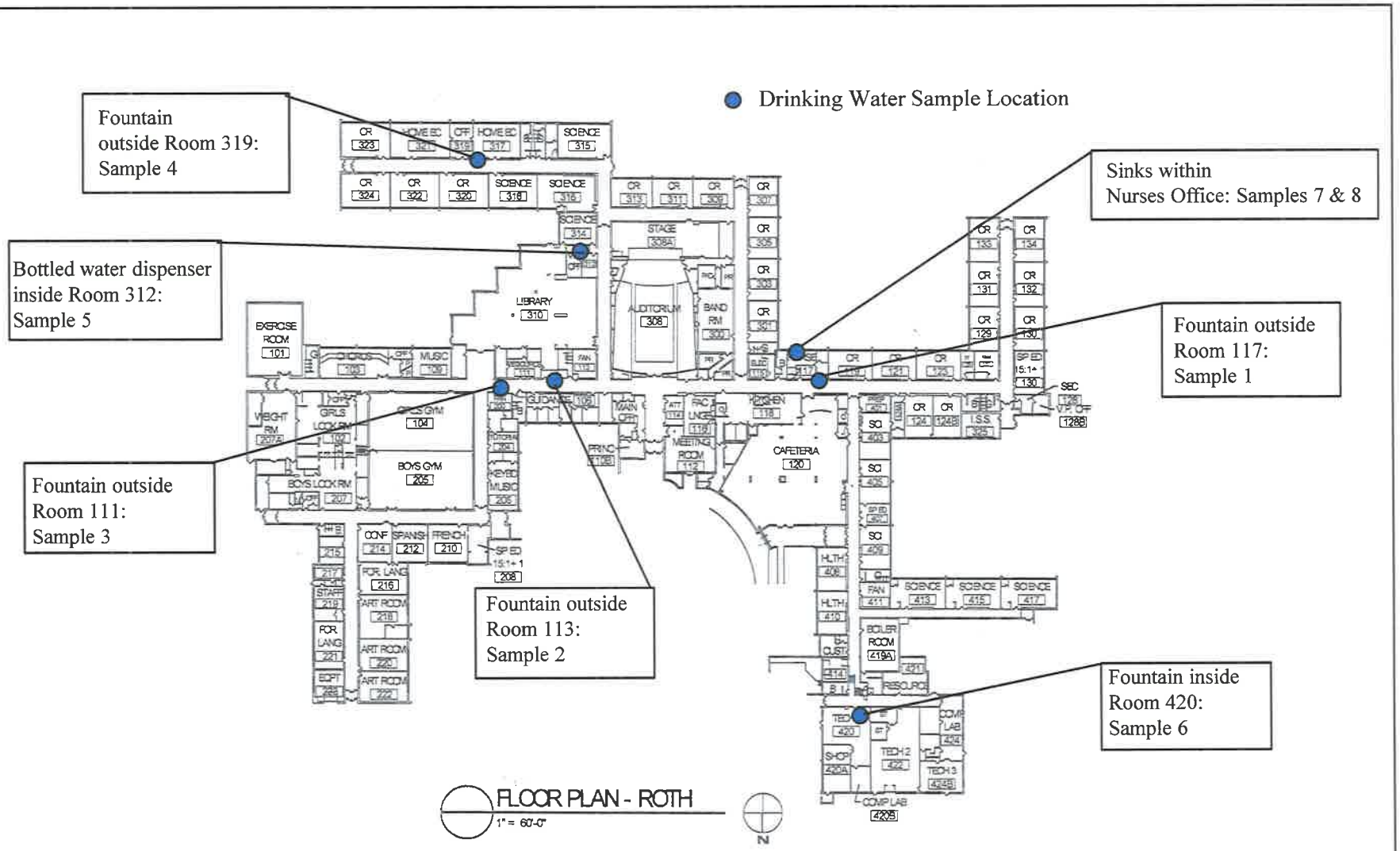
Notes:

A = 4-Phenylcyclohexene samples

AA = Formaldehyde samples

IND = Volatile organic compounds samples

Title	Air Sampling Locations Roth Middle School Henrietta, New York
Prepared For	Rush-Henrietta Central School District 1133 Lehigh Station Road Henrietta, New York
	LEADER Leader Professional Services, Inc. 271 Marsh Road-Suite 200 Pittsford, New York 14534
Project	892.001
Date	2/19/2016
Scale	None
Drawn	PVS
Checked	MPR
File Name	
Figure	1

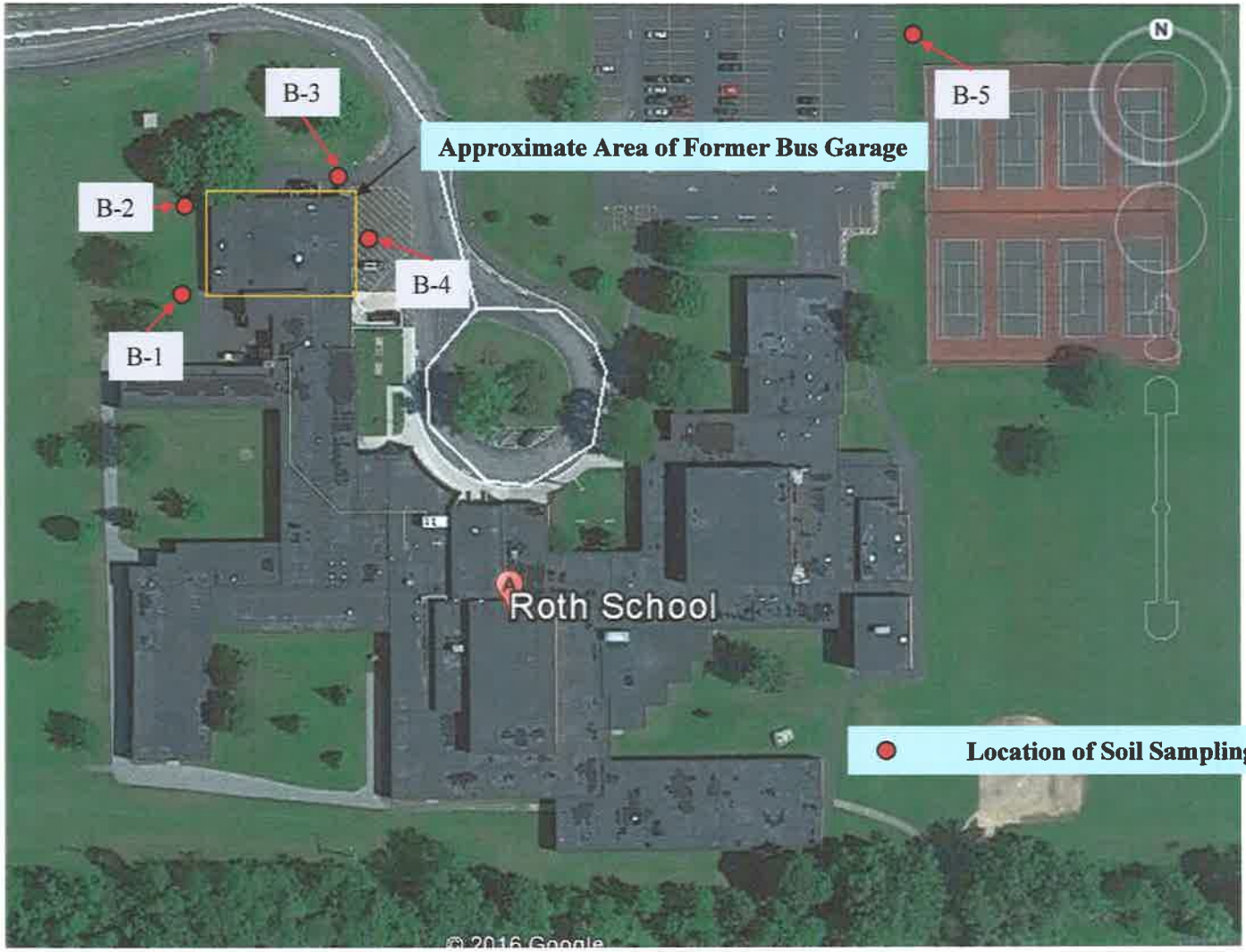


Title	Water Sampling Locations Roth Middle School Henrietta, New York
Prepared For	Rush-Henrietta Central School District 1133 Lehigh Station Road Henrietta, New York

LEADER

Leader Professional Services, Inc.
271 Marsh Road-Suite 200
Pittsford, New York 14534

Project	892.001
Date	2/19/2016
Scale	None
Drawn	PVS
Checked	MPR
File Name	
Figure	2



Title	Soil Sampling Locations Roth Middle School Henrietta New York
Prepared For	Rush Henrietta Central School District Henrietta, Ne w York

LEADER
Leader Professional Services, Inc.
271 Marsh Road-Suite 200
Pittsford, New York 14534

Project	892.001
Date	2/19/2016
Scale	None
Drawn	PVS
Checked	MPR
File Name	

Figure 3

Table 1
Comfort Parameters and PID Volatile Organics Survey Results
Roth Middle School
Rush Henrietta Central School District

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Hall by Rm-305	8:49	804	0	29.1	71.6	0.3
Hall by Rm-317	8:51	862	0	29.5	71.6	0.4
Hall by Rm-314	8:53	828	0	28.8	71.8	0.4
Vice Principal's Office	8:55	607	0	29	72.4	0.4
V.P. Office - closet						0.4
Library	8:59	541	0	25.8	72.6	0.3
Hall outside library main door	9:01	631	0	27.1	72.8	0.4
Gymnasium (~14 students)	9:03	666	0	29.8	73.1	0.4
Fitness Room (~20 students)	9:07	840	0	26.5	73.1	0.4
Hall by Rm-210	9:08	589	0	25.9	72	0.4
Hall by Rm-217	9:10	630	0	27.2	71.6	0.5
Office 217 (unoccupied)	9:11	636	0	26.9	72.1	0.4
Main Office	9:20	741	0	41.1	64.9	0.4
Auditorium (unoccupied)	9:22	486	0	31.1	69.6	0.3
Hall by Rm-128	9:27	645	0	26.2	71.3	0.4
Hall by Health Office (Rm-117) passing time	9:33-9:35	794-935	0	30.7	73.3	0.6
Outdoors Main Entrance	**9:15**	**433**	**0.1**	**37.9**	**45.1**	**0.2**
ASHRAE Guidelines		700 ppm above outdoor level		20%-60%	68◦F-75◦F	
OSHA PEL		5,000ppm	50ppm			

"PID" – Photoionization Detection for non-specific volatile organic compounds
"ASHRAE" – American Society of Heating, Refrigerating and Air-Conditioning Engineers
"OSHA PEL" – Occupation Safety and Health Administration Permissible Exposure Limit

Table 2
February 25, 2016, 8 Hour Sampling Event
VOC Data Compared to OSHA PELs

Volatile Organic Compound	Gym (µg/m^3)	Copier Room (µg/m^3)	Cafeteria (µg/m^3)	Office 312 (µg/m^3)	Auditorium (µg/m^3)	Tech. Rm 420 (µg/m^3)	Outdoors-Roof (µg/m^3)	OSHA PEL* 8-hr TWA (µg/m^3)
Acetone	13.1	15.8	15.8	14.6	11.2	93.8	3.3	2,400,000
Benzene	<0.639	0.661	<0.639	<0.639	<0.639	<0.639	<0.639	3,000
Carbon tetrachloride	0.585	0.585	0.623	0.629	0.604	0.56	0.522	63,000
Chloromethane	1.13	1.04	1.27	1.42	1.28	1.56	1.14	207,000
Cyclohexane	<0.688	<0.688	<0.688	1.35	<0.688	2.17	<0.688	1,050,000
Dichlorodifluoromethane	1.67	1.97	2.24	2.8	2.32	2.24	2.18	4,950,000
Ethanol	15.6	219	437	237	81.4	315	<9.42	1,900,000
Ethyl Acetate	<1.8	<1.8	3.78	<1.8	<1.8	2.22	<1.8	1,400,000
Heptane	<0.82	<0.82	<0.82	<0.82	<0.82	1.3	<0.82	2,000,000
Isopropanol	3.88	11.8	45.2	6.29	10.8	25.6	<1.23	980,000
n-Hexane	<0.705	<0.705	<0.705	<0.705	<0.705	1.34	<0.705	1,800,000
Tetrachloroethylene	0.21	0.258	0.624	0.339	0.312	0.407	0.203	685,000
Toluene	<0.754	1.98	0.995	0.848	<0.754	6.26	<0.754	755,000
Trichlorofluoromethane	1.48	1.61	1.65	1.83	1.72	2.46	1.49	5,600,000

"<" - Less than the analytical detection limit

* OSHA Permissible Exposure Limit, 8-hour Time-Weighted Average

µg/m^3 – micrograms per liter

Table 3
February 25 2016 Sampling Event
VOC Data - 8 Hour Air Sampling, Summa Canisters
Roth Middle School
Rush Henrietta Central School District
Henrietta, New York

Volatile Organic Compound	Gym	Copier Room	Cafeteria	Office 312	Auditorium	Tech. Rm 420	Outdoors-Roof	NYS DOH Residential Background Levels for Indoor Air in Fuel Oil Heated Homes* (ug/m3)		
								Avg.	Min.	Max
Acetone	13.1	15.8	15.8	14.6	11.2	93.8	3.3	42	<0.25	690
Benzene	<0.639	0.661	<0.639	<0.639	<0.639	<0.639	<0.639	8.3	<0.25	460
Carbon tetrachloride	0.585	0.585	0.623	0.629	0.604	0.56	0.522	0.4	<0.25	4.2
Chloromethane	1.13	1.04	1.27	1.42	1.28	1.56	1.14	2	<0.25	260
Cyclohexane	<0.688	<0.688	<0.688	1.35	<0.688	2.17	<0.688	6	<0.25	510
Dichlorodifluoromethane	1.67	1.97	2.24	2.8	2.32	2.24	2.18	7.9	<0.25	300
Ethanol	15.6	219	437	237	81.4	315	<9.42	610	<0.25	16,000
Ethyl Acetate	<1.8	<1.8	3.78	<1.8	<1.8	2.22	<1.8	NA	NA	NA
Heptane	<0.82	<0.82	<0.82	<0.82	<0.82	1.3	<0.82	9.7	<0.25	670
Isopropanol	3.88	11.8	45.2	6.29	10.8	25.6	<1.23	NA	NA	NA
n-Hexane	<0.705	<0.705	<0.705	<0.705	<0.705	1.34	<0.705	9.5	<0.25	950
Tetrachloroethylene	0.21	0.258	0.624	0.339	0.312	0.407	0.203	1.3	<0.25	51
Toluene	<0.754	1.98	0.995	0.848	<0.754	6.26	<0.754	26	<0.25	510
Trichlorofluoromethane	1.48	1.61	1.65	1.83	1.72	2.46	1.49	7.5	<0.25	190

Notes:

All results in units of micrograms per cubic meter "ug/M3"

"<" - Less than the analytical detection limit

"NA" - Not available

* New York State Department of Health Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes (104 single family homes, 1997-2003)

TABLE 5
Summary of Drinking Water Results for First Flush Sampling
Roth Middle School
Rush Henrietta Central School District
Henrietta, New York

Sample Number			**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**		
	Units	**Drinking Water Guidelines**	**Room 117**	**Room 113**	**Room 111**	**Room 319**	**Bottled Water 312**	**Room 420**	**Nurses Sink Left**	**Nurses Sink Right**	**Blank Sample**	**Monroe County Water Authority Hemlock Lake Average Values from Distribution System**
Bacteria	CFU/ML	500	<1	<1	<1	<1	<1	**310**	<1	<1	NA	NA
Metals												
Arsenic	mg/L	0.01	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0014	<0.0014	0.0023	<0014	Not detected
Barium	mg/L	2.0	0.014	0.013	0.014	0.013	0.013	<0.002	0.015	0.02	<0.002	0.016
Chromium	mg/L	0.1	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	Not detected
Copper	mg/L	1.3	0.5	0.38	0.26	0.19	0.34	<0.010	0.26	**1.6**	<0.010	Not detected
Lead	mg/L	0.015	0.004	<0.002	0.0015	<0.001	<0.0062	<0.001	0.0013	**0.11**	<0.001	Not detected

Notes:

CFU/ML = Colony forming units per milliliter

mg/L = milligrams per liter

Drinking water guidelines for metals are from the USEPA Maximum Contaminant Levels ("MCL") which are followed in New York. Bacteria guidelines are USEPA treatment technology based standard.

TABLE 6
Summary of Drinking Water Characteristics
Roth Middle School
Rush Henrietta Central School District
Henrietta, New York

		Sample Number	**1**	**2**	**3**	**4**	**6**	**7**	**8**		
		Room Number	**117**	**113**	**111**	**317**	**420**	**Nurse's Office Left**	**Nurse's Office Right**	**Monroe County Testing System Water from Hemlock**	**Monroe County Onsite Testing**
		Units									
Preflush	Alkalinity	ppm	40	40-120	40-120	40-120	40	40	40		
	pH	std. units	8.4	7.2	7.2	7.8-8.4	7.8-8.4	8.4	7.8		
	Free Chlorine	ppm	1	0-1	0-1	1	1	1	1		
	Total Chlorine	ppm	0-1	0	0	0-1	0	1	0		
	Hardness	ppm	100	100	<100	<100	100	100	100		
Post Flush	Alkalinity	ppm	40-120	40	40-120	40-120	40	40	40-120	65-67	
	pH	std. units	8.4	7.2-7.8	7.2	7.8-8.4	7.8-8.4	8.4	7.8	7.0-8.3	
	Free Chlorine	ppm	0-1	0-1	0-1	1	1	1	1		0.9 to 0.94**
	Total Chlorine	ppm	0-1	0-1	0-1	0-1	0-1	1	0-1	0-2.1(residual)	
	Hardness	ppm	<100	<100	<100	<100	100	100	100	88-92	
Post Flush	pH	std. units	7.3	7.3	7.7	7.3	7.3	7.5	7.7	7.8	
	Total Dissolved Solids	ppm	191	194	191	192	189	194.3	193.4	130-150	
	Conductivity	micro Siemens	291	296	293	287	290	294	290	260-480	
	Oxidation Reduction Potential	millivolts	561	394	449	686	402	603	668	Not measured	
	Turbidity	NTU	0	2	2	0	2	9.57	9.2	0.05-2.1	0.15***

Notes:
Sample 5 from Room 312 was not sampled since it is bottled water owned by a staff member.
*** When reported onsite sampling
** Onsite sampling
ppm = parts per million
std. units = standard units
NTU = Nephelolometric turbidity unit

TABLE 7
Summary of Soil Sample Results
Roth Middle School
Rush Henrietta Central School District
Henrietta, New York

Location and Depth			**B-1 3 ft.**	**B-2 12 ft.**	**B-3 8 ft.**	**B-4 5 ft.**	**B-5 8 ft.**
Volatile Organic Compounds	***NYSDEC Guidance Levels for Soil Quality Residential Property***	Units	Result	Result	Result	Result	Result
ACETONE	100,000	ug/Kg	<40.7	**150**	<40.2	<43.4	<36.4
BENZENE	2,900	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
BROMOCHLOROMETHANE	No standard	ug/Kg	<20.4	<20.6	<20.1	<21.7	<7.28
BROMODICHLOROMETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
BROMOFORM	No standard	ug/Kg	<20.4	<20.6	<20.1	<21.7	<18.2
BROMOMETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CARBON DISULFIDE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CARBON TETRACHLORIDE	1,400	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CHLOROBENZENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CHLORODIBROMOMETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CHLOROETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CHLOROFORM	10,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CHLOROMETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CYCLOHEXANE	No standard	ug/Kg	<40.7	<41.1	<40.2	<43.4	<36.4
1,2-DIBROMO-3-CHLOROPROPANE	No standard	ug/Kg	<40.7	<41.1	<40.2	<43.4	<36.4
1,2-DIBROMOETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
DICHLORODIFLUOROMETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,1-DICHLOROETHANE	19,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,2-DICHLOROETHANE	2,300	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,2-DICHLOROBENZENE	100	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,3-DICHLOROBENZENE	17,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,4-DICHLOROBENZENE	9,800	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,1-DICHLOROETHENE	100	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,4-DIOXANE	9,800	ug/Kg	<81.5	<82.3	<80.4	<86.7	<72.8
CIS-1,2-DICHLOROETHENE	59,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
TRANS-1,2-DICHLOROETHENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,2-DICHLOROPROPANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
CIS-1,3-DICHLOROPROPENE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
TRANS-1,3-DICHLOROPROPENE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
ETHYLBENZENE	30,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
2-HEXANONE	No standard	ug/Kg	<20.4	<20.6	<20.1	<21.7	<18.2
ISOPROPYLBENZENE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
2-BUTANONE (MEK)	100,000	ug/Kg	<40.7	<41.1	<40.2	<43.4	<36.4
METHYL ACETATE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
METHYL CYCLOHEXANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
METHYLENE CHLORIDE	51,000	ug/Kg	<20.4	<20.6	<20.1	<21.7	<18.2
4-METHYL-2-PENTANONE (MIBK)	No standard	ug/Kg	<20.4	<20.6	<20.1	<21.7	<18.2
METHYL TERT-BUTYL ETHER	62,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
NAPTHALENE	No standard	ug/Kg	<20.4	<20.6	<20.1	<21.7	<18.2
N BUTYLBENZENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
N PROPYLBENZENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
P ISOPROPYLTOLUENE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
SEC BUTYLBENZENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
STYRENE	No standard	ug/Kg	<20.4	<20.6	<20.1	<21.7	<18.2
1,1,2,2-TETRACHLOROETHANE	35,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
TERT BUTYLBENZENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28

TABLE 7
Summary of Soil Sample Results
Roth Middle School
Rush Henrietta Central School District
Henrietta, New York

Location and Depth			**B-1 3 ft.**	**B-2 12 ft.**	**B-3 8 ft.**	**B-4 5 ft.**	**B-5 8 ft.**
Volatile Organic Compounds	***NYSDEC Guidance Levels for Soil Quality Residential Property***	Units	Result	Result	Result	Result	Result
TETRACHLOROETHENE	5,500	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
TOLUENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,2,3-TRICHLOROBENZENE	No standard	ug/Kg	<20.4	<20.6	<20.1	<21.7	<18.2
1,2,4-TRICHLOROBENZENE	No standard	ug/Kg	<20.4	<20.6	<20.1	<21.7	<18.2
1,1,1-TRICHLOROETHANE	100	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,1,2-TRICHLOROETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,2,4 TRIMETHYLBENZENE	47,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,3,5-TRIMETHYLBENZENE	47,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
TRICHLOROETHENE	10,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
TRICHLOROFLUOROMETHANE	No standard	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
1,1,2-TRICHLOROTRIFLUOROETHANE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
VINYL CHLORIDE	210	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
M,P XYLENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
O XYLENE	100,000	ug/Kg	<8.15	<8.23	<8.04	<8.67	<7.28
Semivolatile Organic Compounds							
ANTHRACENE	100,000	ug/Kg	<322	<335	<332	<334	<307
ACENAPHTHENE	100,000	ug/Kg	<322	<335	<332	<334	<307
ACENAPHTHYLENE	100,000	ug/Kg	<322	<335	<332	<334	<307
BENZO(A)ANTHRACENE	1,000	ug/Kg	<322	<335	<332	<334	<307
BENZO(A)PYRENE	1,000	ug/Kg	<322	<335	<332	<334	<307
BENZO(B)FLUORANTHENE	1,000	ug/Kg	<322	<335	<332	<334	<307
BENZO(G,H,I)PERYLENE	100,000	ug/Kg	<322	<335	<332	<334	<307
BENZO(K)FLUORANTHENE	1,000	ug/Kg	<322	<335	<332	<334	<307
CHRYSENE	1,000	ug/Kg	<322	<335	<332	<334	<307
DIBENZ(A,H)ANTHRACENE	330	ug/Kg	<322	<335	<332	<334	<307
FLUORANTHENE	100,000	ug/Kg	<322	<335	<332	<334	<307
FLUORENE	100,000	ug/Kg	<322	<335	<332	<334	<307
INDENO(1,2,3-CD)PYRENE	500	ug/Kg	<322	<335	<332	<334	<307
NAPHTHALENE	100,000	ug/Kg	<322	<335	<332	<334	<307
PHENANTHRENE	100,000	ug/Kg	<322	<335	<332	<334	<307
PYRENE	100,000	ug/Kg	<322	<335	<332	<334	<307