Division of Environmental Remediation

Record of Decision Gent Uniform Rental Service Site Operable Unit No. 1 Massapequa, Town of Oyster Bay Nassau County, New York Site Number 1-30-056

March 2005

New York State Department of Environmental Conservation GEORGE E. PATAKI, *Governor* DENISE M. SHEEHAN, *Acting Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Gent Uniform Rental Service Inactive Hazardous Waste Disposal Site Operable Unit No. 1 Massapequa, Town of Oyster Bay, Nassau County, New York Site No. 1-30-056

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for Operable Unit 1 of the Gent Uniform Rental Service site, a Class 2 inactive hazardous waste disposal site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for Operable Unit 1 of the Gent Uniform Rental Service inactive hazardous waste disposal site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened releases of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential significant threat to public health and/or the environment.

Description of Selected Remedy

Based on the implementation of a soil excavation in the vicinity of a former grease trap and the operation of an air sparge/ soil vapor extraction (AS/SVE) system by the property owner, and evaluation of the results of the Remedial Investigation (RI) for the Gent Uniform Rental Service site, the NYSDEC has selected continued operation of the AS/SVE system as the remedy for Operable Unit 1. The components of the remedy are as follows:

- The existing on-site AS/SVE system will be refurbished and restarted to treat the residual on-site groundwater contamination.
- Soil gas sampling will be performed before and after the restart of the system to evaluate the system's ability to adequately capture potential soil gas beneath the slab of the building. If

necessary, the system will be modified or additional actions will be taken to mitigate soil vapor intrusion related to on-site contamination.

- The operation of the AS/SVE system will continue until the remedial objectives have been achieved, or until the NYSDEC determines that continued operation is technically impracticable or not feasible. The main SCGs for this site are GA groundwater standards for the underlying groundwater and NYSDOH guidance values for indoor air quality.
- Annual certification will be required for the engineering and institutional controls.
- An environmental easement that will be instituted to restrict use of on-site groundwater as a potable or process water without necessary water quality treatment, as determined by the Nassau County Department of Health.

New York State Department of Health Acceptance

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

Declaration

The selected remedy is 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.

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Date

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RECORD OF DECISION

Gent Uniform Rental Service Site
Operable Unit No. 1
Massapequa, Town of Oyster Bay, Nassau County, New York
Site No. 1-30-056
March 2005

SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has selected this remedy for Operable Unit 1 (OU-1), the remedial program for the on-site contamination, for the Gent Uniform Rental Service (Gent) Site. The presence of hazardous waste has created significant threats to human health and/or the environment that are addressed by this remedy. As more fully described in Sections 3 and 5 of this document, the discharge of dry cleaning related wastes to the former sanitary system has resulted in the disposal of hazardous wastes, consisting primarily of tetrachloroethene, the most commonly used chlorinated volatile organic compound (VOC) for dry cleaning. These wastes have contaminated the soil and groundwater beneath the floor of the site building and have resulted in:

- a significant threat to human health associated with potential exposure to volatile organic vapor present in the soil gas beneath the building.
- a significant threat to human health associated with potential exposure to chlorinated VOCs in the groundwater beneath and downgradient of the site.
- a significant environmental threat associated with the groundwater contamination of the underlying sole source aquifer.

Prior to signing of a consent order between the NYSDEC and the property owner, the owner implemented several remedial actions to remediate the on-site soil and groundwater contamination. As discussed later in Section 3.2, the remedies implemented by the site owner were effective in remediating the soil contamination and most of the on-site groundwater contamination. These remedies consisted of the following:

- Excavation of contaminated soil in the vicinity of a former grease trap.
- The operation of an air sparge/soil vapor extraction (AS/SVE) system to treat the on-site soil and groundwater contamination.

Based on the implementation of the above remedies, and evaluation of the investigation results, the NYSDEC has selected continued operation of the AS/SVE system as the remedy for the OU-1. Soil gas sampling will be performed before and after restart of the AS/SVE system to ensure that the system is adequately capturing subsurface soil vapor that might cause impacts to the indoor air quality at buildings at or near the site. Based on the results of that sampling, the system will be modified, if necessary. An operation, maintenance, and monitoring plan will be required. Additionally, an institutional control in the form of an environmental easement will be implemented to prevent use of the underlying on-site groundwater as a source of potable or process water, without necessary treatment as determined by the Nassau County Department of Health, and require the owner to complete and submit to the NYSDEC an annual institutional and environmental control certification.

The selected remedy will eliminate or mitigate the threats listed earlier in this section. The selected remedy, discussed in detail in Section 6, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE LOCATION AND DESCRIPTION

The Gent site is located at 5680 Merrick Road, Massapequa, New York in the Town of Oyster Bay in Nassau County. See Figure 1 for the site location. Figure 2 is the site plan. This 0.3 acre site is currently being used by Gent for the rental of uniforms.

The site is located on the south side of Merrick Road, a major east-west road in Long Island which has numerous commercial/industrial properties that service the local communities along this heavily traveled road. Figure 3 illustrates the current uses of the surrounding properties. Immediately to the east is Stone Boulevard with a Volvo car dealer on the east side of that street. Immediately to the west is an empty building that formerly was used by several steel distributers and processors. After that property, the next property to the west is currently being used by an auto body shop.

A short distance further to the west is the Minute Man Cleaners inactive hazardous waste disposal site, Site Number 1-30-065. A Record of Decision for that site was issued in February 1999. That site is also contaminated by tetrachloroethene and its related breakdown products. The selected remedy included the removal of contaminated soil from leaching pools in the rear of the facility and the treatment of residual on-site soil and groundwater contamination with an AS/SVE system. The selected remedy was implemented. This site is currently being reevaluated to determine whether further remediation is necessary.

Immediately to the south of the Gent site, the adjacent property is currently being used as an auto body shop. Prior to 1982, Safety-Kleen Corp., a manufacturer, distributor and waste hauler of industrial strength cleaning fluids including solvent blends and degreasing agents, was one of several tenants that utilized that building. As discussed under Section 3.2, Gent and the adjacent parcel to the south were jointly investigated in 1996 and 1997 in a State-funded investigation. Further south of the auto body shop, the area is residential.

South Oyster Bay, a saltwater body on the southern side of Long Island is approximately one mile south of the site. Two saltwater rivers, Carmans River and Narraskatuck River, that empty into South Oyster Bay, are located as close as 900 feet to the west and as close as 1,100 feet to the east, respectively from the site. Off the western side of the Narraskatuck River are a few, unnamed saltwater canals and creeks. The closest one to the site is located approximately 1,000 feet to the south-southeast.

Operable Unit No. 1, which is the subject of this PRAP, consists of the on-site contamination. OU-1 includes all land and buildings within the property boundaries and the groundwater directly beneath the property. An operable unit represents a portion of the site remedy that for technical or administrative reasons can be addressed separately to eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination.

The remaining operable unit for this site is Operable Unit 2 (OU-2), defined as off-site contamination. OU-2 encompasses groundwater and soil vapor contamination attributable to the site that is found beyond the property borders. That operable unit will be addressed at a future date in a separate proposed remedial action plan and record of decision.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

Gent began uniform rental operations in approximately 1972. Gent expanded the building to the south in 1977. The building was connected to the community sewer system in 1978. Gent added clothes washing and dry cleaning services to their operations in around 1979. The wastewater from washing operations is discharged to the community sewer system.

The current owner acquired site ownership in 1985. In 1986, the use of an on-site supply well to provide non-contact cooling water and a diffusion well to discharge this water was initiated. As directed by Nassau County Department of Health (NCDH), the use of the diffusion well for discharge was discontinued in 1990. Supply well SW-1, located by the southeast corner of the site building, is still in use today to supply water for washing uniforms.

The dry cleaning machine along with the solvents stored in a tank in the bottom of the machine was removed from the site in 1998. Figure 4 illustrates the interior building layout as it existed in 1998. Currently, only detergents are used in the clothes washing operations.

The primary source of the soil and groundwater contamination at the Gent site was historical discharges of waste tetrachloroethene (PCE) to the former sanitary system. This former system originally consisted of a small grease trap in the floor of the building that was reportedly connected to one sanitary leaching pool. When the building was expanded to the south in 1977, the pool location was covered by the new extension. Based on the sampling results and visual observations, the abandoned grease trap for the former sanitary system, which was discovered to have a corroded fitting, was the main discharge point.

3.2: Remedial History

The initial investigation of the area around the Gent site began in the mid-1980s in response to complaints of taste and odor in the water in a washroom at the property immediately to the south used by Volvoville USA/Range Rover (Range Rover) as a body shop. This water was provided by a private supply well, which was reportedly located near the western property border for that parcel. A sample of this water detected 300,000 parts per billion (ppb) of tetrachloroethene (PCE). The well was abandoned shortly thereafter.

As a result of the contaminated private well, investigations at the Gent site and Range Rover were initiated to determine the source of the PCE present in the groundwater. Both properties had prior uses of PCE. This chemical was the solvent used in the dry cleaning operations at the Gent site. A previous operator at the Range Rover property, Safety Kleen, had performed recycling operations involving the reclamation of a variety of waste solvents, including PCE.

The most comprehensive of the earlier investigations was a State-funded Preliminary Site Assessment (PSA) performed in 1996 and 1997 for Stone Boulevard, which investigated both properties. The results are reported in the PSA Report dated September 1997.

The PSA consisted of the following:

- Review of background information, including the results of all previous sampling;
- Installation of nine direct push borings to collect soil and groundwater samples on the Range Rover and Gent properties;
- Collection of groundwater samples from five existing monitoring wells on the Range Rover
 property, the three supply wells on the Gent property and five direct push borings at or slightly
 downgradient of the Gent facility; and
- Collection of liquid and sediment samples from the two existing oil/water separators at Gent.

Figure 5 illustrates the results of historical soil sampling prior to 1997. Figure 6 illustrates the historical groundwater sampling results. The following is a summary of the most important findings of the PSA:

- Groundwater samples showed no evidence of any substantial upgradient source of volatile organic compounds (VOCs).
- Based on the results of 12 sub-slab soil samples collected from three soil borings inside the Gent facility, the unsaturated soil in the upper four feet beneath the slab was contaminated with PCE in the vicinity of an abandoned grease trap and a former sanitary pool. The highest concentration detected was 600 parts per million (ppm) of PCE in a sample collected from the upper two feet of soil by the abandoned grease trap.

- Based on 17 soil samples collected from seven soil borings, only trace concentrations of PCE
 were present in the soil at the Range Rover property. The concentrations detected were well
 below NYSDEC's recommended cleanup objectives.
- As high as 49,000 ppb of PCE was detected in shallow groundwater under the slab of the Gent building in the vicinity of the former grease trap and sanitary leaching pool.
- The highest concentration detected in the groundwater samples collected on the Range Rover property was 80 ppb of PCE. However, all groundwater samples collected on that property were hydraulically downgradient (south) of the Gent facility. Consequently, these detections did not necessarily indicate a contribution to the groundwater contamination from the Range Rover property.

The PSA report concluded that the source of groundwater contamination at both properties was the abandoned grease trap on the Gent site. It was also concluded that the Range Rover property was not a source of the groundwater contamination.

In late 1996, the soil in the vicinity of the former grease trap under the building slab was reportedly excavated to approximately four feet below the slab. Three drums containing the excavated soil were reportedly disposed at a licensed treatment, storage and disposal facility (TSDF).

Reportedly in May 1997, Gent started operating an AS/SVE system at the site on its own initiative, without NYSDEC oversight. In the initial system, air was injected into the groundwater by ten air sparge wells. The injected air creates air bubbles that spread outward from the screen zone of the injection wells and rise upward through the water column, thereby stripping off the chlorinated VOCs in the groundwater. This air, which now contains some of the groundwater contaminants, was recovered by "vacuuming" the soil above the water table with five soil vapor extraction wells installed in the unsaturated soil. The contaminants in the extracted air were then adsorbed by canisters containing activated carbon. The treated air was then discharged to a stack on top of the treatment building. Gent had acquired a permit for this air discharge from the NYSDEC. Sampling of the air stream was conducted periodically to ensure that the air discharges were within applicable regulations. After the activated carbon was used up, it was transported from the site to a TSDF for processing.

The soil vapor extraction wells would also vacuum out contaminants in the soil within the radius of influence of these wells. Consequently, the treatment system treats both the impacted soil and groundwater.

The initial system was operated and monitored periodically from May 22, 1997 until March 2, 1999, when Gent performed a supplemental site assessment. Based on the results of this supplemental investigation, the initial system was restarted on August 5, 1999 and continued to operate until December 1999.

The initial treatment system was designed to treat only the shallow groundwater contamination. In 2000, Gent performed groundwater profile sampling to establish the vertical extent of the on-site groundwater contamination. The results of this vertical delineation sampling and the results of the

periodic groundwater sampling during the operation of the initial treatment system are illustrated in Figure 6. Based on the results of this supplemental investigation, the treatment system was modified by the addition of two more air sparge wells (MW-3B and MW-3D) to remediate groundwater contamination present in the deeper on-site groundwater. The modified treatment system was operated from December 4, 2000 to March 2001 and from May 2001 to approximately August 2002.

During operation, the AS/SVE system would have also served to capture vapor originating from the contaminated soil and groundwater. This vapor recovery would reduce the chance of vapor migration to the indoor air of the site building or other nearby buildings.

Gent has used private wells at its property to supply water for washing operations. Based on historical data, these supply wells extracted contaminated groundwater, which would have helped to reduce the groundwater contaminants in the deep groundwater. The supply wells are located in the northwest (SW-3), southwest (SW-2) and southeast (SW-1) corners of the building. These wells are screened immediately above the clay layer. These 70 foot deep supply wells were constructed with 20 foot long, six inch diameter well screens. The resulting wash water was eventually discharged to the community sewer system. Of the three supply wells, only SW-1 is still in use. Groundwater quality in this supply well is now within applicable groundwater standards, based on the last sample collected from SW-1 on May 25, 2000.

In 1997 and 1998, the NYSDEC had negotiations with Gent for a potential voluntary cleanup agreement (VCA). A draft work plan entitled, "Draft Voluntary Supplemental Site Assessment Work Plan" dated June 5, 1998 was developed during those negotiations, but was never finalized. Gent eventually decided not to participate in the NYSDEC's voluntary cleanup program.

On April 21, 1999, the NYSDEC listed the site as a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in New York. A Class 2 site is a site where hazardous waste presents a significant threat to the public health or the environment and action is required.

After negotiations for the proposed VCA were terminated without the development of a signed agreement or an approved investigation work plan, Gent proceeded to implement the draft version of the voluntary investigation work plan without NYSDEC oversight. The results are presented in a report entitled, "Voluntary Cleanup Supplemental Site Assessment, August 16, 1999". This investigation defined the extent of the on-site soil and groundwater contamination.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The NYSDEC, Gent Uniform Rental Corporation and Lafra Realty Corporation entered into a Consent Order on December 31, 2001. The Order obligates the responsible parties to develop and implement a remedial program for the Gent site. This Order covers investigation and remediation of the on-site and off-site contamination.

SECTION 5: SITE CONTAMINATION

A remedial investigation (RI) has been conducted to determine if there was any remaining contamination left at the site which present significant threats to human health and the environment. The RI was also used to evaluate the effectiveness of the AS/SVE system that was designed and implemented at the site without NYSDEC oversight.

Initially, it was intended that the RI would determine the extent of the on-site and off-site contamination. However, as will be discussed later, the initial RI was only successful in defining the extent of the on-site soil and groundwater contamination. Further investigation will be required later for the off-site contamination in subsequent OU-2.

5.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted in two phases. The first phase field activities were completed in January 2003. The second phase field activities were completed in November 2003. The field activities and findings of both phases of the investigation are described in the RI report and a RI addendum report.

The following activities were conducted during the RI:

- Three soil borings were performed in areas of known historical soil contamination to evaluate whether the treatment system effectively treated the contaminated soil.
- Two rounds of water level measurements, one without the on-site supply well in operation
 and one with the well in use, were taken to determine the groundwater flow direction under
 both conditions.
- Twelve existing monitoring wells were sampled to determine the concentrations in the onsite groundwater after treatment.
- During the first phase of the RI, four off-site profile borings located along Major Road, the first east-west street south of the site, were performed to collect groundwater samples at various depths below the surface to determine the vertical and east-west location of the off-site plume.
- Based on the results of the above off-site sampling, an additional profile boring was performed 50 feet further to the west to ensure that the western extent of the off-site plume had been determined.
- Based on the results of the initial off-site sampling, an additional profile boring was also conducted on the eastern edge of Stone Boulevard further south of the initial off-site boring that had detected the highest concentrations.

• A private well survey was conducted to determine potential routes of exposure for any residual off-site groundwater contamination.

To determine whether the soil and groundwater contain contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.
- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels".

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site require remediation. These are summarized below. More complete information can be found in the RI report.

5.1.1: Site Geology and Hydrogeology

The geology at the site consists of glacial outwash deposits consisting mostly of sand and gravel. Based on historical soil borings advanced at the site, these deposits are approximately 75 feet thick. A less porous layer containing clay starts at approximately 75 feet below ground surface (bgs).

The water table underlying the site is approximately 12 feet bgs. The operation of an on-site supply well has some local effect on the groundwater flow direction. However, the general groundwater flow direction is towards the south.

The groundwater flow direction may vary slightly as one moves in a east-west direction across the site. Towards the eastern side of the site, there may be a very slight easterly component to the southerly flow direction, which may be attributable to the presence of the Narraskatuck River located as close as 1,100 feet towards the east. Towards the western portion of the site, there is a westerly component to the southerly flow direction, which may be attributable to the presence of Carmans River located as close as 900 feet to the west. The site location map, Figure 1, shows the site's location relative to the two rivers.

5.1.2: Nature of Contamination

As described in the RI report, soil and groundwater samples were collected to determine that effectiveness of the treatment system to treat the site related contaminants. Based on the results of prior investigations, volatile organic compounds (VOCs) are the only category of contaminants that exceed their SCGs.

The VOCs of concern are primarily related to the former dry cleaning operations at the Gent facility. The primary contaminant is tetrachloroethene (PCE), the compound that was used as the solvent in the dry cleaning process. To a much lesser extent, there are some breakdown products present due

to the partial biodegradation of PCE. The two breakdown products that were detected at concentrations above their applicable groundwater standards are trichloroethene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE). Vinyl chloride, another potential breakdown product of PCE, was detected in one on-site groundwater sample slightly above groundwater standards in the PSA. However, it was not detected during the RI in any of the soil or groundwater samples.

The only other VOC that was detected in the groundwater during the RI at concentrations significantly above its applicable SCG was chlorobenzene. Chlorobenzene is a persistent chemical that was used historically throughout Long Island to treat clogged cesspools. Significant concentrations of this compound were only detected in one off-site groundwater profile boring location.

Toluene, ethylbenzene and xylenes were detected historically at considerable concentrations in sediments and liquid samples from two oil/water separators that are part of the facility's current sanitary and industrial waste disposal system. However, they are sealed units that are periodically cleaned out to remove the trapped sediments and oils. The liquid effluent from the oil/water separators is discharged to the community sewer system. Additionally, none of these compounds have been detected at concentrations above their respective SCGs in the soil and groundwater samples for the PSA or the recent RI. Consequently, these compounds are no longer considered to be contaminants of concern at this site.

5.1.3: Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

Chemical concentrations are reported in parts per billion (ppb) for water and parts per million (ppm) for soil. For comparison purposes, where applicable, SCGs are provided for each medium.

Table 1 indicates the range of the contaminants of concern in the on-site soil prior to treatment, as indicated by the results of the 1996/1997 PSA, and the post-treatment concentrations detected in the RI. The pre-treatment and post-treatment data are compared to the SCGs for the site in Table 1. Similar to Table 1, Table 2 summarizes the pre-treatment and post-treatment groundwater contamination concentrations and compares both sets of data to their respective SCGs.

The ranges of concentrations detected in the off-site groundwater profile sampling are presented in Table 3. It should be noted that the full extent of the off-site groundwater contamination has not been established yet. Consequently, Table 3 only indicates the ranges that were detected in the RI. The off-site groundwater contamination will be investigated further under the subsequent investigation for OU-2.

The following are the media which were investigated and a summary of the findings of the investigation.

Surface Soil

All site-related contamination was discharged to the soil beneath the slab of the on-site building or the soil beneath a narrow, paved area adjacent to the south side of the building. Consequently, no sampling was done for the exposed surface soil since there were no known surface discharges. Almost the entire site is covered by the site building or by pavement.

Subsurface Soil

The areas where wastes were historically discharged to the soil beneath the building slab were evaluated to determine the effectiveness of the remediation system. The soil in each boring was screened with a photo-ionization detector capable of detecting the VOCs of interest. Soil samples were collected from the intervals with the highest readings on the field screening instruments and sent to a laboratory for analysis. As indicated in Table 1, all detected contaminants in the RI soil sampling were within their respective SCGs. Consequently, there is no residual soil contamination that would require further remediation.

On-Site Groundwater

The on-site groundwater flow direction is affected to some limited extent by whether the on-site supply well is in operation. There is also some local mounding of the groundwater in the vicinity of MW-3. However, the on-site groundwater flows generally towards the south.

The on-site groundwater has been sampled numerous times prior to the RI. Another round of groundwater sampling was performed from selected existing wells in the RI to determine current groundwater quality at the site.

There is some groundwater contamination in the on-site groundwater by PCE and cis-1,2-DCE that exceeds their respective groundwater standards. The GA groundwater standards for both compounds are 5 ppb. Figure 7 illustrates the results of the on-site and off-site groundwater sampling in the RI. For the on-site groundwater, the highest concentration of PCE (410 ppb) was detected in a groundwater sample from MW-1(RR), which is a well located near the southern property border and just south of the western portion of the site building. This well is hydraulically downgradient of the abandoned grease trap and sanitary leaching pool under the floor of the facility. For on-site groundwater, the highest concentration (64 ppb) of cis-1,2-DCE, a common breakdown product resulting from the partial biodegradation of PCE, was detected in on-site MW-1. MW-1 is located close to the former sanitary leaching pool.

Off-Site Groundwater

The off-site groundwater flow direction is generally to the south. However, the groundwater flow direction is towards the south-southwest in the western portion of the site. The water table occurs at around 12 feet bgs.

An east-west transect consisting of five groundwater profile borings was performed along Major Road, the first east-west street that is south of the site. In each of the five profile borings,

groundwater samples were collected at 14'-16', 29'-31', 44'-46', 59'-61', and 74'-76' bgs. As noted earlier, Figure 7 illustrates the results of the on-site and off-site groundwater sampling results.

In the western-most profile boring location (TW-5) on Major Road, which is located south-southwest of the site, 1,600 ppb of PCE, 510 ppb of cis-1,2-DCE and 94 ppb of TCE were detected in the shallowest sample collected at 14'-16' bgs. This sampling interval is just slightly below the water table. To a much lesser extent, some chlorinated VOCs were also detected in the 29'-31', 44'-46' and 59'-61' bgs samples in this profile boring. Although TW-5 is apparently hydraulically downgradient of the western portion of the Gent facility where the primary source areas are located, this sampling location may also be downgradient of the two facilities to the west of Gent. Consequently, further investigation is required to determine the source of this off-site groundwater contamination. Additional off-site sampling is also needed to determine the areal extent of the off-site groundwater contamination. It is primarily for these reasons that the site has been divided up into on-site and off-site operable units.

In the eastern-most profile boring (TW-4), located by the corner of Stone Boulevard and Major Road, tetrachloroethene was detected at 6 ppb, slightly above the groundwater standard.

In the profile boring just west of TW-4 (TW-3), chlorobenzene was detected in three sampling depths. The highest concentration (100 ppb) was detected in the 44'-46' bgs sample. A supplemental profile boring (TW-6) was placed further downgradient of the site to determine the southern extent of the chlorobenzene contamination. Chlorobenzene was not detected in any of these samples. Consequently, the presence of this contaminant is very localized. Since chlorobenzene has not been detected at significant concentrations in the on-site groundwater and since there are other potential sources of this contaminant that are nearer to sampling location TW-4, the source of this contaminant may not be the Gent site.

5.2: Summary of Human Exposure Pathways

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in the RI addendum report.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

Currently, no exposure pathways are known to be completed at the site. In the past, people were probably exposed to contaminated water from a private supply well on an adjacent property (see Section 3.2). These exposures would have ended in 1990 when the contaminated well was abandoned. There may also have been limited exposures to contaminated water from on-site supply wells used to supply water for laundering. Water from on-site wells is used only for laundering; Gent gets its potable water from the public water supply. The most recent samples from the one on-site supply well that is currently active, which were collected in May 2000, contained no detectable PCE. Thus, there are not likely to be any current exposures related to the on-site supply well.

Potential exposure pathways for Operable Unit 1 of the Gent site involve contaminated groundwater and soil vapor. There is contaminated groundwater at the site, although it is not detected in the only supply well in use on the site. As long as groundwater contamination exists, there is a potential for someone to install a well or excavate down to groundwater and thus be exposed.

The soil vapor exposure pathway has not yet been thoroughly investigated. Contaminants like PCE can volatilize from groundwater at the water table into the air above the water table. This air, called soil gas or soil vapor, can under certain circumstances infiltrate into buildings near the contamination, causing indoor air contamination. The only investigation of this pathway to date has been the Nassau County Health Department's collection of one indoor air sample from the office at the Volvo body shop in July, 2001. The sample was analyzed for PCE, and none was detected. A soil gas investigation is still needed to determine whether the contamination in the groundwater at the site is volatilizing into soil gas, which would indicate a potential for soil vapor intrusion into existing or future buildings on and off the site.

5.3: Summary of Environmental Impacts

This section summarizes the existing and potential future environmental impacts presented by the site. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

Site contamination has impacted the groundwater resource beneath and downgradient of the site. This aquifer is the sole source of drinking water for the area. Although there are no existing public supply wells downgradient of the site, a private well survey has identified four private wells that are located downgradient of the site. Based on recent information, none of these wells are currently in use.

The majority of the site is paved and there is no surface water bodies immediately adjacent to the site. Consequently, there are no fish and wildlife impacts associated with the on-site portion of the site being addressed under OU-1. However, there are surface water bodies to the south, east and west that could potentially receive contaminated groundwater from the off-site groundwater plume. Since the off-site plume has not been defined yet, it is not possible to evaluate these potential impacts at this time. These potential impacts will be evaluated further in OU-2.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS AND SELECTED REMEDY

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The remediation goals for this site are to eliminate or reduce to the extent practicable:

- potential exposures of persons at or around the site to chlorinated VOCs in the underlying groundwater;
- the potential migration of chlorinated VOCs from groundwater into indoor air through soil vapor; and
- the off-site migration of the on-site groundwater contamination where exposures to contaminated groundwater are possible.

The following remedies have been implemented at the site:

- a soil and sediment removal in the vicinity of the abandoned grease trap, and
- installation and operation of an AS/SVE system.

The NYSDEC believes that the remedies that have been implemented will accomplish the remediation goals provided that the AS/SVE system resumes operating and is maintained in a manner consistent with the design.

The main SCGs applicable to this project are as follows:

- GA groundwater standards for the underlying groundwater.
- NYSDOH guidance values for indoor air quality.

Based on the results of the investigations at the site, the remedies that have been implemented and the evaluation presented here, the NYSDEC has selected continued operation of the AS/SVE system as the remedy for OU-1. An operation, maintenance, and monitoring plan will be required.

The basis for this selection is the NYSDEC's conclusion that continued operation of the AS/SVE system will be protective of human health and the environment and will meet all SCGs. Overall protectiveness is achieved through meeting the remediation goals listed above.

Therefore, the NYSDEC concludes that since the soil has been completely remediated, there is no need to restrict further excavations at the site and only the following Operation, Maintenance and Monitoring controls listed below are needed:

- The existing on-site AS/SVE system will continue to treat the on-site groundwater contamination and will also further reduce the amount of the groundwater contamination that leaves the site. Soil gas sampling will be performed before and after restart of the AS/SVE system to evaluate the system's ability to prevent soil gas migration from the site. The operation of the system's soil vapor extraction wells is expected to adequately capture potential soil gas beneath the slab of the building. If it is not, the system will be modified or additional actions will be taken to mitigate soil vapor intrusion related to on-site contamination.
- The operation of the AS/SVE system will continue until the remedial objectives have been achieved, or until the NYSDEC determines that continued operation is technically impracticable or not feasible.
- The property owner will provide an annual certification, prepared and submitted by a professional engineer or environmental professional acceptable to the NYSDEC, which will certify that the engineering and institutional controls put in place, are unchanged from the previous certification and nothing has occurred that would impair the ability of the control to protect public health or the environment or constitute a violation or failure to comply with any operation and maintenance plan.
- Imposition of an institutional controls in the form of an environmental easement that will: (a) restrict use of groundwater as a potable or process water without necessary water quality treatment as determined by the NCDH from the affected areas; and, (b) require the owner to complete and submit to the NYSDEC an annual certification.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Repositories for documents pertaining to the site were established.
- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.
- A fact sheet was distributed to the public contact list to inform the public about the site and present the proposed remedial investigation work plan.
- A public meeting invitation/fact sheet was distributed to the public contact list to solicit comments on the PRAP and to notify the public about the January 25, 2005 public meeting at which the NYSDEC presented the PRAP.
- On January 11, 2005, the NYSDEC issued a press release to announce the availability of the PRAP for OU-1, to notify the public of the January 25, 2005 public meeting to present the PRAP and to solicit comments on the PRAP.

- A public meeting was held on January 25, 2005 to present and receive comments on the PRAP.
- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

No public comments critical of the proposed remedy were received.

TABLE 1

Nature and Extent of Volatile Organic Compounds in On-Site Soil

Pre-Treatment Soil (1996/1997) Compared to Post-Treatment Soil (2003)

Volatile Organic Compound of Concern	Pre-Treatment Range of Concentrations	Post-Treatment Range of Concentrations	SCG ^b (ppm) ^a	Frequency of Exceeding SCG	
	(ppm) ^a 1996/1997 PSA	(ppm) ^a 2003 RI		Pre- Treatment	Post- Treatment
tetrachloroethenec	nondetect - 600	nondetect - 0.51	1.4	3 of 13	0 of 6
trichloroethene ^c	nondetect - 2.3	nondetect - 0.003	0.7	1 of 13	0 of 6
1,2-dichlorobenzene	nondetect - 0.0095	N/A ^e	7.9	0 of 13	N/A ^c
1,4-dichlorobenzene	nondetect - 0.0035	N/A ^e	8.5	0 of 13	N/A ^e
chlorobenzenec	nondetect all samples	nondetect - 0.003	1.7	0 of 13	0 of 6
toluene ^c	nondetect all samples	nondetect - 0.004	1.5	0 of 13	0 of 6
ethylbenzene ^c	nondetect all samples	nondetect - 0.0006	5.5	0 of 13	0 of 6
xylenes (total) ^c	nondetect all samples	nondetect - 0.006	1.2	0 of 13	0 of 6
cis1,2-dichloroethene	nondetect all samples	nondetect - 0.002	0.26	0 of 10	0 of 6
vinyl chloride ^c	nondetect all samples	nondetect all samples	0.2	0 of 10	0 of 6

^a ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water; ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

^b SCG = standards, criteria, and guidance values; TAGM-4046 for soil, GA groundwater standards for groundwater

^c Contaminant was detected in at least one sediment and/or liquid sample from two oil/water (O/W) separators for the sanitary discharge system that is connected to the community sewer system. However, these O/W separators are sealed units so these detections are not considered in the soil or groundwater contamination tables. Toluene, ethylbenzene and xylenes are considered as potential contaminants of interest at this site solely due to the detection of these compounds in the O/W separator samples.

e N/A = not analyzed

TABLE 2^d

Nature and Extent of Volatile Organic Compounds in On-Site Groundwater

Pre-Treatment Groundwater (1996/1997) Compared to Post-Treatment Groundwater (2003)

Volatile Organic Compound of Concern	Pre-Treatment Range of Concentrations	Post-Treatment Range of Concentrations	SCG ^b (ppb)*	Frequency of Exceeding SCG	
	(ppb)". 1996/1997 PSA	(ppb) ^a , 2003 RI		Pre- Treatment	Post- Treatment
tetrachloroethenec	nondetect - 49,000	nondetect - 410	5	7 of 10	4 of 12
trichloroethenec	nondetect - 380	nondetect - 4	5	4 of 10	0 of 12
1,2-dichlorobenzene	nondetect all samples	N/A	3	0 of 10	N/A
1,4-dichlorobenzene	nondetect all samples	N/A	3	0 of 10	N/A
chlorobenzene°	nondetect - 14	nondetect all samples	5	1 of 10	0 of 12
toluene ^c	nondetect all samples	nondetect all samples	5	0 of 10	0 of 12
ethylbenzene ^c	nondetect all samples	nondetect all samples	5	0 of 10	0 of 12
xylenes (total) ^c	nondetect all samples	nondetect all samples	5	0 of 10	0 of 12
cis1,2-dichloroethene	nondetect all samples	nondetect - 64	5	0 of 10	2 of 12
vinyl chloride	nondetect - 2.7	nondetect all samples	2	1 of 10	0 of 12

^a ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water; ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

^b SCG = standards, criteria, and guidance values; TAGM-4046 for soil, GA groundwater standards for groundwater

^c Contaminant was detected in at least one sediment and/or liquid sample from two O/W separators for the sanitary discharge system that is connected to the community sewer system. However, these O/W separators traps are sealed units so these detections are not considered in the soil or groundwater contamination tables. Toluene, ethylbenzene and xylenes are considered as potential contaminants of interest at this site solely due to the detection of these compounds in the O/W separator samples.

^d GP-10, MW-1 (RR), MW-2(RR) and GP-5, which are located hydraulically downgradient of the site, are included in the on-site groundwater tables even though they are actually located immediately adjacent to the site on the off-site property.

^e N/A = not analyzed

TABLE 3^f

Nature and Extent of Volatile Organic Compounds in Off-Site Groundwater

Based on 2003 Profile Groundwater Sampling Data in the Remedial Investigation

Volatile Organic Compound of Concern	Rauge of Concentrations (ppb) ^a	SCG ^b (ppb) ^a	Frequency of Exceeding SCGs
tetrachloroethene ^c	nondetect - 1,600	5	6 of 30
trichloroethenec	nondetect - 94	5	2 of 30
1,2-dichlorobenzene	N/A	3	N/A
1,4-dichlorobenzene	N/A	3	N/A
chlorobenzene ^c	nondetect - 100	5	3 of 30
toluene ^c	nondetect - 0.6	5	0 of 30
ethylbenzene ^c	nondetect all samples	5	0 of 30
xylenes (total) ^c	nondetect all samples	5	0 of 30
cis1,2-dichloroethene	nondetect - 510	5	1 of 30
vinyl chloride	nondetect all samples	2	0 of 30

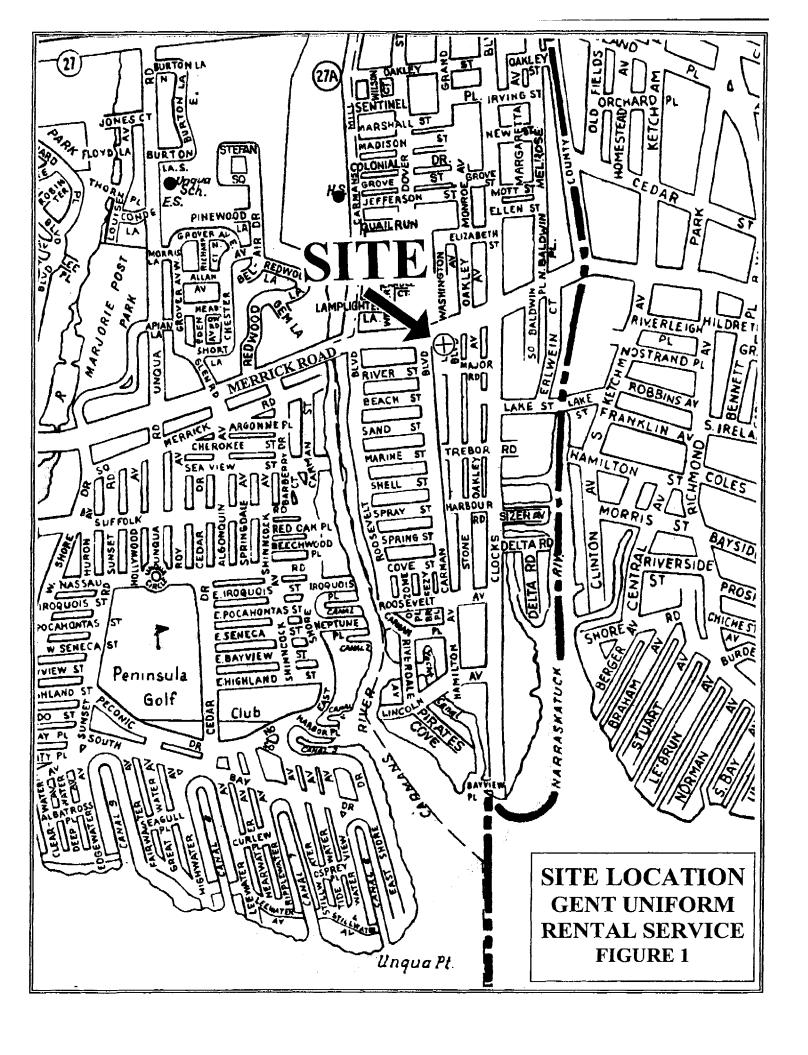
^a ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water; ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

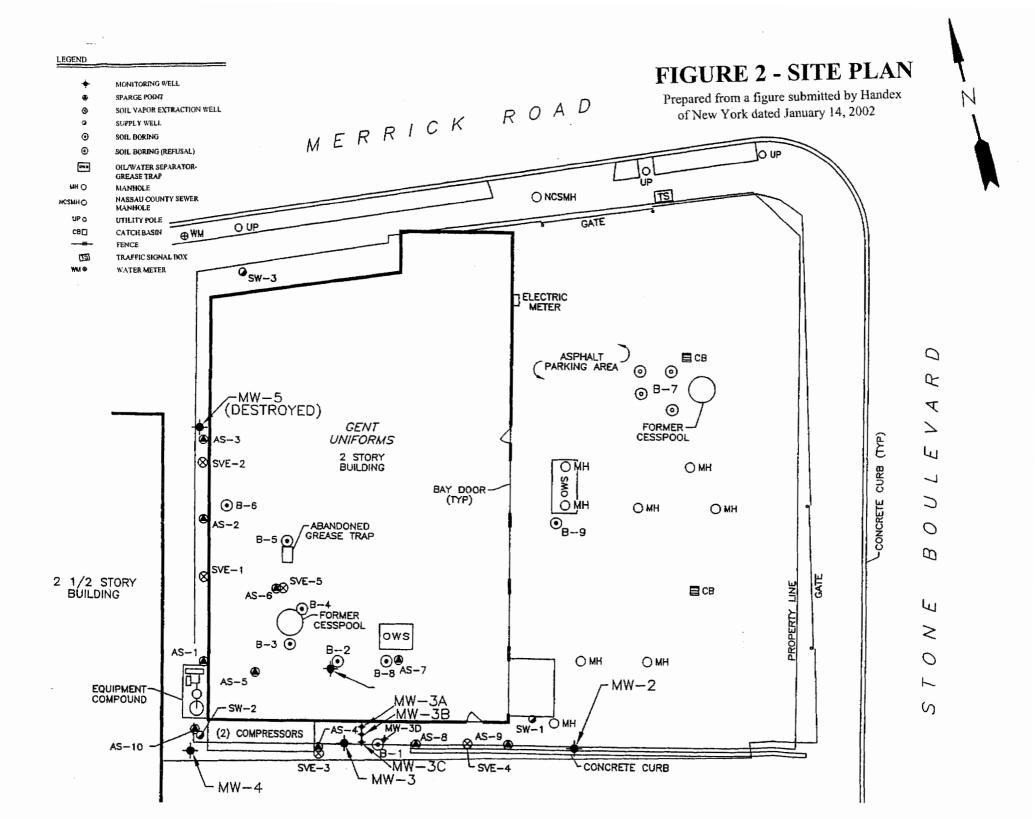
^b SCG = standards, criteria, and guidance values; TAGM-4046 for soil, GA groundwater standards for groundwater

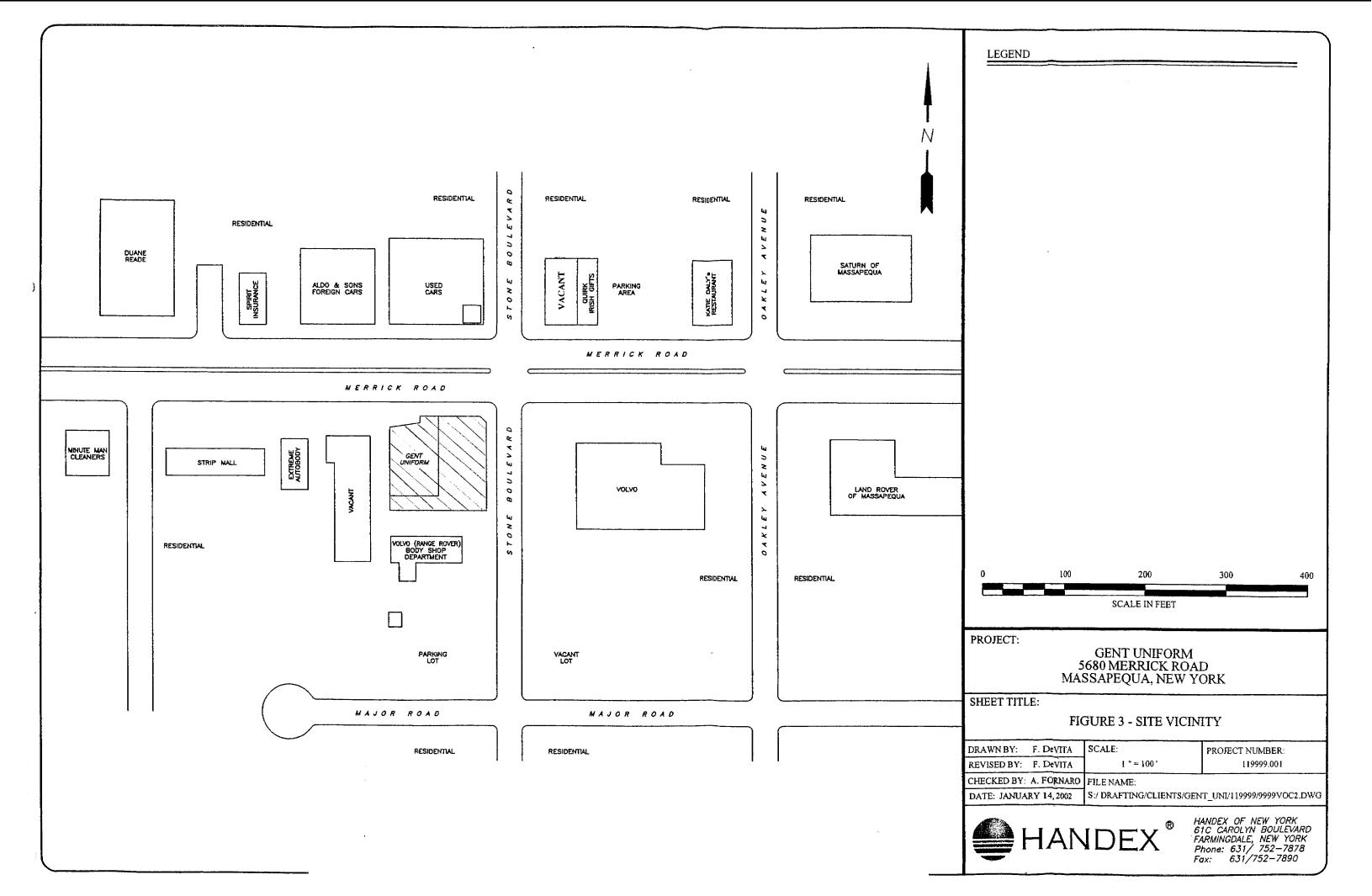
^c Contaminant was detected in at least one sediment and/or liquid sample from two O/W separators for the sanitary discharge system that is connected to the community sewer system. However, these O/W separators are sealed units so these detections are not considered in the soil or groundwater contamination tables. Toluene, ethylbenzene and xylenes are considered as potential contaminants of interest at this site solely due to the detection of these compounds in the O/W separator samples.

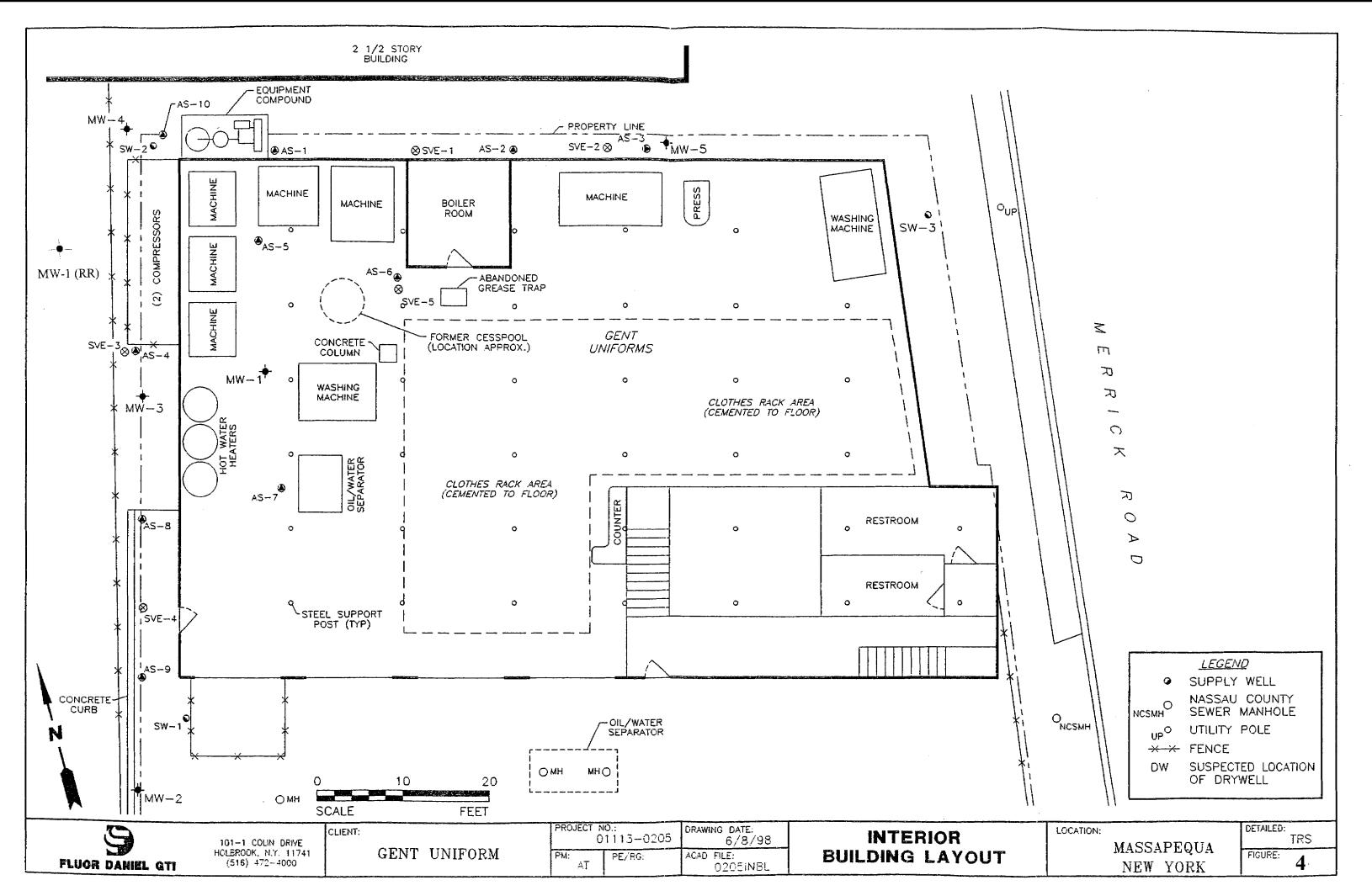
^e N/A = not analyzed

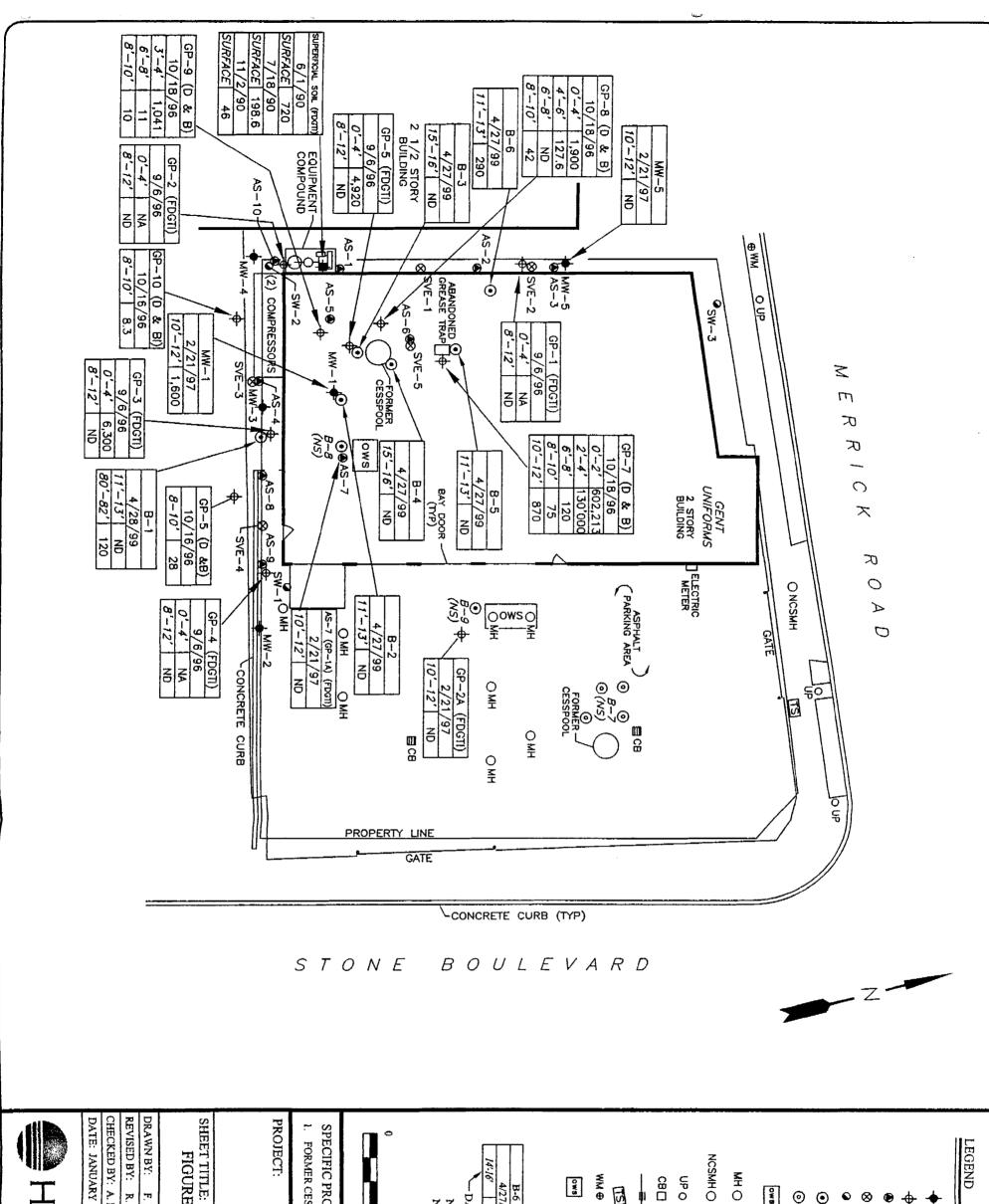
^f Off-site groundwater ranges are based solely on 2003 Remedial Investigation groundwater profile sampling results which were done in two phases. The extent of the off-site groundwater has not been fully defined yet. The extent of the off-site groundwater contamination will be investigated further in forthcoming OU-2. There are other potential sources of the groundwater contamination which is south-southwest of the site. Consequently, this table does not necessarily indicate the contribution from the Gent site to the off-site groundwater contamination.

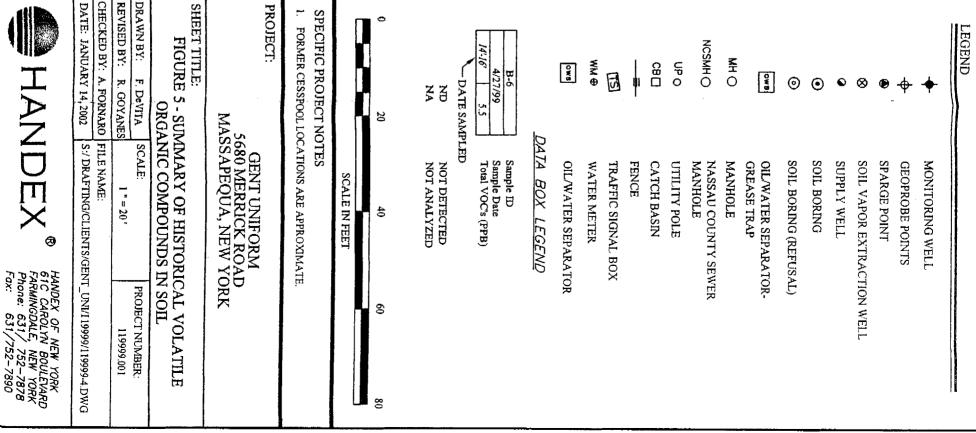


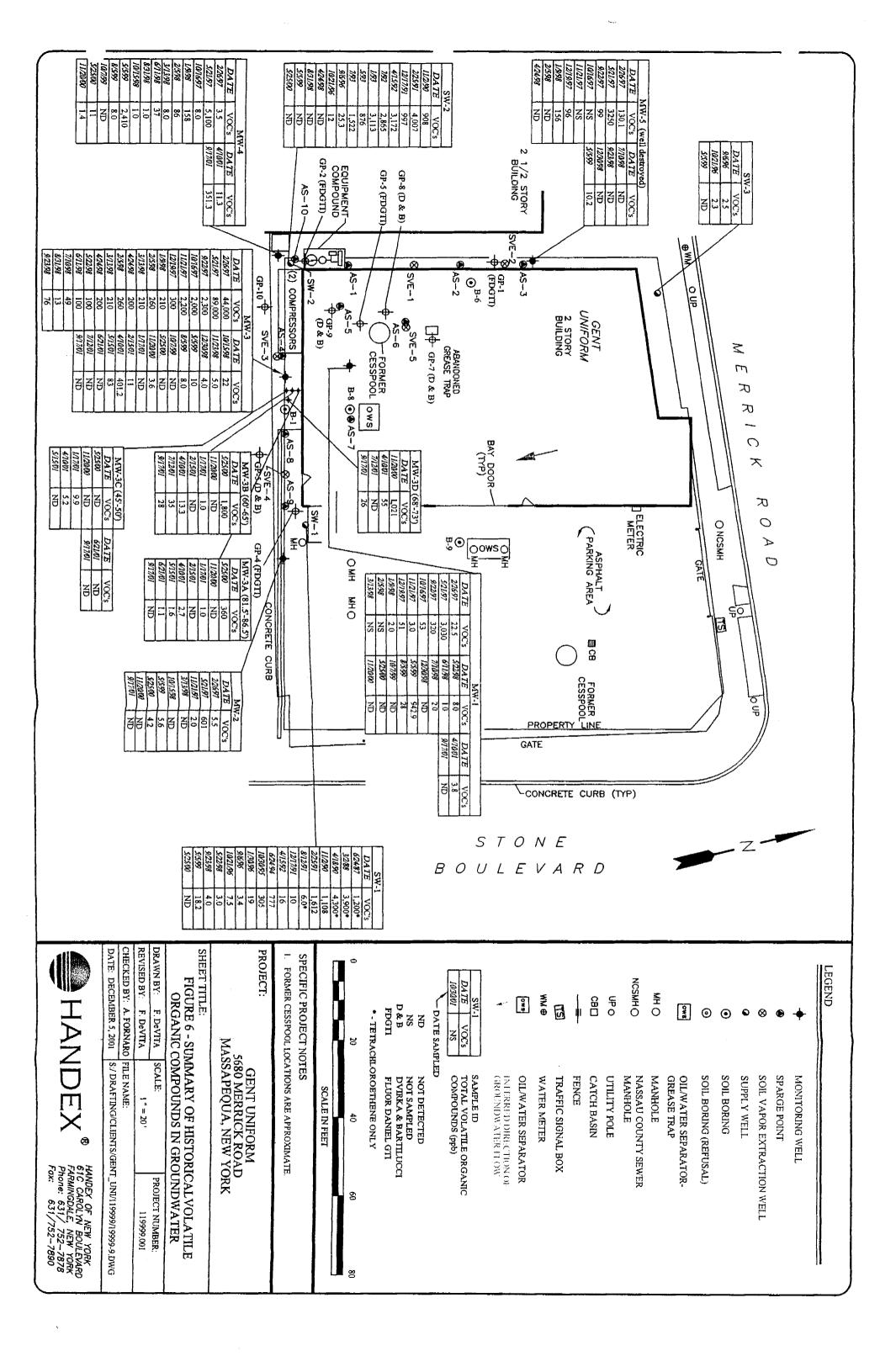


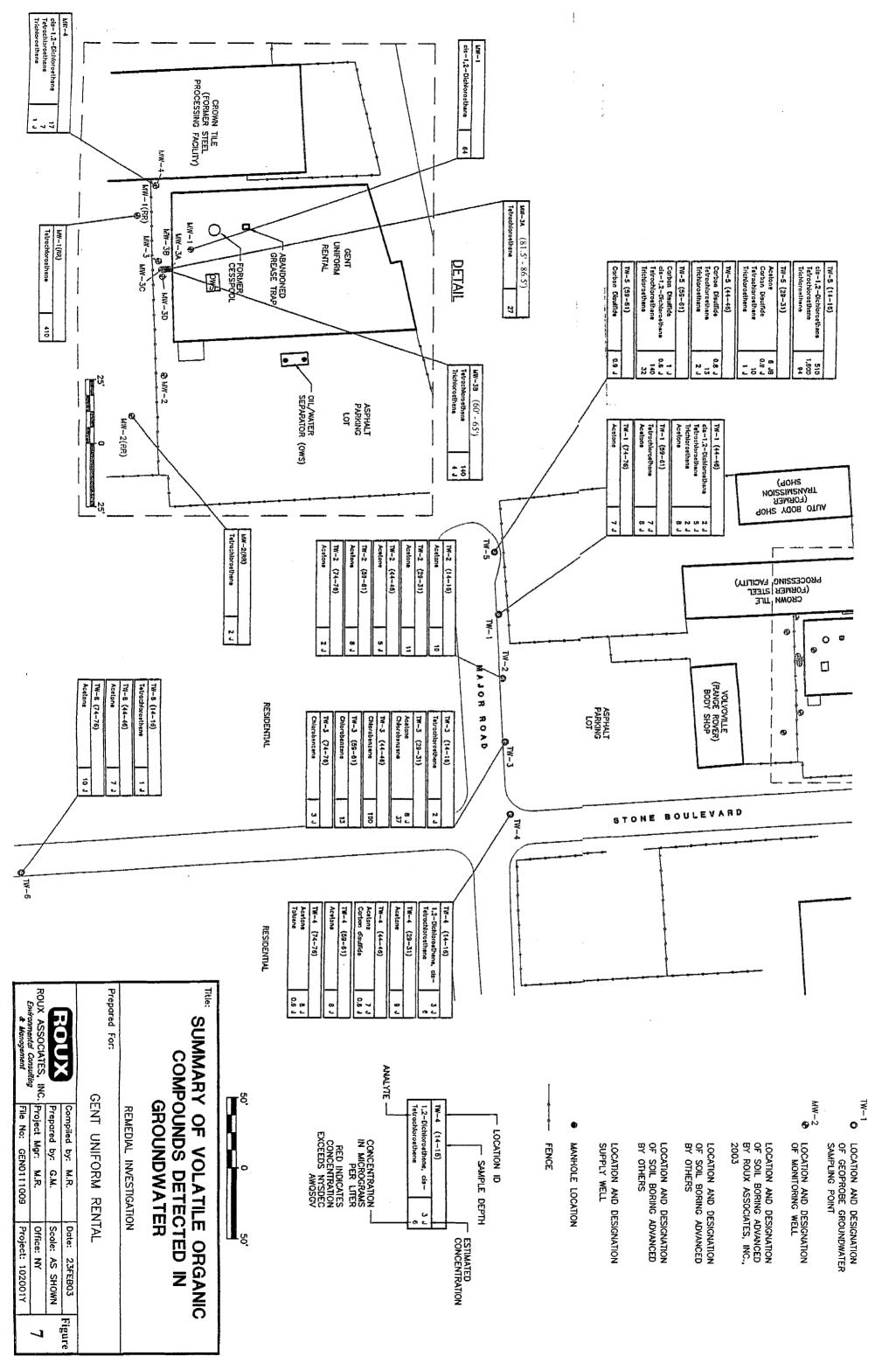












APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Gent Uniform Rental Service
Operable Unit No. 1
Massapequa, Town of Oyster Bay, Nassau County, New York
Site No. 1-30-056

The Proposed Remedial Action Plan (PRAP) for the Gent Uniform Rental Service site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on January 9, 2005. The PRAP outlined the remedial measure proposed for the contaminated groundwater and potential soil gas contamination at the Gent Uniform Rental Service site.

The release of the PRAP was announced by sending a notice to the public contact list and the issuing of a press release, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on January 25, 2005, which included a presentation of the Remedial Investigation (RI) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on February 10, 2005.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the NYSDEC's responses:

Comments 1 - 9 were submitted in a December 29, 2005 letter from Mr. Frederick Eisenbud, a representative from Gent Uniform, before the release of the PRAP. This letter recommended changes to the discussions of site history in the PRAP. Since none of the recommended changes were made, each will be discussed as comments on the PRAP.

COMMENT 1: Page 1 - Section 1, paragraph 1: change ".... the discharge of dry cleaning related wastes to the former sanitary system has resulted in" to "....the discharge of dry cleaning related wastes from a corroded fitting on a grease trap, which caused a release of tetrachloroethene (PCE) to a small grease trap and one cesspool located beneath the western side of building, has resulted in"

RESPONSE 1: The original text was factually correct. The recommended changes were not made.

COMMENT 2: Page 1 - Section 1, paragraph 1: change last sentence above the bullet points in first column to read: "These wastes contaminated the soil and groundwater beneath the floor of the site building and resulted in:" [using "have" suggests it is an ongoing problem which it really is not compared to when it was discovered].

RESPONSE 2: The original text was factually correct. The recommended changes were not made.

- **COMMENT 3:** Page 1 Section 1, top of second column, change first sentence to read: "....the property owner, the owner, working with the Nassau County Health Department [NCDH"], implemented several"
- **RESPONSE 3:** The recommended change was not made since the changes could have been misleading. Not all work conducted before NYSDEC involvement was performed under the direct observation of the NCDH.
- **COMMENT 4:** Page 3 Section 3.1 Operational/Disposal History Second paragraph: Insert after "....the use of the diffusion well for discharge was discontinued in 1990, and thereafter the non-contact cooling water was discharged into the community sewer system."
- **RESPONSE 4:** Since the NYSDEC was not involved in the site in 1990, the accuracy of the recommended change could not be verified. Consequently, no changes were made to the text.
- **COMMENT 5:** Page 3 Section 3.1 Operational/Disposal History Third paragraph: It may be true that the dry cleaning machine was removed from the site in 1998, but dry cleaning was not conducted at the facility in the 90's. The statement is misleading. Perhaps insert at the beginning of the paragraph the following: "Dry cleaning operations ceased in October, 1988, and the dry cleaning machine, along with the solvents stored"
- **RESPONSE 5:** Information provided by the Nassau County Department of Health and information provided to the NYSDEC during an early site visit suggest that dry cleaning operations did not cease in October 1988. Consequently, the recommended change was not made.
- **COMMENT 6:** Page 4 Section 3.2 Remedial History First paragraph: It is indicated that the private supply well that serviced the Range Rover body shop was located near the western property border for that parcel. Based on the H2M study, the second sentence should read: "This water was provided by a private supply well which reportedly located in the south-east corner of the property adjacent to the western side of the Gent property, formerly occupied by several steel distributers and processors."
- **RESPONSE 6:** The original text adequately describes what was known about the location of this private well. The recommended change would tend to suggest that the adjacent property formerly used by a steel distributor and processor is a suspected source of the well contamination. It should be noted that the Nassau County Department of Health did a preliminary evaluation of the adjacent parcel in 1991 which included the performance of a limited soil gas survey and the collection of a sediment sample from the facility's cesspool. This preliminary evaluation did not identify any potential sources on that property for the high concentrations of tetrachloroethene detected in the private well. Since there is no data to suggest that the adjacent property had contributed to the groundwater contamination, the NYSDEC did not make the recommended change.
- **COMMENT 7:** Page 5 first paragraph after bullet points in first column: How is it possible that the PSA report concluded that the source of groundwater contamination at both properties was the abandoned grease trap on the Gent site. As I recall, when H2M analyzed the Volvo property, it led to cleaning out of a number of leaching pools which were highly contaminated with perc. This could not have been from Gent. In addition, H2M concluded that the highly contaminated tap water was from a supply well that originated on the former Crown Tile property. We do not agree with this paragraph as written at all.

RESPONSE 7: The text in the PRAP reports the conclusions made by the consultants that prepared the PSA report. This report was reviewed and approved by the NYSDEC project manager overseeing the PSA. Consequently, the text is factually correct and the recommended change was not made.

The NYSDEC does concede that there was some limited historical contamination in the leaching pools on the Volvo property that required remediation. However, the impacted leaching pools were east of the suspected location of the impacted private well and not directly upgradient of the private well. The historical concentrations detected in the impacted leaching pools and the subsequent sampling on that property in the 1996/1997 PSA did not indicate that these pools could potentially be the main source of the significant groundwater contamination by tetrachloroethene. The only significant soil and groundwater contamination by tetrachloroethene found during the PSA was under the slab of the Gent building. This contamination was directly upgradient of the suspected location of the private well that was contaminated by this chemical. As noted in Response 6, there are no data to suggest that the adjacent property immediately west of Gent was a potential source of the private well contamination. Consequently, the conclusions made by the consultants who prepared the PSA report are consistent with the available data.

When the forthcoming off-site groundwater investigation is performed, Gent representatives may propose sampling on nearby properties to determine whether they have contributed to the off-site groundwater contamination.

COMMENT 8: Page 5 - first column, last paragraph: Gent undertook remediative actions under the auspices of the NCDH. You make it sound as if Gent was working totally without regulatory oversight. This is not true. The fact that the work was done under the supervision of NCDH should be stated.

RESPONSE 8: To the best of our knowledge, all the earlier investigative and remedial work done by Gent was not done under the direct observation of NCDH. Although NCDH did have some earlier involvement in the site, it would have been inaccurate to make the recommended changes that would have suggested that all the earlier work was done under the observation of the county health department.

COMMENT 9: Page 10 - Section 5.2 Summary of Human Exposure Pathways - Fifth paragraph: It is not clear what the statement, "in the past, people were probably exposed to contaminated water from a private supply well on an adjacent property" refers to. If you are referring to the former Safety-Kleen property to the south of Gent, you should say so. It appears that any exposure at that time was from the supply well on the former Crown Tile property, not the Gent property. Please clarify this statement.

RESPONSE 9: The earlier statements in the PRAP made it clear that the former private well immediately downgradient of the Gent facility was being referred to in this section. No clarification was necessary. Since the discharges to Gent's former sanitary system under the building are the most likely source of the private well contamination, as discussed in the previous responses to your comments, it was appropriate to include this potential historical exposure to contaminated groundwater in the discussion of human exposure pathways for the Gent site.

Comments 10 - 20 were submitted in a February 2, 2005 letter from Ms. Ann Marie Holdgruen, a member of the Breezy Point Civic Association.

COMMENT 10: How was the January 25th meeting advertised?

RESPONSE 10: A meeting invitation/fact sheet was distributed to a public contact list that had been developed specifically for the Gent Uniform site. About 280 citizens, local civic groups, government officials and various news media were included in the contact list. This fact sheet was sent out so that it would be received just before the start of the 30 day public comment period that started on January 10.

The NYSDEC also sent an electronic news release to 15 news media representatives on January 11 in the hopes that the public meeting would be broadcast to the general public in some manner. The NYSDEC is unaware if any of the news media passed on this information to the general public.

COMMENT 11: Since the affected area is in the Amityville School District, why were the documents placed in the Massapequa Public Library?

RESPONSE 11: The site is located at 5680 Merrick Road in Massapequa in Nassau County. Consequently, the documents were placed in the library for the Village in which the site is located. The Amityville Library and Massapequa Library are located at similar distances from the site.

COMMENT 12: The investigation began in the mid-80s. Why has it taken so long to clean it up?

RESPONSE 12: Although there were a number of attempts to determine the actual source of the contamination in the late 80s and early 90s, the source of the problem was not established until the 1996/1997 PSA was performed. Gent initiated remedial measures in 1996 when contamination was discovered under the slab of their building.

An AS/SVE system was operated at various times by the property owner between 1997 and 2002. There still is a little more to remediate in the on-site groundwater.

COMMENT 13: Why do you not know the extent of the off-site plume yet?

RESPONSE 13: The area-wide groundwater flow direction is towards the south. However, surface water bodies do exert some local influences on the flow direction, such as the Carmans River and the Narraskatuck River, which are located to the west and east of the site, respectively. When the first phase of the RI was performed in 2003, it was then discovered that there was an unexpectedly large westerly component to the predominantly southerly groundwater flow direction on the western side of the site. Additional sampling was performed later in 2003 to determine groundwater quality to the south-southwest of the site. It was only after the results of this supplemental investigation were reported to the NYSDEC in early 2004 that it was discovered that there might be a significant off-site plume associated with the Gent site.

COMMENT 14: Will the AS/SVE system be in operation until the levels of both PCE and cis 1,2-DCE are down to 5 ppb?

RESPONSE 14: The AS/SVE system will be operated to remediate the on-site groundwater to the groundwater standard, which is 5 ppb for PCE and 1,2-DCE, or until the NYSDEC determines that continued operation is technically impracticable or not feasible.

COMMENT 15: When will OU-2 start up? Will it be before OU-1 is completed?

RESPONSE 15: The current schedule is to first restart the AS/SVE system and make sure that it is operating properly. A remedial investigation work plan for OU-2 will be developed during the spring/summer of 2005 and field work should be initiated by the end of the summer.

COMMENT 16: Since the off-site groundwater contamination is so much higher than the on-site, shouldn't that be addressed sooner rather than later? Since the plume can continue to spread, shouldn't it be addressed before it reaches the Carman or Narraskatuck Rivers and into the Bay?

RESPONSE 16: The amount of contamination present in the off-site groundwater and the physical extent of the plume have yet to be determined. Field work for the off-site investigation should begin in the summer of 2005. The off-site groundwater data will be evaluated to determine appropriate remedial measures to address off-site groundwater contamination.

It still has not been determined whether the chlorinated solvents detected by the west end of Major Road are due solely to this site. If the Gent site is the sole source of this portion of the off-site plume, we already know that most of the on-site source area has been removed. This means that there would be no continuing source to feed the off-site plume and it is almost certainly decreasing in size at this time, not continuing to spread, as you suggest.

COMMENT 17: Who is paying for the cleanup? Gent? How can we be sure that they will pay for the off-site cleanup? What if they go out of business or file for bankruptcy? Will money be held in escrow to pay for the cleanup?

RESPONSE 17: Gent signed an Order of Consent that requires them to pay the NYSDEC's past and future costs until the terms in the Order are satisfied. The cost of the cleanup has been and will continue to be paid for by Gent. In case Gent cannot or is unwilling to pay for the remaining investigation and remediation of the site, the site would be referred for a state-funded cleanup. The NYSDEC would attempt to recover its costs of the cleanup from the responsible parties. Additionally, there are financial penalties in the consent order if Gent fails to comply with the Order. Money will not be held in escrow.

COMMENT 18: Can my soil be contaminated by the underlying groundwater even if I don't use the groundwater directly? If someone used a well for irrigation at any properties located above the groundwater plume in the 80s or 90s, could the soil still be contaminated? How would this affect vegetables grown in a garden at such a property?

RESPONSE 18: The groundwater near the site is around ten feet below ground surface. Although some vapors can volatilize from the contaminated groundwater, the only way for the contaminated groundwater to affect surface soils would be if it were brought to the surface (through an irrigation well, for instance).

If groundwater contaminated with high concentrations of PCE was extracted from an irrigation well in the past, there could be some limited residual soil contamination. PCE is very volatile, and it would evaporate quickly from the water during the irrigation process and from the surface soils afterwards. Disturbing the soil, as would be done when preparing and planting a garden, would also cause some evaporation of residual PCE from the shallow soils. This means that the amount of PCE remaining in the soils would be far less than the amount present in the water used for irrigation. Any potential exposures to PCE from eating vegetables grown in soil that was historically irrigated with a contaminated well are probably very low.

At this time, the extent and magnitude of off-site groundwater contamination is not known. The OU 2 investigation will determine the current extent of the plume, but there is no way to determine what the configuration of the plume would have been in the 1980s or 1990s. If the OU 2 investigation finds that contaminated groundwater is being used for irrigation, or was likely used in the past, an effort will be made to collect soil samples from affected areas.

Anyone downgradient of the site who is currently using an irrigation well or other private supply well should contact the NYSDEC at (631) 444-0244, the NYSDOH at (800) 458-1158 ext. 27870, or the Nassau County Department of Health, Office of Water Supply, at (516) 571-3323 to have the well tested.

COMMENT 19: This whole area is a flood zone. If there is a flood, caused by a hurricane for example, how will this spread the toxins both in the groundwater and on the soil?

RESPONSE 19: Based on the RI results, there is no remaining soil contamination. It has been remediated. Therefore, there are no contaminants in the soils above the water table that could be spread by flooding. The groundwater near the site is about 10 feet below ground surface where it could not rise sufficiently during a flooding event to result in any potential exposures.

Since the extent of the off-site plume has not been established, it is unknown whether contaminated groundwater is discharging to surface water bodies at sufficient concentrations to present a potential exposure concern during a flooding event.

COMMENT 20: What is happening at the Minuteman Dry Cleaners site? Has the on-site cleanup been completed? To 5 ppb? Is there a toxic plume connected with that site? If there is a plume, do you know its size? If there was a need for an off-site cleanup, has it been done? If not, when will it be done? Who is paying for the Minute Man cleanup?

RESPONSE 20: Soil and groundwater at the Minuteman Dry Cleaners site have been contaminated, primarily with tetrachloroethene. A remedy (air sparging and soil vapor extraction) was selected for that site in 1999. The soil has been remediated to below 1 ppm. The groundwater is still contaminated above 5 ppb. There is a small plume off-site. The NYSDEC is discussing with the owner's consultant what technology options will be used to achieve the cleanup objective for the groundwater. The owner of Minuteman Cleaners is paying for the cleanup.

Comments 21 - 24 were submitted in a February 4 letter from John Ellsworth of Cashin Spinelli & Ferretti, a consultant providing comments on behalf of the Office of the Supervisor of the Town of Oyster Bay.

COMMENT 21: The PRAP focuses on the remediation program for the subject property itself, and defers off-site remedial activities to an as-yet unspecified future date. The reasons justifying this phasing of the cleanup project are not explained in the PRAP, except possibly for the fact that investigations to date have not been sufficiently comprehensive to define the extent of off-site contamination. Although this type of approach may seem logical from a certain perspective, it should be verified that delaying the off-site remedial work would not unduly prolong the exposure of occupants of neighboring properties to health hazards which may be related to prior waste disposal activities at the Gent Uniform site.

RESPONSE 21: The main reason for dividing up the site into two operable units was so that the implementation of the on-site remedy would not be delayed while the full extent of the off-site plume was determined. This phased approach does not delay the off-site cleanup; rather, it allows the final remedy for the site and source area to be selected and implemented earlier than it otherwise might be. See earlier Responses 13 and 16 for further explanation.

It should be noted that an initial evaluation of the properties downgradient of the site failed to identify any current users of the contaminated groundwater. The potential for vapors to migrate from the off-site plume into homes above the plume remains to be evaluated, and it will be done during the OU-2 investigation. The remediation of the on-site groundwater has significantly reduced the amount of contamination present in the environment, and, therefore, has significantly reduced the potential for future exposures to the contamination.

COMMENT 22: The information contained in the PRAP (e.g., Table 3) indicates that a number of recent groundwater samples collected to the south of the Gent Uniform property, in a downgradient direction with respect to groundwater flow, have exceeded NYSDEC cleanup standards for volatile organic compounds (VOCs). This appears to suggest that there may be a potential for ongoing and continuing exposure to VOC vapors on neighboring properties, including parcels occupied by residential uses which are located at distance of approximately 300 feet to the south of the site (as depicted in figure 3 in the PRAP).

RESPONSE 22: The NYSDEC realizes that there is potential for exposure to off-site contaminated groundwater, particularly to properties located to the south-southwest of the site. The subsequent remedial investigation of OU-2 will further evaluate whether any properties above the plume are extracting contaminated groundwater from private wells and whether vapors are migrating from the plume to nearby homes. The original area covered by the private well survey may be expanded.

COMMENT 23: Although it is reasonable to conclude that the highest VOC concentrations in the groundwater related to prior hazardous waste discharges from the Gent Uniform facility initially occurred on-site, in the vicinity of the discharge point (i.e., the abandoned grease trap), it is not evident that the highest concentrations would necessarily continue to be contained within the confines of the site at the present time. Given the passage of approximately ten years since on-site dry cleaning was terminated, the VOC contaminant plume would have migrated to the south with the general flow of groundwater in this area. Furthermore, significant on-site remedial activities have already been completed, including the excavation and removal of heavily contaminated soil in the vicinity of the abandoned grease trap in 1996, and the operation of an air sparge/soil vapor extraction (AS/SVE) system during most of the time between May 1997 and December 1999 and between December 2000 and August 2002. With the on-site AS/SVE system being inactive for the past 2-1/2 years, it is possible that off-site groundwater now contains the highest VOC concentrations associated with this spill incident, which may not be addressed by the on-site remedy currently under consideration in the PRAP.

RESPONSE 23: The RI/FS for OU-2 will determine the vertical and horizontal extent of the off-site groundwater plume and evaluate various remedial alternatives to address this contamination. In particular, groundwater sampling will be conducted in a south-southwest direction from the site until the extent of the plume in that direction is determined, including whether there are other contributors to this plume.

Please note that the profile sampling done during the RI for OU-1 has already established the extent of the residual groundwater contamination to the south and south-southeast of the site. Site related groundwater

contamination in those directions is minimal. One private well to the south of the site that may be used in the future for irrigation may be evaluated in the RI for OU-2.

COMMENT 24: Based on the foregoing, it is requested that further consideration be given at this time to more definitively characterizing the VOC concentrations in off-site groundwater and determining associated health risks, and expeditiously implementing remedial activities that may be necessary to mitigate any such risks.

RESPONSE 24: The work plan for the off-site RI/FS will be developed shortly.

COMMENT 25: How long will the cleanup of the groundwater take doing the AS/SVE?

RESPONSE 25: Most of the on-site source area has already been remediated. There is only a small amount of groundwater contamination left that can be removed with this technology. An AS/SVE system will typically reach a point at which the system will not be productive in removing further contamination. The NYSDEC estimates that this point will be reached within one or two more years of operation. At that point, the NYSDEC would determine whether additional remedial measures would be needed to complete the remediation.

APPENDIX B

Administrative Record

ADMINISTRATIVE RECORD

Gent Uniform Rental Service Operable Unit No. 1 Massapequa, Town of Oyster Bay, Nassau County, New York Site No. 1-30-056

- 1. Proposed Remedial Action Plan for the Gent Uniform Rental Service site, Operable Unit No. 1, dated January 2005, prepared by the NYSDEC.
- 2. Document Name "Proposed Remedial Action Plan Fact Sheet" for the Gent Uniform Rental Service site, dated January 2005, prepared by the NYSDEC.
- 3. Press Release Title "DEC Announces Public Meeting on Gent Uniform Rental Service", dated January 10, 2005, prepared by the NYSDEC.
- 4. Order on Consent, Index No. W1-0886-01-05, between NYSDEC and Gent Uniform Rental Corporation and Lafra Realty Corporation, executed on December 31, 2001.
- 5. Report Name "Preliminary Site Assessment Report for Stone Boulevard Site", dated September 1997, prepared by Dvirka and Bartilucci.
- 6. Report Name "Preliminary Site Assessment Supplemental Documents for Stone Boulevard Site", dated September 1997, prepared by Dvirka and Bartilucci.
- 7. Report Name "Remedial Investigation Work Plan" for the Gent Uniform Rental Service site, dated July 12, 2002, prepared by Handex.
- 8. Document Name "Remedial Investigation Work Plan Fact Sheet" for the Gent Uniform Rental Service site, dated January 2003, prepared by the NYSDEC.
- 9. Report Name "Revised Remedial Investigation Report" for the Gent Uniform Rental Service site, dated April 2, 2004, prepared by Roux Associates.
- 10. Report Name "Addendum to the Supplemental Remedial Investigation Report" for the Gent Uniform Rental Service site, dated January 5, 2005, prepared by Roux Associates.
- 11. Correspondence from Frederick Eisenbud, Esq., a legal representative for Gent Uniform, dated December 29, 2004, which provided comments on a draft version of the Proposed Remedial Action Plan for OU-1.
- 12. Correspondence from Ann Marie Holdgruen, a member of the Breezy Point Civic Association, dated February 2, 2005, which provided comments on the Proposed Remedial Action Plan for OU-1.

13.	Correspondence from John Ellsworth, a consultant from Cashin Spinelli & Ferretti, LLC, dated February 4, 2005, which provided comments on behalf of the Office of the Supervisor of the Town of Oyster Bay on the Proposed Remedial Action Plan for OU-1.