



Department of
Environmental
Conservation

FINAL STATEMENT OF BASIS CORRECTIVE MEASURES SELECTION

Kendall Polken Nashua Tape
Site No. 401062
EPA ID No. NYD066829599
Watervliet, Albany County

May 2017

PREPARED BY
DIVISION OF ENVIRONMENTAL REMEDIATION

FINAL STATEMENT OF BASIS

DECLARATION STATEMENT – STATEMENT OF BASIS FINAL CORRECTIVE MEASURES SELECTION

Kendall Polken Nashua Tape
2600 Seventh Ave, Watervliet, New
York
Albany County
USEPA No. NYD066829599 / Site No. 401062

May 2017

Statement of Purpose and Basis

This document presents the final corrective measures for the Kendall Polken Nashua Tape site located in Watervliet, NY. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 373.

The proposed Statement of Basis (SB) was made available for public comment between March 20, 2017 and May 3, 2017. Comments were received on the corrective measures proposed in the Statement of Basis (SB). A Responsiveness Summary that includes responses to those comments was prepared and is included in Appendix A of this final Statement of Basis.

This decision is based on the Administrative Record for the New York State Department of Environmental Conservation (the Department) for the Kendall Polken Nashua Tape site and is included in Exhibit C of this final Statement of Basis.

Description of Final Corrective Measures

The elements of the final corrective measures are the following required actions.

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for

the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- a. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- b. Reducing direct and indirect greenhouse gases and other emissions;
- c. Increasing energy efficiency and minimizing use of non-renewable energy;
- d. Conserving and efficiently managing resources and materials;
- e. Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- f. Maximizing habitat value and creating habitat when possible;
- g. Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- h. Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Cover System -

A site cover will be required for the former tank farm area not occupied by buildings and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable SCOs for commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

3. In-Situ Chemical Oxidation (ISCO)-

ISCO will be implemented to treat toluene contamination in groundwater, as demonstrated by the pilot tests conducted at the site. A mixture of activated sodium persulfate, stabilized hydrogen peroxide and a chelated iron catalyst, or similar combination, will be injected into the subsurface to destroy the VOC contaminants. ISCO treatments will concentrate on both ends of the former solvent line in the vicinity of well MP-37 and the area where wells MP-25, 26, 27 and 28 are located (see Figure 5). Treatment will cover an area of approximately 5,600 square feet. This will be accomplished via injection wells screened across the water table, at about 7 to 11 feet bgs. The detailed method and depth of the injections are included in the pilot test remedial design. ISCO will be done in conjunction with EFR and Enhanced

Bioremediation as deemed necessary by the Department.

- a. Enhanced Fluid Recovery (EFR) - Concurrent removal of groundwater and VOC vapors from existing extraction wells using a high vacuum truck. This method focuses on hot spots and will be done in conjunction with ISCO.
- b. Enhanced Bioremediation - The biological breakdown of contaminants through nutrient supplements will be enhanced by dosing select extraction wells with nitrate and phosphate as needed. This will be done at the area near and underneath the former solvent line in building 61 and at the former Tank Farm Area.

If the Department determines that the treatment methods discussed above are not meeting the CMOs in a timely manner, the remedial party will implement other methods approved by the Department, such as the use of fermentative bacteria or the addition of magnesium sulfate to groundwater.

4. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- a. requires the remedial party to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- b. allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- d. requires compliance with the Department approved Site Management Plan.

5. Site Management Plan

A site-wide Site Management Plan is required, which includes the following:

- a. An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Control: The Environmental Easement discussed in Paragraph 4

above.

Engineering Controls: A Site Cover System discussed in Paragraph 2 which prevents exposure to remaining contamination at the facility.

The plan will include, but may not be limited to:

- i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- ii. a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the former Tank Farm area and building 61 where the former solvent line is located;
- iii. a provision for removal or treatment of the source area located under and outside of Building 61, if and when the building is demolished or becomes vacant;
- iv. a provision for evaluation of the potential for soil vapor intrusion for the building currently occupied by Durham Bus Services, including a provision for implementing actions recommended to address exposures related to soil vapor intrusion;
- v. a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable SCOs;
- vi. descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
- vii. provisions for the management and inspection of the identified engineering controls;

- viii. maintaining site access controls and Department notification; and
 - ix. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- i. monitoring of groundwater to assess the performance and effectiveness of the remedy;
 - ii. a schedule of monitoring and frequency of submittals to the Department;
 - iii. monitoring for vapor intrusion for any occupied existing or future buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The final corrective measures are protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

May 25, 2017

Date



Robert W. Schick, P.E., Director
Division of Environmental Remediation

FINAL STATEMENT OF BASIS
CORRECTIVE MEASURES SELECTION AND RESPONSIVENESS
SUMMARY

Kendall Polken Nashua Tape
2600 Seventh Ave, Watervliet, New
York
Albany County
USEPA No. NYD066829599 / Site No. 401062

May 2017

SECTION 1: INTRODUCTION

The New York State Department of Environmental Conservation (Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal or release of hazardous wastes at this site, as more fully described in this document, has contaminated various environmental media. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Statement of Basis (SB) identifies the selected remedy and discusses the reasons for selecting the remedy.

The New York State Hazardous Waste Management Program (also known as the RCRA Program) requires corrective action for releases of hazardous waste and hazardous constituents to the environment. This facility is subject to this regulatory program. The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York; (6 NYCRR) Parts 373 (RCRA). This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

Watervliet Public Library
1501 Broadway
Watervliet, NY 12189
Phone: 518-274-4471

NYSDEC
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, NY 12233
Call 518-402-9767 for Appointment

Receive Site Citizen Participation Information by Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>. Or you can visit the NYSDEC Central Office in Albany, NY, after setting up an appointment to review the facility files.

SECTION 3: FACILITY BACKGROUND

Site Description, Physical Setting and Site History –

Location: The Kendall Polken Nashua Tape site is 22 acres located near the intersection of NYS Route 32 and Alden Street in Watervliet and about one-half mile west of the Hudson River. It is zoned for industrial and commercial uses. It is surrounded by commercial and industrial properties to the west, residences to the north and south, and a mixture of commercial/residential east of the site. The nearest residences are located about 300 feet north of the site along Alden Street. There is a small wooded area northwest of the site. The site is fenced, including the north end of the property.

Site Features: The site consists of a large warehouse that is internally divided into seven buildings and an office area. The interior of the warehouse is open space with concrete flooring on slab. The office space is enclosed and walled off from the warehouse. In 2014, a portion of the northeast corner of the warehouse building was leased to a school bus service company and constructed into offices and vehicle maintenance areas that are walled off from the warehouse.

Current Zoning and Land Use(s): The site is currently zoned for industrial and commercial uses. The warehouse buildings, which are operated by Stone Management, are used for temporary storage of a variety of items, office space and a bus

service/maintenance and office area leased to Durham Bus Services. The site is surrounded by commercial and industrial properties to the west, residences to the north and south, and a mixture of commercial/residential east of the site. The nearest residences are located about 300 feet north of the site along Alden Street.

Past Use of the Site: Prior to the 1940s, the site was used for iron works by Troy Malleable Iron Works. From the 1940s to 1974, the site was owned and used by Norton Company to manufacture adhesive tapes. Toluene was used as a solvent in the production process and was transported via an underground line between building 61 and a former tank farm located just north of the building. Nashua Corporation acquired the site from the Norton Company and continued to manufacture tapes until the 1990s. In 1993, eight Areas of Concern (AOCs) were identified for further investigation. Toluene impacts were also detected at the off-site railroad right of way extending along a narrow band north of the site. In 1996, the Kendall Company purchased some of Nashua's assets and terminated operations at the site. Around 2001, Kendall sold its portion of the site to Tyco. In 1990, Saint-Gobain Corporation acquired the Norton Corporation and its environmental responsibility, and Saint-Gobain is currently the responsible party for the site. The warehouse is owned by Cloverleaf Distribution LLC and operated by Stone Management.

Site Geology and Hydrology: The site consists of an approximate 9-foot layer of brown clayey silt, sand and gravel fill with cinder, brick and glass fragments. Underneath this layer is alluvium consisting of clayey silts, sands and gravel. Fractured bedrock is encountered at 14 to 16 feet below grade. Average depth to water is 7 to 12 feet. Groundwater flow direction is east towards the Hudson River. (Contamination historically moved to the north due to pumping of groundwater for a sewer installation project unrelated to the site.) A site location map is attached as Figure 1 and a site boundary map as Figure 2.

Operable Units (OUs): The subject of this Statement of Basis is Operable Unit (OU) 01. An OU represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from site contamination. OU 01 addresses all contamination related to the site that exists on-site and off-site. Two Interim Corrective Measures (ICM) were also included in the OU, one designated OU 01A included the on-site storm and sanitary sewers that were addressed through an ICM. OU 01B included the tank farm area, which was also addressed through an ICM.

SECTION 4: ENFORCEMENT STATUS

The Order on Consent (CO 4-20001205-3375, dated June 4, 2002) was executed between the Department and the Norton Company. The terms of the consent decree

stated that only Norton would be responsible for performing all RCRA corrective action related to the site and would assume liability for the investigation and remediation of the site under NYS Environmental Conservation Law (ECL). Saint-Gobain Corporation then assumed the environmental responsibility for the site upon the purchase of the Norton Company. Owners of RCRA facilities must investigate and, when appropriate, remediate release of hazardous wastes and/or constituents to the environment. The Order on Consent also requires the responsible party to identify, assess and investigate any newly discovered solid waste management units (SWMUs) at the facility, as determined by the Department. Additional details are included in the Attachments to the Order on Consent.

SECTION 5: SITE CONTAMINATION

5.1 Summary of the RCRA Facility Investigation Activities

A RCRA Facility Investigation (RFI) has been conducted. The purpose of the RFI was to define the nature and extent of any contamination resulting from previous activities at the facility. The field activities and findings of the investigation are described in the RFI and supplemental RFI Reports, as referenced in Appendix B, Administrative Record.

The following general activities were conducted during the RFI:

- Research of historical information;
- Test pits, soil borings, and monitoring well installations;
- Sampling of waste, surface and subsurface soils, groundwater and soil vapor;
- Sampling of surface water and sediment; and
- Ecological and Human Health Exposure Assessments.

The analytical data collected during the site-wide RFI investigation includes data for:

- Groundwater;
- Soil;
- Indoor air;
- Sub-slab vapor;
- Outdoor air; and
- Sediments.

Soil and groundwater samples were collected and analyzed for:

- Volatile Organic Compounds (VOCs);
- Semi-Volatile Organic Compounds (SVOCs);
- Polychlorinated Biphenyls (PCBs);
- Metals;
- Pesticides; and

- Total Petroleum Hydrocarbons

Air samples were collected and analyzed for:

- VOCs

The following areas were identified for corrective action at the facility (see Figure 3, Site Layout):

- “Tolusol” tank system (solvent line at building 61 that transported toluene and heptane and the former tank farm area);
- “Beartex” sump area (sump that received liquids containing VOCs); and
- Storm and sanitary sewers (elevated VOC and SVOC concentrations).

5.2 Standards, Criteria and Guidance (SCGs)

To determine whether the contaminants identified in various media are present at levels of concern, the data results were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. A complete listing of SCGs can be found at <http://www.dec.ny.gov/regulations/61794.html>.

5.3 Summary of the RCRA Facility Investigations

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste or constituent that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The primary contaminant(s) of concern identified at the facility in soil, groundwater and potentially in soil vapor were:

- Toluene;
- Heptane;
- Polycyclic Aromatic Hydrocarbons (PAHs); and
- Tetrachloroethene (PCE).

The RFI activities conducted on-site and off-site determined that releases to the environment from the “tolusol” tank system (*i.e.*, the solvent line at building 61 and the former tank farm area) had primarily resulted in toluene contamination to soil and groundwater, and heptane contamination to a lesser degree. In on-site soil, toluene and heptane were initially detected at maximum concentrations of 2,400 parts per million (ppm) and 1,100 ppm, respectively. Toluene and heptane were historically detected in groundwater along the railroad right-of-way at the north border of the site, at maximum concentrations of 590,000 parts per billion (ppb) and 300 ppb, respectively. Historically groundwater contamination extended off-site and was detected at off-site sampling

locations along Alden Street and extending to Craig Street. Toluene was detected in groundwater at approximately 200 feet from the site's northern boundary at a maximum concentrations of 10,000 µg/L (MP-17) and was non-detect at approximately 340 feet from the site boundary (MW-19). The on-site soil and groundwater contamination were partially addressed through the Tank Farm Soil ICM and the in-situ chemical oxidation (ISCO) pilot tests discussed below. As a result of these remedial activities, the off-site groundwater contamination improved over time. As of November 2016, toluene concentrations in on-site groundwater ranged from 550 ppb to 67,000 ppb. As of July 2016, toluene concentrations in off-site groundwater ranged from non-detect to 0.80 ppb. The groundwater standard for toluene is 5 ppb.

In addition, there was the potential for soil vapor intrusion on-site and off-site from these contaminants. At the Beartex area, which closed in 1990 and which received liquids containing VOCs, sub-surface soil samples were collected from a floor cut out at 10-11 feet below ground surface (bgs). One sample exceeded the unrestricted use soil cleanup objective (SCO) for toluene at 5.9 ppm and all other VOCs were non-detect. Several PAHs exceeded the unrestricted use SCOs (total of 30.6 ppm) from samples collected at 9-10 feet bgs. None of the soil samples exceeded the applicable SCOs for commercial use.

Groundwater samples were not collected from the Beartex area due to the limited extent of soil impact at that time. (Groundwater in this area was part of the ISCO pilot tests discussed below.) At the storm and sanitary sewers, there was no significant occurrence of VOCs in water or sediments under prevailing conditions. However, various PAHs were identified at elevated concentrations in the sediments (naphthalene at 130 ppm, fluorine at 200 ppm, phenanthrene at 1,600 ppm, anthracene at 690 ppm, fluoranthene at 1,700 ppm, benzo(a)anthracene at 870 ppm and benzo(a)pyrene at 620 ppm). Corrective measures were required to determine if the source was related to facility operations.

An off-site soil vapor investigation (indoor air, sub-slab and outdoor air) was conducted at downgradient residences. Toluene concentrations in sub-slab samples ranged from 8.0 micrograms per cubic meter (µg/m³) to 22 µg/m³ at three residences. Toluene concentrations in indoor air samples ranged from 2.0 µg/m³ to 11 µg/m³. Based on these sampling results, the NYSDOH concluded that no further action was necessary. On-site soil vapor investigations were conducted at the office areas in building 52, located upgradient of the former solvent line. The maximum toluene concentration in the sub-slab samples was 3.7 µg/m³ and 14 µg/m³ in indoor air. More recently, a soil vapor investigation was conducted at a newly constructed office/maintenance area at building 61. Toluene was detected at 42 µg/m³ in the sub-slab and at 331 µg/m³ in indoor air. PCE was also detected in the sub-slab at a maximum concentration of 28 µg/m³ and in indoor

air at 102 µg/m³. However, it could not be determined if these elevated concentrations were from the historical site contamination or from ongoing maintenance operations associated with the warehouse and bus garage. Further monitoring was recommended at this area.

In summary, only the toluol tank system area required further investigation and remediation. Additional information about contaminants in soil, groundwater and soil vapor is presented in Exhibit A.

5.4 Pilot Tests Conducted at the Site

5.4.1 *In-Situ* Chemical Oxidation (ISCO) -

In 2005, toluene impacts in soil and groundwater were detected in the railroad right-of-way extending along a relatively narrow band north of the Former Norton/Nashua Site. In 2009, an ISCO bench test was conducted and based on the results, chemical oxidation treatment volumes of 100 gallons of 12.5% sodium persulfate, 100 gallons of 12.5% hydrogen peroxide, and 50 gallons of a proprietary catalyst were used at 16 shallow wells (depth 6 to 12 feet) and 16 deep wells (depth 12 to 20 feet), and at ISCO injection locations between the former tank farm area and building 61. In 2012, based on the positive results for VOC concentrations in groundwater (in particular toluene), additional ISCO treatments were conducted at the former tank farm area and in the vicinity of the former solvent line in building 61. Groundwater sampling results indicated that dissolved toluene concentrations decreased in the western half of the treatment area and near well MW-27. However, toluene concentrations increased at wells MP-25 and MP-29, which are located along the northern wall of Building 61. See Figure 4, ISCO Target Area.

In 2016, the ISCO pilot test was extended to address high concentrations of toluene remaining in groundwater at both ends of the former solvent line in building 61. Additional injection points were installed and a combination of hydrogen peroxide as the source of the hydroxyl radical, dissolved iron as the catalyst in a rapid (instantaneous) reaction, and sodium persulfate (which provides a longer term reaction), was used on an alternating basis at the target areas. Soil vapor monitoring was conducted at the tenant occupied area of building 61, in conjunction with the ISCO events, as well as post-test groundwater sampling. Toluene in groundwater decreased at one of the target areas and slightly increased at the other target area. Figure 5, Toluene in Groundwater, shows the latest toluene concentrations at the targeted areas.

5.4.2 Enhanced Fluid Recovery (EFR) -

In 2009, based on the results of the ISCO bench test, EFR pilot tests were conducted at the site to further address toluene in groundwater near the solvent line and in the northern

portion of building 58. Vacuum was applied at two to six EFR extraction wells for approximately 1.5 to 4.0 hours at each well. EFR extraction wells were rotated to avoid potentially inducing movement of the toluene plume to less impacted areas of the site. In 2012 and 2016, EFR events were again conducted in conjunction with the ISCO treatments. Analytical data show that toluene concentrations significantly decreased at most EFR wells but concentrations remain high at two wells. See Figure 5 for current locations of EFR wells.

EFR events continue to be conducted at the site every 45 to 60 days, at wells exhibiting the highest toluene concentrations and alternating with the ISCO events. Prior to each EFR event, groundwater samples are collected and analyzed for VOCs.

5.4.3 Enhanced Bioremediation -

In 2011, three sets of groundwater samples from wells with a range of toluene concentrations were analyzed for natural bio-attenuation parameters, to determine the extent of intrinsic biodegradation occurring at the site. Results indicated that sufficient toluene degraders were present to perform complete bioremediation of toluene, but groundwater was nutrient deficient in nitrate, phosphate and other micronutrients. A dilute nitrate-phosphate solution was added to wells following the completion of EFR pilot tests. Nitrate and phosphate levels were rechecked to determine if the EFR events redistributed the nutrient supplement. After each EFR event, field detectable concentrations of nitrogen and phosphate generally remained deficient indicating the nutrients were not physically drawn to the extraction wells or were too diluted for field detection during the extraction events. However, as toluene concentrations decrease in groundwater, bio-supplementation may be more effective and therefore it will be continued at the site.

Prior to each EFR event, nitrate and phosphate levels are field measured at select monitoring wells in the general vicinity of the EFR extraction wells. Wells exhibiting nitrate concentrations less than 1 ppm are dosed with approximately 100-200 grams of potassium nitrate dissolved in several gallons of potable-grade water, to raise the nitrate concentration to the optimal concentration of 2 to 5 milligrams per liter (mg/L). Selected monitoring points exhibiting phosphate concentrations less than 0.5 ppm are dosed with a phosphate solution (diluted 12% phosphate, or similar).

5.5 Interim Corrective Measures (ICMs)

An Interim Corrective Measure (ICM) is an activity that addresses both emergency and non-emergency site conditions that can be undertaken without extensive investigation and evaluation. An ICM is implemented to prevent, mitigate or remedy environmental damage or the consequences of environmental damage attributed to the site.

5.5.1 Tank Farm Soils ICM

In 2010 and 2011, this ICM was conducted to address high concentrations of VOCs, in particular toluene, in soil and groundwater at the former tank farm area north of building 61. Remedial activities included:

- Demolition of the former tank farm concrete containment structures and concrete pad before excavation activities.
- Excavation of contaminated soil and confirmatory soil sampling. A total of 1,413 tons of soil were removed for proper disposal/treatment.
- In-situ chemical oxidation (ISCO) at the excavated area to address remaining VOC impacts to soil and groundwater. (ISCO is described below in “Pilot Tests Conducted”.)
- Sampling of soil after completion of ISCO to confirm compliance with the commercial use soil cleanup objectives.
- Installation of three wells for post-treatment groundwater monitoring.
- Backfilling the excavated area with clean pea gravel and soil, followed by asphalt pavement.
- Proper disposal of all contaminated wastes.

Although the majority of contaminated soil was removed from this area, some contamination remains at inaccessible areas adjacent to the building 61 north wall. Groundwater concentrations for toluene are also elevated although significantly lower than the historical highs. (Current concentrations of toluene in soil and groundwater are discussed in section 5.3 above.)

5.5.2 Storm and Sanitary Sewer Cleanout ICM

The following ICM activities were conducted in 2010 to remove contaminated sediments and water identified in the storm and sanitary sewer lines at the site. The intent was to also determine if the source was from historical site activities or other sources. The following activities were completed:

- Removal and off-site disposal of sediments that were present in on-site lines via a vacuum truck.
- Collection of sediment and water samples that returned to the lines after cleaning, and analysis of samples for semi-volatile organic compounds (SVOCs) and PCBs.

No PCBs were detected. SVOCs (PAHs) were again detected in sediment and water samples, indicating that they came from a recurring source. These PAHs are commonly found in roofing and asphalt material present at the facility. They are also present in the extensive fill material that underlies the buildings at the facility.

5.6 Summary of Environmental Assessment

Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

This SB addresses soil and groundwater contamination at a site previously used for industrial purposes and there are no fish and wildlife receptors present. The Hudson River is approximately 0.5 miles east of the site. Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was not deemed necessary.

See Exhibit A for additional information on the environmental assessment.

5.7 Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

The site is fenced, which restricts public access. Direct contact with contaminants in the soil is unlikely because the majority of the site is covered with buildings and pavement. However, persons who enter the site could contact contaminants in the soil by, digging or otherwise disturbing the on-site soil. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater and/or soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The potential exists for people to inhale site contaminants due to soil vapor intrusion for any future on-site redevelopment and occupancy. Environmental sampling indicates soil vapor intrusion is not a concern for off-site residences.

SECTION 6.0: SUMMARY OF THE CORRECTIVE MEASURES OBJECTIVES (CMOs)

The goal of the corrective measures is to protect public health and the environment and achieve commercial use of the site to the extent feasible.

The following corrective measures objectives have been identified for the protection of human health and the environment:

Groundwater:

For public health protection -

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

For environmental protection -

- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

Soil:

For public health protection -

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

For environmental protection -

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor:

For public health protection -

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7.0: SUMMARY OF CORRECTIVE MEASURES ALTERNATIVES

7.1 Evaluation Criteria

A detailed discussion of the evaluation criteria and comparative analysis is included in the final CMS report and Exhibit B. The proposed alternatives must be protective of human health and the environmental. The general performance standards for corrective measures that must be satisfied in order for an alternative to be considered for selection are listed below.

- Long-Term Reliability and Effectiveness;
- Reduction of Toxicity, Mobility, and/or Volume of Waste;
- Short-Term Effectiveness;
- Implementability;

- Remedy Cost;
- Community Acceptance; and
- Consistency with “Green” Remediation Practice.

7.2 Corrective Measures Alternatives Evaluated For the Site

The following alternatives were evaluated for use at the site.

- No. 1: No action;
- No. 2: Long-term groundwater monitoring only;
- No. 3A: Additional Excavation at Former Tank Farm Area SWMU;
- No. 3B: Excavation beneath Buildings 61 (former solvent line);
- No. 4: Enhanced Bioremediation;
- No. 5: Enhanced Fluid Recovery (EFR) with selective *In-Situ* Chemical Oxidation (ISCO);
- No. 6 - Active remediation systems such as GWE and/or SVE.

SECTION 8.0: SUMMARY OF SELECTED FINAL CORRECTIVE MEASURES

Based on the results of the investigations at the site, the ICMs that have been performed, and the evaluation presented here, the Department is selecting In-Situ Chemical Oxidation (ISCO) in combination with Enhanced Fluid Recovery (EFR) and Enhanced Bioremediation for the remaining contaminated area in and around the Tank Farm Area and the Former Solvent Line under Building 61. If the Department determines that these treatment methods are not meeting the CMOs in a timely manner, other methods approved by the Department (such as the use of fermentative bacteria or the addition of magnesium sulfate to groundwater) will be implemented at the site. Site management will continue in accordance with the State approved Site Management Plan (SMP) that applies site-wide. The Department and the NYSDOH have determined that this remedy is protective of human health and the environment.

The elements of the selected corrective measures to address the remaining contamination in the former tank farm area include continued ISCO, EFR and bioremediation technologies, a site cover, engineering and institutional controls, and a SMP as described below.

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the

extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- a. Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- b. Reducing direct and indirect greenhouse gases and other emissions;
- c. Increasing energy efficiency and minimizing use of non-renewable energy;
- d. Conserving and efficiently managing resources and materials;
- e. Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- f. Maximizing habitat value and creating habitat when possible;
- g. Fostering green and healthy communities and working landscapes which balance ecological, economic and social goals; and
- h. Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Cover System -

A site cover will be required for the former tank farm area not occupied by buildings and will be maintained to allow for commercial use of the site. Any site redevelopment will maintain the existing site cover. The site cover may include paved surface parking areas, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable SCOs for commercial use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

3. In-Situ Chemical Oxidation (ISCO)-

ISCO will be implemented to treat toluene contamination in groundwater, as demonstrated by the pilot tests conducted at the site. A mixture of activated sodium persulfate, stabilized hydrogen peroxide and a chelated iron catalyst, or similar combination, will be injected into the subsurface to destroy the VOC contaminants. ISCO treatments will concentrate on both ends of the former solvent line in the vicinity of well MP-37 and the area where wells MP-25, 26, 27 and 28 are located (see Figure 5). Treatment will cover an area of approximately 5,600 square feet. This will be accomplished via injection wells screened across the water table, at about 7 to 11 feet bgs. The detailed method and depth of the injections are included in the pilot test remedial design. ISCO will be done in conjunction with EFR and Enhanced Bioremediation as deemed necessary by the Department.

- a. **Enhanced Fluid Recovery (EFR)** - Concurrent removal of groundwater and VOC vapors from existing extraction wells using a high vacuum truck. This method

focuses on hot spots and will be done in conjunction with ISCO.

- b. **Enhanced Bioremediation** - The biological breakdown of contaminants through nutrient supplements will be enhanced by dosing select extraction wells with nitrate and phosphate as needed. This will be done at the area near and underneath the former solvent line in building 61 and at the former Tank Farm Area.

If the Department determines that the treatment methods discussed above are not meeting the CMOs in a timely manner, the remedial party will implement other methods approved by the Department, such as the use of fermentative bacteria or the addition of magnesium sulfate to groundwater.

4. Institutional Controls

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- a. requires the remedial party to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- b. allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- d. requires compliance with the Department approved Site Management Plan.

5. Site Management Plan

A site-wide Site Management Plan is required, which includes the following:

- a. An Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Control: The Environmental Easement discussed in Paragraph 4 above.

Engineering Controls: A Site Cover System discussed in Paragraph 2 which prevents exposure to remaining contamination at the facility.

The plan will include, but may not be limited to:

- i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - ii. a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based on the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed for the final remedy for the site, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the former Tank Farm area and building 61 where the former solvent line is located;
 - iii. a provision for removal or treatment of the source area located under and outside of Building 61, if and when the building is demolished or becomes vacant;
 - iv. a provision for evaluation of the potential for soil vapor intrusion for any occupied existing or future buildings on the site , including a provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - v. a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper one foot of exposed surface soil exceeds the applicable SCOs;
 - vi. descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
 - vii. provisions for the management and inspection of the identified engineering controls;
 - viii. maintaining site access controls and Department notification; and
 - ix. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- b. Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- i. monitoring of groundwater to assess the performance and effectiveness of the remedy;
- ii. a schedule of monitoring and frequency of submittals to the Department;
- iii. monitoring for vapor intrusion for any occupied existing or future buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Exhibit A

Nature and Extent of Contamination

Analytical data was collected for the following environmental media:

- Soil
- Groundwater
- Sediments
- Soil Vapor
- Indoor Air

Soil, groundwater and sediments were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs) and pesticides. Soil vapor and indoor air were analyzed for VOCs. Based on investigations and pilot tests conducted, the primary contaminants of concern were toluene, heptane and polyaromatic hydrocarbons (PAHs).

Soils -

Toluene is found in the soil surrounding the former solvent line at building 61. The maximum toluene concentration is 2,400 ppm at 9 - 12 feet below ground surface (bgs), exceeding the soil cleanup objective (SCO) for commercial use of 500 ppm. At Building 58, at a depth of 5 feet, the maximum toluene concentration is 1,400 ppm. Exceedances of toluene and SVOCs at the former tank farm area were addressed through an Interim Corrective Measure (ICM), which confirmed that concentrations are below the commercial SCOs in this area. Excavation to the north and south of the former tank farm area could not be conducted due to the presence of railroad tracks, a large berm, water lines and the existing building. Although several soil samples were collected from areas next to the former solvent line at building 61, soil underlying the former solvent line cannot be excavated at this time due to on-going warehouse operations by the site owner who is not a remedial party. Data collected during the RFI does not indicate any off-site impacts in soil related to this site.

Groundwater -

The Enhanced Fluid Recovery (EFR) and *In-Situ* Chemical Oxidation (ISCO) conducted at the site significantly decreased toluene concentrations but they still exceed the groundwater standard of 5 micrograms per liter ($\mu\text{g/l}$) at various wells near and down gradient of the former solvent line. Based on the latest groundwater sampling results from November 2016, toluene concentrations ranged from 550 $\mu\text{g/l}$ at MW-27 to 67,000 $\mu\text{g/l}$ at MP-25 (see Figure 5). The remaining source underneath building 61 where the former solvent line is located cannot be removed at this time due to access problems. Current

data does not indicate any continued off-site groundwater contamination exceeding 6 NYCRR 703 Ambient Water Quality Standards (AWQS) related to this site.

Soil Vapor -

All analytical results from the soil vapor investigations discussed below were compared to the most current values found in NYSDOH Guidance for Evaluating Soil Vapor Intrusion, in order to determine what type of remedial action, if any, was needed. In 2006 and 2007, an off-site soil vapor investigation was conducted at three residences north of the site where access was granted. Toluene concentrations in sub-slab samples ranged from 8 $\mu\text{g}/\text{m}^3$ to 22 $\mu\text{g}/\text{m}^3$. Indoor air ranged from 2 $\mu\text{g}/\text{m}^3$ to 11 $\mu\text{g}/\text{m}^3$. The outdoor ambient air concentration for toluene was 2.4 $\mu\text{g}/\text{m}^3$. NYSDOH concurred that soil vapor intrusion was not occurring and no further action was warranted. Based on results of soil vapor sampling conducted in 2009 at the on-site office areas, soil vapor intrusion was not occurring at these areas and NYSDOH concurred with this conclusion. At that time, the maximum toluene concentration in the sub-slab samples was 3.7 $\mu\text{g}/\text{m}^3$ and 14 $\mu\text{g}/\text{m}^3$ in indoor air. In 2016, a soil vapor investigation was conducted at the newly constructed bus services area at building 61. PCE in the sub-slab was 28 $\mu\text{g}/\text{m}^3$ and 102 $\mu\text{g}/\text{m}^3$ in indoor air. Toluene was also detected at 42 $\mu\text{g}/\text{m}^3$ in the sub-slab and 331 $\mu\text{g}/\text{m}^3$ in indoor air. However, the indoor air sample result was significantly higher than the sub-slab results, indicating potential impacts from the on-going bus maintenance products/activities and warehouse operations. Soil vapor will continue to be monitored at this area and at any newly constructed area at the site.

Surface Water and Sediments -

Previous samples of sediments and water were collected from the sewer bedding, storm sewer and sanitary sewer lines, and analyzed for VOCs, SVOCs and polychlorinated biphenyls (PCBs). Results were compared to the NYS Surface Water Class C standards and NYS Sediment Screening Criteria. Exceedances of SVOCs (PAHs) and PCBs in sediment and/or water samples were addressed through an ICM that removed accessible sediments and water from the storm sewer and sanitary sewer lines via vacuum extraction. Sediments returned to the lines a short time later, indicating that the on-going source is probably from the parking lots and/or roof run-off, instead of historical site operations which no longer occur at the site.

Exhibit B

Evaluation of Corrective Measure Alternatives

A detailed discussion of the evaluation criteria and comparative analysis is included in the final CMS report. The first two criteria listed below are threshold criteria that must be satisfied in order for an alternative to be considered for selection.

1. Overall Protectiveness of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.
2. Standards, Criteria and Guidance (SCGs). The proposed alternative must conform to officially promulgated standards and criteria that are directly applicable or that are relevant and appropriate to the site, unless good cause exists why conformity should be dispensed with.

The remaining criteria below are primary balancing criteria that are used to compare positive and negative aspects of each alternative, provided the alternative satisfied the threshold criteria.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.
4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the facility.
5. Short-term Impact and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the cleanup objectives is also estimated and compared against the other alternatives.
6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For

administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.
8. Land Use. This criterion is an evaluation of the current, intended and reasonably anticipated future use of the site and its surroundings, as it relates to a proposed alternative or remedy, when unrestricted levels would not be achieved.
9. Community Acceptance. This criterion is evaluated after the public review of the remedy selection process, as part of the final Department selection/approval of a remedy for a site. Any public comment relative to these criteria will be considered by the Department after the close of the public comment period.

The basis for the Department's selected corrective measures is as follows:

1. Overall Protectiveness of Public Health and Environment

The selected final corrective measures provide overall protection of public health and the environment from impacted soil and groundwater because a large volume of contaminated soil and groundwater has been permanently removed from the site through the completed and approved ICMs. Also, contaminant treatment will continue via ISCO, in combination with EFR and bioremediation as needed, which will further reduce the toxicity, mobility and volume of contaminants in groundwater. Groundwater treatment will continue until the Department determines that the remedial objectives have been met or that the remedy is technically impracticable or not feasible. The site cover will prevent human exposure to contaminants and any excavation at the site must be done in conformance with a site specific excavation plan. The institutional and engineering controls will also protect site occupants and workers from exposure to impacted media. Institutional and engineering controls will remain in place until the Department approves termination of the controls. The potential for exposure to site-related contaminants off-site is not currently a concern and monitoring will be conducted to ensure conditions do not change.

2. Standards, Criteria and Guidance (SCGs)

The selected final corrective measures were evaluated to determine if they conform with official and relevant federal, state, and local environmental and public health standards, regulations, criteria, and guidelines that directly applicable to the site. The ICMs were performed under Department approved work plans.

3. Long-term Effectiveness and Permanence

See Explanation above for Overall Protectiveness of Public Health and Environment.

4. Reduction of Toxicity, Mobility or Volume

See Explanation above for Overall Protectiveness of Public Health and Environment.

5. Short-term Impact and Effectiveness

Potential short-term impacts during implementation of the proposed corrective measures include increased traffic, detours, loss of property access, noise and dust. Dust and noise control measures will be in place during remedial activities, to avoid on-site and of-site impacts. Truck runs and detours will be done at times that do not interfere with normal traffic hours. Property access will be minimized by working with the site owner.

6. Implementability

The proposed final corrective measures are technically and administratively feasible to implement because:

- Part of the remedy has been successfully completed through approved ICMs; and
- The remaining proposed corrective measures (ISCO, EFR and/or bioremediation) have been previously and effectively implemented through approved pilot tests.

7. Cost-Effectiveness

The proposed final corrective measures are cost effective, as they meet the criteria discussed above for long-term effectiveness and permanence; reduction of toxicity, mobility or volume of contamination through treatment; and short-term impact and effectiveness.

Under the RCRA Corrective Action program, Saint-Gobain is responsible for all costs associated with implementing, monitoring and maintaining the selected final corrective measures.

8. Land Use

Land use will remain unchanged from current use. The site is currently zoned commercial/industrial, and there has no plans to change the current use or transact the property. However, there is a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible.

9. Community Acceptance

Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary was prepared that describes public comments received and the manner in which the Department will address the concerns raised.

Exhibit C

References (Administrative Record)

Forensic Environmental Services, Inc., Corrective Measures Study (CMS) Report, Former Norton/Nashua Tape Products Facility, Watervliet, NY, July 2014.

NYSDEC, Order on Consent, Norton Company (Respondent), Index No. CO 4-20001205-3375, June 4, 2002.

Forensic Environmental Services, Inc., Former Norton Company/Nashua Tape Products Facility, Watervliet, NY, Corrective Measures Study (CMS) Workplan - Pilot Testing Extension, Revised November 2010.

Forensic Environmental Services, Inc., Former Norton Company/Nashua Tape Products Facility, Watervliet, NY, Supplemental Corrective Measures Study (CMS) Pilot Testing Workplan - In Situ Chemical Oxidation (ISCO), Revised December 2015.

Forensic Environmental Services, Inc., Former Norton Company/Nashua Tape Products Facility, Watervliet, NY, Source Removal Activities Report, January 2012.

Forensic Environmental Services, Inc., Former Norton Company/Nashua Tape Products Facility, Watervliet, NY, Durham School Services Supplemental Vapor Intrusion (VI) Sampling Report, April 2015.

Forensic Environmental Services, Inc., Former Norton Company/Nashua Tape Products Facility, Watervliet, NY, Durham School Services Supplemental Vapor Intrusion (VI) Sampling Report, April 2016.

Forensic Environmental Services, Inc., Former Norton Company/Nashua Tape Products Facility, Watervliet, NY, Off-Site Air Sampling and Testing Program, May 23, 2006.

Quantum Geophysics, Inc., Former Norton/Nashua Tape Products Facility, Watervliet, NY, Final Report Geophysical Investigation, December 6, 2004.

Forensic Environmental Services, Inc. Former Norton Company/Nashua Tape Products Facility, Watervliet, NY, RCRA Investigation (RFI) Report/ Preliminary Corrective Measures Study/ Interim Groundwater Monitoring Plan, December 2007.

ISOTEC, Former Norton/Nashua Tape Products Facility, Watervliet, NY, Laboratory Treatability Study Report, May 14, 2009.

NYSDEC, Former Norton/Nashua Tape Products, Watervliet, NY, Environmental Indicator (EI) RCRA Info Code CA750, Migration of Contaminated Groundwater under Control, September 14, 2009.

NYSDEC, Former Norton/Nashua Tape Products, Watervliet, NY, Environmental Indicator (EI) RCRA Info Code CA725, Current Human Exposures under Control, September 30, 2010.

Forensic Environmental Services, Inc., Former Norton Company/Nashua tape Products Facility, Watervliet, NY, Monthly Progress Reports, September 2003 to December 2016.

APPENDIX A

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY

Kendall Polken Nashua Tape
2600 Seventh Ave, Watervliet, New York
EPA No. NYD066829599 / Site No. 401062

May 2017

The Draft Statement of Basis (SB) for the Kendall Polken Nashua Tape site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was placed in the document repository by March 20, 2017.

This responsiveness summary responds to all questions and comments related to the Statement of Basis that were raised during the public comment period, which ran from *March 20, 2017 to May 3, 2017*. The following are the written comments received, with the Department's responses:

Comment #1: From Nearby Resident

I would like to know if the Kendall Polken Nashua Tape at 2600 Seventh Ave, Watervliet, NY, 12189, has or will affect my home, soil, water, or anything related to my property in any way or my family's health.

Response to #1:

Nearby homes are not expected to be affected by site-related contamination, which is limited to an area on-site beneath and immediately adjacent to a building on the Northern side of the site. In the past, groundwater contamination extended off-site to the North; however, public water serves the area and is tested regularly to ensure that it meets all drinking water quality standards.

Comment #2: From USEPA Region 2

Section 4 indicates that the Order on Consent was executed between the Department and the Norton Company. Section 3 shows that Nashua Corporation acquired the site from the Norton Company and also that Saint-Gobain Corporation acquired the Norton Corporation and its environmental responsibility. Please clarify if the Order has the authority to address releases or contamination, if any, caused from the Nashua operations. If not, how will it be addressed?

Response to #2:

Section 4 was revised to clarify that according to the terms of the Order on Consent, the Norton Company is solely responsible for RCRA corrective action activities and assumes liability for investigation and remediation activities at the site.

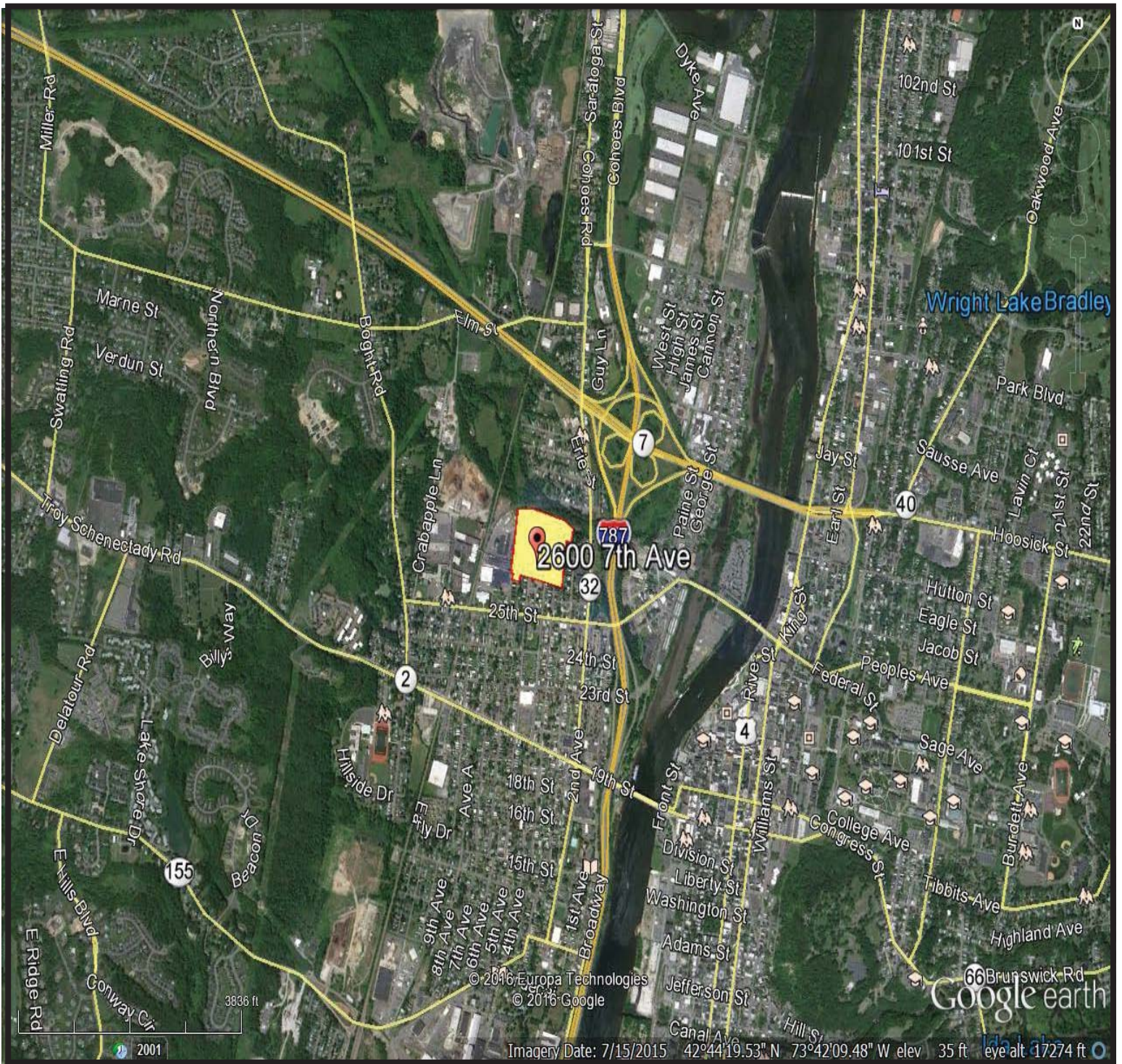
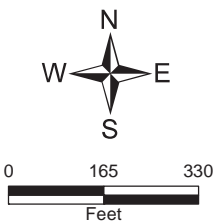


Figure 1

Site Location

Norton-Kendall Site
 Town of Colonie, Albany County
 Site No. 401062



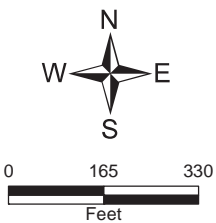


Figure 2

Site Boundary

Norton-Kendall Site
Town of Colonie, Albany County
Site No. 401062

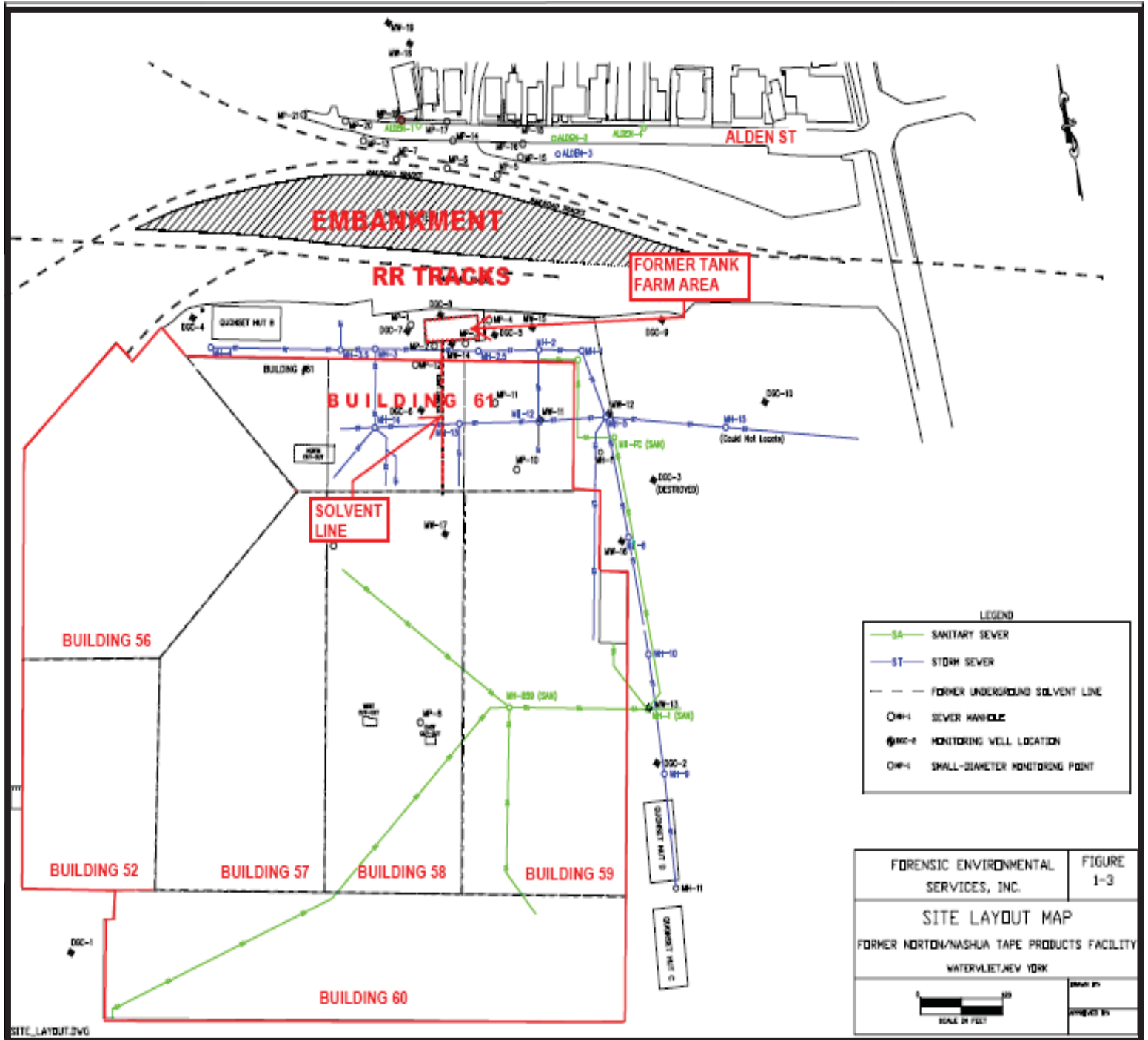


Figure 3
Site Layout
 Norton-Kendall Site
 Town of Colonie, Albany County
 Site No. 401062

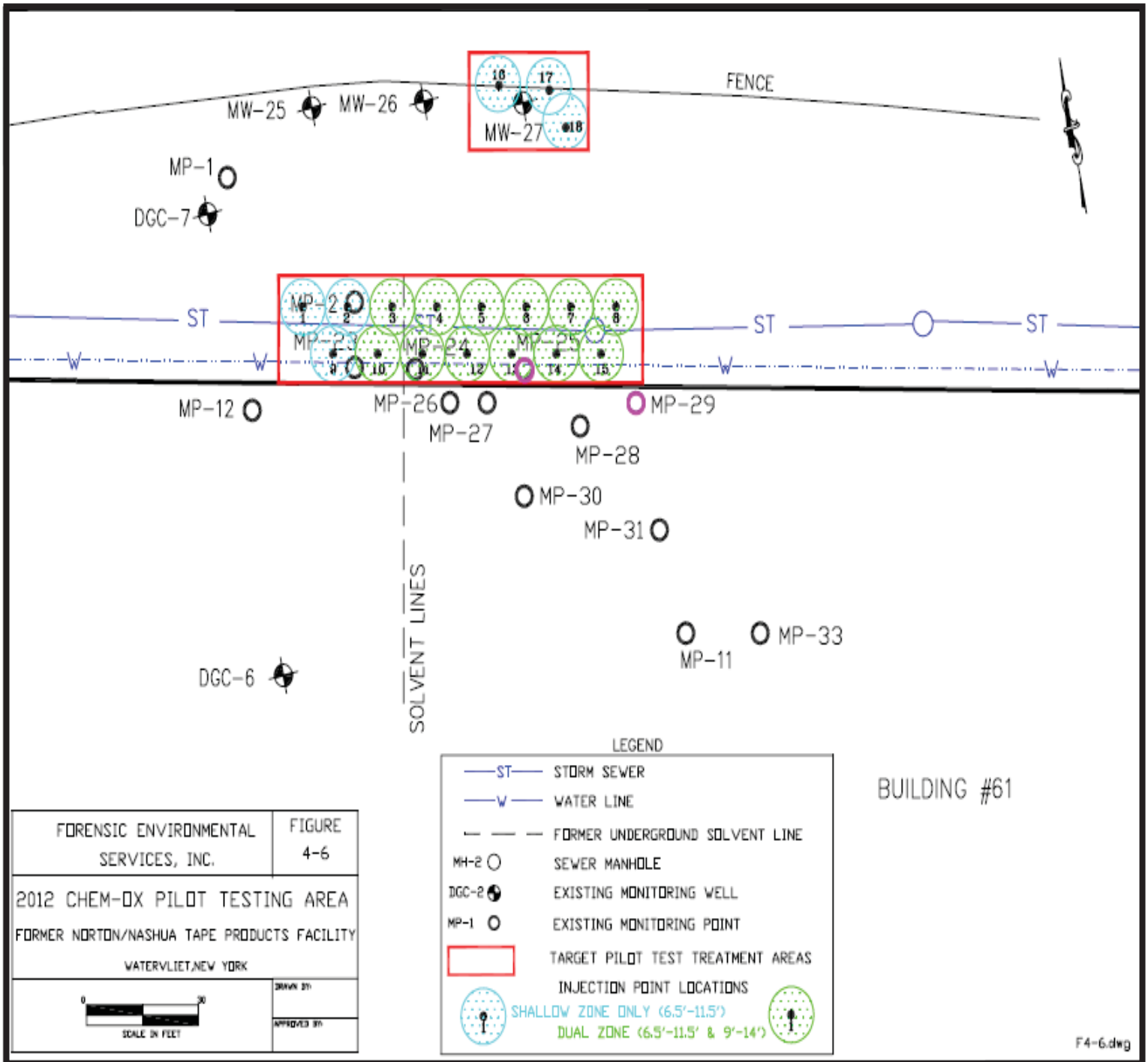


Figure 4
ISCO Target Area
 Norton-Kendall Site
 Town of Colonie, Albany County
 Site No. 401062

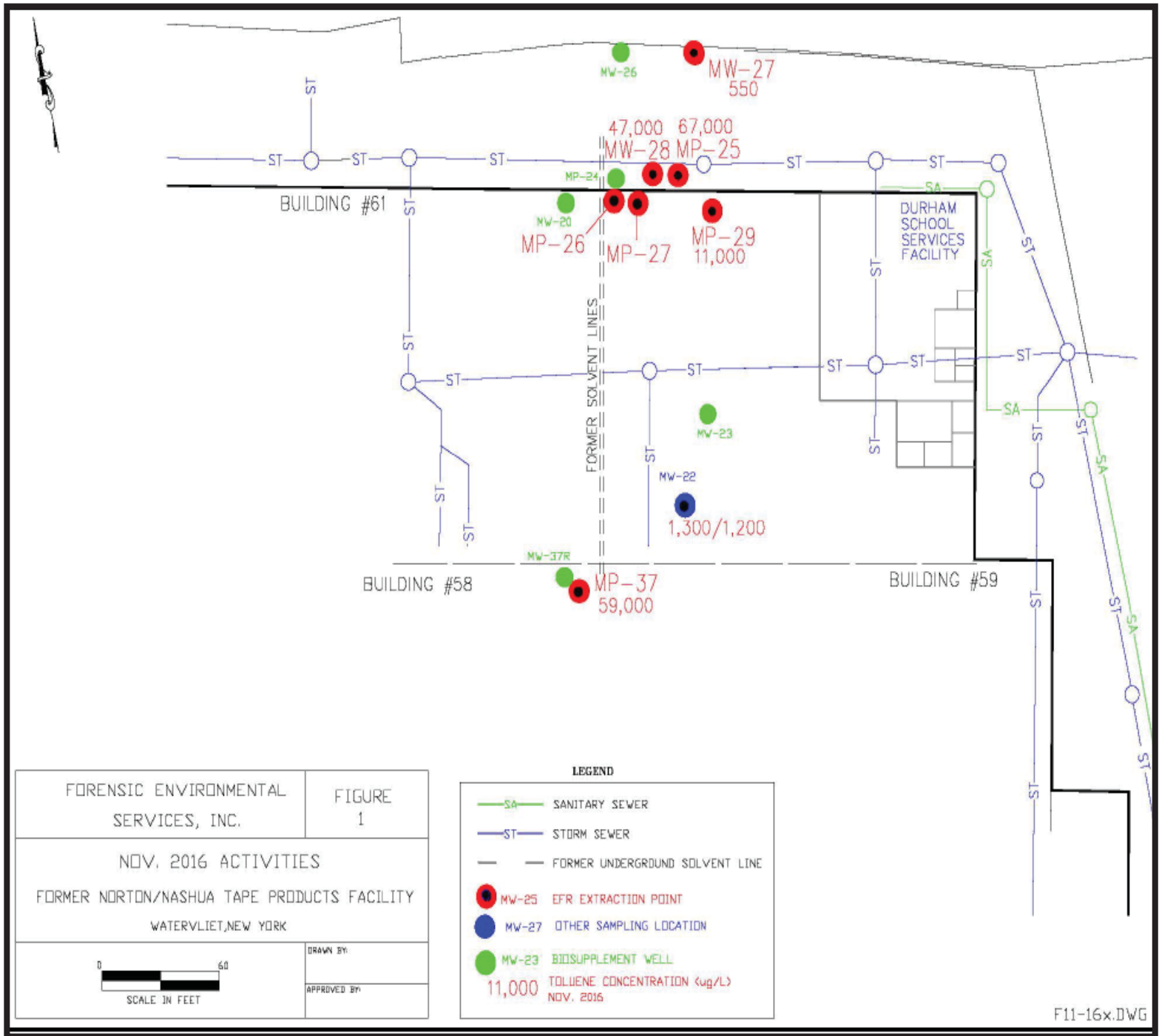


Figure 5
Toluene in Groundwater
 Norton-Kendall Site
 Town of Colonie, Albany County
 Site No. 401062

0 165 330
Feet



Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

May 23, 2017

Robert Schick, Director
NYS Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233

Re: **Statement of Basis**
Kendall Polken Nashua Tape
Site #401062
Watervliet, Albany County

Dear Mr. Schick:

At your Department's request, we have reviewed the May 2017 *Final Statement of Basis Corrective Measures Selection* for the referenced site to determine whether the selected remedy is protective of public health. I understand that environmental sampling has indicated contamination in soil and groundwater necessitating remediation. Human exposures to this contamination will be addressed by the remedy as follows:

- **Soil:** The existing site cover system will be maintained to allow for commercial use of the site in accordance with 6 NYCRR Part 375. Use and development of this site will be restricted to commercial, and industrial uses. An excavation plan will be developed to manage human exposures to residual soil contamination properly.
- **Groundwater:** Use of groundwater at the site, without appropriate water quality treatment, will be restricted. In-situ chemical oxidation will be implemented to treat contaminants in groundwater.
- **Soil Vapor:** A soil vapor intrusion evaluation will be completed, and appropriate actions implemented, for any occupied existing or future buildings on-site.

Periodic reviews will be completed to certify that these elements of the remedy are being implemented and remain effective. Based on this information, I believe the remedy is protective of public health and concur with the plan. Please contact Mr. Justin Deming at 518-402-7860 if you have any questions.

Sincerely,

Krista M. Anders, Director
Bureau of Environmental Exposure Investigation

ec: J. Deming / S. Bogardus / e-File
R. Swider – NYSDOH CRO
R. Groves – ACDOH
M. Ryan / G. Burke / M. Komoroske / A. Barraza – NYSDEC Central Office
R. Mustico – NYSDEC Region 4