

**INTERIM REMEDIAL MEASURES
WORK PLAN
NORTHTOWN INC.
AMHERST, NEW YORK
BROWNFIELD CLEANUP PROGRAM
SITE NO. C915292**

Prepared For:

New York State Department of Environmental Conservation
Region 9
Buffalo, New York

Prepared By:

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Buffalo, New York

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CERTIFICATION

I, Bart A. Klettke, P.E., certify that I am currently a NYS registered professional engineer and that this Interim Remedial Measures Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).



A handwritten signature in blue ink that reads "Bart A. Klettke".

Bart A. Klettke, P.E.

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May 2015

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TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
1.1 PURPOSE AND OBJECTIVE	1
1.2 PROJECT BACKGROUND	1
1.3 PROJECT DESCRIPTION	4
1.4 PROJECT MANAGEMENT AND ORGANIZATION	5
1.4.1 Personnel.....	5
1.4.2 Specific Tasks and Services.....	5
2.0 DESCRIPTION OF IRM ACTIVITIES	5
2.1 GENERAL FIELD ACTIVITIES	5
2.1.1 Site Meetings	6
2.1.2 Mobilization.....	6
2.1.3 Health and Safety	6
2.2 AIR SURVEILLANCE AND MONITORING.....	6
2.3 UST AND SOIL EXCAVATIONS.....	6
2.4 ENVIRONMENTAL ANALYTICAL TESTING PROGRAM	12
3.0 DATA DOCUMENTATION	12
4.0 IRM ACTIVITIES REPORT.....	12
5.0 QUALITY ASSURANCE/QUALITY CONTROL	13
6.0 HEALTH AND SAFETY PROTOCOLS	13
7.0 CITIZEN PARTICIPATION.....	13
8.0 SCHEDULE.....	13

TABLES

Table 1	Estimated IRM Analytical Testing Program Summary
Table 2A	Analytical Summary - Phase II Subsurface Soils
Table 2B	Analytical Summary - Pre-Design Subsurface Soils
Table 3	Analytical Summary - Phase II Soil Vapor Intrusion Samples

TABLE OF CONTENTS (continued)

FIGURES

Figure 1	Locus Plan
Figure 2	Site Plan
Figure 3	AOI 1 – UST Removal & Soil Excavation
Figure 4	AOI 2 – UST Removal & Soil Excavation
Figure 5	AOI 3 – Soil Excavation
Figure 6	AOI 3 – Sub-Slab Depressurization Systems

APPENDICES

Appendix A	SSDS Subcontractor Scope of Work
Appendix B	Quality Assurance Project Plan
Appendix C	Health & Safety Plan
Appendix D	Citizen Participation Plan

1.0 INTRODUCTION

1.1 PURPOSE AND OBJECTIVE

This Interim Remedial Measures (IRM) Work Plan has been developed by GZA GeoEnvironmental of New York (GZA), on behalf of Northtown Associates, LLC (Northtown), for IRM activities associated with the Northtown Inc. Brownfield Cleanup Program (BCP) Site No. C915292 (Site). Northtown Plaza is approximately 18.6 acres in size and is located at 3045 Sheridan Drive, Amherst, New York, and the BCP Site is comprised of three Areas of Interest (AOIs) which are a combined total of 1.51 acres, as shown on Figures 1 and 2. The work described in this IRM Work Plan will be performed under a New York State Department of Environmental Conservation (NYSDEC) BCP Agreement. This IRM Work Plan presents the project scope, objectives, planned activities, sampling procedures and reporting requirements.

The planned IRMs include the following:

- AOI1: removal of underground storage tank (UST) and associated impacted soil;
- AOI2: removal of underground storage tank (UST) and associated impacted soil;
- AOI3:
 - o removal of soil impacted with Tetrachloroethene (PCE) at concentrations greater than the soil cleanup objectives (SCOs) for commercial use property (as depicted on Figure 5);
 - o Installation of sub-slab depressurization systems at two tenant units within AOI3; and
 - o Installation of sub-slab depressurization system at the building adjacent to the west of AOI3.

1.2 PROJECT BACKGROUND

The proposed BCP Site consists of three AOIs collectively comprising approximately 1.5 acres of an approximately 18.6 acre parcel of land on which the Northtown Plaza is located. Currently the Plaza Site is occupied by six commercial buildings, most containing multiple tenant spaces. The Site is bordered by other areas of the Northtown Shopping Plaza and beyond that Sheridan Drive to the North, Eggert Road to the south, Bailey Avenue to the east and Niagara Falls Boulevard to the west. Northtown Shopping Plaza is located in a commercial business area along Sheridan Drive and Niagara Falls Boulevard. The primary use of the area is as a shopping district, with major retailers located within a ½ mile of the Site. Residential properties are located on the side streets surrounding the site. Figure 2 presents a site plan.

The Site appears to have been agricultural land until it was developed for commercial use in the early-1950s. Site development occurred from the mid-1950s to 1983 when it reached site usage similar to today. Site occupant uses of environmental concern have included a dry cleaner. On-site dry cleaning operations ceased at the Site in the 1990s but there currently is an active pick-up/drop-off dry cleaning business in the same location (cleaning operation is performed at an off-site facility).

No underground storage tanks (USTs) are currently being used at the Site or other portions of Northtown Plaza. However, two USTs formerly used for heating oil remain at the Site.

A Phase I Environmental Site Assessment completed by GZA for the entire Northtown Plaza property in accordance with ASTM 1527 identified Recognized Environmental Conditions (RECs) including the former use of USTs (see above) and the former on-site dry cleaning operations at the Site.

A Phase II Environmental Site Assessment was completed by GZA to assess the RECs identified in the Phase I. The assessment included the following:

- The completion of 51 soil probes and the installation of 3 groundwater monitoring wells;
- The analyses of 53 soil samples for Target Compound List (TCL) Volatile Organic Compounds (VOCs) EPA Method 8260, Spill Technology and Remediation Series (STARS) Semi-Volatile Organic Compounds (SVOCs) EPA Method 8270, and Poly Chlorinated Biphenyl's (PCBs) EPA Method 8082;
- The analyses of three groundwater samples for TCL VOCs EPA Method 8260;
- Indoor air and sub-slab soil vapor sampling at three tenant spaces;
- A camera survey of sewer lines associated with the dry cleaning unit; and
- A Ground Penetrating Radar (GPR) study of known current and past UST locations.

Soil impacts were detected at three discreet locations: proximate to the two abandoned fuel oil USTs locations, and in the vicinity of the dry cleaners unit. No VOCs were detected above the NYSDEC Class GA Criteria in groundwater collected from these three overburden monitoring wells completed at the Site.

Limited areas of visual and olfactory evidence of petroleum were encountered adjacent to the southern (AOI1) and western (AOI2) inactive heating oil USTs. NYSDEC was notified on May 9, 2014 and spill number 1401409 was assigned for both USTs. The extent of impact is limited to the uppermost 6 to 8 feet of soils immediately adjacent to the USTs. Approximately 20 soil probes were completed on the west side of the dry cleaner's space (AOI3). Fifty three soil samples were analyzed for VOCs. PCE was detected above the Unrestricted Soil Cleanup Objectives (USCO) in 16 soil samples, above the Commercial Soil Cleanup Objectives (CSCO) in two samples, and above the Industrial Soil Cleanup Objectives (ISCO) in one sample. The PCE impacts were restricted to a depth between 6 and 18 feet below ground surface. No surficial soil impacts were identified.

Samples from the monitoring well installed in the area of the PCE soil impacts and two other locations confirmed no impact to groundwater. Groundwater was encountered at approximately 50 feet below ground surface.

To further characterize AOI3, GZA completed a Pre-Design Field Characterization (PDFC) in March and April of 2015. Twenty five additional soil probes were advanced using direct push drilling methods. 18 of these soil probes were located at exterior areas of AOI 3, and 7 were located within the vacant tenant space #13, which is directly north of the dry cleaner space. GZA also installed six, 1-inch diameter, shallow water monitoring wells at six of the soil probe locations.

The following field samples were collected as part of the PDFC:

- 32 subsurface soil samples;
- 7 Sub-slab soil vapor samples from tenant spaces;
- 7 indoor air samples, co-located with corresponding sub-slab soil vapor samples;
- 2 soil gas samples from beneath pavement; and
- 5 pore water samples, from the 5 wells that produced water of sufficient volume to sample.

All of the above samples were analyzed for chlorinated volatile organic compounds (CVOCs).

Results of the PDFC are summarized as follows:

- Thirty of the 32 subsurface soil samples contained no PCE or PCE at a concentration lower than the CSCO. The two other samples (SP-62 (16-17) and SP-56 (14-15)) contained PCE at a concentration greater than the CSCO, one of which also exceeded the industrial SCO (ISCO).
- The results of soil vapor sampling performed at the six tenant spaces, north of the vacant which adjoins the drycleaner, indicates that vapor intrusion is not occurring in those spaces.
- Soil vapor collected from beneath the building to the west of AOI3 contained PCE and other chlorinated VOCs at elevated concentrations. Indoor air sampling indicates no impact to air in that building.

Pore water samples collected from the moist upper overburden at the two wells located within the known area of soil impact contained PCE at concentrations greater than the NYSDEC standard used for drinking water wells. Based on the composition of the till layer and very slow to lack of water recharge to the wells completed in the till confining layer, water encountered in the shallow wells is not considered to be groundwater from an aquifer but rather pore water from the tight clay till. Since there are no standards or criteria for pore water, NYSDEC Class GA groundwater standards were used for discussion purposes only. VOCs were not detected in the other three pore water samples.

Soil gas samples collected near the east and west boundaries of AOI3 contained PCE at concentrations less than 10 µg/m³. The State of New York does not have standards, criteria or guidance values for concentrations of VOCs in subsurface soil vapors. For reference

however, the concentrations detected were well below the NYSDOH indoor/outdoor air guidance values (AGV).

Hydrogeologic conditions encountered during the PDFC include:

- Subsurface soils to depths up to 24 feet consist of glacial till composed of clay with varying size and amounts of gravel and sand.
- The fine-grained compact nature of the subsurface soil inhibits flow of subsurface water and acts as a confining layer above the water bearing zone encountered during the Phase II investigation at significant depth (between 45 and 55 feet).
- The Moist soils observed in the zero to 24 feet depth at the Site yielded no to little pore water.
- Water samples collected were of very high turbidity and are not representative of actual groundwater but are more so pore water or residual water maintained by capillary tension exerted by the soil pores.

Based on the results of the Phase II and PDFC, only four small areas of significant PCE impacted subsurface soil were identified at the Site, which areas correspond to the immediate vicinity of the four (of 83) soil samples that exceeded CSCOs for PCE: SP-23, SP-47, SP-56, and SP-62. The extent of impact at each of these areas is limited. Soil samples collected from probes surrounding these four data points contained PCE at concentrations below the CSCO.

1.3 PROJECT DESCRIPTION

Removal of USTs:

The IRM activities will involve the removal of two underground storage tanks (USTs) and associated impacted soils located within AOI 1 and AOI 2. One UST is present in each AOI, and both USTs will be removed during the IRM work. Limited soil impacts were observed in both AOIs, and such impacted soils will be excavated and disposed of according to the work plan outlined in the IRM. See Figures 3 and 4 for the approximate locations of AOI 1 and 2 with their respected USTs to be removed and soil excavations. Removal operations are contingent on results of a structural evaluation of the adjoining buildings. If it is determined that removal of the UST(s) could pose a structural risk to the adjacent building, then the subject UST(s) will be closed-in-place and adjacent impacted soils, if present, would be removed if possible without posing similar structural risk to the building.

Removal of PCE Soils:

PCE impacted soils will be removed from AOI 3 at and around the four soil boring locations where PCE concentrations greater than CSCOs were detected. Refer to Figure 5 for the location of AOI 3 and the approximate locations of the soil excavations. Soils will be excavated and disposed of according to this IRM work plan.

Sub-slab depressurization systems (SSDSs) will be installed at the two southernmost tenant spaces of AOI 3 and at the building located directly west of AOI3.. See Figure 6.

1.4 PROJECT MANAGEMENT AND ORGANIZATION

1.4.1 Personnel

The general responsibilities of key project personnel are listed below.

NYSDEC Project Manager – Timothy Dieffenbach will have the responsibility for regulatory oversight for the work associated with BCP Site No. C915292.

Northtown Associates Project Manager – Andrew Manning will have the responsibility for implementing the BCP project and has the authority to commit funding necessary to meet the objectives and requirements.

GZA Project Manager – Jim Richert will be responsible for managing the implementation of the activities associated with the BCP investigation, remediation and coordinating the collection of data during the project. The Project Manager is responsible for technical quality control and project oversight.

Quality Assurance (QA) Officer – Todd Bown will report to the GZA Project Manager and will be responsible for ensuring that QA/QC procedures are being followed. The QA Officer will be responsible for overseeing the review of field and laboratory data.

The QA Officer will monitor the performance of the laboratory to verify that the Data Quality Objectives for the project are met.

Field QA Officer – Todd Bown will be responsible for the overall operation of the field team and reports directly to the GZA Project Manager.

1.4.2 Specific Tasks and Services

GZA will obtain subcontractor specialists for services relating to underground storage tank and contaminated soil removal, soil disposal, design and installation of SSDSs, laboratory services, and data validation services. The subcontractors to be utilized will be determined at a later time.

2.0 DESCRIPTION OF IRM FIELD ACTIVITIES

2.1 GENERAL FIELD ACTIVITIES

General field activities include site meetings, mobilization, implementing the health and safety plan, UST removal, soil excavation, sampling of soil and water, installation of SSDSs, equipment decontamination, and handling of wastes. Subcontractors will be used for removal of the USTs, soil excavations, and analytical testing.

2.1.1 Site Meeting

A Site “kick-off” meeting will be held with Northtown, GZA and subcontractors prior to initiating field work activities. The purpose of the meeting will be to orient field team members, Northtown staff and subcontractors with the Site, project personnel, Site background, scope of work, potential dangers, health and safety requirements, site-specific security and safety protocols, emergency contingencies and other field procedures. NYSDEC staff are welcome to attend and will be notified at least seven days in advance of the meeting.

2.1.2 Mobilization

Following approval of the IRM Work Plan by NYSDEC, the Underground Facilities Protection Organization (UFPO) will be contacted at 1-800-962-7962 to clear excavation and drilling locations. Utility clearance will require three working days by UFPO. GZA and its subcontractors will then mobilize necessary materials and equipment to the Site.

2.1.3 Health and Safety

It is anticipated that the work to be completed at the Site will be performed at level D personal protection. Should health and safety monitoring during field activities warrant an upgrade to level C protection, work will stop, Site conditions will be re-evaluated prior to further remedial activities. See Section 6.0 for additional information on Health and Safety.

2.2 AIR SURVEILLANCE AND MONITORING

During all IRM activities, air surveillance screening for total volatile organics and particulate levels will be performed at the perimeter of the work area for health and safety concerns. Organic vapors will be monitored with a portable organic vapor meter (OVM) equipped with a photoionization detector (PID) using an 11.7 electron volt (eV) bulb. The particulates will be monitored using equipment that is capable of measuring particle size in the 10-micrometer range (PM-10) and can integrate measurements over a 15-minute time frame. The equipment will also have an audible and/or visual alarm indicating an exceedance of the action level.

Additional details on the total organic and particulate monitoring are presented in the Site-specific Health and Safety Plan (see Section 6.0).

2.3 UST AND SOIL EXCAVATIONS

AOI 1 – Fuel Oil UST and Petroleum Impacted Soil Area

One 500-gallon UST is located on the southern portion of the Site, which formerly contained fuel oil for heating purposes. It was confirmed that this UST is no longer in use, and its approximate location was determined through the use of a geophysical survey.

Fuel oil impacted soil was identified from soil probes completed during the Phase II ESA adjacent to the UST. The impacted area identified is estimated to be approximately 12 feet by 46

feet (552 square feet), with a confining depth up to 6 feet bgs, based on soil probes. The estimated volume is approximately 130 cubic yards or about 220 tons of potentially impacted soil (see Figure 3).

AOI 2 – Fuel Oil UST and Petroleum Impacted Soil Area

One 500-gallon UST is located on the western portion of the Site, which formerly contained fuel oil for heating purposes. It was confirmed that this UST is no longer in use, and its approximate location was determined through the use of a geophysical survey.

Fuel oil impacted soil was identified from soil probes completed during the Phase II ESA adjacent to the UST. The impacted area identified is estimated to be approximately 20 feet by 32 feet (640 square feet), with a confining depth up to 8 feet bgs, based on soil probes. The estimated volume is approximately 190 cubic yards or about 325 tons of potentially impacted soil (see Figure 4).

AOI 3 – PCE Soil Excavation

Two separate soil excavations will be completed on the western side of AOI 3 to remove soils in the vicinity of the four borings where soil samples exceeded commercial SCOs. PCE concentrations and depths were confirmed from soil probes completed during the Phase II ESA and the PDFC.

Soil Excavation No. 1 (SP-23 to SP-62), will remove PCE impacted soils that exceeded the commercial SCOs. These soils will be disposed of as hazardous waste required under the NYSDEC “Contained-In” policy per TAGM 3026. The impacted area identified is estimated to be approximately 30 feet by 8 feet (240 square feet), with impacts confined from 8 to 17 feet, based on soil probes and analytical data. Total depth of the excavation is anticipated to be 18 feet bgs. The estimated volume is approximately 160 cubic yards, or about 275 tons of hazardous soil (see Figure 5).

Soil Excavation No. 2 (SP-56 to SP-47), will remove PCE impacted soils that exceeded the industrial SCOs. These soils will be disposed of as hazardous waste required under the NYSDEC “Contained-In” policy per TAGM 3026. The impacted area identified is estimated to be approximately 30 feet by 8 feet (240 square feet), with impacts confined from 6 to 17 feet, based on soil probes and analytical data. Total depth of the excavation is anticipated to be 18 feet bgs. The estimated volume is approximately 160 cubic yards, or about 275 tons of hazardous soil (see Figure 5).

- Prior to the start of the PCE soil excavation, a decontamination pad will be built to allow equipment used during the remedial activities to be decontaminated. The pad will be constructed on a stable onsite surface using a minimum of 8-mil plastic sheeting and allow water generated during the decontamination processes to be contained and transferred to 55-gallon drums for characterization and proper disposal. Upon

completion of the excavation work, the decontamination pad will be disposed of at a permitted disposal facility.

- Soils removed will be screened with a handheld organic vapor meter, and measurements will be recorded and mapped as the excavation progress.
- Excavated soils will be live-loaded directly into a dump truck or a disposal container. Prior to being loaded, the dump truck or container will be lined with 8 mil polyethylene sheeting. Hazardous Waste manifests will be signed and provided to the driver in accordance with 6 NYCRR Part 372. Dump trucks and disposal containers will then be transported to the approved receiving disposal and treatment facilities by a permitted hauler in accordance 6 NYCRR Part 364.
- If perched groundwater is encountered at depths while excavating soils, then, as necessary, the groundwater will be pumped out of the excavation into appropriate containers (i.e. DOT approved 55 gallon drums). The water will then be characterized and arrangements will be made for disposal. Containers will be staged on pallets within a temporary secondary containment, in accordance with applicable NYSDEC waste regulations.
- In accordance with NYSDEC DER 10 confirmatory soil samples will be collected for cleanup level requirements. One sample will be collected from each excavation sidewall, and one sample from the excavation bottom. Sidewall samples will be biased toward areas and depths of highest concentrations identified during previous sampling events unless field indicators such as field instrument measurements or observations during the remedial excavation indicate that other locations and depths may be more heavily impacted.
- If post-excavation soil samples indicate that impacted soil at levels above CSCOs remains, additional soil will be excavated for off-Site disposal until confirmatory samples indicate CSCOs have been achieved.
- Confirmatory samples will be analyzed for Target Compound List (TCL) Chlorinated VOCs via EPA Method 8260. Detection limits of the sample analysis will be below the Part 375 Commercial SCOs.
- The excavation areas will be barricaded to keep the public and unauthorized personnel away from the excavation while awaiting analytical results and prior to backfilling.

AOI 3 – Sub-Slab Depressurization Systems

A sub-slab depressurization system (SSDS) will be installed in each of two commercial tenant spaces (Unit 12 and Unit 13) within AOI3, as shown on Figure 6. The southernmost tenant space currently occupied by a dry cleaning pick-up and delivery service and the adjacent to the north, currently vacant, space will each have an independent SSDS installed to mitigate potential

intrusion of sub-slab vapors into the building interior spaces. An SSDS also will be installed in the building located directly west of AOI3. A qualified subcontractor, experienced with the design and installation of SSDSs will be hired to perform the work in accordance with the NYSDOH document “Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006”.

All individuals not directly involved with the planned work will be absent from the room in which the work will occur. Additionally, the location of all HVAC and other vents in the room and their discharge points, and potential pathways (doors, openings, conduits, etc.) relative to adjoining rooms, will be identified prior to commencement of work and the monitoring locations will be established accordingly. Exhaust fans or other engineering controls will be used to create negative air pressure within the work area during remedial activities. If possible, the planned work will be implemented during hours when building occupancy is at a minimum.

At each of the three tenant spaces, SSDSs will be designed to create and maintain a minimum negative pressure differential of 0.004 inches of water column (wci) below the concrete slab foundations which function as boundaries between sub-slab space and the occupied interior space. Once the SSDSs have been installed, testing will be performed to verify the lateral extent of the negative pressure field. The SSDS work effort will include the following tasks:

- sub-slab communication testing;
- design of the SSDS systems;
- installation of the two multi-suction point SSDS systems;
- post-installation pressure field extension testing; and
- preparation of a Construction Completion Report (CCR) with Operations, Maintenance, and Monitoring Plan (OM&M Plan)

Appendix A provides a copy of the contractor proposal which includes a more detailed description of the scope of work for design and construction of the three SSDSs.

General UST and Soil Removal Procedures

The following are the general UST removal procedures that will be followed for the two USTs and associated impacted soil areas (AOI1 and AOI2). Closure of the fuel oil USTs will be done in accordance with 6 NYCRR Part 613.9 – Closure of Out-of-Service Tanks, and will follow NYSDEC guidance document, *Permanent Closure of Petroleum Tanks (1987/1998/2003)*.

- Prior to the start of the subsurface soil work, a decontamination pad will be built to allow equipment used during the excavation and UST removal activities to be decontaminated. The pad will be constructed on a stable onsite surface using a minimum of 8-mil plastic sheeting and allow water generated during the decontamination processes to be contained and transferred to 55-gallon drums for characterization and proper disposal. Upon completion of the excavation work, the decontamination pad will be disposed of with the impacted soils stockpiled for off-site disposal at a permitted disposal facility.

- Overburden soil excavated to facilitate the removal of the UST will be field screened to determine if the soil is potentially impacted. Non-impacted soil (those registering 5 ppm or less on an OVM during field screening) will be excavated and stockpiled onsite on 6-mil plastic and covered with 6-mil plastic for reuse onsite.
- Tank contents (i.e., liquids and tank sludge) will be removed from tank and connection lines, containerized and characterized for proper off-site disposal. The tank contents will be properly disposed of by the contractor and disposal documentation will be provided.
- The tanks will be made safe by purging any petroleum vapors via one of three approved methods: dry ice, carbon dioxide, or nitrogen gas.
- Connecting lines going from the tanks into the building will be capped closed as close to the building as practical without affecting the building foundation during the tank removal/closure..
- Any residual product within the connection piping will be flushed back into the USTs, removed and containerized with its respective tank contents.
- If based on the results of a structural evaluation, it is determined that removal of the UST would not pose a structural risk to the building, the Contractor will remove the USTs.
- Water from the UST cleaning process will be contained in NYSDOT-approved 55-gallon drums or extracted using a vacuum truck, pending the volume needed to clean the USTs. Water will be properly disposed of by the contractor and disposal documentation will be provided.
- The USTs will be cut into manageable pieces and/or crushed and removed from the Site to be either recycled or disposed of at an approved disposal facility. The contractor will supply disposal or recycling records.
- Once the USTs have been removed from the excavation an assessment will be made of the excavation side walls and bottom of the UST areas. The excavation side walls and bottom will be field screened with an OVM to assess for additional petroleum impacts.
- If the USTs are closed in place, the tank tops will be cut opened, the tank interior cleaned and the tanks will be filled with an inert material.
- Soils determined to be impacted, within the UST areas, based on visual observations and field screening (registering 5 ppm or greater), will be excavated and stockpiled onsite on 8-mil plastic and covered with 8-mil plastic. The excavation work will include removal of grossly impacted soils and water (if any) which contains LNAPL. Contingent on the results of the pre-excavation structural evaluation, some volume of impacted soil may need to remain in place to protect the structural integrity of the adjacent buildings.

- The excavated soils stockpiled for off-site disposal will be analyzed for landfill characterization, as required by the selected landfill. After approval for disposal from the landfill facility, the soil will be loaded into dump trucks or dump trailers, covered, and transported by a licensed hauler to a permitted solid waste landfill for proper disposal. Disposal documentation will be provided.
- Post-excavation soil samples will be collected from the side walls and bottom of each excavation in accordance with NYSDEC DER-10 guidelines to confirm that the remaining soil meets the Part 375 Commercial SCOs. One sidewall sample will be collected from each excavation sidewall that is less than 30 linear feet. If an excavation sidewall exceeds 30 linear feet, then one sample will be collected for every 30 linear feet. A minimum of one bottom sample will be collected from each UST excavation area. One sample will be collected for every 500 square feet of bottom excavation area.
- Confirmatory samples will be analyzed for Target Compound List (TCL) VOCs via EPA Method 8260 and SVOCs via EPA Method 8270 STARS¹. Detection limits of the sample analysis will be below the Part 375 Commercial SCOs.
- The excavation areas will be barricaded to keep the public and unauthorized personnel away from the excavation while awaiting analytical results and prior to backfilling. If post-excavation soil samples indicate that impacted soil at levels above CSCOs remains, it is anticipated that additional soil will be excavated for off-Site disposal.
- Although not expected to be encountered, if groundwater is encountered within an excavation, a sample will be collected for TCL VOC analysis to characterize for disposal.
- Photographic documentation of the IRM activities will be performed and included in the IRM Report (see Section 4.0).
- Upon soil excavation completion, equipment will be decontaminated prior to being removed from the Site at the decontamination pad location.
- Suitable backfill material shall be placed and compacted in lifts within the excavation areas. Backfill brought to the Signore BCP Site will meet the requirements outlined in Part 375-6.7(d) and DER-102 Section 5.4(e).
- After backfilling is completed, asphalt pavement will be replaced

1 Spill Technology and Remediation Series (STARS) Memo #1, Petroleum-Contaminated Soil Guidance Policy, New York State Department of Environmental Conservation, August 1992.

2 NYSDEC, Division of Environmental Remediation (DER), DER-10 / Technical Guidance for Site Investigation and Remediation, issued May 3, 2010.

2.4 ENVIRONMENTAL ANALYTICAL TESTING PROGRAM

The estimated environmental testing program is summarized in Table 1. The actual number of samples will vary based on the size of excavations, observations and engineering judgment. The samples collected as part of this IRM will be subject to analytical testing methodologies that follow NYSDEC Analytical Service Protocol (ASP) Category B deliverables and allow for the development of a data usability summary report (DUSR). Further information regarding sampling and testing methodologies can be found in the QAPP (see Section 5.0).

3.0 DATA DOCUMENTATION

Field notes will be kept during the IRM work, in addition to daily field summaries that will be generated summarizing the field work and become part of the project file. The daily field summaries will include the following daily information for the IRM activities:

- Date;
- Meteorological conditions (temperature, wind, precipitation);
- Site conditions (e.g., dry, damp, dusty, etc.);
- Identification of crew members (GZA and subcontractor present) and other personnel (e.g., agency or site owner) present;
- Description of field activities;
- Location(s) where work is performed;
- Samples collected;
- Problems encountered and corrective actions taken;
- Records of field measurements or descriptions recorded; and
- Notice of modifications to the scope of work.

Photographic documentation of the IRM activities will be performed. Pertinent photographs will be included in the IRM Report.

4.0 IRM ACTIVITIES REPORT

An IRM Activities Report will be prepared summarizing the IRN work conducted. The report will include the following.

- a summary of the activities completed as part of the IRM Work;
- analytical data from the confirmatory samples collected. Tables containing the analytical results will identify laboratory qualifiers assigned to the data and will identify the detection limits for non-detected compounds (e.g., < 0.5);

- figures showing the size and location of IRM activities along with confirmatory sample locations;
- pertinent photographic documentation of the activities completed;
- waste disposal documentation of the various material generated for disposal; and
- findings, conclusions and recommendations resulting from the IRM work. The report will be submitted to NYSDEC for review.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

The Quality Assurance Project Plan (QAPP) to be used for the Northtown Plaza IRM activities is the “Quality Assurance Project Plan, Northtown Plaza, Amherst, New York, Brownfield Cleanup Program, Site No. C915292” dated May 2015. The QAPP presents the sampling procedures, analytical methods and QA/QC procedures associated with the activities planned for BCP Site. Protocols for sample collection, sample handling and storage, Chain of Custody procedures, and laboratory and field analyses are described or specifically referenced to related investigation documents. The QAPP is provided as Appendix B

6.0 HEALTH AND SAFETY PROTOCOLS

The health and safety protocols to be used for the Northtown Plaza IRM activities are in the “Health and Safety Plan, Northtown Plaza, Amherst, New York, Brownfield Cleanup Program, Site No. C915292” dated April 2014. The Health and Safety Plan (HASP) presents the specific health and safety protocols associated with the activities planned for BCP Site, including Community Air Monitoring Plan (CAMP). The HASP is provided as Appendix C.

7.0 CITIZEN PARTICIPATION

The Citizen Participation (CP) component for the Northtown BCP Site discussed in the “Brownfield Cleanup Program, Citizen Participation Plans, Northtown Plaza, 3045 Sheridan Drive, Amherst, Erie County, New York, Site Number: C915292” dated April 2015. The CP Plan outlines how members of the affected and interested public are provided with information about how NYSDEC will inform and involve them during the investigation and remediation of the Site. Information such as project contacts, document repositories, site contact lists, and CP activities are provided in the CP Plan. The CP Plan for the project is provided as Appendix D.

8.0 SCHEDULE

The following schedule is proposed for the IRM field activities and IRM Report preparation.

Activity:	Duration:	Anticipated Date:
Submit Final IRM Work Plan		May 28, 2015
NYDEC Accepts IRM Work Plan:	5 days	June 4, 2015
Perform IRM Activities:	61 days	June and July 2015
Submittal of IRM Report	45 days	September, 2015

TABLES

Table 1
Estimated IRM Analytical Testing Program Summary
Northtown Inc. BCP Site
BCP Site No. C905034
Amherst, New York

Location	VOCs TCL	SVOCs STARS	Water Sample for Characterization *	WASTE CHARACTERIZATION **
AOI-1	SOIL	SOIL	WATER	SOIL
Confirmatory	5	5	1	1
Duplicate	1	1	0	0
MS/MSD	2	2	0	0
Rinsate	1	1	0	0
Trip Blank	1	0	1	1
Total	10	9	2	2
AOI-2				
Confirmatory	5	5	1	1
Duplicate	1	1	0	0
MS/MSD	2	2	0	0
Rinsate	1	1	0	0
Trip Blank	1	0	1	1
Total	10	9	2	2
AOI-3				
Confirmatory	10	0	2	2
Duplicate	2	2	0	0
MS/MSD	2	2	0	0
Rinsate	1	1	0	0
Trip Blank	1	0	1	1
Total	16	5	3	3
	36	23	7	7

Notes:

MS/MSD - Matrix Spike/Matrix Spike Duplicate.

TCL VOCs - Target Compound List Volatile Organic Compounds.

TCL SVOCs - Target Compound List Semi-volatile Organic Compounds.

TAL Metals - Target Analyte List Metals.

TCL PCBs - Target Compound List Polychlorinated Biphenyls.

** = Water Characterization will include VOC, SVOC, & METALS

** = Waste Characterization parameters will be based on the disposal facility criteria.

TABLE 2B
Analytical Summary - Pre-Design Subsurface Soils
Northtown Inc. Site No. C915292
Amherst, New York

Parameter	Part 375 - Unrestricted Use SCOs	Part 375 - Commercial Use SCOs	Part 375 - Industrial Use SCOs	SP-52 8-9 03/10/2015	SP-53 7 -8 03/10/2015	SP-54 8-9 03/10/2015	SP-54 15-16 03/10/2015	SP-55 10-11 03/11/2015	SP-56 14-15 03/11/2015	SP-57 12-13 03/11/2015	SP-58 11-12 03/11/2015	SP-59 13-14 03/11/2015	SP-59 20-21 03/11/2015	SP-60 5-6 03/12/2015	SP-61 7-8 03/12/2015	SP-61 19-20 03/12/2015	SP-62 16-17 03/12/2015	FD-01 16-17 03/12/2015	SP-63 8-9 03/12/2015
Volatile Organic Compounds - EPA Method 8260 TCL (ug/Kg)																			
Tetrachloroethene	1,300	150,000	300,000	29	56	4,010	56,600	1,830	458,000	9,570	24,400	105,000	82,600	26	837	97,900	275,000	168,000	861
Trichloroethene	470	200,000	400,000	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	113,000
cis-1,2-Dichloroethene	250	500,000	1,000,000	2,710 J	<	<	<	<	<	<	<	<	<	29,600	<	<	<	<	32,400 J

- Notes:
- Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
 - Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
 - ug/kg = part per billion.
 - NV = no value. NT = not tested.
 - Gray shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
 - Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
 - Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
 - < indicates compound not detected above method detection limits.
 - Field Duplicate 01 (FD 01) is associated with sample SP-62 (16-17 ft.).
 - Field Duplicate 02 (FD 02) is associated with sample SP-72 (9-10 ft.).
 - TCL = Target Compound List.

TABLE 2B
Analytical Summary - Pre-Design Subsurface Soils
Northtown Inc. Site No. C915292
Amherst, New York

Parameter	Part 375 - Unrestricted Use SCOs	Part 375 - Commercial Use SCOs	Part 375 - Industrial Use SCOs	SP-64 8-9 03/12/2015	SP-64 21-22 03/12/2015	SP-65 16-17 03/12/2015	SP-66 12-13 03/12/2015	SP-67 15-16 03/12/2015	SP-68 7-8 03/13/2015	SP-68 16-17 03/13/2015	SP-69 12-13 03/13/2015	SP-70 6-7 03/13/2015	SP-71 3-4 03/13/2015	SP-72 9-10 03/13/2015	FD-02 9-10 03/13/2015	SP-73 6-7 03/13/2015	MW-8 14 04/22/2015	MW-9 11 04/22/2015
Volatile Organic Compounds - EPA Method 8260 TCL (ug/Kg)																		
Tetrachloroethene	1,300	150,000	300,000	21,400	109,000	36,600	58,500	70,800	12	30	3 J	55	21	122	378	13	<	<
Trichloroethene	470	200,000	400,000	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
cis-1,2-Dichloroethene	250	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<

- Notes:
- Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
 - Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
 - ug/kg = part per billion.
 - NV = no value. NT = not tested.
 - Gray shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
 - Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
 - Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
 - < indicates compound not detected above method detection limits.
 - Field Duplicate 01 (FD 01) is associated with sample SP-62 (16-17 ft.).
 - Field Duplicate 02 (FD 02) is associated with sample SP-72 (9-10 ft.).
 - TCL = Target Compound List.

TABLE 3
Analytical Summary
Phase II Soil Vapor Intrusion Samples
Northtown Inc.
Amherst, New York

Parameter	GI-Ro Dry Cleaner		Outdoor Air	Vacant - Former Manhattan Bagel		Outdoor Air
	Sub-slab	Indoor air		Sub-slab	Indoor air	
1,1,1-Trichloroethane	<0.83	<0.83	<0.83	<0.83	<0.83	27
1,1-Dichloroethene	<0.60	<0.60	<0.60	<0.60	<0.60	3
1,2,4-Trimethylbenzene	6.2	<1.1	<0.75	33	<1.1	0.5
1,3,5-Trimethylbenzene	1.7	<0.75	<0.75	13	0.85	<0.75
1,4-Dioxane	<1.1	<1.1	<1.1	<1.1	<1.1	42
4-ethyltoluene	2.1	<0.75	<0.75	8.2	<0.75	<0.75
Acetone	250	4.3	11	71	26	24
Benzene	9.4	0.68	0.62	59	0.52	0.68
Carbon disulfide	1.8	<0.47	<0.47	410	0.54	<0.47
Carbon tetrachloride	<0.96	<0.26	0.51	0.45	0.45	0.51
Chloromethane	<0.31	0.57	0.84	<0.31	0.94	0.84
cis-1,2-Dichloroethene	0.44 J	<0.60	<0.60	<0.60	<0.60	<0.60
Cyclohexane	57	<0.52	<0.52	130	<0.52	<0.52
Ethylbenzene	5.1	<0.66	<0.66	27	<0.66	<0.66
Freon 11	4.1	0.69 J	1.5	14	37	1.4
Freon 12	2.4	1.2	2.9	3.8	6.7	2.4
Heptane	42	0.58 J	<0.62	160	0.92	0.79
Hexane	44	0.54	0.47 J	170	0.97	0.61
Isopropyl alcohol	<0.37	3.2	5.6	12	9.7	1.5
m&p-Xylene	18	0.84 J	0.93 J	88	1.3	0.79
Methyl Ethyl Ketone	26	1.1	0.96	<1.2	2	1.6
Methyl Isobutyl Ketone	<1.2	<1.2	<1.2	19	<1.2	<1.2
Methylene chloride	0.71	<0.53	0.49 J	0.99	1.6	1.6
o-Xylene	5.9	<0.66	<0.66	36	0.57	<0.66
Styrene	5.4	<0.65	<0.65	<0.65	<0.65	<0.65
Tetrachloroethylene	230	60	1.3	6,400	70	0.9
Toluene	19	1.7	1.5	170	2	2
Trichloroethene	2.5	2.4	<0.22	32	0.22	<0.22
Vinyl chloride	<0.39	<0.10	<0.10	<0.39	<0.10	<0.10

Notes:

- Compounds detected in one or more samples are presented in this table, with exception of 7 compounds highlighted in orange. Refer to Appendix D for list of all compounds included in analysis.
Compounds highlighted in orange are subject to the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in New York State, dated October 2006, soil vapor intrusion decision matrices.
- Air sample analytical testing completed by Centek Laboratory in Syracuse, New York.
- ug/m³ = microgram per cubic meter.
- Samples collected were for an approximate 8-hour sample duration.
- J = estimated concentration detected less than the reporting limit.
- < = compound was not detected above reporting limit provided.
- Bold and gray shading indicates compound action required by NYSDOH soil vapor intrusion guidance matrices or indoor air guidance values.

TABLE 2A
Analytical Summary - Phase II Subsurface Soils
Northtown Inc.
Amherst, New York

Parameter	Part 375 - Unrestricted Use SCOs	Part 375 - Commercial Use SCOs	Part 375 - Industrial Use SCOs	SP-5 8 to 10 feet bgs	SP-11 7 feet bgs	SP-11 10 to 12 feet bgs	SP-12 8 to 10 feet bgs	SP-16 10 to 12 feet bgs	SP-16 12 to 14 feet bgs	SP-23 12 to 14 feet bgs	SP-23 18 to 19 feet bgs	SP-24 8 to 10 feet bgs	SP-37 1 feet bgs	SP-37 11.9 feet bgs	SP-46 0 to 2 feet bgs
Volatile Organic Compounds - EPA Method 8260 TCL (ug/Kg)															
2-Butanone	120	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
1,2-Dichlorobenzene	1,100	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
Acetone	50	500,000	1,000,000	<	<	<	<	<	<	<	<	44.6	<	<	<
Benzene	60	44,000	89,000	<	<	<	<	<	<	<	<	<	<	<	<
Toluene	700	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
Ethylbenzene	1,000	390,000	780,000	<	<	<	<	<	<	<	<	<	<	<	<
m&p-Xylene	260 ^{Note 8}	500,000 ^{Note 8}	1,000,000 ^{Note 8}	<	<	<	<	<	<	<	<	<	<	<	<
o-Xylene	260 ^{Note 8}	500,000 ^{Note 8}	1,000,000 ^{Note 8}	<	<	<	<	<	<	<	<	<	<	<	<
Isopropylbenzene	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Methylcyclohexane	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethene	1,300	150,000	300,000	<	<	33,000	23.5	4,400	1,510	214,000	8,720	155	5,280	137,000	13,000
Trichloroethene	470	200,000	400,000	<	<	<	74.1	<	<	<	128	20.4	870	<	480
cis-1,2-Dichloroethene	250	500,000	1,000,000	<	<	<	135	<	<	<	<	223	343	<	110 J
Carbon disulfide	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Cyclohexane	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Total VOCs				<	<	33,000	232.6	4,400	1,510	214,000	8,848	443	6,493	137,000	<
Semi-Volatile Organic Compounds - EPA Method 8270 STARS (ug/Kg)															
Naphthalene	12,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	30,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	100,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	100,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	100,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] anthracene	1,000	5,600	5,600	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	1,000	56,000	56,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [b] fluoranthene	1,000	5,600	5,600	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] pyrene	1,000	1,000	1,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Total SVOCs				<	<	<	<	NT	NT	NT	NT	NT	NT	NT	
Polychlorinated Biphenyls - EPA Method 8082 (ug/Kg)															
Total PCBs				<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT

Notes:

- Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
- Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
- ug/kg = part per billion.
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- SCO provided is for Xylene (mixed).
- Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
- < indicates compound not detected above method detection limits.
- TCL = Target Compound List. STARS = NYSDEC Spill Technology and Remediation Series (STARS) Memo #1, Petroleum-Contaminated Soil Guidance Policy, New York State Department of Environmental Conservation, August 199

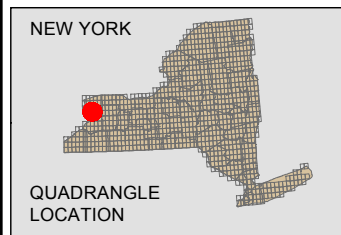
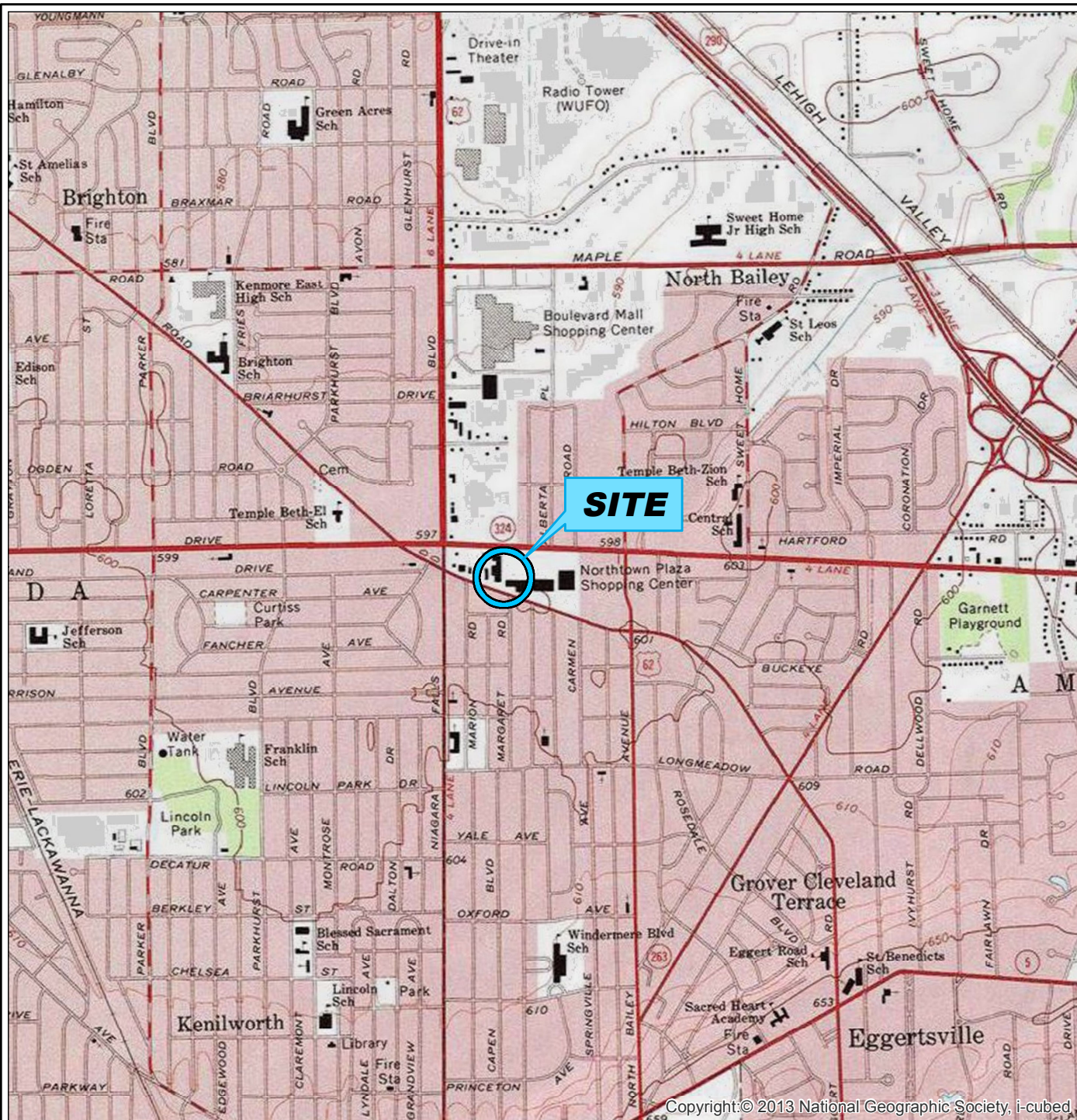
TABLE 2A
Analytical Summary - Phase II Subsurface Soils
Northtown Inc.
Amherst, New York

Parameter	Part 375 - Unrestricted Use SCOs	Part 375 - Commercial Use SCOs	Part 375 - Industrial Use SCOs	SP-46 2 to 4 feet bgs	SP-47 6 to 8 feet bgs	SP-47 12 to 14 feet bgs	SP-47 18 to 20 feet bgs	SP-48 10 to 12 feet bgs	SP-48 18 to 20 feet bgs	SP-49 12 to 14 feet bgs	SP-49 18 to 20 feet bgs	SP-50 8 to 10 feet bgs	SP-51 10 to 12 feet bgs	MW-1 20 to 22 feet bgs	MW-1 26 to 28 feet bgs
Volatile Organic Compounds - EPA Method 8260 TCL (ug/Kg)															
2-Butanone	120	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
1,2-Dichlorobenzene	1,100	500,000	1,000,000	<	40 J	<	<	<	<	<	<	<	<	<	<
Acetone	50	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
Benzene	60	44,000	89,000	<	<	<	<	<	<	<	<	<	<	<	<
Toluene	700	500,000	1,000,000	<	50 J	<	<	<	<	<	<	<	<	<	<
Ethylbenzene	1,000	390,000	780,000	<	<	<	<	<	<	<	<	<	<	<	<
m&p-Xylene	260 ^{Note 8}	500,000 ^{Note 8}	1,000,000 ^{Note 8}	<	<	<	<	<	<	<	<	<	<	<	<
o-Xylene	260 ^{Note 8}	500,000 ^{Note 8}	1,000,000 ^{Note 8}	<	<	<	<	<	<	<	<	<	<	<	<
Isopropylbenzene	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Methylcyclohexane	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethene	1,300	150,000	300,000	34 J	1,100,000 D	52,000 D	15,000	15,000	48,000 D	7,800	52,000 D	940	4,200	56 J	<
Trichloroethene	470	200,000	400,000	<	3,700	130 J	110 J	44 J	120 J	300	140 J	45 J	<	<	<
cis-1,2-Dichloroethene	250	500,000	1,000,000	<	130 J	350	<	160 J	57 J	530	<	<	<	<	<
Carbon disulfide	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Cyclohexane	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Total VOCs				<	<	<	<	<	<	<	<	<	<	<	<
Semi-Volatile Organic Compounds - EPA Method 8270 STARS (ug/Kg)															
Naphthalene	12,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	30,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	100,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	100,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	100,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] anthracene	1,000	5,600	5,600	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	1,000	56,000	56,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [b] fluoranthene	1,000	5,600	5,600	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] pyrene	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total SVOCs															
Polychlorinated Biphenyls - EPA Method 8082 (ug/Kg)															
Total PCBs				NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

- Notes:
- Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
 - Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
 - ug/kg = part per billion.
 - NV = no value. NT = not tested.
 - Gray shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
 - Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
 - SCO provided is for Xylene (mixed).
 - Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
 - < indicates compound not detected above method detection limits.
 - TCL = Target Compound List. STARS = NYSDEC Spill Technology and Remediation Series (STARS) Memo #1, Petroleum-Contaminated Soil Guidance Policy, New York State Department of Environmental Conservation, August 1992.

FIGURES

© 2015 - GZA GeoEnvironmental, Inc. T:\Clients\NorthernBC\PMXD\April2015 Deliverable\Figure1 LocusMap.mxd, 4/14/2015, 1:33:26 PM, patrick.finnerty



SOURCE : THIS MAP CONTAINS THE ESRI ARCGIS ONLINE USA TOPOGRAPHIC MAP SERVICE, PUBLISHED DECEMBER 12, 2009 BY ESRI ARCGIS SERVICES AND UPDATED AS NEEDED. THIS SERVICE USES UNIFORM NATIONALLY RECOGNIZED DATUM AND CARTOGRAPHY STANDARDS AND A VARIETY OF AVAILABLE SOURCES FROM SEVERAL DATA PROVIDERS

Data Supplied by :



0 1,000 2,000 4,000
SCALE IN FEET



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Engineers and Scientists
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PREPARED FOR:
NORTHTOWN ASSOCIATES, LLC

SITE LOCUS MAP

PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: BK
DESIGNED BY: TGB	DRAWN BY: PCF	SCALE: 1" = 2,000'
DATE: April 2015	PROJECT NO. 31.0056687.30	REVISION NO.

FIGURE
1